THE FOREST OF DEAN GLOUCESTERSHIRE

Archaeological Survey

Stage 1: Desk-based data collection

Project Number 2727

Volume 1

Jon Hoyle
Gloucestershire County Council
Environment Department
Archaeology Service

November 2008

Contents

Tables

Charts

Figures

Appendices – Digital format only

Contents

Tables

Summary

The following document is a report on Stage 1 (desk-based data collection) of the Forest of Dean Archaeological Survey (English Heritage Project No. 2727 MAIN).

Stage 1 of the survey was undertaken by the Archaeology Service of Gloucestershire County Council and was funded by English Heritage, The Forestry Commission and the Countryside Agency, whilst Gloucestershire County Council provided technical support and accommodation.

Reasons for the project

The project came about for the reason that, compared with other part of Gloucestershire, the Forest of Dean was underrepresented in terms of known archaeological sites particularly from the prehistoric, Romano-British and early medieval periods. Stage 1 of the survey was undertaken to:

- *Ensure that the project database contained available information about the Forest of Dean.*
- *Identify the reasons for the lack of known prehistoric, Romano-British and early medieval sites in some areas.*
- *Inform strategies for further research into the archaeology of the Forest of Dean and particularly Stage 2 of the survey, a phase of pilot field survey to identify suitable methodologies for addressing the deficiency of known archaeological sites from some periods in the area.*

Desk-based data collection

The main period of desk-based data collection was undertaken between January 2002 and February 2003, and again between August 2004 and December 2005, following the completion of the Scowles and Associated Iron Industry Survey, a daughter project of the main Forest of Dean Survey funded through the Aggregates Levy Sustainability Fund. The project ran concurrent with English Heritage's National Mapping Programme for the Forest of Dean, and the results of that survey are included in the following discussion.

Throughout Stage 1 of the survey the Gloucestershire County Sites and Monument record acted as the main database for the project, and the first phase of desk-based data collection consisted of the checking of existing SMR records and updating them with information from a number of map sources. Once this was complete a range of map and documentary sources were systematically trawled for relevant information which was then added to the County SMR in accordance with predetermined specifications. The collected data was analysed in relation to topographical, geological and landuse data to identify underlying trends in the distribution of sites from certain periods.

Although the desk-based data collection almost doubled the number of known archaeological sites within the survey area, this process highlighted the following issues:

- *The bulk of documentary and map sources produced further information about post-medieval and generally industrial sites within the survey area, and although the number of known sites was increased, the proportion of known prehistoric, Romano-British and early medieval sites was barely affected.*
- *The single most influential factor in the known distribution of sites from these periods was the presence of woodland.*

Although prehistoric, Romano-British and early medieval sites were clearly underrepresented in areas of woodland, indications that they are not completely

absent were identified, as was a clear correlation between the identification of these sites in woodland and areas where archaeological field survey or observation of earthmoving activities had taken place. Accordingly it is clear that the lack of known sites from certain periods within woodland is unlikely to reflect their actual distribution, but is a product of a lack of archaeological research in these areas caused by difficulties in undertaking fieldwork in this environment.

Archaeological information to the Forestry Commission

The Forestry Commission are the largest landowner within the Forest of Dean and one of the outcomes of Stage 1 (and any subsequent stages of the project) is to provide the Forestry Commission with up to date information on the archaeological resource in their ownership to enable them to manage it in an appropriate fashion. To achieve this, all archaeological sites within Forestry Commission land have been allocated a simple management category (categories A – D), and relevant sections from the project database, along with supporting digital map information can be transferred direct to the information systems used by the Forestry Commission to allow them to take full account of archaeological factors in their forward plans for management of the woodland

Outreach

Outreach had always been seen as an important element of the survey, although the demand for information about and involvement with the survey exceeded expectations and a dedicated outreach officer was appointed during Stage 1.

The following activities were specifically directed towards raising public awareness of the value of the heritage of the Forest of Dean:

- *A series of workshops were held to disseminate information to members of local historical and archaeological societies, independent researchers, and other interested individuals.*
- *An exhibition was produced which summarised the reasons for, and key elements of the survey. This exhibition was displayed at numerous venues during Stage 1.*
- *Large public events, such as National Archaeology Day were organised in the Forest of Dean to promote an awareness of the heritage of the area.*
- *Newsletters were produced which not only reported on project progress but also highlighted more general issues about the archaeology of the Forest of Dean.*
- *Summary information about the project was posted on the County Archaeology Service's website.*
- *The survey team worked with members of local historical or archaeological societies, and the university of the Third Age, to facilitate their research.*
- *Throughout Stage 1 of the survey, information was presented to the public through talks, guided walks, media interviews, and regular involvement in the presentation of a local radio programme.*
- *The project team worked with Gloucestershire County Council Youth Service on a project in which archaeology was used to inspire a group of young adults to both produce artwork, in the form of sculpture, and also improve their life skills.*

The report

The following report is in two sections:

The first section consists of the main report in which the project methodology is discussed. This is followed by a period-by-period discussion of known archaeological sites within the Forest of Dean Survey area. For the prehistoric, Romano-British and medieval periods, this consists of a statement of the ways in which these sites have been identified, followed, where appropriate, by analysis in relation to topographical, geological and landuse factors, and general recommendations for further archaeological research. For the post-medieval and modern periods this is limited to an account of the range of known sites.

The second section consists of Appendices of information of value to an understanding of the processes involved in Stage 1 of the survey, or in the presentation of the results, and addition information, such as tables or evidence. This section is not part of the printed report and is only reproduced in digital format.

.

1 Introduction

Stage 1 of the Forest of Dean Archaeological Survey was a programme of desk-based research to collate a body of data on the archaeology of the Forest of Dean, Gloucestershire.

This report summarises the results of this stage of the project, which was undertaken in accordance with the specifications set out in a Project Design submitted to English Heritage in August 2001 (Hoyle 2001), and jointly supported by funds from English Heritage, the Countryside Agency, the Forestry Commission and Gloucestershire County Council.

1.1 Reasons for the project

The Forest of Dean Archaeological Survey was undertaken to address the fact that, when compared with Gloucestershire as a whole, the Forest of Dean was underrepresented in terms of known archaeological sites and monuments.

This position was amply illustrated by the results of the English Heritage Monuments at Risk Survey of 1995. At this time the distribution of both prehistoric and, to a lesser extent, Romano-British monuments within the Forest of Dean, not only fell within the lowest density category, but also compared unfavourably with similar results from the Cotswolds in the eastern part of the county (Darvill and Fulton 1998, Figs 5.15, 5.16). The number of medieval monuments recorded in the same survey is also low for the Forest of Dean when compared to the Cotswolds (Darvill and Fulton 1998, Fig 5.17), and parity between the two areas is only achieved with the distribution of post-medieval monuments (Darvill and Fulton 1998, Fig 5.18).

The MARs survey also demonstrated that the Forest of Dean was an area of low monument density when compared, with the rest of England. MARs indicated that in 1995, on average, 28% of known archaeological sites in England date to the prehistoric, Romano-British or medieval periods (Darvill and Fulton 1998, Fig 4.10), whilst in 2000, when the initial planning for the Forest of Dean Survey was undertaken, only 12% of known archaeological sites within the Forest of Dean Survey area were known to date to these periods

Although the MARs survey drew attention to the correlation between areas with high levels of recognised archaeological monuments and those areas in which extensive archaeological research had been undertaken (Darvill and Fulton 1998, 5.2.3), it was less clear on the reasons for which known archaeological monuments are under-represented in some areas, although the following possible explanations were put forward (Darvill and Fulton 1998, 5.2.3, 5.2.4):

- A genuine lack of archaeological sites reflecting actual distribution of early settlement or landuse patterns.
- A lack of archaeological research (i.e. the corollary of the explanation for relatively high densities of site).
- Geological factors (and by implication, therefore, landform and landuse factors) which militate against the identification of archaeological sites in some areas.

Although the possibility that the first of these positions applied to the Forest of Dean, it was pointed out in the project design for the Forest of Dean Survey that the paucity of known archaeological remains within the Forest of Dean Survey area was more likely to be the result of the second and third reasons, and particularly the fact that the extensive areas of woodland and pasture militated against the identification of archaeological sites through conventional prospecting techniques (Hoyle 2001, 2.2).

1.2 Staged approach to the project

From the outset, the Forest of Dean Archaeological Survey was conceived as a four-stage process, of which Stages 1 and 2 were funded in the first instance. Full details of the survey programme are set out in the detailed project design (Hoyle 2001, 4) and can be summarized as follows:

1.2.1 Stage 1

This stage was to be entirely desk-based and consisted of the systematic collection of data from a range of published and unpublished text and map sources (Appendix C) to bring together selected archaeological information on the Forest of Dean into a single body of data, the Gloucestershire County Council Sites and Monuments Record.

One of the predicted outputs of this stage of the project was the transfer of information directly from the Gloucestershire County Sites and Monuments Record to the databases and GIS held by the Forestry Commission to ensure they had up to date archaeological information on their landholdings, enabling them to manage the archaeological resource in an effective manner.

As part of this process all Sites and Monuments Records in Forestry Commission land were assigned a management category stipulating broad management recommendations in the event of future forestry operations (Appendix B).

1.2.2 Stage 2

This stage was conceived as a phase of pilot field survey to test appropriate methodologies to investigate areas where the known archaeology within the Forest of Dean was under-represented.

Details of this process were to be informed by the results of Stage 1 of the project which included two academic seminars to discuss fieldwork methodologies. From the outset it was envisaged that appropriate techniques would include field survey, excavation and geophysical survey, particularly within areas currently under woodland.

1.2.3 Stage 3

This stage of the project was envisaged as extensive prospecting field survey targeted at the archaeological themes and priorities identified a result of Stage 1 of the project.

Suitable methodologies adopted as part of Stage 3 were to be determined on the basis of the results of the testing of research and recording methodologies undertaken as part of Stage 2.

1.2.4 Stage 4

Stage 4 of the project was envisaged as the production of a report, synthesising the results of Stages 1-3, and containing the following:

- Discussion of the results of the project with reference to the archaeological themes which it explored.
- Brief management recommendations for each Forest Enterprise compartment within the survey area.

- Recommendations to take the results of the project forward at a community level to promote awareness of the archaeological resource in the Forest of Dean. These are likely to include community based management or research projects such as:
    - Re-examination of some sources, such as maps of post-medieval industrial sites held by the Deputy Gaveller, which contain information too detailed to meet the objectives of Stage 1-3 of the project.
    - Additional field survey. This would be particularly targeted at validating sites recognised as part of Stage 1 of the project, but where further field survey did not fulfil the objectives of Stage 3.
    - Programmes of practical management at selected sites. Where appropriate, these would be undertaken in conjunction with conservation bodies such as Gloucestershire Wildlife Trust.

1.3 Related projects

1.3.1 Scowles and Associated Iron Industry Survey

Between January 2003 and March 2004, the completion of Stage 1 of the Forest of Dean Survey was deferred whilst the project team undertook the Scowles and Associated Iron Industry project, a daughter project of the main Forest of Dean Archaeological Survey, which was funded by the Aggregates Levy Sustainability Fund (ALSF) administered by English Heritage. The collated information from this project will be used to inform strategic and local management policies for the area, provide a basis for future archaeological research, and to establish base-line data on the present extent, form, landuse, management regime and condition of these sites.

Scowles are a landscape feature almost unique to the Forest of Dean and range from deep irregular quarry-like features to amorphous shallow hollows. They are found within the area of the outcrops of Carboniferous Limestones (and particularly the Crease Limestone) around the edge of the central Forest.

Although traditionally interpreted as the remains of early open-cast iron ore extraction, recent geological research has suggested that these features had their origins as a natural subterranean cave system, which was exposed by geological action over 150 million years ago, although this clearly does not mean that the iron ores from the Carboniferous Limestones would not have been exploited from early times or that no ore would have been available as surface exposures within scowles.

Apart from their archaeological value, scowles are also significant ecological and geological sites. It was originally proposed that the project should be undertaken in parallel with related ALSF funded projects instigated by Gloucestershire Wildlife Trust and Gloucestershire Geoconservation Trust. Although neither of these organisations received the necessary funding, the Archaeology Service maintained close links with them throughout the project, and has provided these agencies with information on the location of scowles for use in their surveys and also collaborated on the production of a joint leaflet outlining the archaeological, ecological and geological value of these features.

1.3.1.1 Aim of the survey

The aim of this survey was to collect and collate data on scowles and sites of pre-industrial revolution iron smelting within the Aggregates Resource Area in the Forest of Dean in order to establish base-line data on their extent, form, landuse, management regime and the condition of selected features. This will be used to inform strategic and local management policies for the area, and to provide a basis for future archaeological research (Hoyle 2002a).

1.3.1.2 Methodology

The survey was undertaken in three phases.

Phase 1

Phase 1 was a desk-based survey, which enhanced the archaeological record of selected scowles and known early smelting sites within the Aggregates Resource Area in the Forest of Dean. Selected published and unpublished data was collected and integrated, including information generated by the results of English Heritage's National Mapping Programme which ran concurrently with Phase 1 of the project.

Phase 2

Phase 2 consisted of a programme of field survey. This mainly focussed on recording information on scowles recognised during Phase 1 of the project, although a number of previously unrecorded scowles were also identified, within a search area, which was determined by the geological formations in which scowles could be expected. Identified early smelting sites within the Aggregates Resource Area were also visited to gain information on current landuse and condition.

Phase 3

Phase 3 of the project was to produce a report, summarising and discussing selected parts of the collected information, which have been extracted to address specific management and research-based issues. This report also included recommendations to improve the management of scowles and recognised early smelting sites where possible, and for further archaeological research, both to investigate the nature of scowles, and to investigate the date and character of the early iron ore extraction and smelting industries in the Forest of Dean.

1.3.1.3 Outreach

Throughout the survey the project team raised public awareness about scowles and the project in general through the existing outreach programme of the main Forest of Dean Archaeological Survey which is discussed more fully in 4 below.

1.3.2 The National Mapping Programme

Although the predominant landuses in the Forest of Dean (woodland and pasture) have deterred large-scale aerial archaeological survey, aerial photographic collections had not previously been utilised to enhance understanding of the archaeology of the area in any systematic way (Hoyle 2001 draft 2.2). Accordingly, the draft project design for the archaeological survey of the Forest of Dean submitted to English Heritage in August 2000 (Hoyle 2001 draft) included an outline proposal to undertake a National Mapping Programme (NMP) aerial photographic project for the area. NMP is a long term project intended "to map, describe, and classify all archaeological sites recorded by aerial photography in England to a consistent standard" (RCHME 1994), and in November 2000 English Heritage asked the Archaeology Service to separate the NMP element from the larger project design and submit a proposal for a separate, stand alone NMP project for the same area (Hoyle 2000b).

1.3.2.1 Aim of the NMP project

The principal aim of the NMP project was "to map, describe and classify all archaeological sites recorded by aerial photography … to a consistent standard" (RCHME 1994), although an additional aim was to allow aerial photographic data to be properly and consistently assimilated with other data sets to inform the aims of the Forest of Dean Archaeological Survey (Hoyle 2001 draft 3.1.2).

1.3.2.2 Methodology

In line with normal NMP policy, this project mapped all archaeological and historic features visible on selected vertical and oblique aerial photographs. This included not only evidence for buried remains, but also upstanding earthworks or the remains of masonry structures. The project covered the whole of the Forest of Dean Survey area, as well as the whole of the 5km^2 OS map sheets which fell within those sections of Herefordshire and Gloucestershire (but not Monmouthshire) outside of the survey area.

The aerial photographic interpretation and mapping was undertaken by a team based at the National Monuments Record Centre in Swindon working under the direct supervision of the NMP Project Co-ordinator.

Jon Hoyle acted as project liaison officer for the NMP project organising and leading familiarisation visits to the Forest of Dean, and maintaining contact with the project team in Swindon on a regular basis to monitor project progress. Tim Grubb (the Gloucestershire SMR Officer) ensured smooth data transfer between Gloucestershire County SMR and the NMP project database.

1.3.2.3 Mapping and database

The results of the Forest of Dean NMP were produced entirely in digital format with transcription, which was aided by computer-based rectification programmes where possible, made directly into AutoCAD. Archaeological features were copied onto the relevant AutoCAD layer using agreed line and colour conventions (Hoyle 2001b, Appendices 5 and 6). English Heritages NewHis database acted as the principal database for the project.

At the end of the mapping process digital maps of NMP data and database information were transferred to Gloucestershire County Council. This information was then incorporated into the Gloucestershire SMR.

1.4 Location of the survey area (Figure 1)

The survey area is situated within that part of west Gloucestershire known as the Forest of Dean, and covers an area of *c.* 336.75km^2 centred on Ordnance Survey grid reference SO600100.

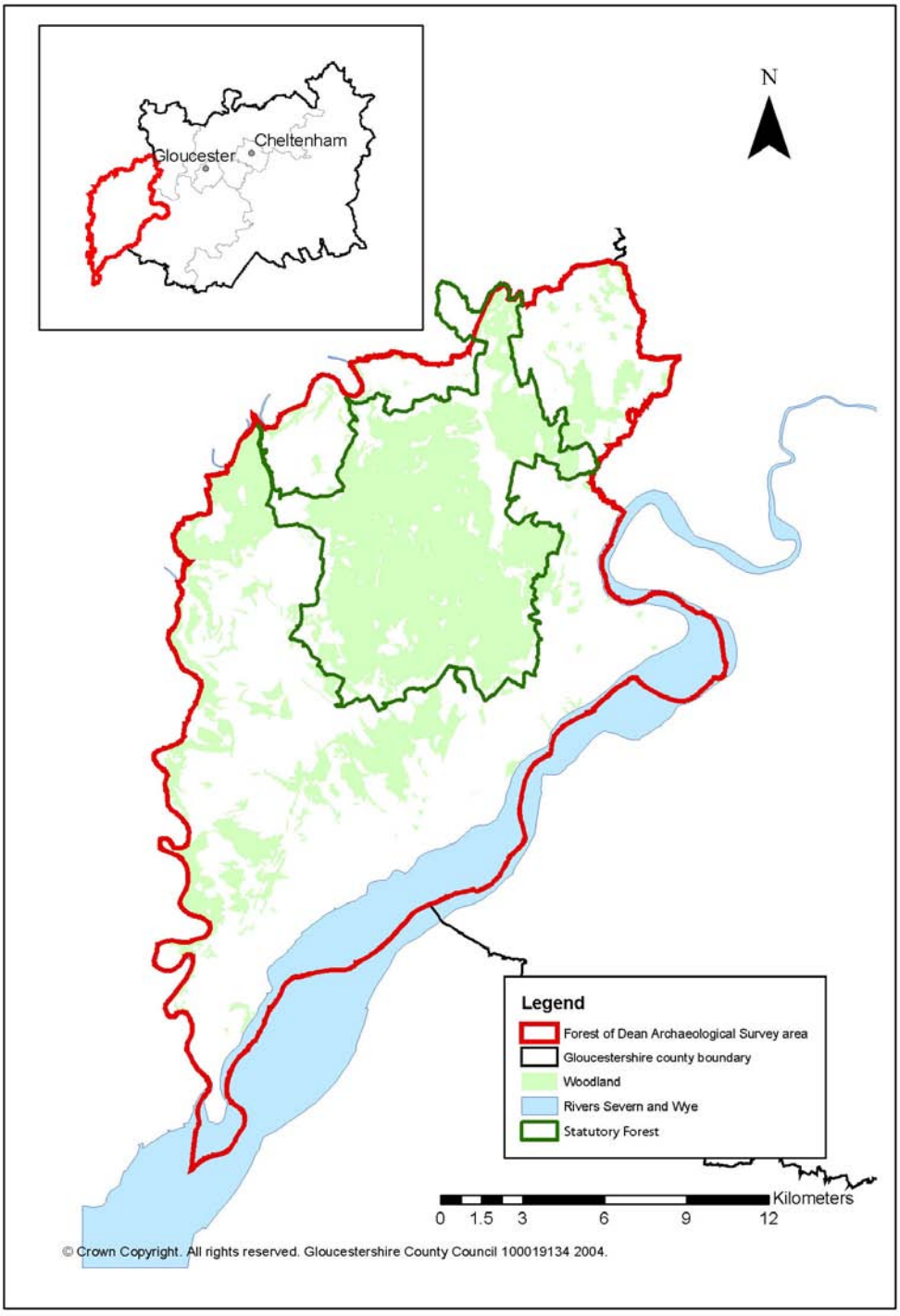

Figure 1: Location of the survey area and woodland

1.5 Topography of the survey area (Figure 2)

The Forest of Dean is geographically distinct from the rest of Gloucestershire and incorporates a dramatic range of topographies, reflecting the variety of the underlying geologies (see 1.6 below).

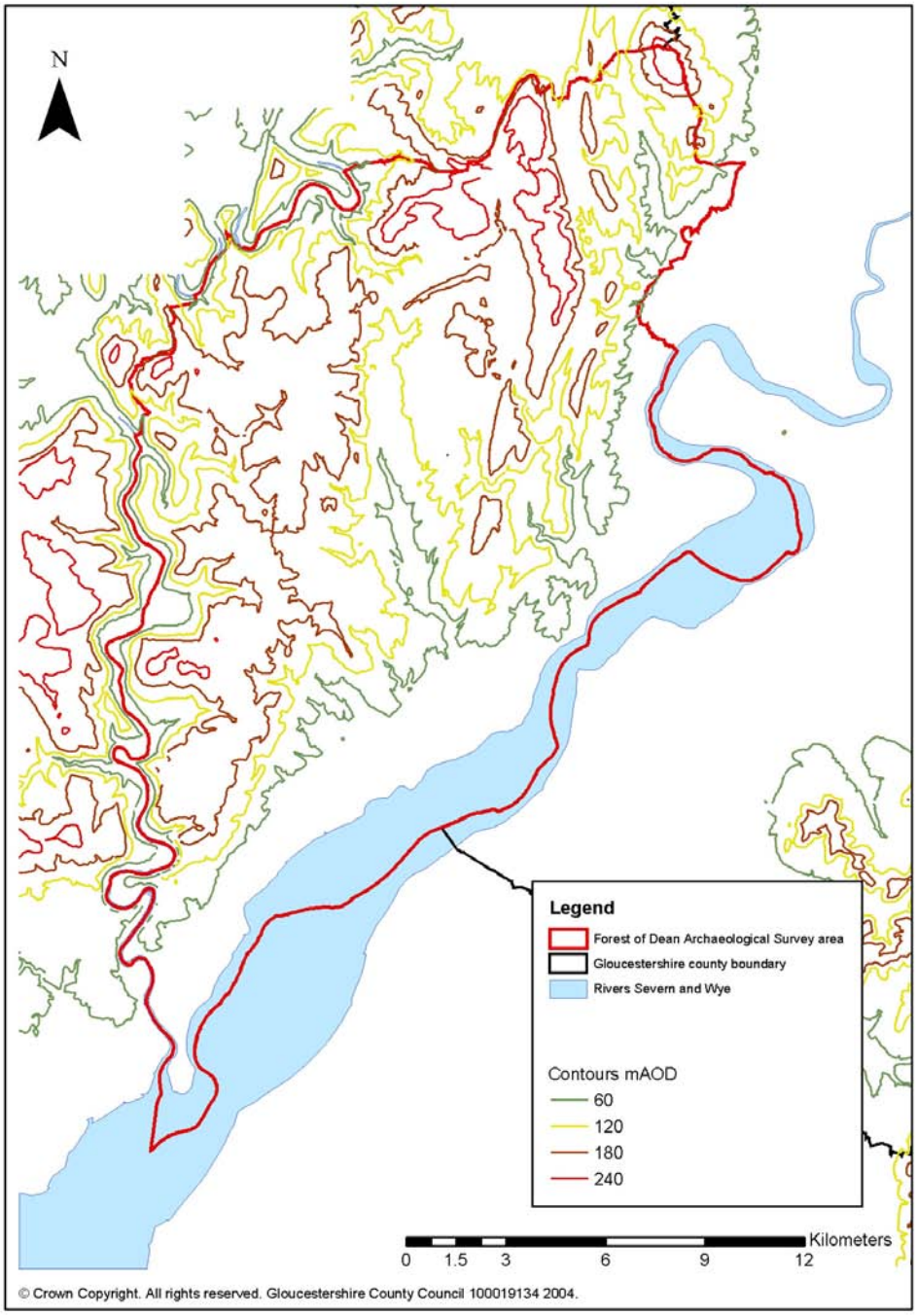

Figure 2: Contour map of the Forest of Dean Survey area

The survey area consists of a plateau incised by numerous valleys of streams flowing towards both the Rivers Wye and Severn. 61% of the area lies above 100m OD with 14% above 200m OD. Much of the Statutory Forest lies above 150m OD and the area attains a maximum height of 290m OD, although the extent of this area was too small to register in Chart 1.

25% of the survey area lies below 60m OD although this lower ground largely found in a broad band of the northern bank of the River Severn.

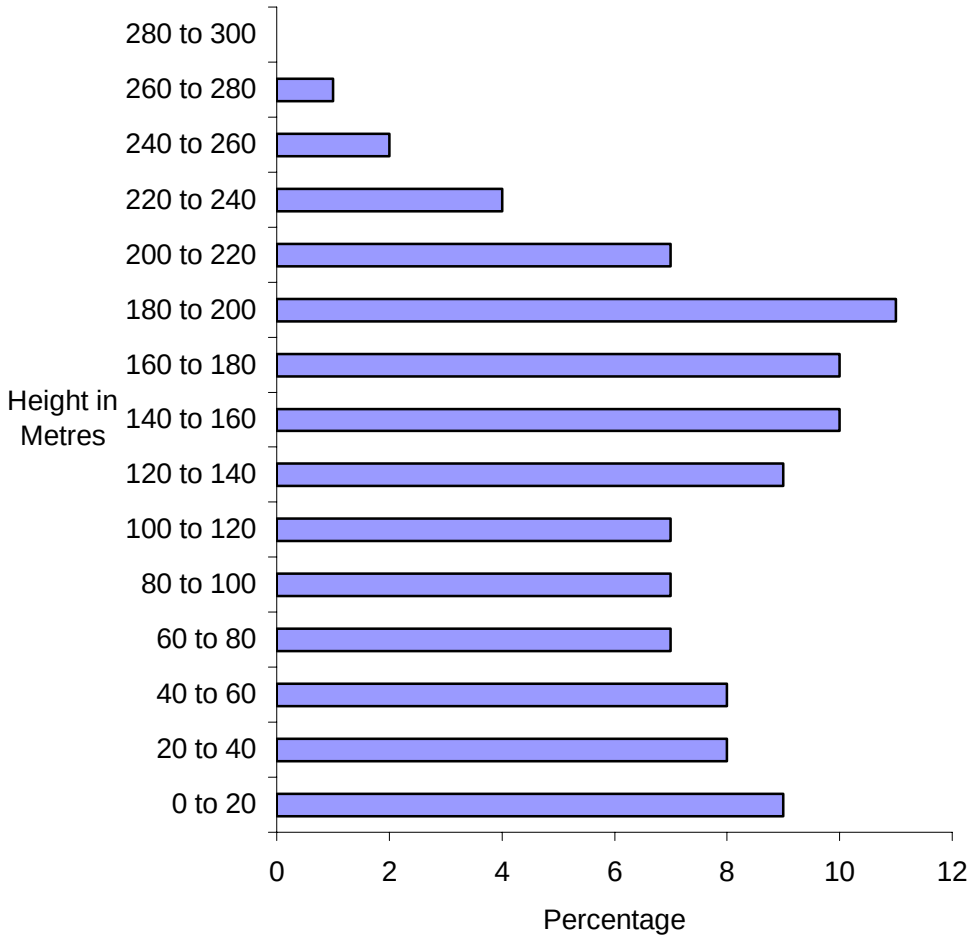

Chart 1: Forest of Dean Survey Area: heights in metres OD

Almost 41% of the survey area is reasonably level, with a slope of less than 5^{o}, although much of this is in the area bordering the northern bank of the River Severn. The terrain to the north of this is generally uneven with over 21% attaining slopes of over 10^{o}.

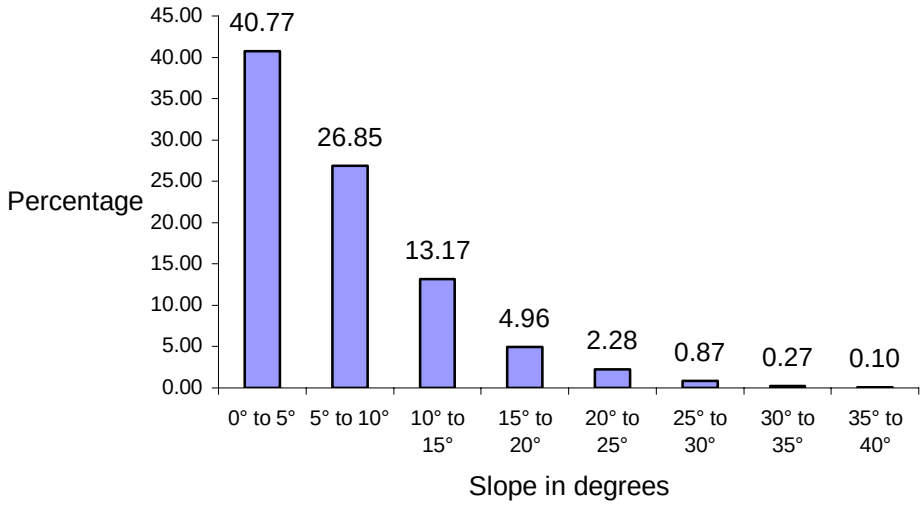

Chart 2: Forest of Dean Survey area: Slope

With the exception of a slight preference for a southerly aspect, and particularly towards the east or southeast, there is no clearly significant bias in the orientation of slopes within the survey area.

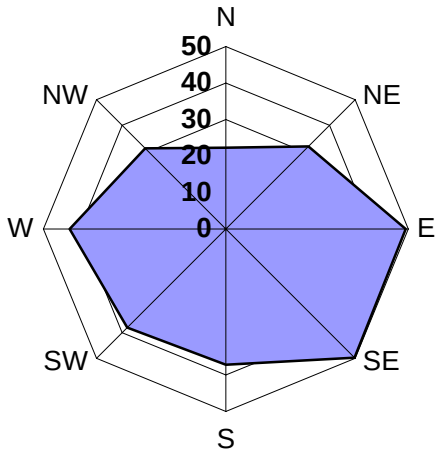

Chart 3: Forest of Dean Survey area: Aspect

1.6 Geology of the survey area (Figure 3)

The geological data generated from the Gloucestershire County GIS, and derived from the British Geological Survey (BGS 1974, 1975) breaks down the solid geology of the survey are as follows:

Table 1: Solid geology within the survey area

Solid geology type	% of survey area
Argillaceous Limestone	4.5
Breccia	1.56
Conglomerate and Sandstone	6.4
Dolomitised Limestone and Dolomite	7.61

Solid geology type	% of survey area
Limestone	7.09
Micaceous Sandstone	3.97
Mudstone	7.79
Mudstone and Limestone	7.79
Mudstone and Sandstone	10.03
Oolitic Limestone	4.33
Sandstone	24.74
Sandstone and Argillaceous Rocks	1.04
Sandstone and Conglomerate	1.04
Siltstone	0.69
Siltstone and Mudstone	7.44
Silty Mudstone	1.21
Undivided Cyclic Sedimentary Rocks	2.77
Total	**100**

For discussion purposes these categories were amalgamated (Appendix A) to produce the following broad types of solid geology within the area:

Table 2: Broad types of solid geology

Broad geology type	% of survey area
Sandstone	55
Limestone	32
Miscellaneous Siltstones and Mudstones	13

The geology of the Statutory Forest is made up of layers of sandstone of the Drybrook, Trenchard, Pennant and Supra-Pennant groups of the Carboniferous Series, containing over 20 separate coal seams. These overlie limestones of the Carboniferous Limestone Series, including the iron ore-bearing Crease Limestone, which forms a “necklace” around the edge of the higher ground (BGS 1974; BGS 2004). These strata form a basin (the Dean syncline) and coal seams outcrop or are found close to the surface throughout the area (Dreghorn 1968).

To the west of the Statutory Forest, the geology is a continuation of the Carboniferous Limestones which underlie the central plateau (BGS 1974; BGS 2004). The topography of this area is characterised by steep valleys draining into the River Wye.

To the south, an undulating plateau overlies Carboniferous Limestones, and, although tilted to the south, maintains heights of *c.* 200m OD. Topographically this area consists of rolling ridges and valleys draining both to the River Severn to the east and the River Wye to the west.

The River Wye defines the western edge of the survey area. This river meanders through a narrow gorge (generally less than 0.5km wide) cut through steep cliffs of the Lower Dolomite of the Carboniferous Limestone Series in the north, and Brownstones and Sandstones of the Old Red Sandstone Series further south (BGS 1974, BGS 1981; BGS 2004).

Sandstones of the Old Red Sandstone Series also underlie the eastern edges of the plateau (BGS 1974, 1981), although, topographically, this area is much less dramatic than the Wye gorge. In the northern part of the survey area, the higher ground leads directly down to the banks of the River Severn (BGS 1974; BGS 2004).

Drift geology accounts for *c.* 21% of the Forest of Dean Survey area with alluvium and gravels in the river valleys which incise the higher ground of the central Forest

which flow towards the Rivers Wye and Severn, and a broad level plain made up of alluvium and gravels follows the northern bank of the River Severn as far as the southern edge of the survey area at the confluence of the Rivers Wye and Severn (BGS 1981; BGS 2004).

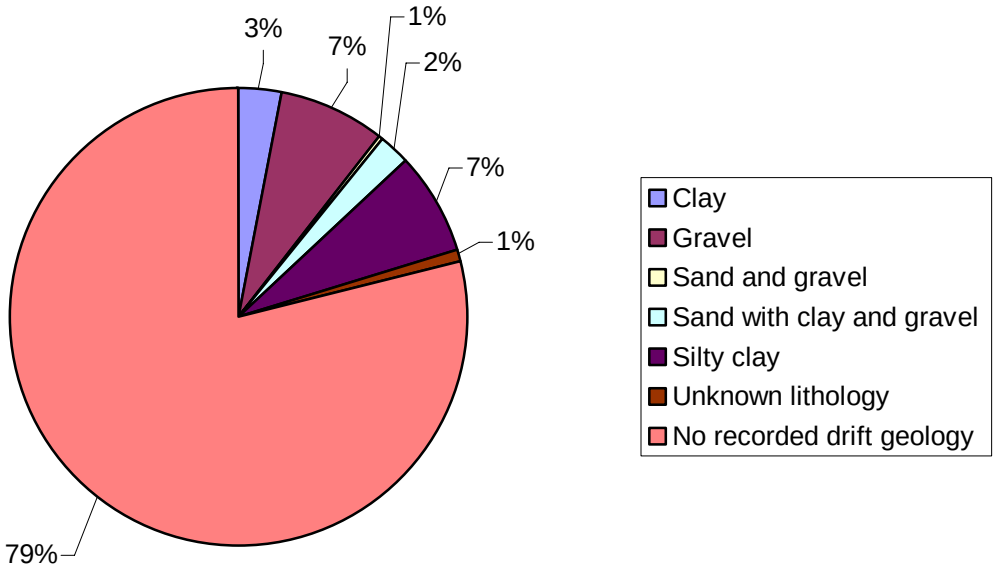

Chart 4: Drift geology in the Forest of Dean Survey area

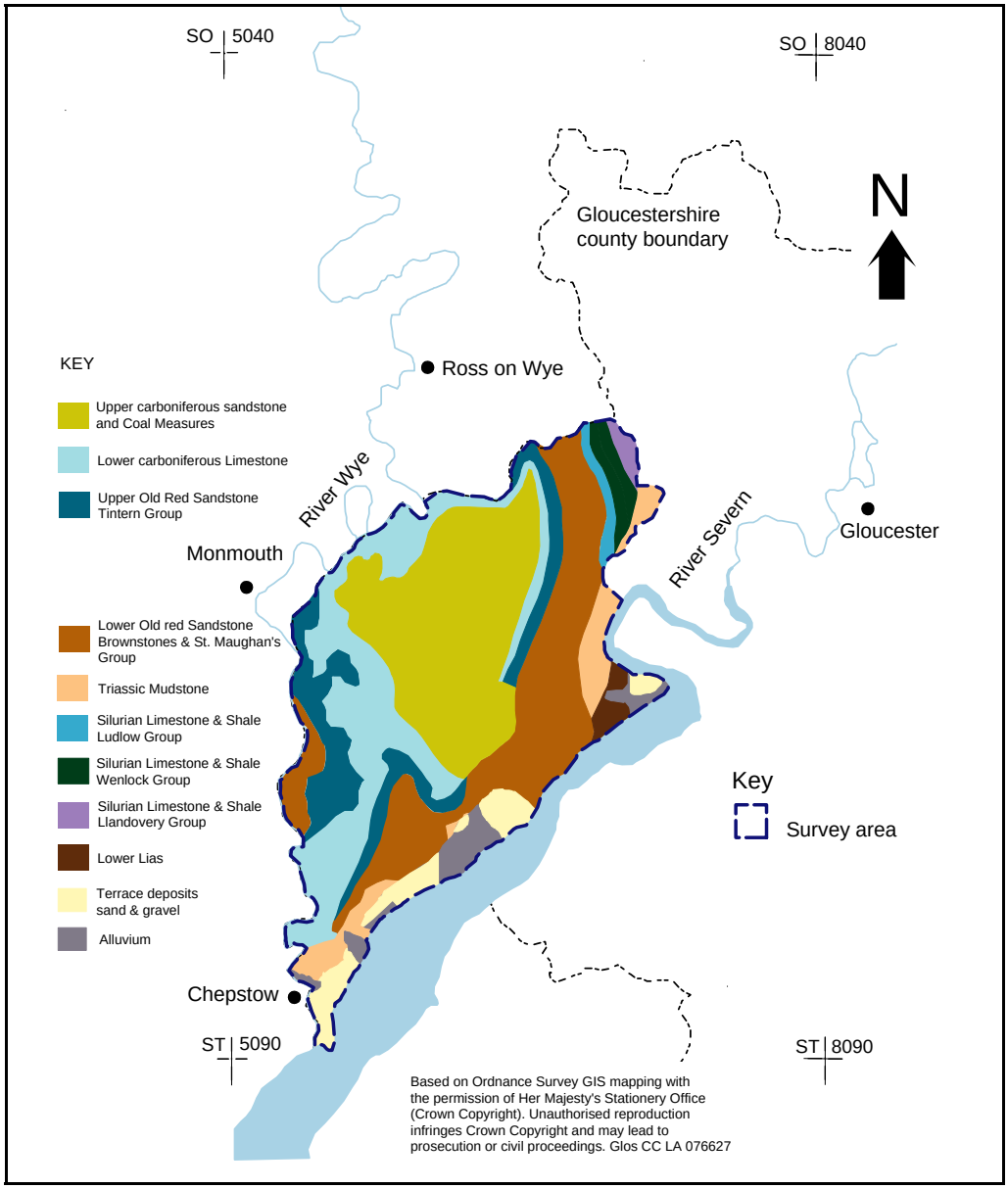

Figure 3: General geology of the survey area

1.7 Landuse within the survey area

The Forest of Dean is essentially rural in character with approximately 8% of the area covered by housing or other urban development. The largest single landuse is grassland, covering approximately 39% of the area. 26% of the area is improved grassland and 13% other types of grassland and waste ground.

Woodland, approximately evenly split between areas of deciduous, mixed and conifer, covers *c.* 36% of the area, and *c.* 16% of the area is under arable cultivation. The remaining 1% of the survey area is classified as “Inland bare ground”.

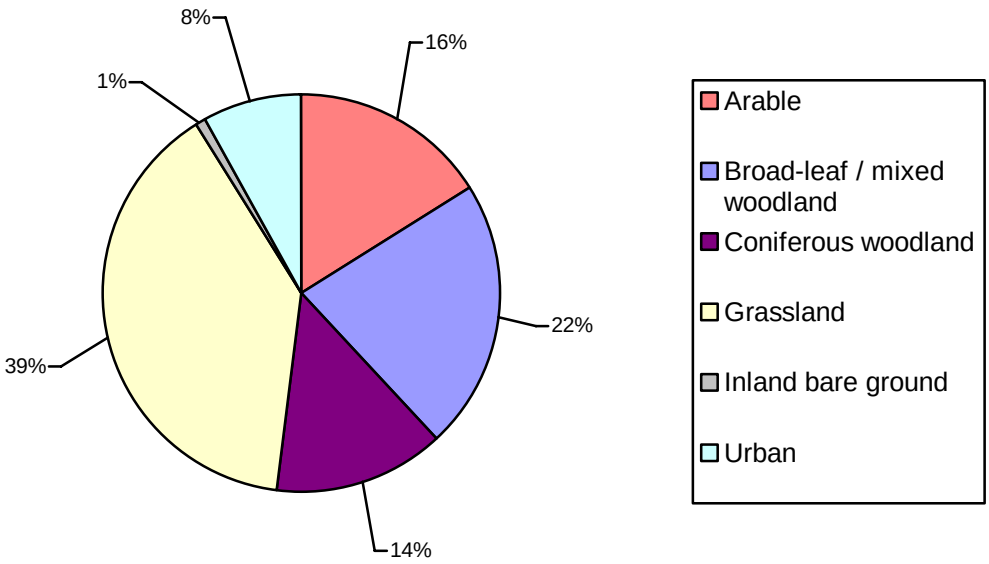

Chart 5: Landuse within the survey area

Much of the modern woodland is in the central part of the Forest, an area which formed the basis of the Norman “Royal Forest”. As the royal demesne this uncultivated area of woodland and waste remained extra-parochial until the 1840s and forms the basis of the Statutory Forest, which was defined by a perambulation in 1831 (Figure 1). Much of this area is likely to have been largely either wooded, or within the woodland management cycle, since at least the later medieval period. Although there are large areas of woodland today (Figure 1), some of this, particularly the woods to the west of the Statutory Forest, is the result of early 19th century plantation.

Outside of the Statutory Forest and other large areas of woodland, the predominant landuse is one of enclosed farmland, (generally pasture but also some arable) often in the vicinity of medieval settlements (such as Littledean, Mitcheldean, Ruardean and Coleford) sited close to the edge of the Statutory Forest. Even where enclosed farmland is the norm, some relatively large tracts of woodland are often a feature of the landscape, particularly on higher ground or where slopes are too steep for cultivation.

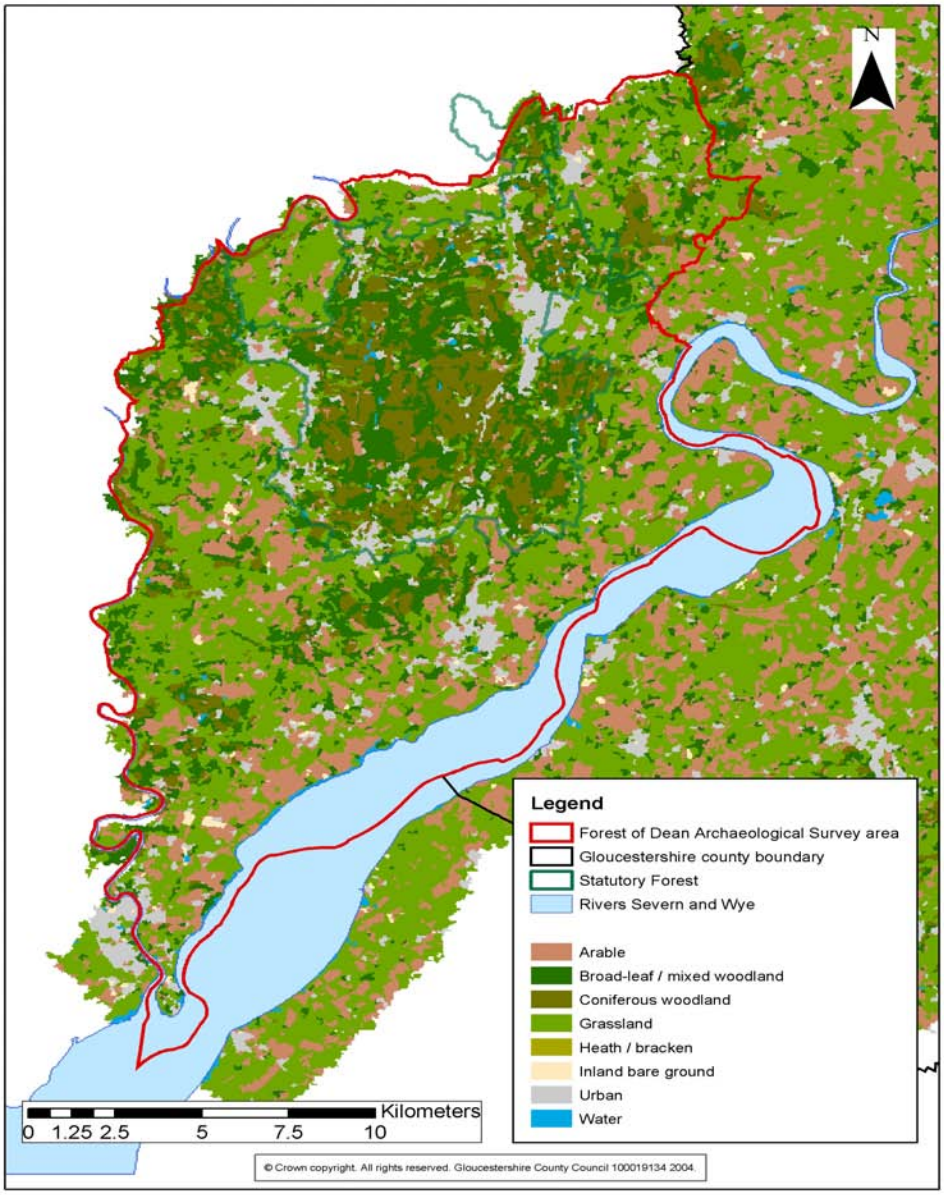

Figure 4: Landuse within the Forest of Dean Survey area

1.8 Relationship between woodland and solid geology

The woodland within the Forest of Dean Survey area demonstrates a clear preference for sandstone geologies. 26.99% of woodland overlies Sandstone whilst a disproportionate 17.94% overlies Mudstone and 28.26% overlies Mudstone and Sandstone. There is a corresponding lack of woodland overlying areas with a limestone solid geology with 2.24% overlying Limestone, 2.24% overlying Mudstone and Limestone and 1.21% overlying Oolitic Limestone.

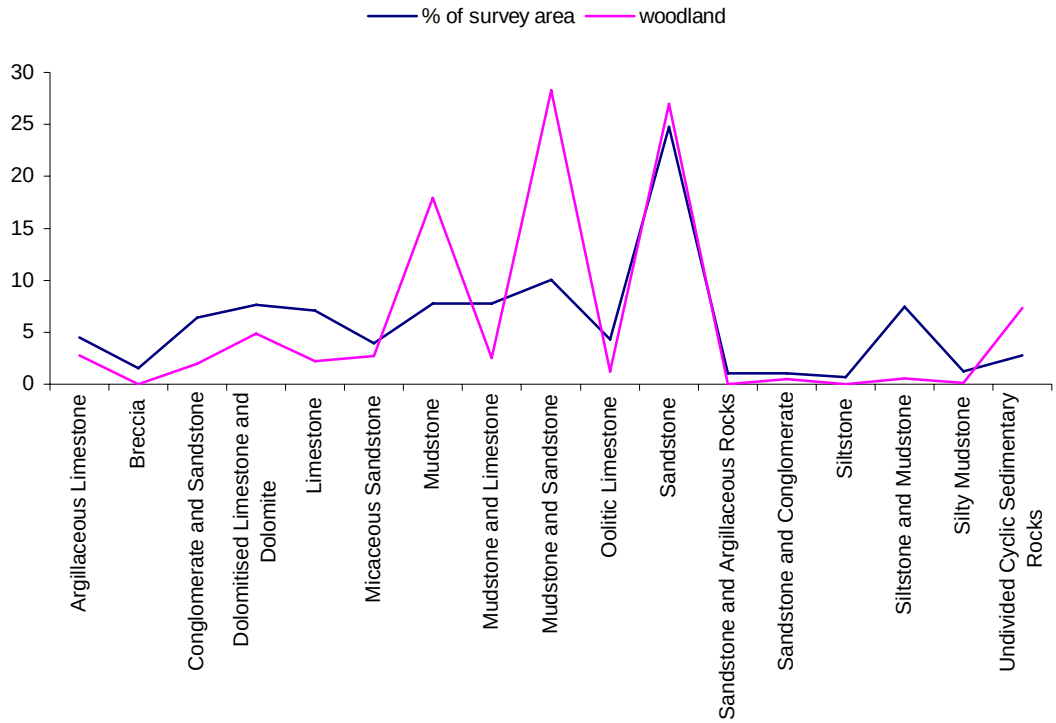

Chart 6: Woodland and solid geology

2 Survey methodology

The following is a summary of the methodological approaches adopted as part of the Stage 1 of the survey.

This stage of the project consisted of the collation of existing written, graphic, photographic and electronic information targeted at identifying the likely character, extent, quality and importance of the known or potential archaeological resource within the survey area of the Forest of Dean Archaeological Survey (Figure 1).

2.1 Checking of existing SMR records

2.1.1 Alterations in perceived project methodology

One of the objectives of Stage 1 of the survey was stated as "to integrate available information (both written and mapped) into an appropriate database and GIS mapping system based on the current Gloucestershire SMR" (Hoyle 2001, 3.2.1/2).

When the project design was prepared, it was anticipated that this would consist of the serial collection of data from the sources identified with new or existing records created or modified to an agreed format in accordance with the information contained in the sources. It rapidly became apparent that this methodology did not fully recognise the complexity of the data gathering process at this scale, and had the potential to lead to time-consuming double handling of data. This was particularly pertinent as the single most time consuming part of the collection and inputting of data was the revision of the spatial record of identified sites in the project GIS.

The project design stated that "the overall efficiency of the process will be under continual review" and "if necessary … will be modified as the project progresses." (Hoyle 2001, Appendix C, 67), and accordingly, the project methodology was modified to minimise the continual revisiting of existing SMR records and particularly to avoid multiple revision of the mapped records as individual sources are consulted.

As a result of this, it was determined that the first stage of the data collection process should be to undertake a general and systematic check of the existing Sites and Monuments Record. This ensured that existing records were accurate and internally consistent, and that they conformed to both current Gloucestershire SMR and national data standards.

2.1.2 Checking against additional data sets

As the bulk of the time spent in updating or adding SMR entries involved checking entries against spatially held data and mapping them onto the appropriate GIS layer, the project team updated existing SMR records on a Parish by Parish, rather than a source by source basis. This operation was undertaken in conjunction with limited data collection from selected identified sources as follows:

- Data from selected map sources
  As the 1st, 2nd and 3rd Series OS maps were held as a layer on the Gloucestershire County GIS, they could be rapidly checked as each existing SMR entry was updated or new ones created. Similarly the rectified copies of 19th century maps were also consulted as part of the checking of existing SMR records. As part of the accessing of this spatial data the GIS mapping of all existing records was checked and approximately 75% of records were re-digitised.

- Other data sets within the Gloucestershire County Council GIS.
  As each record was checked it was also cross-referenced against other sets of data held within the Gloucestershire GIS to ensure that all records were standardised. This included:
    - Heritage designations such as Scheduled, Listed or Registered Parks and Gardens status.
    - Conservation designations such as Area of Outstanding Natural Beauty, or Sites of Special Scientific Interest, Ancient Semi-Natural Woodland, Gloucestershire Wildlife Trust Key Site, or Conservation Area status.
- Additional information was added to sites in Forestry Commission land. This was to facilitate the project aim "to assist Forest Enterprise to manage archaeological sites on their land" by producing "a discrete database, supported by digital mapped data, which summarises the location, extent and recommended management of archaeological sites and historic landscapes in land owned and managed by Forest Enterprise (now the Forestry Commission)" (Hoyle 2001, 3.1.4; 3.2.1/5). The following additional information was added to these sites:
    - Landownership – This was identified with reference to land ownership information supplied by the Forestry Commission.
    - Landuse – this was identified with reference to landuse information supplied by the Forestry Commission.
    - All sites in Forestry Commission land were assigned a management category in accordance with the specifications drawn up as part of Stage 1 of the project. Details of these management classes and the types of monument to which they were applied may be found in Appendix B.

2.1.3 Standardisation of procedure and maintenance of records of progress

As part of the process of checking existing records it was necessary to standardise the way in which certain site types were recorded within the SMR. Copies of specifications for the standardisation of recording selected site types can be found in Appendix D and Appendix E.

Lists of SMR records for each parish were maintained in digital format (Excel) and used to monitor progress of the checking process. These were annotated as SMR records were checked, and any problems encountered during the checking process were identified. The parish lists of checked SMR records are maintained as part of the project digital archive.

In addition to this, a pro-forma stating the data sets to be checked against existing records was also produced and completed for each record checked. This standardisation process was also of value in specifying the way in which these site types would be added to the SMR as new sites identified as part of Stage 1 of the survey (see below).

Where areas were re-digitised a paper copy of the digitised area was produced to act as a security copy of the work undertaken. Copies of SMR checklists and maps of re-digitised areas were filed in numerical order according to parish, and form part of the project archive.

2.2 Systematic collection of data from identified sources

2.2.1 Published and unpublished documentary and map sources

Following the completion of the checking of the existing SMR records against selected data sets (see above), further sources were checked and new information added to the SMR as appropriate.

The project design for Stage 1 of the survey set out a range of prospective sources and stated the types of information thought likely to be extracted from them (Hoyle 2001, Appendix B; Appendix C).

The range of sources accessed was modified during the course of the project, either as a result of new information coming to light, or following a more detailed assessment of potential sources and the value of the information that they contained. All sources systematically consulted are listed in Appendix C, which also contains a discussion of those sources which were anticipated but not used.

One of the problems encountered during the collection and accessing of information as part of the project was the difficulty of identifying what information had already been assimilated from a number of sources, and a considerable amount of time could be spent discovering that information from some sources was already on the SMR. In order to ensure standardisation, it was necessary to specify the ways in which data from selected sources was to be accessed and the types of data which would be collected from them. It was quickly realised that simply recording that a source had been accessed was not adequate, as different types of data would be collected for different purposes at different times.

Accordingly specifications for the types of information to be extracted from selected sources were prepared and, wherever possible, copies of sources were annotated with the data which had been extracted. Copies of specifications for data collection may be found in Appendix D, and copies of annotated source works form part of the project archive.

In addition to the sources which were accessed in a systematic fashion, selected data from a number of sources was added to the project database (the County SMR) as this information became available.

2.2.2 Information from local individuals or groups

One of the aims of the project was to "To increase public awareness and community involvement in the archaeology of the Forest of Dean" (Hoyle 2001, 3.1.5) supported by the objective of working "closely with local interest groups on the collection of information" (Hoyle 2001, 3.2.1/7).

In the initial project design it was envisaged that information gathered by the project team would be systematically commented on by local interested parties or groups who had been undertaking their own research in a related field.

In practice this process proved to be less systematic than first envisaged, due mainly to difficulties encountered with accessing information from local interest groups according to the strict timescale of the project programme. In addition to this, the fact that the bulk of the local research related to post-medieval industrial processes, and simply added detail to the information already gathered as part of Stage 1 meant the process contributed little of value in achieving the overall project aims and objectives.

Continual liaison was, however, maintained with local groups as part of the project's outreach. This is reported on in greater detail in 4 below.

With the exception of the project undertaken in conjunction with the U3A to check SMR anomalies (see 5.6.3 below), the mechanism for data exchange with local groups and individuals was relatively *ad hoc*, although greater awareness of the project amongst the local community had a considerable impact on the level of general information reported to the project team by individuals who were not associated with established local groups. In particular, this yielded useful information on chance finds dating to the prehistoric and Romano-British periods, prehistoric flints, possible barrow sites, and surface scatters of bloomery slag in the area around St Briavels Common (St Briavels parish), Brockweir (Hewelsfield parish) and the northern part of Tidenham parish.

2.2.3 Information from local museum collections

The project objective of "to improve the existing archaeological record of the Forest of Dean, by collecting and assimilating published and unpublished archaeological information" (Hoyle 2001, 3.2.1/1) included the task of attempting to access information from local museum collections.

The following museums were contacted and asked if they had material from the Forest of Dean Survey area in their collections:

- The Dean Heritage Centre
- Gloucester Museum
- Cheltenham Art gallery and Museum
- Chepstow Museum
- Bristol City Museum
- Cardiff Museum
- Ross on Wye Museum

With the exception of the Dean Heritage centre who provided the project team with a list of chance finds from the Forest of Dean, the response to this request was disappointing with only Bristol City Museum responding that they had any material from the area, and this was limited to some artefacts from a 1950s excavation at Popes Hill, Littledean already recorded in the SMR (Gloss SMR 5179).

Since that time it has become apparent that material from the survey area is contained within the collections of local museums as information about individual items has come to light on an *ad hoc* basis.

It is assumed that the poor response is likely to have been a product of the relatively unsophisticated (and generally paper-based) accession and cataloguing systems used by many museums which would have made an area–based search extremely time consuming and difficult. In fact Gloucester Museum replied that they had "a box" of Forest of Dean material which would eventually be accessioned, although, in the short term, it would be necessary for a member of the project team to sort through the material themselves.

Although this initial response was disappointing, it is felt that further searching of the collections of local museums would almost certainly bring new information to light, or at least identify the location of collections which could be re-assessed, and the potential of this should not be forgotten. It is clear that the resources required to do this would have been considerably greater than those which had been allocated to this task in the project design (Hoyle 2001, 5.3.1, Task 12) and the systematic pursuit of information from museum collections was not undertaken further as part of Stage 1 of the project.

2.3 The project database

The decision to use the Gloucestershire County Council Archaeology Service's Sites and Monuments Record as a database for recording the location and attributes of all recognised archaeological sites and artefacts was made at an early stage in the project.

The use of this database had the following advantages:

- It allowed for full use of, and integration of relevant information already within the SMR.
- It ensured that all records were formed in a logical way that complied with current MIDAS recommendations (MIDAS 2002).
- It ensured that the process of transferring detailed archaeological s information from the project database to County SMR could be achieved in a rapid and efficient manner, without any degradation of data quality.

This database, however, also had the following disadvantages:

- The digitisation of spatial areas within the Gloucestershire County Council GIS was not straightforward or easy. This was mainly due to the limitations of the Genamap GIS software used by Gloucestershire County Council, meaning digitisation was not simple or quick.
- The SMR database was not designed as a project database, and could be unnecessarily cumbersome. In order to comply with current SMR data standards it was necessary for the project team to record some categories of information (e.g. parish), which were not absolutely necessary to meet the needs of the project.
- The limitations of the SMR database and GIS meant that during the analysis phase many database queries and filters needed to be constructed for a simple analysis, a process more complicated than would be expected from a simple project database.
- Use of the County SMR as the project database made it difficult to record information, which may have been relevant to the project, but was not information normally recorded on the SMR (e.g. information indicating levels of uncertainty in the evidence).

2.3.1 Recommendations for future use of the SMR

It is recommended that any future project of this type should factor in both time and resources for improvements to the SMR database to facilitate efficient use of the database by projects such as this and would allow for:

- More efficient integration of data from small projects into the SMR.
- More efficient transfer of data from project datasets to and from the SMR.
- Greater facility to record levels of uncertainly for the interpretation of identified sites.

3 Results of Stage 1 of the project

3.1 Summary of the results of Stage 1

Simple statistical analysis of the data added to the SMR by Stage 1 of the Forest of Dean Survey, cannot in itself act as an indicator of the archaeological value of this stage of the project, or fully define the extent to which archaeological knowledge of the area has increased as a result of this stage of the survey, although it is worth categorising and reviewing the and amount and type of information added to the SMR as a result of this work.

3.1.1 Total number of sites

At the beginning of Stage 1 of the Forest of Dean Survey, the Gloucestershire SMR held records of 4,971 archaeological sites, contained within 2,833 archaeological area records. This included 80 Scheduled Monuments (Appendix F), although two of these (SM 58 and 58A) relate to a section of exposed early road and associated bridge at Blackpool Bridge, three (SM 28864-66) are contiguous scowles in Blake's Wood, Staunton, and 47 (SM 33442-80, 34851-56, 34858-59) are sections of Offa's Dyke

Both the data and mapping of all of these records was checked in accordance with the methodology set out in 2.1 above, resulting in the re-mapping of approximately 2000 archaeological areas and the addition of 1,808 sites to existing areas.

The documentary research undertaken as part of Stage 1 added a further 4,150 archaeological sites to the SMR, whilst a further 1,799 sites were added by the National Mapping Programme.

At the end of Stage 1 of the project, the Gloucestershire SMR for the area of the Forest of Dean Survey contained records of 10,930 archaeological sites, within 5,286 Archaeological Area records.

Table 3: Statistical breakdown of SMR sites at the end of stage 1 of the project

	Number	%
Sites which pre-date Stage 1 and have been checked and modified	4,971	46
New sites added by NMP	1,799	16
New sites added by Stage 1	4,160	38
Total SMR sites for survey area in 2004	10,930	100

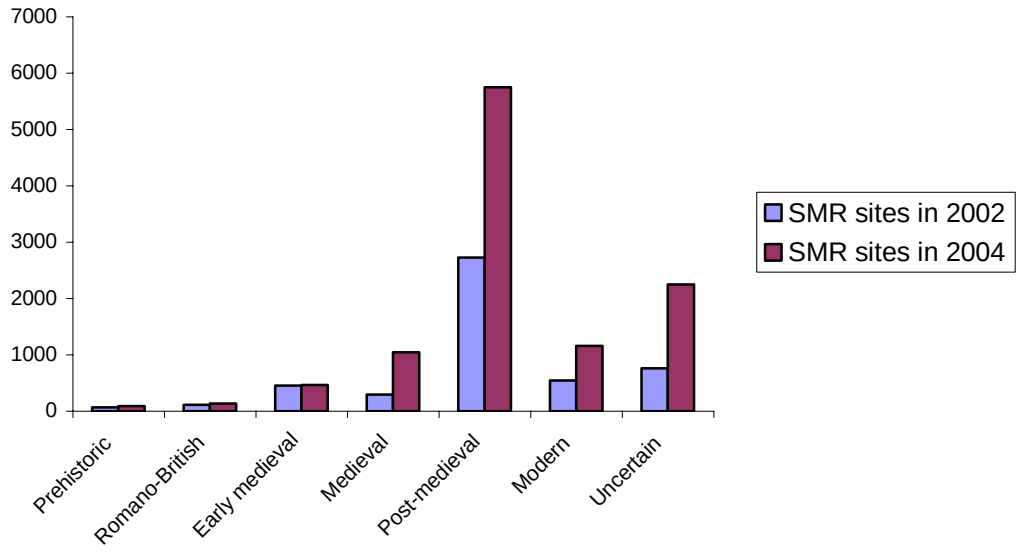

Chart 7: Number of sites in the Forest of Dean Survey area recorded on the Gloucestershire SMR between 2002 and 2004

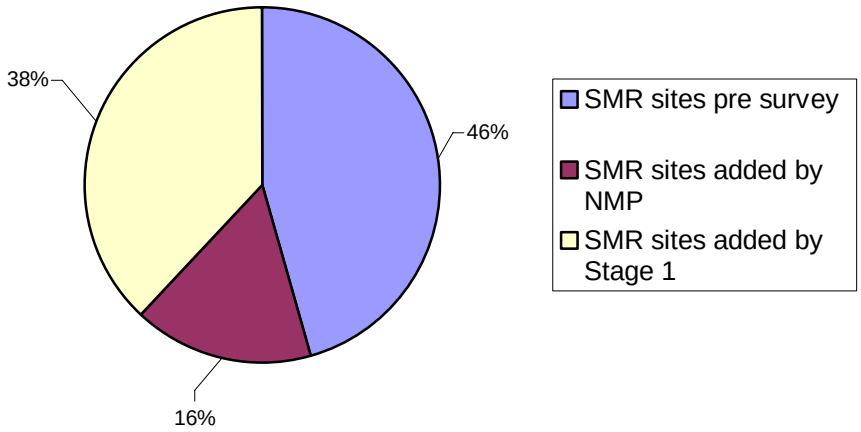

Chart 8: Statistical breakdown of SMR sites at the end of stage 1 of the project

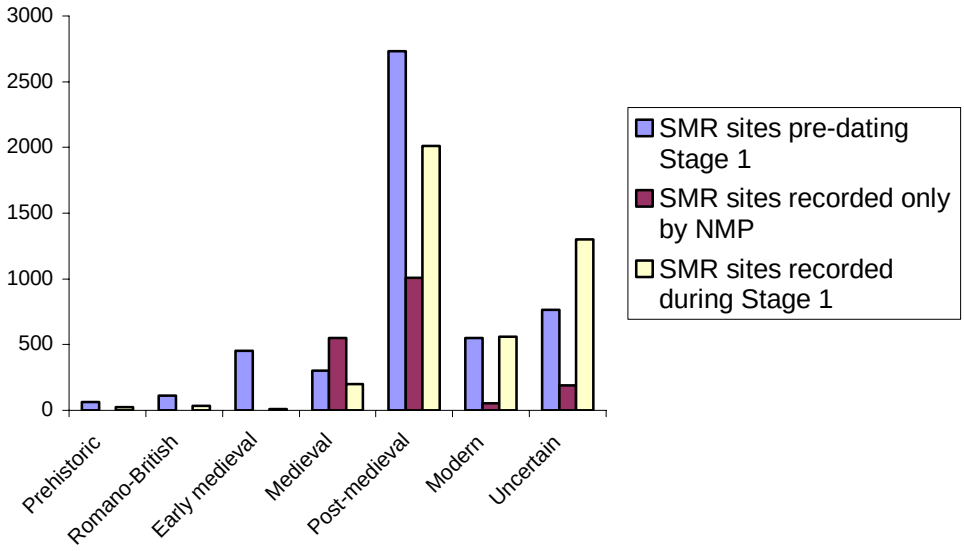

Chart 9: Numerical breakdown of SMR sites at the end of stage 1 of the project

3.1.2 Analysis of sites by period

At the beginning of Stage 1 of the project the SMR records the Forest of Dean Survey area contained only 3% of known sites dating from the prehistoric and Romano-British periods as opposed to a national average of 26%, and only 6% known medieval sites as opposed to a national average of 16% (Darvill & Fulton 1998, Fig 4.10).

The Forest of Dean also had a relatively high proportion of post-medieval and modern sites (67% against a notional average of 36%) caused by the high levels of surviving post-medieval industrial remains within the area. It also had a disproportionately high incidence of early medieval sites (9% as opposed to a national average of 2%), a figure skewed by the system of recording used during the 1995 survey for management of Offa's Dyke in Gloucestershire (Hoyle & Vallender 1997) in which individual components of Offa's Dyke were allocated separate site records resulting in 449 "site" records for this single monument.

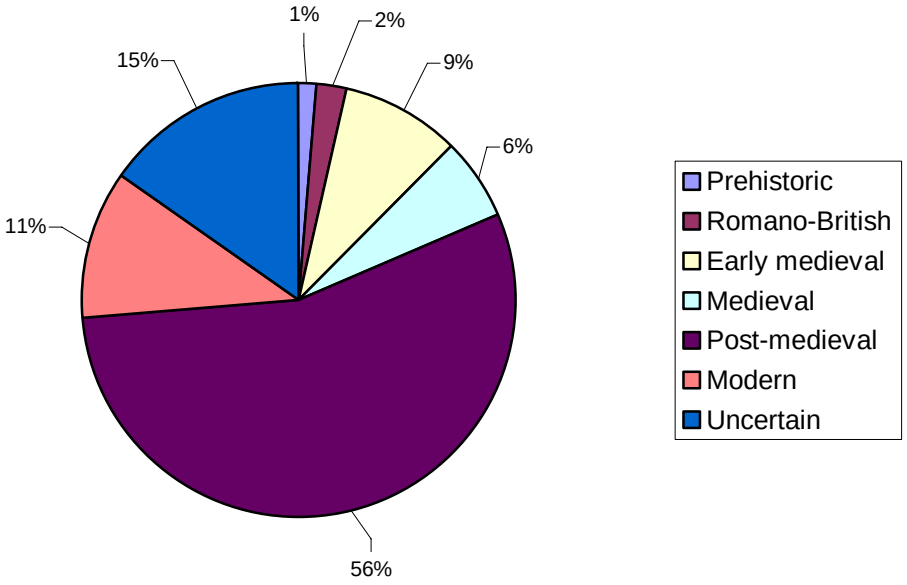

Chart 10: Gloucestershire Sites and Monuments Record entries for the Forest of Dean Survey area by period: 2002

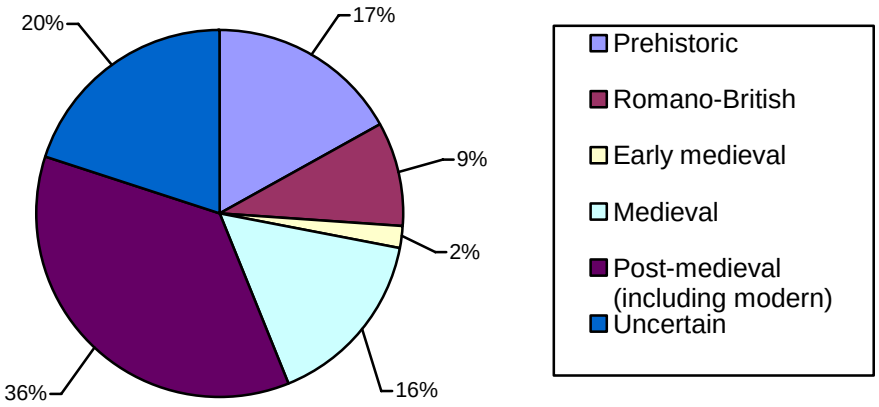

Chart 11: National Sites and Monuments Record entries by period: 1995

after Darvill & Fulton 1998, Fig 4.10

Whilst the actual number of sites for each period has increased as a result of Stage 1 of the survey and the NMP project, the actual proportion of Romano-British and prehistoric sites has remained the same, whilst the proportion of early medieval sites has decreased from 2% to 1% (see Chart 6 below).

It is worth noting that the way in which the Gloucestershire Sites and Monuments Record records the date of some entries impacts on the date categorisation and subsequent analysis. For example, one of the most significant additions to the existing record for the Forest of Dean Survey area is the addition of 581 placenames to the SMR. Prior to the survey only 58 placenames were recorded and these had

been added in an *ad hoc* way with no specifications for the types of name to be added to the SMR.

Many of the placenames added as part of Stage 1 may indicate the site of prehistoric or Romano-British activity, and are a major contribution to an understanding of the archaeological potential of the area. However, the date of these sites recorded by the Gloucestershire Sites and Monuments, is the date of the earliest reference to the name, not the date of the site it might indicate, and consequently all of these new sites register as “post-medieval” skewing the data for any analysis of the SMR by date.

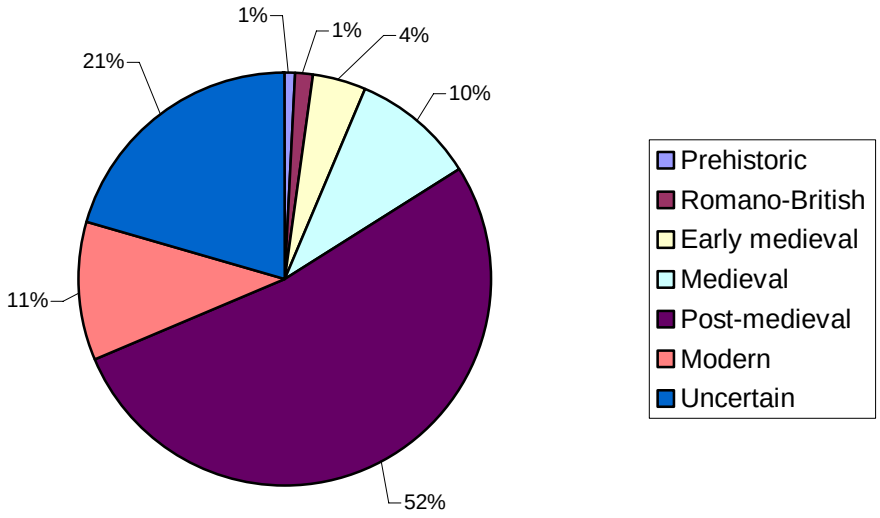

Chart 12: Gloucestershire County Council Sites and Monuments Record entries by period: 2004

There has been an increase in the proportion of known medieval sites (from 6% to 10%) and the proportion of early medieval sites has decreased from 9% to 4%, as only 11 new sites of this date where identified during Stage 1 of the survey.

There remains, a disproportionately high proportion of post-medieval and modern sites in the area which is undoubtedly the result of the relatively large number of post-medieval industrial sites which have been added to the database as a result of gathering information from post-medieval map sources.

3.1.3 Discussion of data sets and analysis

A number of categories of data were analysed in relation to criteria that were defined in the project design (Hoyle 2001; 4.1.4.3) and a set of summary statistics generated for each category. It was clear from an early stage that there are inherent limitations in the value of this process with the regard to increasing our knowledge and understanding in terms of the archaeology of the area, although some of the data may prove useful in framing questions for further research.

3.1.4 Sites and Monuments Record data

The basic component of discussion of any period or archaeological theme is information derived from the Gloucestershire County Sites and Monuments Record which was used as the project database throughout the project. This data, in itself, had a number of limitations.

3.1.4.1 Extraction of information from the SMR

Although a considerable part of the Stage 1 of the project included standardisation of the existing SMR data in accordance with recognised data standards (FISH 2001), the actual process of extracting relevant information from the SMR required the preparation of detailed search patterns in advance of the analysis of each period or archaeological theme to ensure that all relevant SMR entries were captured.

3.1.4.2 Limitations of SMR data for real comparative purposes

Once captured, all SMR data (much of which in fact represented area data) was converted into point data (a single point for each SMR entry) for comparison with the data sets discussed below.

The principal limitation of this method was most noticeable in the discussion of artefact assemblages and finds. The data structure of the Gloucestershire SMR is such that both isolated single finds and large assemblages are allocated an SMR area record which is of equal value (i.e. one site) when converted into point data based on the Ordnance Survey Grid. Consequently this conversion process this not allow for accurate quantitative comparison between assemblages of different sizes or of single artefacts as each has been allocated a single and equal value. Accordingly any discussion of the significance of the distribution of artefactual evidence, based on information derived from the SMR, can only be based on approximated rather than actual values

3.1.4.3 Nature of the evidence

This section discusses the discovery method of artefacts and sites of different periods to allow comparison between the levels of validity of any interpretation of the data and also to indicate the levels of earlier research which have contributed towards an understanding of the period under discussion.

The most common data set used when assessing this was the record of how artefacts were found which could be searched on within SMR database which allows for selection of the following archaeological events.

Table 4: Gloucestershire County SMR archaeological events categories

Aerial Photographic Survey	Modern Excavation
Antiquarian Excavation	Photographic Survey
Botanical Survey	Planning Application
Building Survey	Post-Excavation Assessment
Countryside Stewardship	Salvage Excavation
Desk Based Assessment	Site Visit
Environmentally Sensitive Area	Systematic Fieldwalking
Evaluation Excavation	Topographical Survey
Field Survey	Tree-Ring Analysis
Geophysical Survey	Unsystematic Fieldwalking
Geotechnical Investigation	Urban Archaeological Assessment
Management Agreement	Watching Brief
Metal Detecting	Woodland Grant Scheme
Metal Detector Survey	

The process of extracting this information from the SMR database was not entirely simple and could only be undertaken at the artefact record level which required a certain amount of manual editing to remove duplicate Area records.

Where this information was accessed it was expressed in the form of a pie chart showing percentage ratios of artefacts recovered by different investigative systems.

3.2 Analysis of geological, geographical and environmental factors

The project design for the Forest of Dean Archaeological Survey states that the report on the Stage 1 of the project (desk-based data collection) will discuss "trends in the combinations of geological, geographical and environmental factors which contribute to the distribution of archaeological sites, and the possible prediction of sites in some areas where they appear to be absent" (Hoyle 2001; 4.1.4.3).

Accordingly data from different periods were compared with the following information to identify trends or omissions:

- Landuse.
- Solid geology.
- Drift geology.
- Height, slope and aspect.

3.2.1 Landuse data

The landuse data that was most readily accessible to the project was the Landsat landuse data (dated to 2002), which existed as a layer on the Gloucestershire County Council GIS. This information comprised 25m^2 blocks, each designated with a landuse category, based on an interpretation of satellite imagery.

It was recognised from the outset that this dataset is not a wholly accurate tool but is intended to indicate broad landuse trends rather than denote landuse details for specific points. As the only comprehensive landuse information available it was felt that it might be adequate to give a broadly accurate representation of landuse distribution, although once comparative analysis was undertaken it became apparent that there were surprising anomalies in terms of the expected and actual information generated, for example when analysing the distribution of Mesolithic flints when compared to landuse.

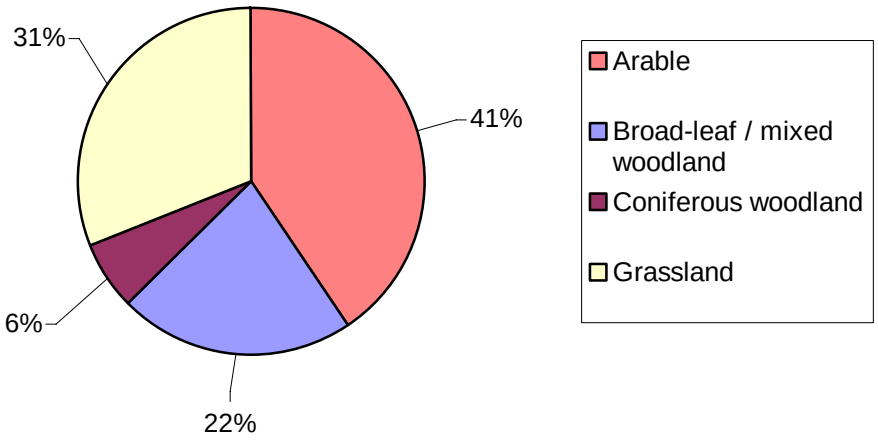

Chart 1: Mesolithic sites: Landuse information derived form 2002 Landsat satellite imagery

Analysis of the method of discovery of Mesolithic flints indicated that over 80% of Mesolithic assemblages have been recognised as the results of surface artefact collection and it would be expected that the majority of this material is known from areas currently under an arable regime.

Although arable does represent the largest single landuse (41%), grassland (at 31%) appears to be a disproportionately high landuse for this type of find. This anomaly may in part represent changes in landuse since the artefacts were recovered, although it was felt that the inherent inaccuracy of comparing datasets based on different scales of recording and interpretation might also have been a significant factor. This argument was supported by the fact that 28% of Mesolithic finds identified within a woodland environment also seemed disproportionately high.

Given the size of the relatively small number of assemblages represented in this category it was possible to revisit all relevant SMR records and manually calculate landuse distribution as a result of the analysis of the written descriptions of the circumstances in which the artefacts were recovered.

This subsequent analysis made it clear that 10 of the assemblages recorded as Grassland at least 4 were under an arable regime when the artefacts were recovered, and one was within an area of woodland. Similarly, of the seven sites under woodland four were under arable, at least one, and probably two, were under grassland and two (Glos SMR 19927, 19938) were found during scarification operations in advance of re-planting of woodland.

The following revised pie chart based on this manual analysis of the data was produced, which demonstrated a marked disparity between the landuse information generated from the digital 2002 Landsat data and that derived from a more detailed analysis of the data within the SMR.

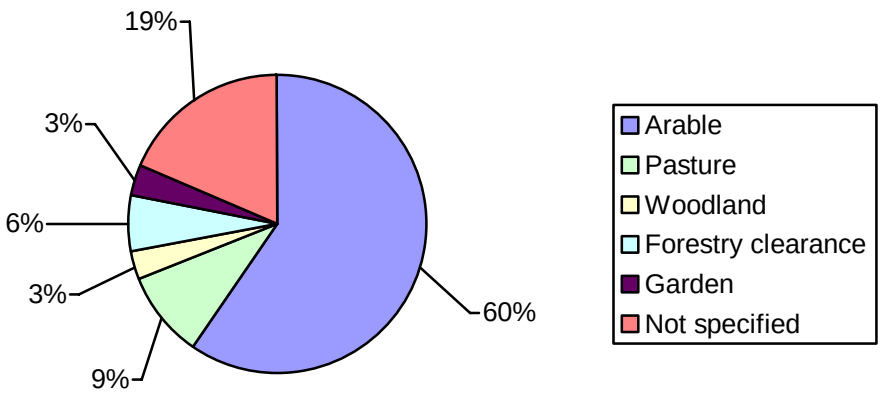

Chart 2: Mesolithic sites: Landuse information derived from manual searching of SMR records

This was a relatively time-consuming process involving checking the written descriptions of all records and extracting available information on landuse, or method of discovery.

This type of information is not routinely added to the SMR and is not always available and landuse details could not easily be discerned for 19% of the SMR records of Mesolithic artefacts and sites, most of which had been recovered as chance surface finds. In these cases landuse was generally inferred from information about the

method of discovery of artefacts (e.g. fieldwalking finds were assumed to have been derived from arable fields).

It was felt that the 3% figure for woodland (9% if the finds from areas of cleared woodland are included) was likely to be an underestimate of the actual extent of artefacts derived form woodland and in order to test this, the incidence of Mesolithic artefacts was also compared with a digital layer within the Gloucestershire County GIS (*Gloucestershire Woodland*) which was a digitised map of all woodland recorded on the most recent OS 25000 scale map in excess of *c.* 1ha.

Comparison with this dataset indicated that 22% recognised Mesolithic sites were found within woodland as opposed to 37% indicated by comparison with the 2002 Landsat data, and the maximum possible 9% suggested by extracting information from the written SMR records.

This also suggested the possibility that the majority of Mesolithic artefacts for which there was no available landuse information within the SMR, had probably been derived from within woodland, although it was not clear that this assumption could be extrapolated to the analysis of other assemblages of sites.

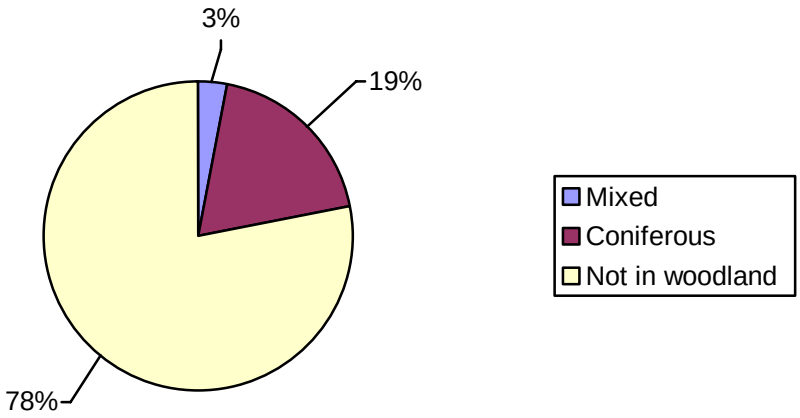

Chart 13: Mesolithic sites: Extent of woodland derived from 1:25000 scale OS information

In order to check the consistency of this anomaly, the distribution of Neolithic artefacts in relation to landuse information was also checked.

Like Mesolithic artefacts, a large proportion of Neolithic artefacts (44%) had been identified as a result of surface artefact collection, generally from cultivated fields, whilst a further 20% were reported as chance surface finds, a high proportion of which would also have been from areas where finds had been brought to the surface by cultivation. Comparison with the 2002 Landsat data indicated only 27% of identified sites within arable land, whilst 37% were reported within woodland and 25% were within grassland.

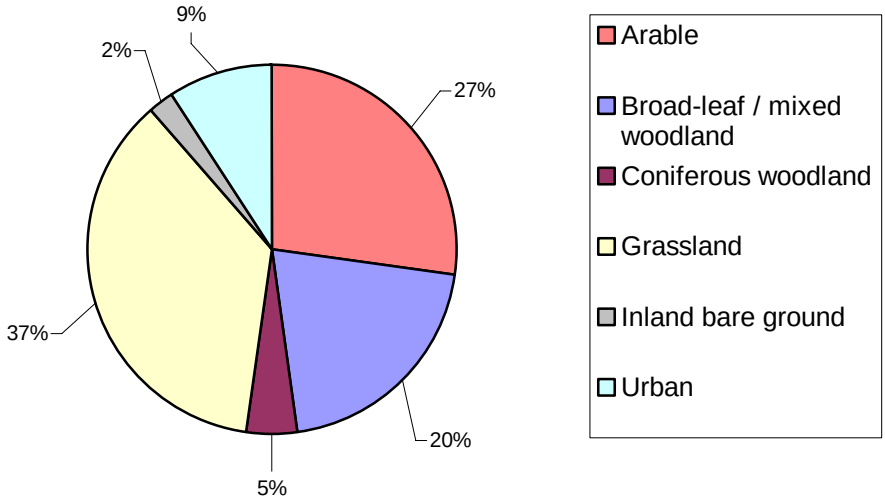

Chart 14: Landuse for Neolithic sites and artefacts based on Landsat digital landuse information.

In this instance manually deriving landuse information from the written descriptions within the SMR database was considered to be too cumbersome to be time-efficient and accordingly the record of Neolithic artefacts was only compared with the extent of woodland derived from 1:25000 OS maps. Comparison with this dataset indicated that only 16% of recognised Neolithic sites were found within woodland as opposed to the 25% indicated by comparison with the 2002 Landsat data.

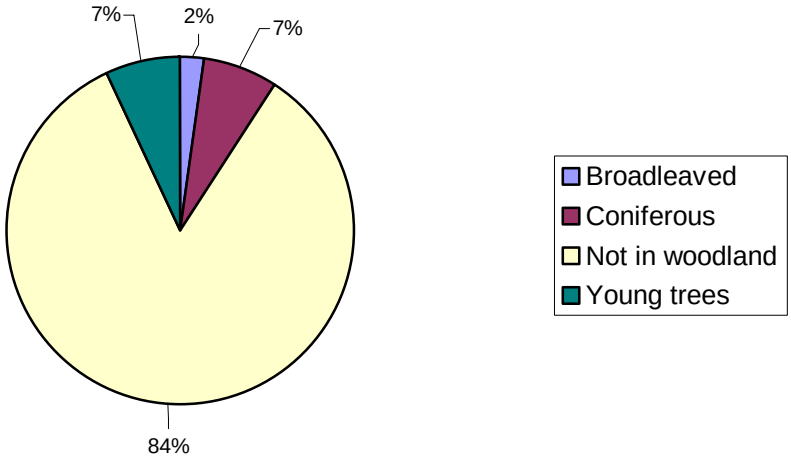

Chart 15: Distribution of Neolithic sites and artefacts in relation to extent of woodland derived from 1:25000 scale OS information

It is clear that the 2002 Landsat data consistently suggests that a higher proportion of archaeological sites within the survey area are within woodland than the data derived from OS information (see Table 5), and that the difference (an increase of 56% for Neolithic artefacts and 116% for Mesolithic artefacts) is too great to ignore.

Table 5: % increase of extent of woodland between different data sets

	Mesolithic artefacts	Neolithic artefacts
% of artefacts in woodland from 1:25000 scale OS information	12	16
% of artefacts in woodland from 2002 Landsat data	26	25
% increase	116	56

To summarise, it was felt that the information derived from an interpretation of satellite images, which were too gross to reflect true landuse distribution was not sufficiently accurate for the purposes of this survey and analysis of written SMR records was too inconsistent in terms of the information it provided and also too time consuming to access. The most accurate information on the extent of woodland within the survey area was derived from Ordnance Survey 1:25000 mapped data.

A better understanding of the relationship between known archaeological sites and woodland was stated as one of objectives of Stages 1 and 2 of the Forest of Dean Archaeological Survey (Hoyle 2001, Objective 3.2.1/4 bullet point 2) and this remained the principal issue relating to landuse within the Forest of Dean Survey area. Accordingly it was decided that any future analysis of the distribution of known archaeological sites and artefacts in relation to landuse should be limited to comparison with OS data on the extent of woodland.

3.2.1.1 Recommendations for improved landuse data.

Landuse data is not routinely added to the SMR and it is recommended that the location of all SMR records for the survey area should be automatically compared with the layer of woodland information based on OS 1:25000 data to automatically generate a landuse entry for those sites within woodland.

There is no equally accurate mapping of other landuse categories and this issue could not be resolved with the scope of Stage 1 of the survey, but relatively accurate landuse data could be ascertained by the following means:

- The Gloucestershire GIS contains colour aerial photographs taken in the 1990s (GetMapping.com Unknown). These photographs could be compared with the location of known archaeological sites or artefacts to provide reasonably up-to date landuse information. Manual comparison of these photographs with SMR records could be undertaken at a rate of *c.* 10 minutes per record (*c.* 40 records per day). of the 5319 Area records currently within the SMR for the Forest of Dean Survey area, 1649 are recorded as being within woodland. The remaining 3670 records could be compared with Aerial photographic landuse data over 90 working days. It should be noted that this information might contain inaccuracies due to difficulties of correctly differentiating young crops from grassland on aerial photographs.
- It should be SMR policy to ensure that current landuse information is routinely added to all SMR records where this information is available.

3.2.2 Geological data

All discussion of geology made use of digital information on both solid and drift geology derived from the British Geological Survey stored within the Gloucestershire County Council GIS (BGS 2004), and is subject to the same limitation of accuracy as those datasets.

3.2.2.1 Solid geology

The categories of solid geology within this data-set is as follows are as follows:

- Argillaceous Limestone
- Breccia
- Conglomerate and Sandstone
- Dolomitised Limestone and Dolomite
- Limestone
- Micaceous Sandstone
- Mudstone
- Mudstone and Limestone
- Mudstone and Sandstone
- Oolitic Limestone
- Sandstone
- Sandstone and Argillaceous Rocks
- Sandstone and Conglomerate
- Siltstone
- Siltstone and Mudstone,
- Silty Mudstone
- Undivided Cyclic Sedimentary Rocks

The results of this analysis have been expressed in the following ways:

1. A pie chart indicating the percentage of each category of archaeological site overlying each type of solid geology.
2. A table in which the detailed solid geological types were amalgamated into the following broad categories:
   - Limestone.
   - Sandstone.
   - Miscellaneous siltstones and mudstone.

   The criteria used for this amalgamation are set out in Appendix A. Amalgamated categories were compared with the distribution of solid geologies within the survey area.
3. A line chart comparing the distribution of identified artefacts in relation to solid geology with the distribution of solid geologies within the survey area.

The relationship between Mesolithic artefacts and solid geology was expressed in this way in order to determine the most useful form of representing this data, with the following results.

Option 1: Pie chart indicating percentage of archaeological site/artefact overlying each type of solid geology

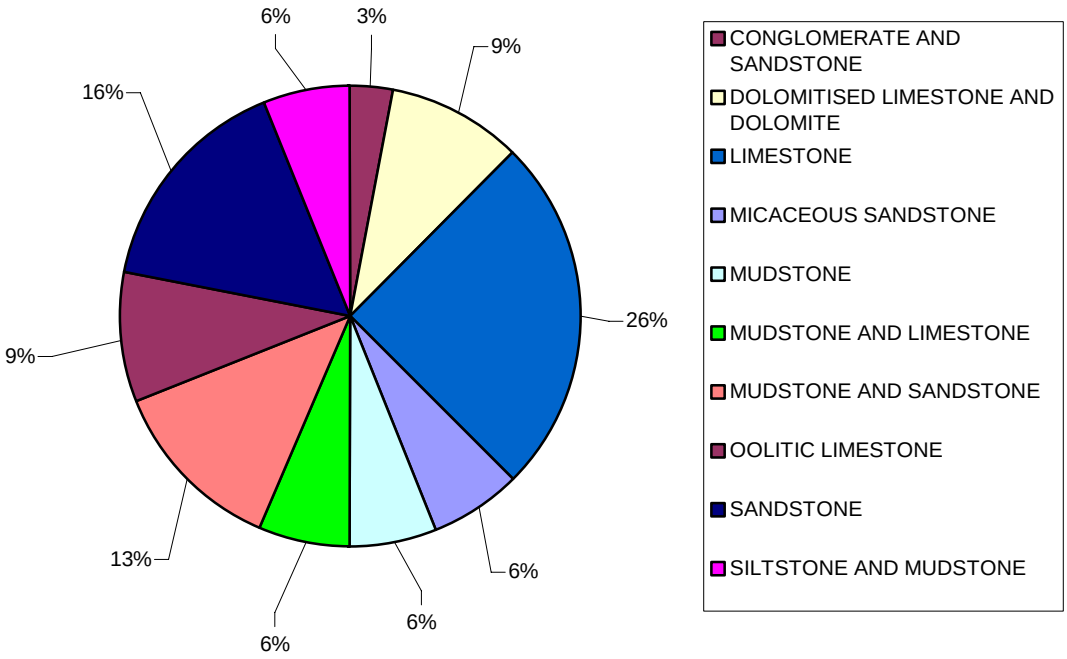

Chart 16: Pie chart indicating % of Mesolithic artefacts by solid geology type

This representation was considered to be of little value in identifying trends or enhancing our understanding of any links between the archaeology and geology for the area. Although it is clear that artefacts of this date favoured certain types of solid geology, for example limestone and sandstone, there was no way of identifying the extent to which these were indicative of an actual preference when compared to the distribution of solid geological types within the survey area.

Option 2: A table in which the detailed solid geological types were amalgamated into broad categories and compared with the distribution of these across the survey area as a whole

Table 6: Mesolithic artefacts and solid geology

Geology	%	% of Survey area
Sandstone	44%	55%
Limestone	50%	32%
Miscellaneous siltstones and mudstones	6%	13%
Total	**100**	**100**

This system of representation allowed the incidence of Mesolithic artefacts in relation to solid geology to be compared with the incidence of solid geological types within the survey area, enabling this distribution to be compared with what could be interpreted as a predicted even spread across the survey area. This was, however limited by the fact that the amalgamation of solid geology into these broad types was fairly gross and combined Sandstones from the Old Red Sandstone Group with the much more recent Carboniferous Sandstones. These need not share any particular properties in

terms of drainage, topography or soil type, all of which are significant determinants of human activity within an area. This system of representation is therefore regarded as of little value in terms of the project.

Option 3: Comparison of relationship with detailed solid geological types, and comparison with the distribution of these across the survey area as a whole

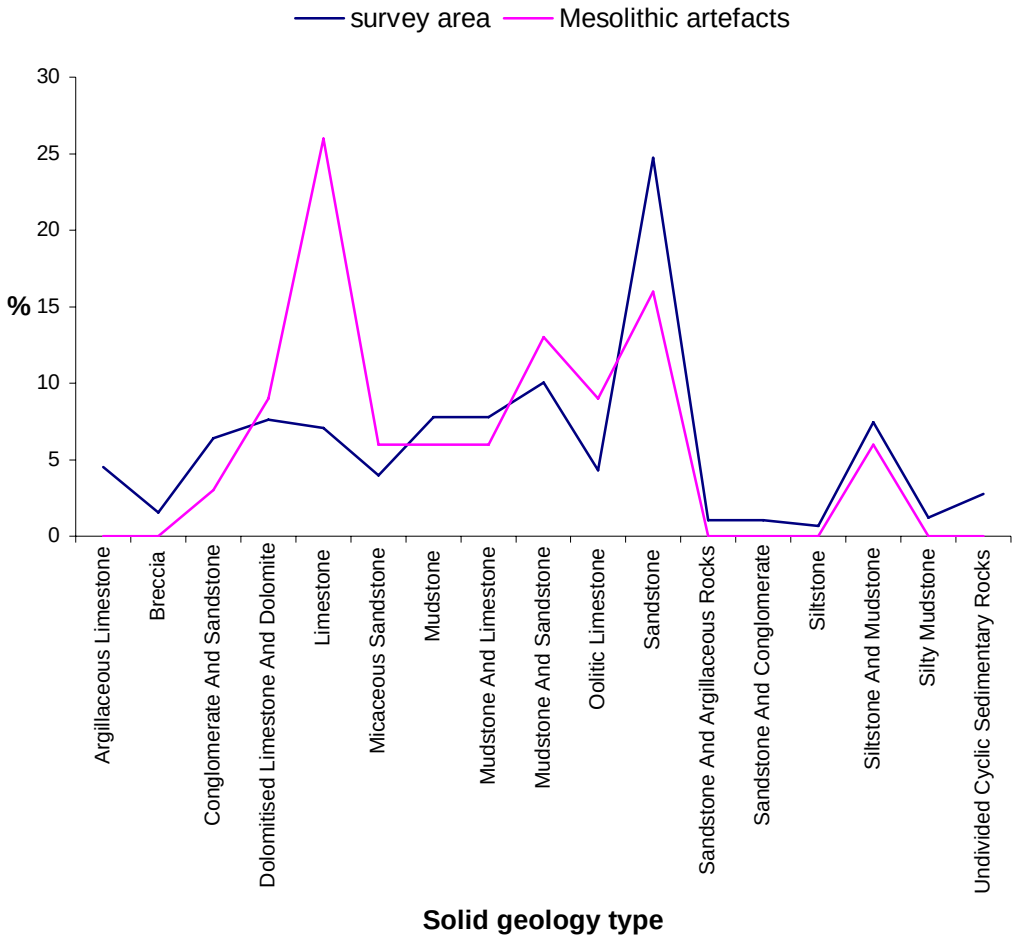

Chart 17: Distribution of Mesolithic artefacts in relation to detailed solid geology and relationship with underlying geological trends across the survey area

This option allowed direct comparison to be made between the incidence of Mesolithic artefacts in relation to solid geological types and the incidence of these types across the survey area as a whole. This was thought to be the most useful method of comparing the distribution of Mesolithic artefacts in relation to solid geology as it allowed for the rapid identification of areas where this artefact type was either over or under represented. Accordingly, all analysis of solid geology in relation to recognised archaeological sites or artefacts was undertaken in this way.

3.2.2.2 Drift geology

The following categories of drift geology were found on the digital geological data (see above) within the Forest of Dean Survey area:

- Clay
- Diamicton
- Gravel
- Loam

- Pebbly Clay
- Sand and Gravel
- Sand with Clay and Gravel
- Silt
- Silty Clay
- Unknown Lithology

The British Geological Survey only records drift deposits over 21% of the Forest of Dean Survey area, and accordingly it was felt that a pie chart indicating the percentage of each category of archaeological site overlying each type of recorded drift geology would be adequate for the analysis of this category.

In the event, no Mesolithic sites or artefacts were recorded in areas where drift deposits had been recognised, and the data set for Neolithic sites was really too small for effective analysis using data set that mapped only 21% of the survey area. However, rapid evaluation of the available data produced the following charts:

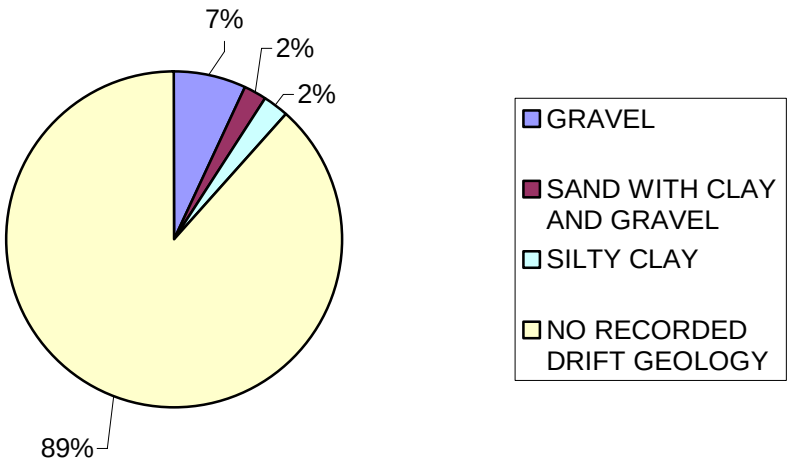

Chart 18: Neolithic artefacts and recorded drift geology

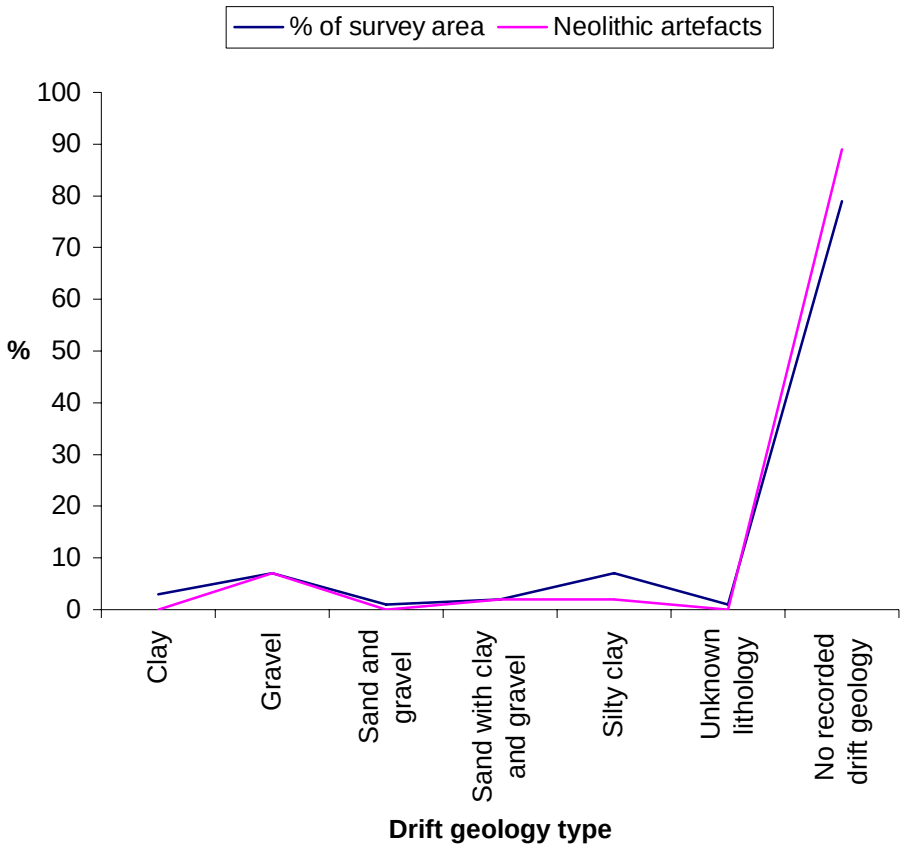

Chart 19: Distribution of Neolithic artefacts in relation to recorded drift geology and relationship with underlying geological trends across the survey area

Expressing these results in this way did highlight some difference between the actual distribution of this category of artefact and the expected "norm" for both Silty Clay and Clay, although the significance of this variation cannot be determined given the limitations of the current data set.

3.2.2.3 Recommendations for improved geological data

The limitations of the geological data

Since the geological data was derived from the British Geological Survey it is the most accurate available at the scale used. It is important, however, to recognise its inherent limitations in terms of accuracy.

The BGS data is generated by a combination of direct observation of existing exposures (for example in quarries), borehole information, which can be of variable quality, and the extrapolation of this data between observed records, taking into account such things as terrain and topography. Clearly this system means that in some areas, it must necessarily be regarded as schematic, and detailed metadata enabling such areas to be identified either does not exist or is not readily available.

In addition to this, the available geological data, even where represented at its most detailed level (see 3.2.2.1 above) is still relatively gross, and potentially significant nuances, such as the drainage properties of individual areas (which would have been dependant upon the relationship of factors such as geology, soils and slope) could not be discerned by analysis of the available data. Additional detailed field survey work, beyond the scope of this project, would be required if this information on ground conditions were to be acquired.

It may be that when areas are identified for future study in stages 3 and 4 of the project that data regarding ground condition for those area could be added to the SMR database, although only to provide additional information, rather than a tool for systematic analysis of the incidence of archaeology in relation to geology.

3.2.3 Topography

3.2.3.1 Height

Height was determined by cross-referencing the location of identified archaeological sites, expressed as a single OS coordinate (see 3.1.4 above) with the OS contour information contained within the Gloucestershire County Council GIS. As these contours are mapped at 5m intervals the data has an accuracy of plus or minus 2.5m.

It was originally envisaged that height information would be expressed as a bar chart showing heights in metres above Ordnance Datum at intervals of 20m to enable it to be compared with the predicted norm for the Forest of Dean Survey area. Data expressed in this way could only compare height with numbers (rather than percentages) of sites, and the actual significance of any variations from this norm were difficult to determine, particularly where data sets were small, or where comparison with number of sites did not indicate any quantitive comparison of artefact numbers (see 3.1.4.2 above).

Accordingly, within the text of this report, height information is only expressed as a chart where small groups of discrete features, such as possibly prehistoric standing stones, barrow sites or enclosures were compared. In these cases height information was expressed as individual points shown against a height scale. This allowed for the direct comparison of the height of individual sites, allowing for potentially significant height clusters, or differences between otherwise similar sites to be identified.

3.2.3.2 Aspect

Aspect was determined by cross-referencing the location of identified archaeological sites with aspect data for the Forest of Dean Survey area created specifically for the project and based on an analysis of the OS contour information contained within the Gloucestershire County Council GIS, and mapped at 5m intervals.

It was the original intention to express aspect information as a radar chart showing eight cardinal points of the compass, and therefore with an accuracy of plus or minus 22.5^{o} as this allowed for comparison with the expected norm within the survey area.

The expression of this data with reference to only eight cardinal points, however, clearly had the effect of creating false concentrations by amalgamating sites which could in fact be orientated over a 45^{O} arc, and aspect charts proved to be unhelpful in illustrating or identifying significant concentrations. Consequently, within the text of this report , aspect information was expressed in written form only.

3.2.3.3 Slope

Like Aspect, Slope was determined by cross-referencing the location of identified archaeological sites with slope data for the Forest of Dean Survey area created specifically for the project and based on an analysis of the OS contour information contained within the Gloucestershire County Council GIS, and mapped at 5m intervals.

It was the original intention to express this information as a column chart with degree of slope shown at intervals of five degrees to compare slope information with the predicted norm for the Forest of Dean Survey area.

Data expressed in this way could only compare slope with numbers (rather than percentages) of sites, and the actual significance of any variations from this norm were difficult to determine, particularly where data sets were small, or where comparison with number of sites did not indicate any quantitive comparison of artefact numbers (see 3.1.4.2 above).

In almost all cases slope information tended to simply indicate a not unexpected preference for relatively level ground for almost all types of activity, and consequently the value of the analysis of this data is probably rather limited. Accordingly, within the text of this report, slope information was expressed in written form only.

3.2.3.4 General limitations of height slope and aspect data

Regardless of the difficulties in understanding the significance of the height, slope or aspect data, a common, and major limitation of the analysis was that this data could only could only be generated from the GIS with reference to a single OS grid point. Where SMR entries were recorded as a polygon, this information was manually entered into the SMR database as the approximate centre point of that polygon, and it was the height slope or aspect of this point which was generated from the GIS as a characteristic of the site.

Given the inherent imprecision of this system, it was by no means clear that the recorded height, slope or aspect of many sites, particularly those which covered relatively large areas, was in any way representative of the site as a whole, and this issue was exacerbated when applied to evidence lacking a precise location. It is unlikely that data comparisons for height readings were greatly compromised by this, although the problem was acute for slope and aspect where the attributes of a relatively small area could be falsely interpreted as characteristic of the site as a whole.

3.2.3.5 Recommendations for improving height slope and aspect data

The principal limitation of the value of the height slope and aspect data was essentially a product of the digital data itself, as it was not always clear whether the digitised reference point was representative of the topographical conditions of individual sites.

Despite its clear limitations, this type of data did have some analytical value, in some cases particularly, where discrete sites which could be securely located, although any results of this analysis would need to be treated with a degree of caution and conclusions confirmed by further fieldwork.

In the majority of cases, however, analysis of topographical attributes did not produce results which appeared to be of any significance, with categories of sites encompassing a range of heights, slopes or aspects more or less consistent with the expected norms within the survey area. Given that the archaeological data being analysed was frequently not clearly defined (for example certain types of site, such as artefact scatters which may represent evidence for different types of activity, but have been amalgamated into a single class of site within the SMR), it was not always clear whether this represented a genuine lack of identifiable trends, or whether trends were obscured by the lack of definition within the data.

The true potential value of these types of comparative data for height, aspect and slope may only be assessed through further fieldwork beyond the scope of this project, through projects targeted at a limited range of sites, where data sets are sufficiently robust for this type of analysis to be of value.

3.2.3.6 Soils

Soil information was not analysed as part of Stage 1 of the Forest of Dean Survey as this data was not readily available in digital format during the analysis process.

Since that time, digital soil data, in digital format, has been added to the Gloucestershire County GIS and it is recognised that for some types of SMR information comparison with this data, which includes categories such as drainage, may prove beneficial in the future.

3.2.4 Possible future improvement of analysis strategies

Where data sets were analysed in accordance with the specifications set out above, the results of this analysis is set out in section 4 below.

Given the size of many of the data sets, the significance of their distribution was not always clear, and it is recommended that more simple analysis tools, such as simple chi-square tests, should be used in future projects, as these would better indicate whether the distribution of certain site types in relation to other factors were statistically significant.

4 Discussion of the archaeology within the Forest of Dean Survey area

The following report is a summary statement of archaeological sites known within the survey area in April 2005. This is not, however, restricted to discussion of "new" sites identified during Stage 1, nor does it include all categories of site known within the survey area.

Discussion targets those areas which were identified as archaeological priorities in the project design (Hoyle 2000 a), and these are discussed by broad period (based on those established by the MIDAS data standards - MIDAS 2002) and where appropriate specific site types within periods.

The nature of the evidence, and the level of confidence which can be placed in accepted dating, is also discussed where appropriate, as are undated sites which could be interpreted as part of the same type.

It is recognised that the grouping of available information within periods specified by MIDAS data standards is simply a convenient way of sorting information in accordance with data storage in the Gloucestershire County Sites and Monuments Record, and does not make adequate representation of the nuances of continuity or change both within or between specified periods.

4.1 The Palaeolithic period

4.1.1 Known Palaeolithic sites and artefacts

Although the Palaeolithic period is not well represented in the county as a whole, with only 32 known sites (a distribution of one site per 84km^2), this period is particularly poorly represented in the Forest of Dean Survey area with only three sites recorded in the Gloucestershire Sites and Monuments Record where artefacts dating to the Upper Palaeolithic period have been found (see Table 7), a distribution of one site per 113km^2).

Cave art has been reported from one of these sites (a cave at Symonds Yat East, Glos SMR 6017) although expert opinion does not support the validity of this claim.

Table 7: All Palaeolithic sites within the survey area

SMR number	Description
6017	Late Upper Palaeolithic flint finds in a cave at Symonds Yat East, English Bicknor. Disproved cave art has also been reported from this cave
19949	Upper Palaeolithic core from southwest of Woolaston station.
27857	Upper Palaeolithic blade from Ivy Cottage, Morse Lane Drybrook

4.1.2 Other evidence for possible Palaeolithic activity

There is very limited evidence for activity of any period of the Palaeolithic within the survey area, and consequently any analysis of topography or landuse is of little value. However, it is clear that humans were active within the survey area during these periods. Upper Palaeolithic activity is known from King Arthur's Cave (SO54731571) on the Herefordshire side of the Wye valley *c.* 1.5km to the west of Symonds Yat, and the Herefordshire Sites and Monuments Record lists 4 rock shelters in Ganerew Parish on the northern bank of the Wye, which may be the site of Palaeolithic occupation (Herefordshire SMR 30505, 30506, 30507, 30508).

A programme of survey and small-scale excavation has identified a number of cave sites and rock shelters in the area of the Upper Wye Gorge on both the Herefordshire and Gloucestershire sides of the River Wye (Barton 1993, 1994, 1995). Not all of these have produced evidence for Palaeolithic activity (see Glos SMR 6014, Table 7), although some, such as the cave site at Coldwell Rocks (Glos SMR 17222; SO57101560) *c.* 100m to the east of Symonds Yat East has produced evidence of later prehistoric occupation or mining activity. It is, however, clear that the caves and rock shelters of this area do have a strong potential to produce further evidence for Palaeolithic occupation in this area.

Possible caves and rock shelters may also exist in other parts of the Wye Valley (such as Glos SMR 25392, SO55460034), and although none of these have been archaeologically explored, faunal remains have been identified at two sites (see Table 8).

Table 8: Faunal remains from cave, or possible cave sites

SMR number	Description
25412	Findspot of bones including an Aurochs bone and the skull of a Giant Beaver from Slaughter Stream cave, English Bicknor.
25369	Findspot of the tooth of a cave bear (*Ursus spelaeus*) at Pen Moel, Tidenham Chase.

Palaeolithic artefacts have also been found to the north of the Forest of Dean Survey area with flint and quartzite implements found at Taynton, less that 4km to the northeast (Glos SMR 27507) and Newent, *c.* 9km to the northeast (Glos SMR 7274), and a handaxe of late Lower Palaeolithic date has been reported from the Newent area (Kurt Adams, Gloucestershire and Avon Finds Liaison Officer pers. comm.)

Palaeolithic flint finds have been recently reported from the area to the west of Great Barnet Wood, Chepstow, Monmouthshire (ST50909413; P. Bond pers. comm.) and a Palaeolithic end scraper is known from Monmouth (Portable Antiquities Scheme Finds Identification Number NMGW – 99B1C2). A possible Upper Palaeolithic implement has also been reported as a chance surface find from the Wye Valley in, Tidenham (*c.* ST54019562; The Forest of Dean and Wye Valley review 19/11/2004) although, at the time of writing, the implement has not been securely identified and is not shown on Figure 5.

4.1.3 Distribution

The total number of known or possible sites within the Forest of Dean search area is too small for meaningful analysis of their distribution to be undertaken although there is no reason to interpret the lack of evidence from the earlier Palaeolithic periods within the Forest of Dean Survey area as representative of the actual distribution of populations during those periods. No evidence of activity pre-dating the arrival of *Homo Sapiens* in *c.* 40,000 BC has been recovered.

All artefacts from within the survey area date from the Upper Palaeolithic and evidence for Upper Palaeolithic occupation is known from the Wye Valley, and particularly the Upper Wye Gorge, where natural limestone caves and rock shelters are found, although it is unlikely that either Upper Palaeolithic activity or activity from earlier periods was restricted to this area.

The majority of Palaeolithic artefacts recovered within the county are from areas in which gravel or sand have been exploited, and the paucity of artefacts from this date within the Forest of Dean Survey area may, in part, be attributable to the fact that these aggregate resources have not been extensively exploited in this area (D. Mullin pers. comm.). It is worth noting that of the two securely dated Palaeolithic artefacts from the survey area, not recovered as an excavated find within cave occupation

deposits, one is from an area overlying the gravel terrace deposits of the northern banks of the River Severn (Glos SMR 19949).

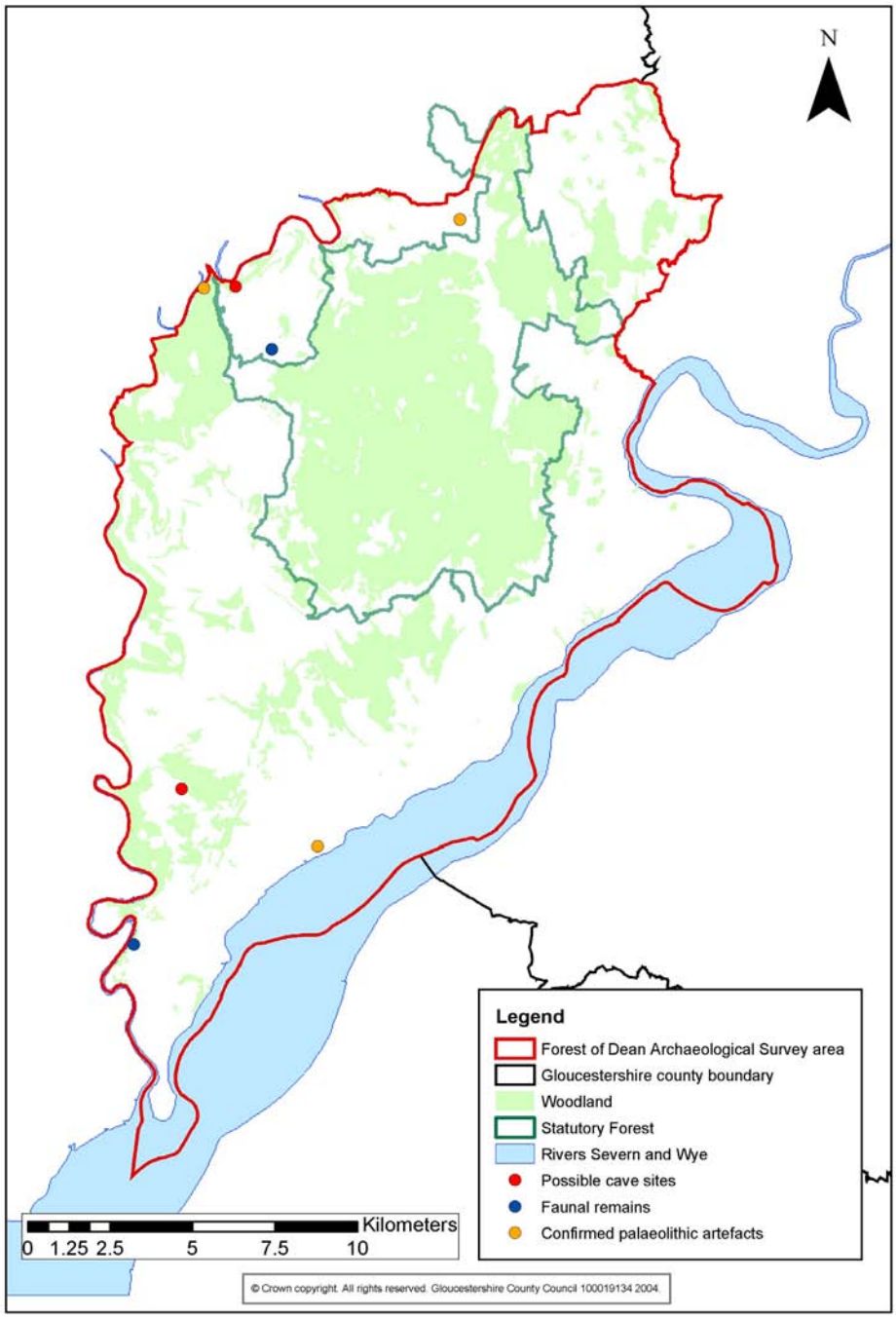

Figure 5: Palaeolithic sites and artefacts within the survey area

4.2 The Mesolithic period

The Gloucestershire Sites and Monuments Record identifies 32 sites within the Forest of Dean Survey area, which have produced evidence of Mesolithic activity. All of these sites are derived from evidence of flint flakes and implements, and no *in situ* archaeological features or deposits are known from this period.

4.2.1 Artefacts of Mesolithic date

Although the Palaeolithic site at King Arthur's Cave, *c.* 1km to the west of the survey area on the Herefordshire side of the Wye Valley (SO54731571), was reoccupied in the late Upper Palaeolithic period immediately following the last glaciation (ApSimon et al 1992), and earlier Mesolithic activity has been identified from Taynton *c.* 2km to the northwest of the survey area (Walters 1991, 38), evidence for early Mesolithic activity within the survey area is restricted to an assemblage of early Mesolithic flints recently recovered from Soilwell Manor, Lydney (Glos SMR 27510), and a single flint flake from Morse Lane Drybrook (Glos SMR 18498) may also be early Mesolithic in date (Walters 1992a, 13), but which has been categorised as undated in the current discussion.

The remaining assemblages are all characteristic of Late Mesolithic activity and although the available evidence does suggest that settlement activity took place within the survey area during the later Mesolithic period (Saville 1986), the precise nature of this activity is not clear. Evidence for Mesolithic activity from other parts of the county (principally the Cotswolds to the east) suggests at least two types of Mesolithic sites, relatively long-term settlement sites, often in sheltered areas close to a water supply, and temporary hunting camps, generally in more extreme locations, would be expected in a given area (Darvill 1987, 31), although these can only be differentiated by a greater level of detailed analysis of the assemblages than has been undertaken at the time of writing.

4.2.1.1 Nature of the evidence

Of the Mesolithic sites known in the survey area, only one is derived from an excavated context. This is a find from the Bronze Age round barrow of Soldiers Tump, located *c*.300 metres southeast of Chase Farm in Tidenham, and consists of Mesolithic implements "found haphazardly in the material comprising the barrow" (Glos SMR 5012). Other Mesolithic flints from the area of this barrow were recovered as surface finds from the 1920s to the 1950s (Glos SMR 5043) and these two assemblages are the only evidence for Mesolithic activity within the survey area known at the time of Saville's 1984 summary of archaeology in Gloucestershire, although he regarded these to be of uncertain date (Saville 1984a, 74).

The remaining sites have all been discovered since 1984. Three of these have been identified as chance surface finds (Glos SMR 5158, 19407, 19927), whilst two sites (Glos SMR 27505, 27510) have been identified by surface flint finds recovered during metal detector surveys. The remaining twenty-six sites have been identified as a result of surface artefact collection undertaken by members of local history and archaeology groups.

This is typical of the evidence for Mesolithic activity within the county of Gloucestershire as a whole where the majority of sites are known as a result of surface artefact scatters, with a small minority identified as a result of excavation of later sites (Darvill 1987, 29).

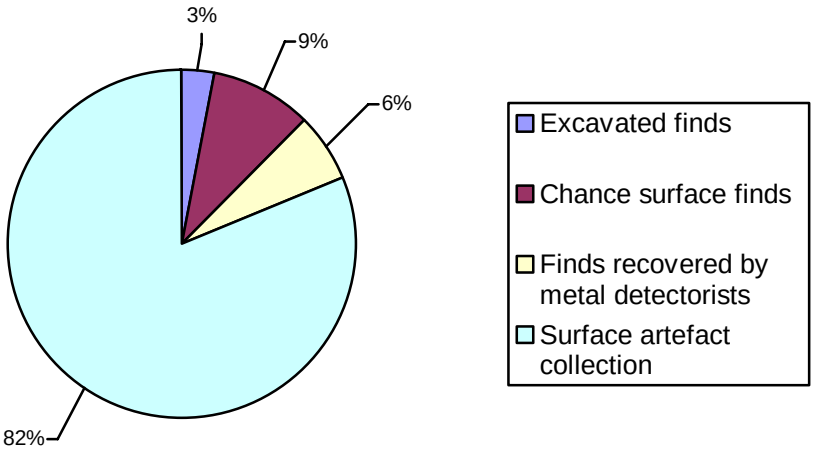

Chart 20: Mesolithic flint finds, method of discovery

4.2.2 Distribution

Landuse

Analysis of landuse information for Mesolithic artefacts was undertaken both manually by checking the written SMR descriptions of each entry and by comparison with digital information on the extent of woodland within the survey area (see 3.2.1 above).

Comparison with the written SMR records indicated that 60% of Mesolithic flint finds had been recovered from areas of arable cultivation, unsurprising given that the majority of Mesolithic assemblages have been recognised as the results of surface artefact collection.

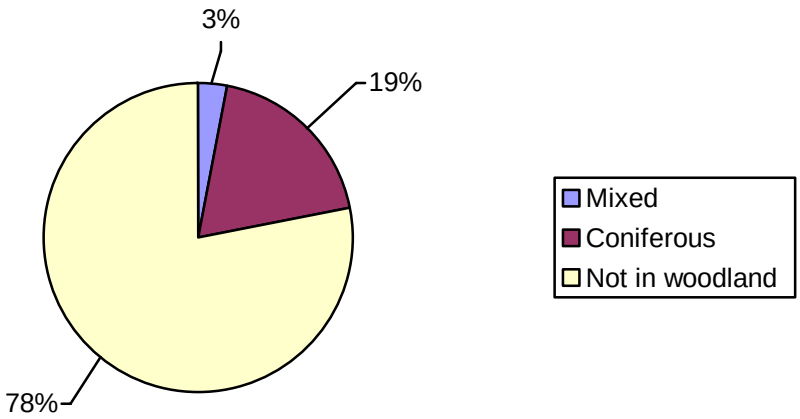

Chart 21: Mesolithic flint finds: Woodland

Geology

A relatively high number of Mesolithic artefacts have been recovered from areas with a limestone solid geology, whilst these are under-represented in areas with a Sandstone solid geology.

No Mesolithic sites are known from areas which overlie recorded drift geology.

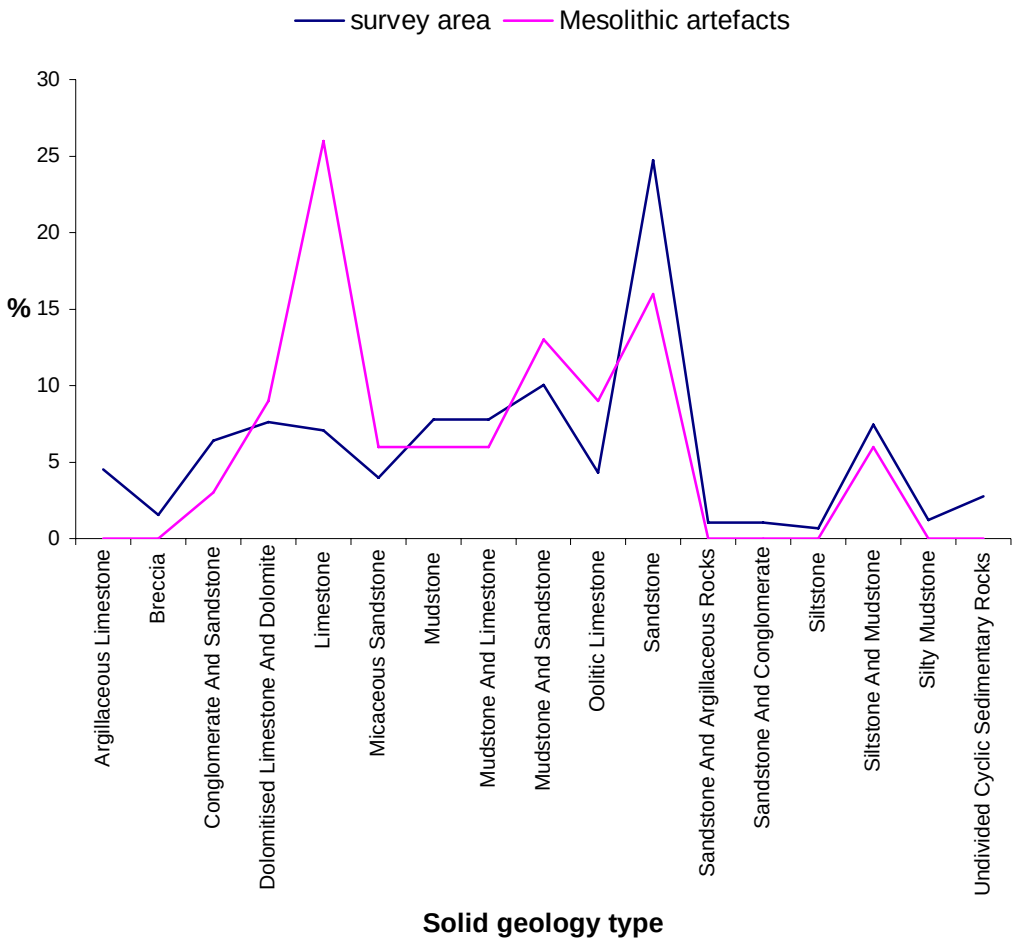

Chart 22: Distribution of Mesolithic artefacts in relation to solid geology

Height aspect and slope

All known Mesolithic sites are above 55m OD with the majority being between 135 and 195 m OD, whilst over half (66%) of known Mesolithic sites have a generally southerly aspect with the highest number (26%) facing towards the southeast. A total of 88% of known Mesolithic sites are found where the ground has a slope of less than 10^{o} with 60% found on slopes of less than 5^{o}.

4.2.2.1 Discussion of the distribution

The significance of the distribution of Mesolithic sites in relationship to topographical factors is not altogether clear. The slight preference for these sites to be on relatively level ground may simply be representative of the general landscape of the survey area, although it could equally indicate that people in the past preferred to live and work on level ground, whilst the preference for sites with a southeasterly aspect may suggest sites deliberately sheltered from the prevailing westerly wind. Similarly the significance of the fact that most recognised sites are on relatively high ground may be a combination of the circumstances in which evidence from this period has been identified (see below), combined with the topographic trends of the survey area (see 3.2 above). This distribution could, imply a preference, as has been suggested for the Cotswolds, for later Mesolithic exploitation of dry soils in elevated positions (Saville 1986), or be indicative of a functional difference between sites in different topographical locations. Darvill has tentatively suggested a model of relatively long-

term late Mesolithic settlement sites in sheltered positions with short-term “hunting camps” in more extreme locations and often on higher ground (Darvill 1987, 31). More detailed analysis of the nature of the assemblages combined with an assessment of the topographical conditions for individual sites would be required before individual sites could be assigned to these categories with any certainty.

The clear preference for these sites in areas overlying a Limestone solid geology (and the corresponding lack of known Mesolithic sites in areas with a Sandstone solid geology) is unlikely to be linked to a particular preference to these geological conditions and is more likely to be a product of the relationship between evidence for Mesolithic activity and landuse, as woodland within the survey area has a clear preference for area with a Sandstone solid geology.

There is a clear preference for evidence of Mesolithic activity to have been recovered from areas of arable cultivation, and conversely, relatively few of these sites are known within areas of woodland. Whilst it may be tempting to interpreted this as evidence that Mesolithic activity favoured those areas which are now considered most suitable for arable cultivation (see above and Saville 1986), this distribution also reflects the method of discovery of much of the evidence for this period, which consisted of the collection of artefacts from the surface of cultivated fields.

Evidence for Mesolithic activity is underrepresented within areas of woodland, which might suggest that areas currently suitable for this landuse were less suitable for occupation or other activity during this period. The fact that some Mesolithic finds are known from these areas, however, indicates that Mesolithic activity was taking place within areas which are currently wooded. With the exception of single chance finds (Glos SMR 19927, 21712), all known artefacts from woodland were found where ground disturbance was taking place (Glos SMR 19938 found during scarification in advance of replanting and Glos SMR 5158 found as a result of ground disturbance caused by the re-making of the forest track). Given this it would seem likely that the determining factor in the identification of evidence of Mesolithic activity is the incidence of conditions, such as disturbed ground, which makes these finds available for recovery, and the relative paucity of Mesolithic finds from within wooded areas is a consequence of the lack of these opportunities within this environment, rather than an indicator that evidence of activity for this period is absent in these areas.

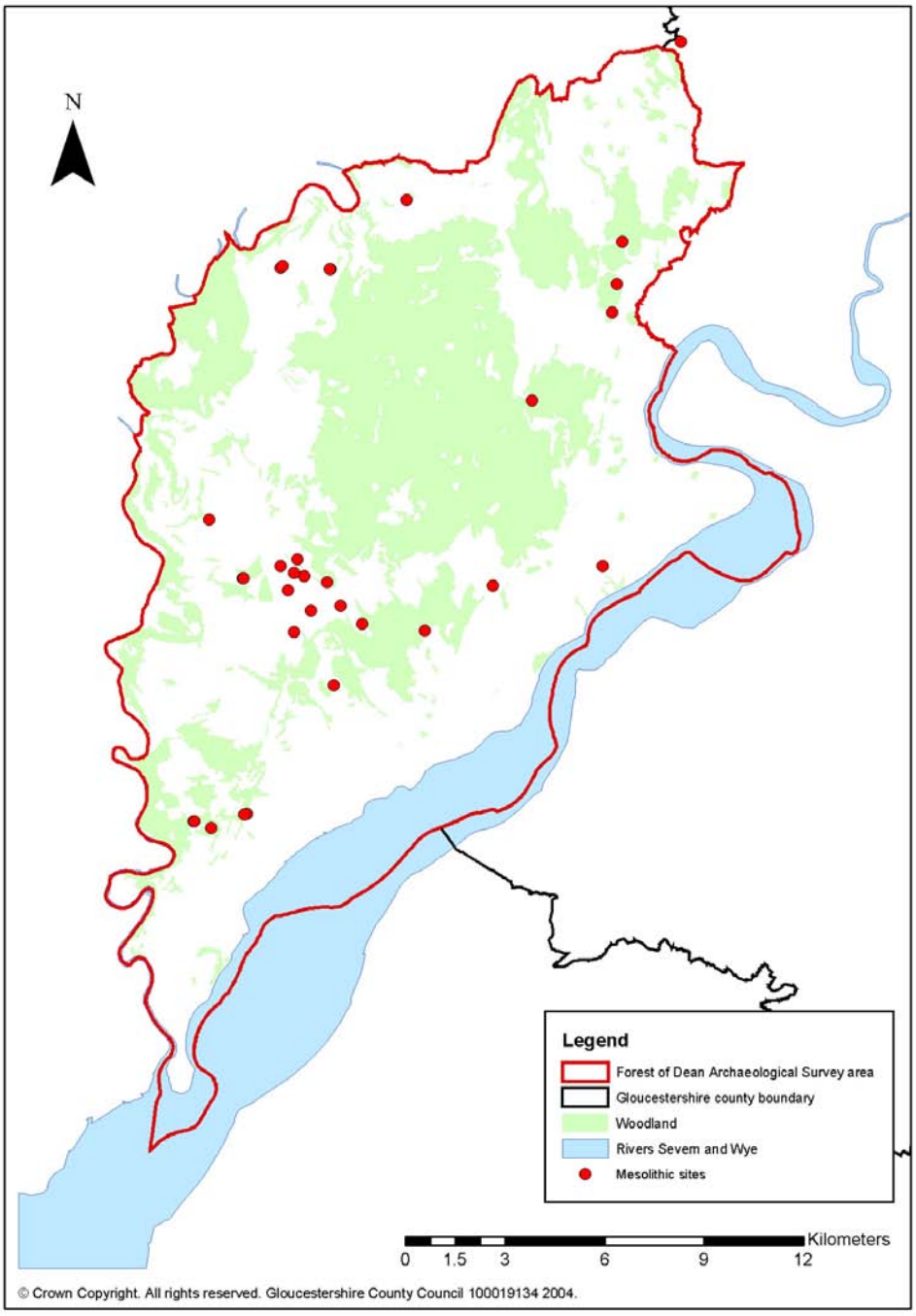

Figure 6: Distribution of all known Mesolithic sites within the survey area

4.3 The Neolithic period

The Gloucestershire Sites and Monuments Record identifies 44 sites within the Forest of Dean Survey area which have produced evidence of Neolithic activity.

4.3.1 Field monuments

Within Gloucestershire as a whole, the Neolithic period is characterised not only by surface scatters of diagnostic flint implements (see 4.3.2 below), but also by field monuments such as long barrows, or causewayed enclosures (Darvill 1984; 1987).

The Forest of Dean Survey area contains no evidence for field monuments of this type.

The reasons for this are not altogether clear, and in the case of monuments such as causewayed enclosures it may be that, as the Forest of Dean is towards the western edge of their distribution (Darvill 2004, fig 78) none are present in the area, although it should also be remembered that none of the six causewayed enclosures within Gloucestershire had been recognised prior to the early 1970s (Darvill 1987, 41). The lack of known long barrow sites is particularly intriguing as similar monuments are known not only from Cotswolds to the east but also Wales to the west (Darvill 2004, fig 34) in similar topographical conditions to those encountered within the Forest of Dean Survey area.

A single site (Glos SMR 20351) has been identified as a possible Neolithic long barrow on the basis of a dowsing survey (Brian Johns pers. comm.), but no further exploratory work has been undertaken, whilst in the 1950s Scott-Garrett identified a feature (Glos SMR 25340) which he considered to be the remains of a long barrow, but he later discounted this interpretation.

Two sites within the survey area, that have produced human bone and pottery artefacts, may be indicative of late Neolithic/early Bronze Age funerary activity (Glos SMR 5060, 2150). These are discussed more fully in 4.3 below.

4.3.2 Artefacts of Neolithic date

With the exception of the two human bone and pottery finds (see 4.3.1 above), and the four stone axe heads (see 4.3.2.1 below) all the recognised Neolithic sites consist of flint flakes and implements recovered by a variety of means. These were generally undiagnostic in terms of the nature of the activity being represented, and none of these assemblages have been subjected to modern specialist analysis.

4.3.2.1 Nature of the evidence

Nineteen of these sites (43%) were identified as surface finds of flint flakes or tools recovered as the results of field walking, whilst one was recovered as a result of metal detecting operations. Six assemblages were found during excavation work on other sites, and two were discovered as a result of watching briefs of earth moving activity. None of these assemblages has been sufficiently analysed to identify the nature of the activities which may have taken place on the site, although three sites identified by surface artefact collection (Glos SMR 5726, 9746, 9747) have been interpreted as evidence of short-stay camp sites spread over a wide area as the majority of those retouched flints which dated to the Neolithic and Bronze Age periods were broken or burnt.

A further nine flint artefacts of diagnostically Neolithic type (leaf shaped arrow heads, scrapers and awls), four stone axe heads (Glos SMR 5080, 5164, 6374, 16922) and a single flint axe head (Glos SMR 14614) have been recovered as chance surface

finds, and could simply have been lost during the Neolithic and need not indicate occupation or long term activity on the site.

The method of discovery of 16% of these sites is not clear.

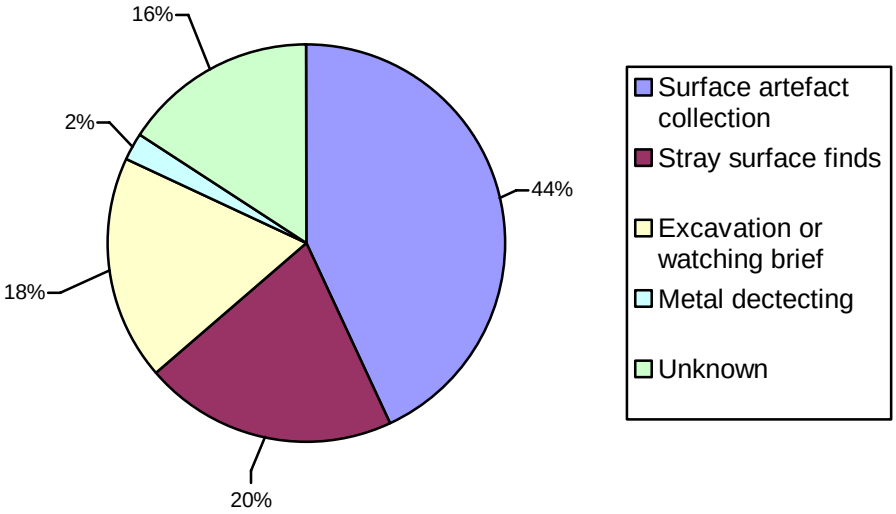

Chart 23: Method of discovery of Neolithic flint finds (not including axe heads)

4.3.2.2 Other evidence for Neolithic activity

In addition to the flint artefacts, “traces” of Neolithic settlement (no artefacts are currently known from this site) are reported to have been found during excavation work on a 17th century charcoal fired blast furnace (SO54462108, Glos SMR 6011). Further investigation of the validity of this record would be required before it is accepted as evidence of Neolithic activity, and this site has not been mapped on Figure 7.

4.3.3 Distribution

Landuse

Only 14% of Neolithic artefacts have been recovered from within woodland. Accurate landuse information is not available for the remaining 84% of artefacts, although, as the majority of these are reported to have been found as a result of surface artefact collection, it would seem likely that most were from areas of arable cultivation.

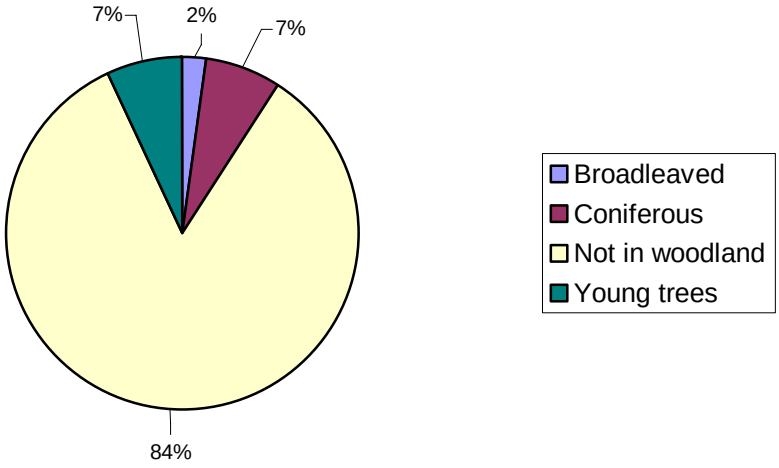

Chart 24: Distribution of Neolithic sites and artefacts: Woodland.

Geology

As with Mesolithic artefacts, a relatively high number of Neolithic artefact sites have been recovered from areas which overlie a solid geology of Limestone, or other forms of limestone, whilst disproportionately few have been found in areas which overlie Sandstone or other forms of sandstone.

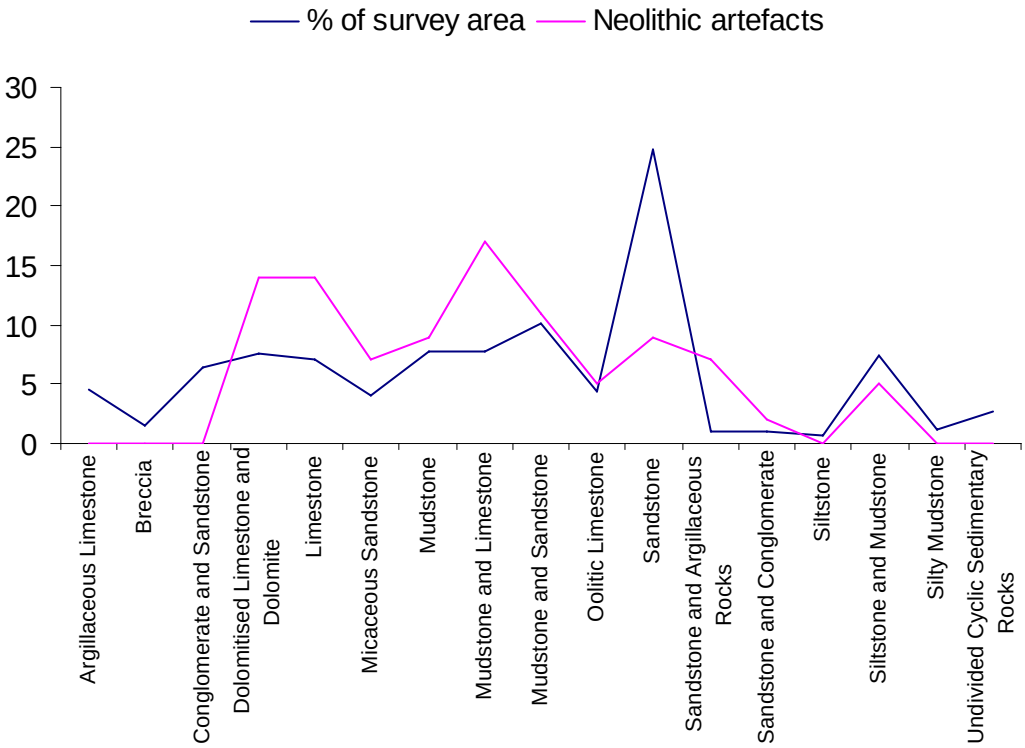

Chart 25: Neolithic artefacts and solid geology

Comparison of the incidence of Neolithic artefact finds with drift geological deposits suggest a close correlation between this and the incidence of drift geology across the survey area as a whole, except in areas categorised as “Silty clay”. These cover 7%

of the survey area, whilst only 2% of Neolithic artefact sites are known from these areas (see Chart 26).

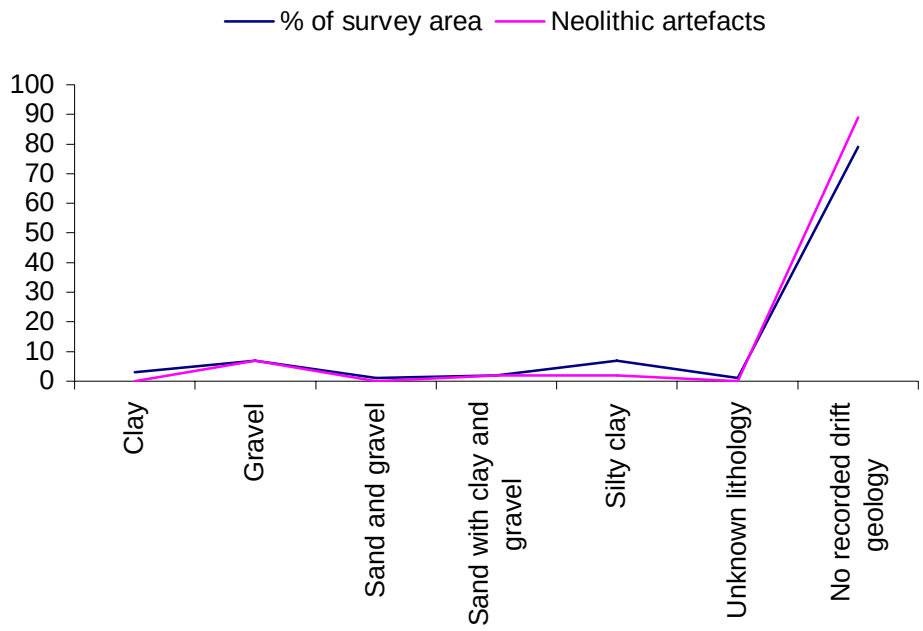

Chart 26: Neolithic artefacts and recorded drift geology

Height aspect and slope

Although Neolithic artefacts have been recorded from a range of heights within the Forest of Dean Survey area (none of which are above 259m OD), 43% of these finds are from between 160 and 199m OD, a height range which is found in only *c.* 19% of the survey area. These finds also display a slightly disproportionate preference for north-facing slopes (i.e. those facing between northwest and northeast) with 45% in these areas, whilst the survey area a whole has a slight preference for south-facing slopes with only *c.* 25% facing between northwest and northeast. A total of 95% of the sites of Neolithic artefacts are found where the ground has a slope of less than 10^{o} with 59% found on slopes of less that 5^{o}. This represents a marked preference for relatively level ground for this class of site as, in the Forest of Dean Survey area as a whole, only *c.* 68% of the land area has a slope of below 10^{o}.

4.3.3.1 Discussion of the distribution

The significance of a comparison between the distribution of the sites in which Neolithic artefacts have been recovered and topographical factors is not clear.

Whilst the slight preference for a northern facing aspect may be of little or no real significance, the clear preference for relatively level ground may reflect either a natural preference for this type topography, or the circumstance in which these artefacts have been recovered preferring relatively level conditions. The conditions of discovery may also have influenced the range of heights in which Neolithic artefacts have been discovered, as there appears to be a preference for Neolithic artefacts to be on relatively high ground within the Forest of Dean Survey area, although this could easily reflect the fact that the majority of these sites have been discovered as a result of surface artefact collection from arable fields, the majority of which has taken place in parts of the survey area, particularly to the west of the Statutory Forest which are above this height.

It has been suggested that Neolithic communities would have exploited many terrains and land conditions for a variety of purposes, perhaps taking seasonal advantage of different areas at different times of year (Darvill 1987), and in fact, Neolithic artefacts have been found at a range of heights, topographies and geologies throughout the survey area. Without further more detailed analysis of the nature and range of activities represented by the known assemblages, no clear conclusions can be drawn from the available data.

The preference for known Neolithic sites to overlie a solid geology consisting of forms of limestone (and the corresponding lack of known sites overlying forms of sandstone) is, as with the distribution of Mesolithic artefacts (see 1.1 above), likely to be a product of the relationship between land use and solid geology as the types of land use in which the majority of these features have been recovered (i.e. cultivated land) tend to favour these geological conditions (3.2 above).

The relationship of known assemblages of Neolithic artefacts with current landuse would appear to be significant, as the available records suggest that the majority of these have been found in areas where arable cultivation has taken place (see 4.3.2.1 above) and, conversely, relatively few are known within areas of woodland (see 4.3.3 above). Although it is tempting to suggest that those areas which are now considered most suitable for arable cultivation were favoured, presumably for both settlement and cultivation during the Neolithic, this distribution pattern also reflects the method of discovery of the majority of Neolithic artefacts, which have been discovered as a result of the collection of artefacts from the surface of cultivated fields as a result of surface artefact collection.

Although there is a clear lack of evidence for Neolithic sites within areas currently under woodland, a number of chance finds (Glos SMR 5136, 19947), and larger assemblages (Glos SMR 13920, 19936, 19938) have been made within woodland. These suggest that some activity of this date was taking place in areas which are currently wooded, and it may be significant that the larger assemblages were recovered during observations of ground disturbance within woodland. As with the Mesolithic assemblages (see 1.1 above), this suggests that the occurrence of conditions such as disturbed ground which allows for the identification and recovery of these finds, is the principal factor which governs their identification, and the lack of evidence for Neolithic activity within wooded areas is a result of the fact that these opportunities are rare in this environment, rather than an indicator that activity from this period is absent in these areas.

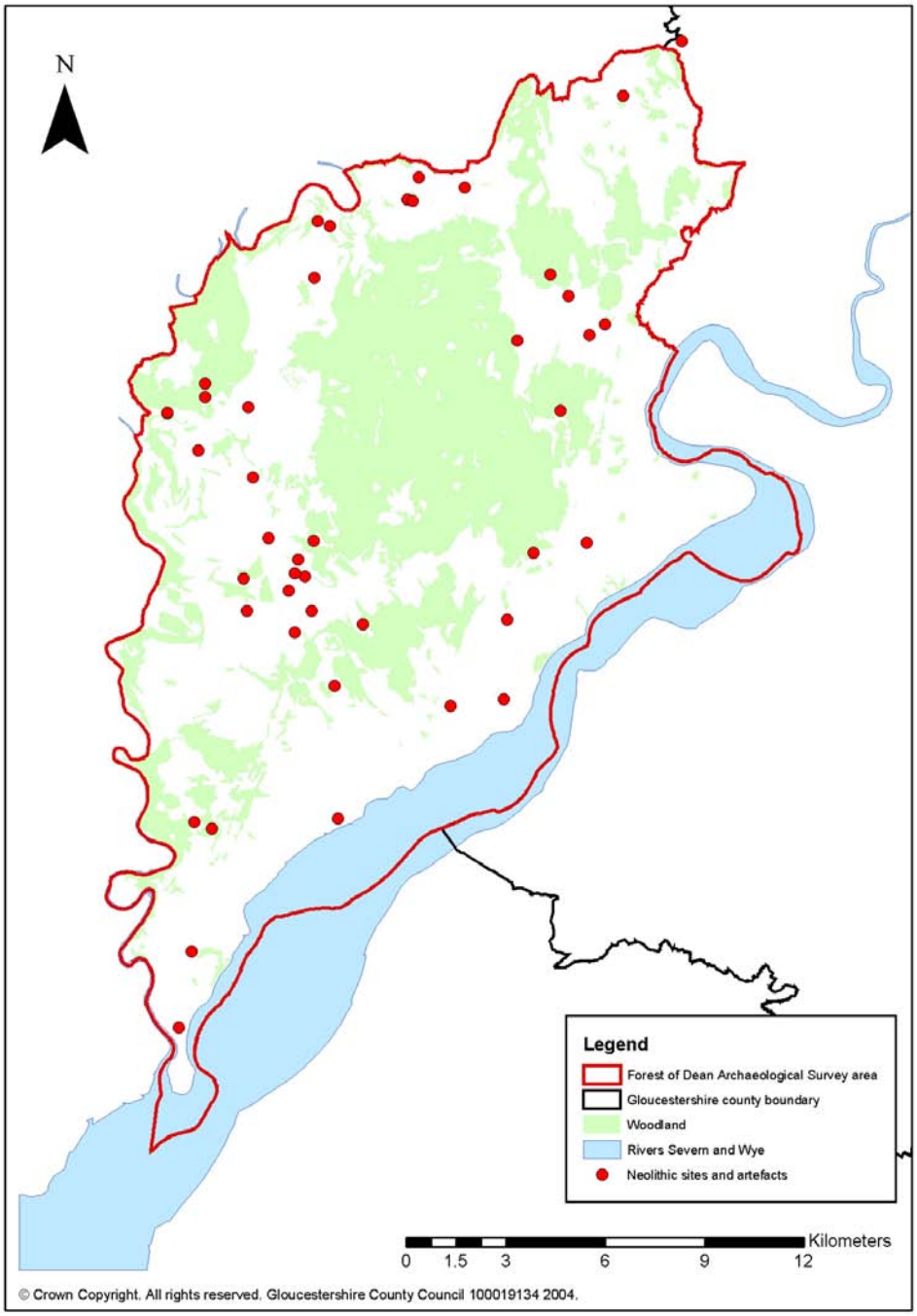

Figure 7: Neolithic sites known from artefactual evidence

4.4 The Bronze Age

4.4.1 Nature of the evidence: Field monuments

4.4.1.1 Dated evidence of Neolithic and Bronze Age funerary activity

Although the principal features characterising the Bronze Age within Gloucestershire are numerous round barrows or ring ditches, the majority of which are found in the Cotswold and Thames valley to the east of the survey area (Drinkwater and Saville 1984a, Darvill 1987, 95), the Gloucestershire Sites and Monuments Record identifies only two sites within the Forest of Dean Survey area which have produced evidence of Neolithic/Bronze Age burial activity. These are:

Table 9: Late Neolithic/Bronze Age burials

SMR Number	Description
5012	Site of Soldiers Tump, a Bronze Age barrow, *c.* 300 metres southeast of Chase Farm, Tidenham
5060	Probable Beaker burial comprising an oblong cist of local Carboniferous Limestone slabs, which contained crouched burial of a young man *c.* 19 years old, with brachycephalic skull, found at Beachley in 1964.

A further site at Willscroft Wood, St Briavels (Glos SMR 21510), has produced evidence of human remains found in association with late Neolithic/early Bronze Age flints and pottery, although these finds were within a pothole and their status as evidence of prehistoric funerary activity remains unclear.

Table 10: Late Neolithic/Bronze Age artefacts in conjunction with human remains

SMR Number	Description
21510	Finds from a pothole in Willscroft Wood, St. Briavels – Neolithic flints, pottery, animal and human remains.

In addition to these a single possible site has been identified by finds of pottery interpreted as a Bronze Age cinerary Urn.

Table 11: Possible Bronze Age cinerary urn find

SMR Number	Description
5139	Bronze Age cinerary urn and Roman pottery including a strainer from Grove Road, Lydney

This find was made in 1939, and the current whereabouts of these artefacts is not clear, consequently the validity of this interpretation must be considered doubtful.

A further site of possible late Neolithic or Bronze Age burial may be represented by the records of bones found when the Longstone, St Briavels (Glos SMR 5076) was destroyed in 1875. The status of these bones (and the validity of the record) is not clear, and these are not included in the following discussion or analysis.

Distribution

Of the dated sites, one (Glos SMR 5060) was found in at a height of *c.* 15m OD on level ground with a slight southwesterly aspect overlying a gravel geology, whilst the second (Glos SMR 5012) is at a height of 180m OD, again on fairly level ground with

a slight southwesterly aspect, but overlying a limestone geology. Neither site is within woodland.

With such a small data set it is difficult to draw any conclusion from an analysis of the distribution of these sites, especially as the interpretation of the Cinerary urn find (Glos SMR 5139) must be treated with considerable caution.

4.4.1.2 Reported sites

There are four barrow sites reported within the Forest of Dean Survey area which can either no longer be identified or have not been confirmed as earthworks.

Table 12: Reported Barrow sites

SMR Number	Description
5024	Possible barrows in Oldbury Field, southwest of Stroat, reported in 1860.
5063	Possible site of barrows of unknown date to the east of Tump Farm, Sedbury.
5092	Possible site of a barrow of probable prehistoric date near Sycamore Cottage, site of the former Carpenters Arms public house.
20351	Possible prehistoric barrows, post-medieval field name known as Nash Field and Roman glass bead find northwest of Pleasant View Farm, Blakeney.

These are all described as the sites of possible round barrows or groups of round barrows, with the exception of Glos SMR 20351 which is the site of two possible barrows, one of which is a Neolithic long barrow reputedly identified by dowsing (see 1.1 above).

The status, date, or validity of none of these has been confirmed, and they are not included in further analysis of the data.

4.4.1.3 Undated mounds

Undated mounds described as prehistoric

Five mounds are recorded as prehistoric burial mounds in the Sites and Monuments Record which are, in fact undated and have not been subject to any archaeological exploration.

Table 13: Undated mounds interpreted as Bronze Age burial mounds

SMR Number	Description
5006	Round cairn (SAM 32383) of Bronze Age date, located 720 metres west of Chase Farm, Tidenham.
5064	Probable round barrow of prehistoric date in Sedbury Park, used as a fire beacon
5161	Circular cairn of within the prehistoric fortified enclosure known as Welshbury hillfort. This may represent the remains of a Bronze Age burial mound.
18417	Undated barrow located in Blakeney Hill woodland
21419	Modern archaeological assessment of Cadora Woods, consisting of Cadora Wood, Bigsweir Wood, Causeway Grove and Highbury Fields, carried out in April 2000, with many sites, including a possible Bronze Age funerary cairn.

None of these have been securely dated, or confirmed as prehistoric funerary monuments with any degree of certainty (although Glos SMR 20351 is reputed to be a Neolithic long barrow identified by dowsing), and their status is actually no different from that of other undated mounds, of which 20 sites are known from within the survey area, and these are discussed together.

Although the majority of these sites are consistent in general shape and size with possible prehistoric barrows, undated mounds can have a number of interpretations and it is highly unlikely that all of these sites represent prehistoric funerary monuments.

Undated mounds which may represent evidence for prehistoric activity

The Gloucestershire Sites and Monuments Record contains records for 20 undated mounds within the Forest of Dean Survey area, which may represent the remains of prehistoric burial activity. These sites discussed range from mounds (e.g. Glos SMR 26244, and Glos 11898), whose SMR descriptions suggest they are unlikely to represent prehistoric monuments or features (e.g. Glos SMR 19849) which the SMR has tentatively suggested may be the remains of a Bronze Age barrow cemetery. This list also includes a number of sites (e.g. Glos SMR 5017, 5019) which may be associated with post-medieval industry or modern drainage methods, whilst some of these may represent mounds of smelting waste dating to the Romano-British or medieval periods (Hoyle et al. 2004, 101). Two undated mounds (Glos SMR 26395, 26396) are likely, from their description in the SMR, to represent later “Pillow mounds” or rabbit warrens (in fact the Gloucestershire SMR records them as both undated mounds and pillow mounds), and these are not discussed as possible barrow sites.

Although some of these sites have greater potential to be prehistoric features than others, their status cannot reasonably be determined on the basis of the untested opinions of earlier commentators and it is not possible to determine this without further, more detailed analysis of these sites. Accordingly it is not proposed to further subdivide these sites for the purposes of this discussion.

Undated mounds unlikely to represent prehistoric activity

In addition to the undated mounds a further 15 features are recorded as “pillow mounds”, i.e. small rabbit warrens in the Gloucestershire SMR. Although the status of none of these is actually known, many of them appear to post-date ridge and furrow, or their written descriptions do not conform to those of possible Neolithic or Bronze Age funerary monuments. of these sites, however, one (Glos SMR 26336) is not clearly a rabbit warren and this site is discussed with the undated mounds.

Additional mounds which are assigned dates in the Gloucestershire SMR

A further 15 sites were recorded in the Gloucestershire SMR as medieval or post-medieval mounds. The majority of these clearly relate to medieval or post- medieval industrial or agricultural activity, although three sites Glos SMR 9787, Glos SMR 13630, Glos SMR 22990 are in fact undated mounds which have been interpreted as medieval windmill mounds on the basis of their form. These have not been included in the following analysis, although it remains possible that they may represent the remains of prehistoric funerary activity.

Other possible barrow sites

Two features (Glos SMR 5041, 5042) have also been suggested as the remains of possible Bronze Age burial activity These features have been interpreted as the remains of undated (but probably prehistoric hut circles by most authorities (Isaac 1990; Scott-Garret 1918-1958) although Walters claims that they have been “mis-identified” and should be regarded as the eroded remains of Bronze Age round

barrows (Walters 1992a, 32). Walters does not give any reason for his assertion, and consequently, in the absence of further fieldwork on these sites, their status as barrow sites should be treated with caution, and they are not mapped on Figure 8.

Walters also discusses two stone spreads which he considered to be ploughed out barrows in English Bicknor Parish “near Eastbach Court”. These sites are associated with scatters of flint (Glos SMR 5724), but their status as barrow sites remains unclear.

4.4.1.4 Nature of the evidence

Of the 22 undated mounds, 21 are known as earthworks although seven of these were identified from aerial photography (the National Mapping Programme) and their status has not been verified in the field. One site (Glos SMR 5029) was reported as a mound by the Ordnance Survey, but has not been identified since then and its precise location is not clear.

Ten of these sites were identified as a result of recent archaeological field surveys or site visits, generally in areas of potential development or forestry operations whilst five were identified from aerial photographs as part of the National Mapping Programme. The remaining seven have been identified as a result of informal archaeological observations undertaken earlier this century.

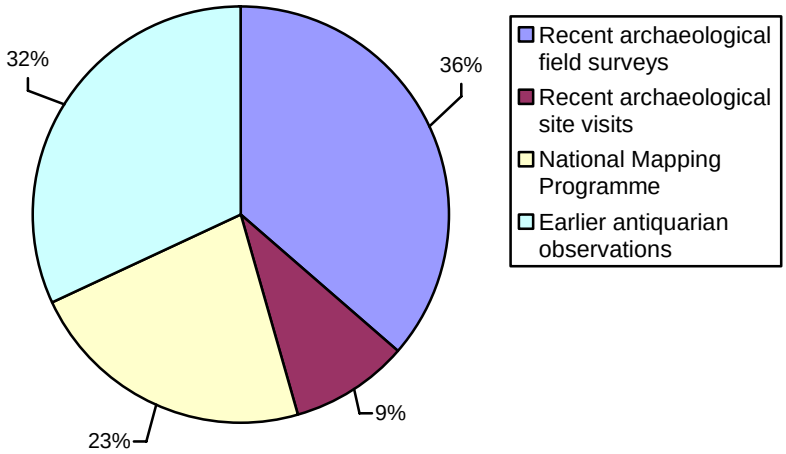

Chart 27: Undated mounds: Method of discovery

4.4.1.5 Distribution

Landuse

Almost half of these features (48%) have been identified within woodland.

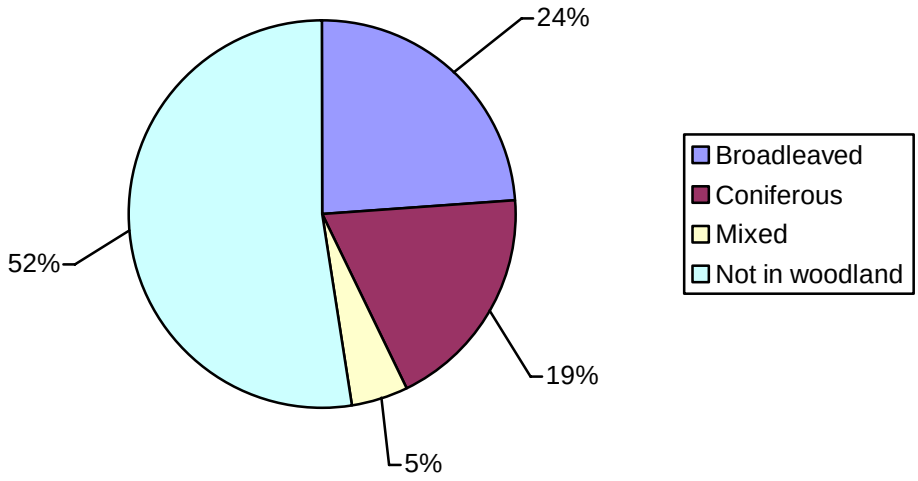

Chart 28: Undated mounds: Landuse

Geology

The majority of these sites do not overlie drift geological deposits, although six sites overlie sand and gravels or silty clays of the tidal flats adjacent to the River Severn. All but two (Glos SMR 11898, 26244) of the sites found at heights of *c.* 50m OD or less, overlie these drift deposits.

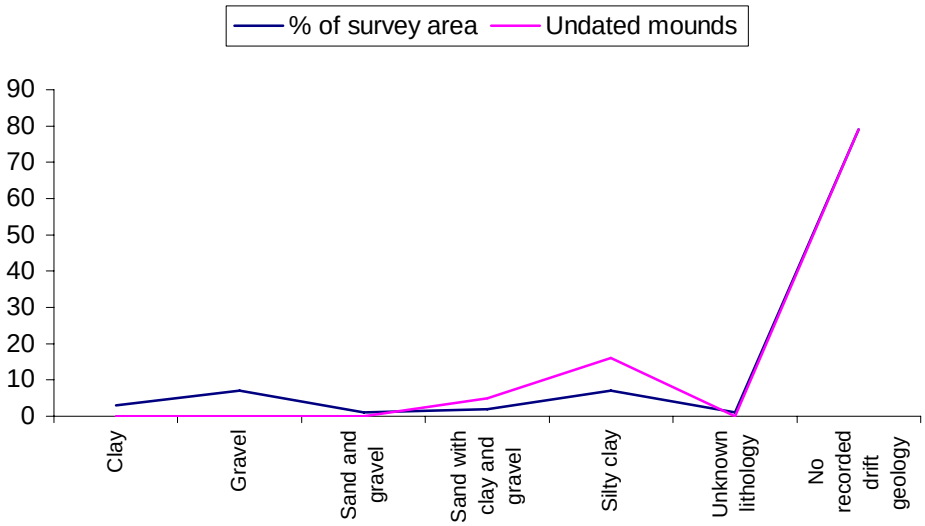

Chart 29:Undated mounds: Drift geology

These features overlie a range of solid geologies.

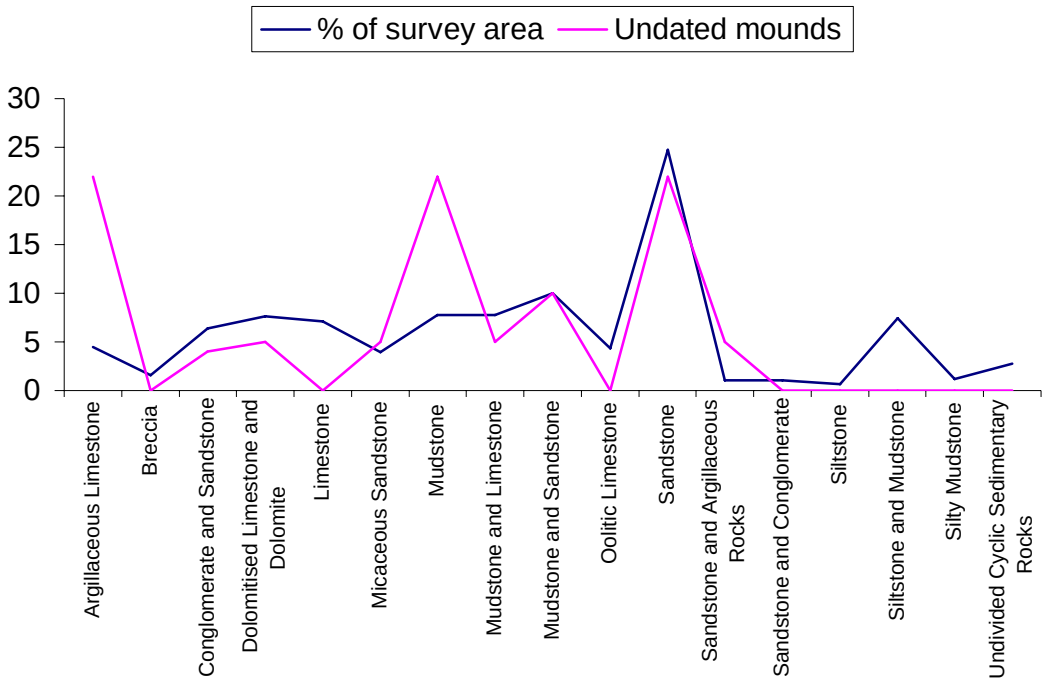

Chart 30: Undated mounds: solid geology

Height, aspect and slope

Undated mounds are found at a number of heights ranging from 10m to 240m OD, although they split into two distinct groups with eight sites below or around 50m OD, and the remainder above *c.* 150m OD.

Most of these sites are found on slopes of less than 5°, although two sites (Glos SMR 21419, 21592) are on slopes of between 20 and 25°). These sites do not display a strong preference for any aspect, although there is a general preference for more southerly facing aspects. Both of the sites on steep slopes (see above) face towards the northwest, and both these sites represent undated rubble mounds of indeterminate date or function overlooking the Wye Valley. These features are, however, in separate height groups with Glos SMR 21419 at 35m OD and Glos SMR 21592 at 170m OD.

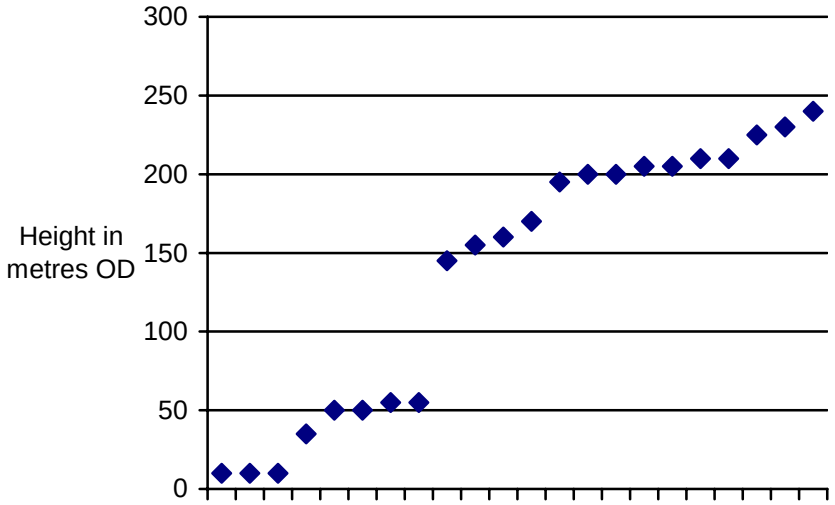

Chart 31: Undated mounds: Height

4.4.1.6 Discussion of the distribution

The distribution of undated mounds in relation to recorded drift geology closely reflects the distribution of these geologies within the survey area, although a slightly disproportionate number of these are found on the silty clays adjacent to the River Severn. A similar picture emerges when these sites are compared with solid geology, although in this case a disproportionate number of sites overlie argillaceous Limestone, or Mudstone.

The majority of the sites overlying Mudstone are the same as those which overlie Silty Clay adjacent to the River Severn, and are in fact a number of small mounds (Glos SMR 5017 – 5019) of indeterminate function identified from aerial photographs, whilst the sites overlying an argillaceous Limestone solid geology (Glos SMR 13937 – 13939, 13945) are all mounds which were identified as a result of a single field visit to an area of woodland. No significant conclusions can be drawn from this distribution other than to suggest that this reflects the fact that this type of site is widespread throughout the survey area. Similarly it is not possible to draw significant conclusions from the relationship of these sites with aspect or slope.

The clear split between these sites in terms of height (see above) is, however, interesting, and it may also be significant that the sites in the lower height range are those which overlie alluvial drift geology. It is not clear, however, precisely what the significance of this is, and it may be that the relationship between lower sites and a recorded drift geology is a product of the nature of drift deposits within the survey area, the vast majority of which are found in areas on the northern bank of the Severn estuary below the 50m contour.

A relatively high proportion of this type of site is known within woodland, not only in relation to the known distribution of dated finds or features, but also when compared with the extent of woodland within the survey area. It is likely that this distribution is a product of the circumstances in which these features have been identified. There is a very strong statistical correlation between the incidence of sites recognised within woodland, and those which have been identified as a result of recent archaeological field surveys or visits. This statistical correlation reflects the actual circumstances in which these have been discovered. Only two of the undated mounds within a woodland environment have not been identified as a result of recent archaeological field survey or visits, and these sites (Glos SMR 5006, 25340) were both identified as a result of informal archaeological investigation in the earlier part of the 20th century.

Although the status of many of these features is not known, the clear implication from this is that features such as these, which have the potential to be of major archaeological significance, have been identified in areas where archaeological investigation has been undertaken within areas currently under woodland.

4.4.1.7 Small sub-circular enclosures

Six small sub-circular enclosures (*c.* 25m or less in diameter) were identified within the survey area. Two of these enclosures (Glos SMR 4634, 11883) were recorded as small enclosures whilst another four (Glos SMR 4613 (two small enclosures), 4615, 4622) may also fall into this size category, although their dimensions are not currently recorded on the SMR. All of these could be interpreted as the sites of ring ditches associated with Bronze Age funerary monuments, although this interpretation is not clear on the basis of available evidence.

Distribution of small sub-circular enclosures

Landuse

Glos SMR 4615 and 4622 are found within woodland, whilst the remaining four, all of which were identified as cropmarks, are not.

Geology

Five of these sites (Glos SMR 4613, 4615, 4634, 11883) overlie a solid geology of sandstone (Sandstone and Argillaceous rocks, Mudstone or Mudstone and Sandstone) whilst Glos SMR 4622 overlies a solid geology of Dolomite Limestone. Both Glos SMR 4634 and 11883 also overlie drift deposits with Glos SMR 4643 sited at the edge of alluvium and Glos SMR 11883 overlying gravel river terraces.

Topography slope and aspect

Glos SMR 4613, 4634 and 11883 are on relatively level ground (under 5^{O}) whilst Glos SMR 4615 and 4622 are on slopes of between 5 and 10^{O}. All sites have a generally northerly aspect facing north, northwest or northeast with the exception of the two sites recorded under Glos SMR 4613 which has a southerly aspect.

Five of these sites are above 110m OD (Glos SMR 4613 – 210m, Glos SMR 4622 – 145m, Glos SMR 4615 – 210m, Glos SMR 4634 - 110m) whilst Glos SMR 11883 is at only *c.* 25m OD.

Discussion of the distribution

The distribution of these sites differs from that of the undated mounds in that they tend to have a northerly aspect as opposed to the general southerly aspect of the undated mounds and Glos SMR 4634 falls into the height range at which no undated mounds are found. In addition to this a disproportionate number of them (80%) overlie a sandstone solid geology.

Given the size of the dataset and the uncertainly of the status of these features, it is difficult to draw any significant conclusions from this distribution or to suggest whether these may or may not represent evidence for Bronze Age funerary activity.

4.4.1.8 Placename evidence

A number of placenames identified within the Forest of Dean Survey area may also indicate the site of possible Bronze Age, or other prehistoric burial mounds. These are discussed more fully in 4.6.5 below.

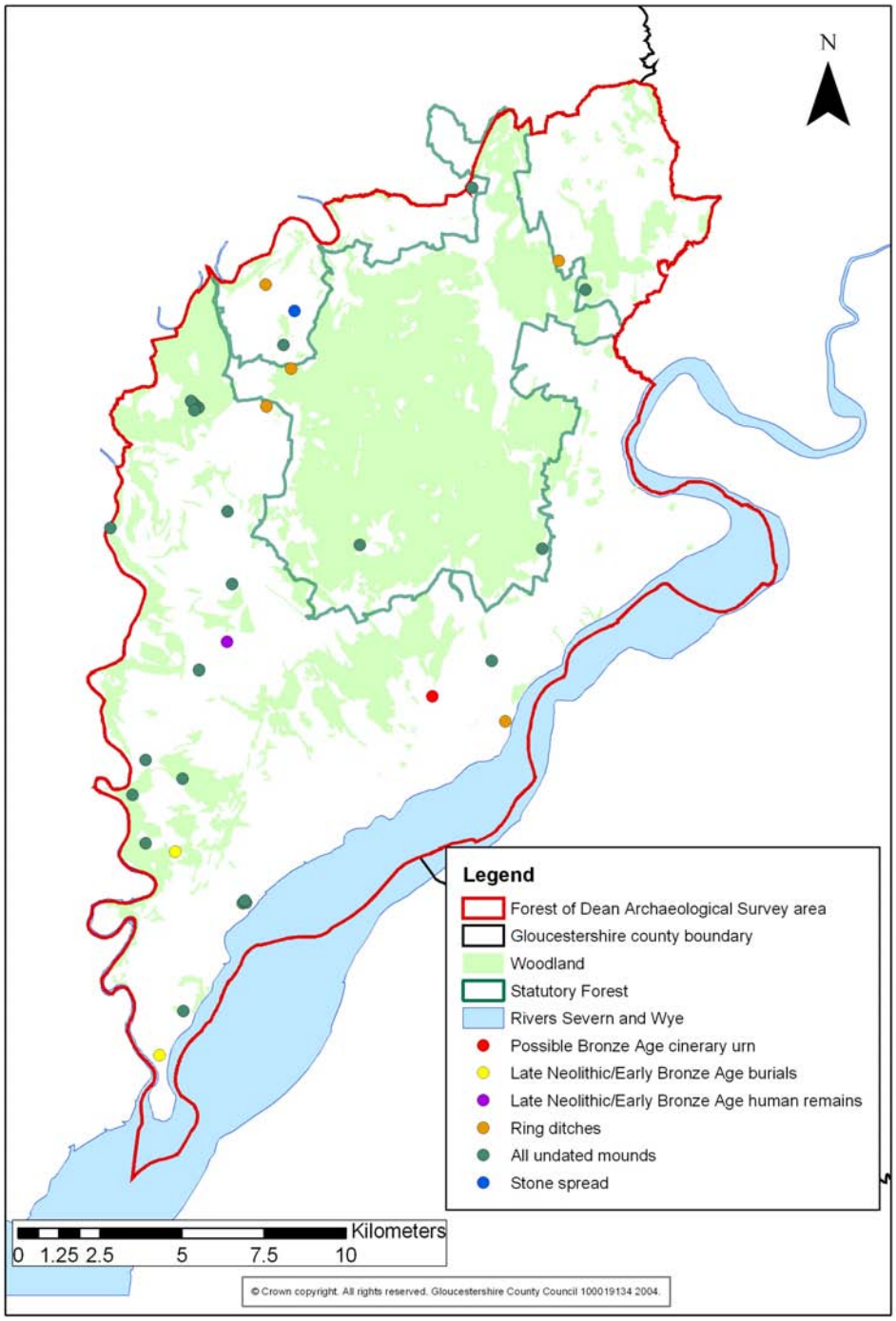

Figure 8: Known and possible evidence for Bronze Age burial

4.4.1.9 Standing stones

Standing stones are a recognised feature of the Bronze Age landscape of western Britain, and a number of these sites are known within the county of Gloucestershire. Although individual stones have rarely been dated with any degree of certainty, associated artefacts from Welsh examples have produced a date range from the late Neolithic to the late Bronze Age (Overy 1989, 2-3).

These features are generally considered to have fulfilled a ritual function either as markers for small cemeteries (Darvill 1987, 109), or the focus of ritual activity for a

small community, although they may have simultaneously fulfilled more mundane roles such as territorial markers, meeting places or way markers (Overy 1989, 1).

Standing stones thought unlikely to be prehistoric in date

The Gloucestershire Sites and Monuments Record identified 25 possible standing stones within the Forest of Dean Archaeological Survey area, although 20 of these are unlikely to indicate the sites of Bronze Age field monuments.

These features include an undated stone erected on Offa's Dyke (Glos SMR 380); the Patten stone (Glos SMR 5124), which some commentators have thought to be the remains of the Romano-British milestone; a stone reputedly on the site of the later Gattles Cross (Glos SMR 5072) that may have been erected in the 13th century (Sullivan 1991); stones marking the entrance to modern quarries (Glos SMR 13916) and named natural rock outcrops such as the Buckstone (Glos SMR 6003) and the Broadstones (Glos SMR 6186, 6187).

Cup marked stones, such as the Drummer Boy Stone (Glos SMR 5126) are discussed in the report on the Scowles and Associated Iron Industry Survey (Hoyle et al. 2004) and are not included in this report.

The placename *Hiwoldestone,* (the village of Hewelsfield recorded in 1086) is likely to be derived from the Anglo-Saxon *Tun* indicating a farmstead and is not thought likely to indicate the site of a standing stone (Smith 1964).

Possible prehistoric standing stones

None of the remaining five possible prehistoric standing stones has been subject to any form of archaeological investigation and all of them are dated on the basis of morphology and a lack of evidence that they have been erected since the prehistoric period.

Of the five possible prehistoric standing stones, only two, the Broadstone, Stroat (Glos SMR 21) and the Longstone, Staunton (Glos SMR 5099) are still visible as field monuments.

The remaining three sites are known only from the following evidence:

- The Longstone, St Briavels (Glos SMR 5076) – this stone was reported to have been deliberately destroyed in 1875. Its site was recorded the field name "Long Stone" in 1842. Bones were reported to have been found when the stone was destroyed although the status of these is not clear.
- The Cradock Stone, Clearwell (Glos SMR 21425). The original site of this standing stone is recorded as a two-peaked monolith on the map of 1608 (PRO 1608), although the circumstances of its destruction are not clear. A modern stone was re-erected on the supposed site of this stone sometime between 1980 and 2000 (Jonathan Wright, Clearwell Caves, pers. comm.) although whether the location of this stone was accurately recorded in 1608, and thus the new stone is actually on the site of the original stone, and has therefore destroyed evidence of the original site, is unclear.
- The Oudoceus Stone (Glos SMR 5050). This stone was reported as a monolith, split vertically into two halves, which stood on the Gloucestershire side of the Striguil Bridge, a possible Romano-British bridge which crossed the Wye to the north of Chepstow. The actual site or date of this stone is not clear, although it was reported as standing 3ft high in either the latter part of the 19th century or the early part of the 20th century (Crawford 1924, 201), but could not be identified with any certainty when visited by Scott-Garrett in 1950 (Scott-Garrett 1918-1958) and may have sunk into the silt.

Only these five possible standing stones are included in the following discussion of the distribution of these features, and no distinction is made between existing and former standing stones.

Distribution

Landuse

Only one of these sites is recorded within woodland, and this site (the Long Stone Staunton, Glos SMR 5099) is adjacent to a main road in an area of woodland which was largely open farmland until the mid-19th century (PRO 1608, Taylor 1777). Accordingly none of these sites are within areas of historical woodland (i.e. areas which may have been wooded since at least the post-medieval period, and none of these sites are known within the area of the Statutory Forest.

Height slope and aspect

Three of these sites are either just above or below 200m OD, whilst the remaining two (Glos SMR 21 and 5050) which are sited adjacent to the Rivers Severn and Wye respectively are recorded at 0m OD

With the exception of one site (The Cradock Stone, Clearwell, Glos SMR 21425, which is at a slope of *c.* 5.8^{0}) all these sites are on fairly level ground with slopes at less than 5^{0}. These sites display no particular preference for aspect although with the exception of two sites (Glos SMR 5050, 21425), both of which face west, all were on land facing between northeast and south.

Geology

Three of these sites (60%) overlie a sandstone solid geology, one overlies Oolitic limestone, and the fifth overlies a solid geology of Mercia Mudstone. Two of these sites also overlie a recorded drift geology characterised as Tidal Flats

Discussion of the Distribution

Such a small and uncertain data set does not allow for any meaningful statistical analysis of the above trends. It is, however, clear that these sites do clearly split into two distinct height ranges with three sites at around 200m OD and the remaining two at *c.* 0m OD, and these fall into the same distinct groupings when other factors area taken into account. Although the three sites on higher ground all overlie a sandstone solid geology, they are all sited close to the junction between sandstones and limestones, and are all positioned towards the top (but not at the top) of gentle slopes at or near the heads of the valleys of small streams. The sites on lower ground, on the other hand, are sited adjacent to major navigable and tidal watercourses (the rivers Severn and Wye), and overlie a recorded drift geology of Tidal Flats deposits consisting of silty clays. The Queenstone, a standing stone less than 2km to the north of the survey area in Herefordshire (SO 56111822) would also fall into this group.

Whether this division between the two types of standing stone is indicative of a separate function (or perhaps even date) is not clear, but this possibility should be borne in mind in any future discussion of the date and function of these features.

The lack of standing stones from areas of woodland is intriguing. Although it would seem unlikely that distinctive features such as these await discovery within these areas, a standing stone, of possible prehistoric date has recently been re-discovered within an area of relic woodland in the middle of a modern housing estate in Rodborough near Stroud to the east of the river Severn in Gloucestershire (The Horestone, Glos SMR 21141) and so this possibility cannot be entirely discounted. It is also possible that standing stones in currently wooded areas have been destroyed.

It is equally possible that the known distribution of standing stones reflects their actual distribution, although this may have implications regarding the interpretation of these sites, but not on the potential distribution of contemporary prehistoric activity within the survey area as a whole.

It may be that the standing stones were originally a feature of the western Forest of Dean and might have been sited along early major routes through this area.

The stones along the higher ground are all sited with *c.* 800m of the route of the modern B4228, which follows relatively level high ground and is the natural north/south communications route across the western part of the Forest of Dean Survey area. The Broadstone Stroat (Glos SMR 21), is *c.* 500m from the later Roman road from Newnham to Caerwent (Glos SMR 6212), the modern A48, whilst the Oudoceus Stone (Glos SMR 5050) is sited at one end of what is considered to be an early Roman crossing point of the River Wye (Glos SMR 5061).

This hypothesis should be treated with considerable caution as the known route ways to which the stones appear to relate are thought to be considerably later in date than the stones and details of the actual course and navigability of the Wye and particularly the Severn during this period are not clear. Despite this, the correlation between the site of these stones and the course of later communication routes may be of interest in any future discussion of their distribution and function.

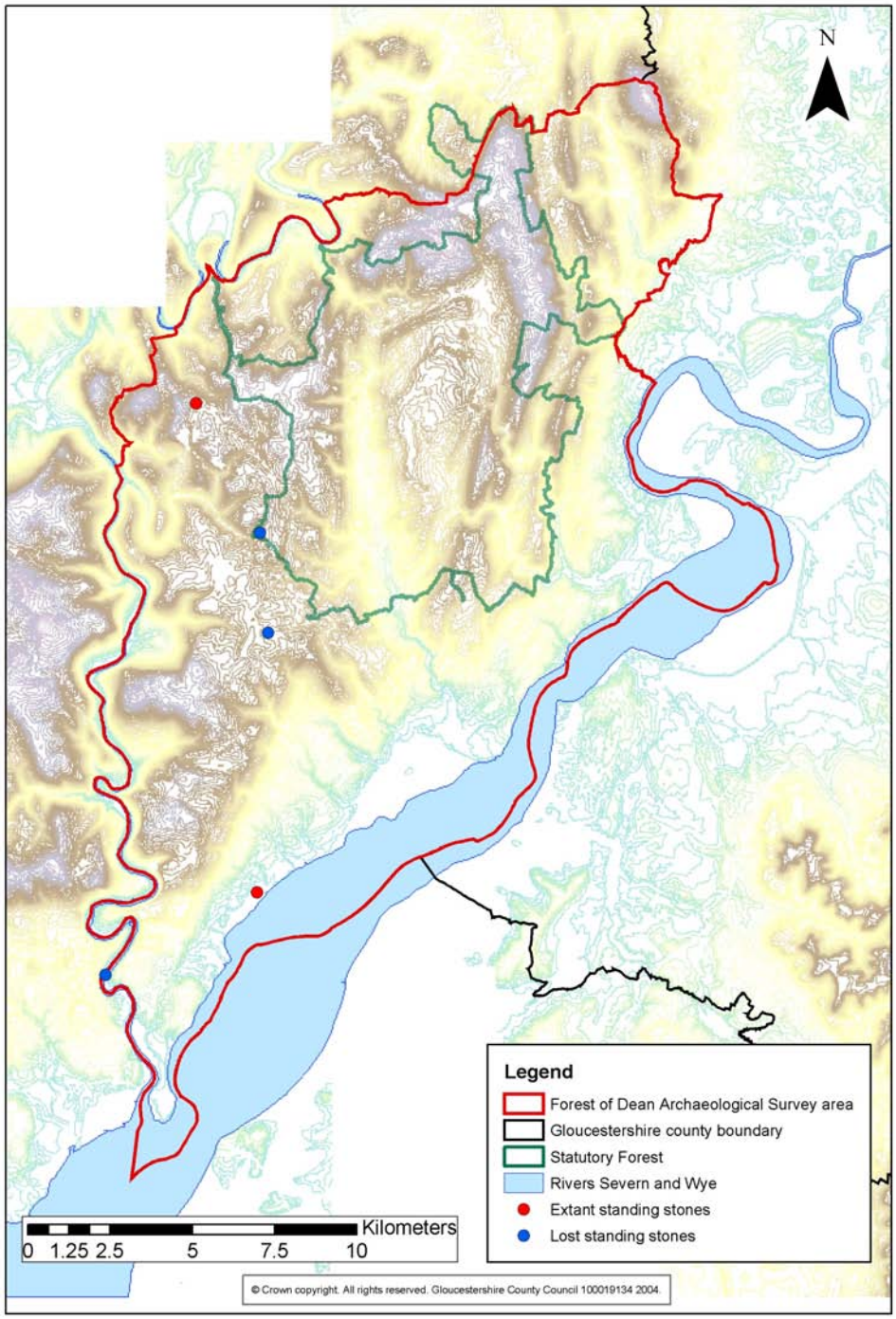

Figure 9: Possible prehistoric standing stones and topography

4.4.2 Other Bronze Age earthworks or landscape features

With the exception of the standing stones and possible burial mounds (see 4.4.1.1; 4.4.1.9 above) the Forest of Dean Survey area contains little evidence for earthworks or other landscape features which are currently thought to date to the Bronze Age.

4.4.2.1 Field systems

The exception to this is a single field system at Welshbury (Glos SMR 5161) which survives as low lynchets and has been interpreted as late Bronze Age as a result of detailed survey work undertaken in 1995, which has suggested that the system

predated the ramparts of the near by Iron Age hillfort (McOmish & Smith 1996). More recently other lynchets on the eastern slopes of the hill (Glos SMR 22116) have been identified by rapid field survey, and these have been interpreted as part of the same system (Hoyle 2003a).

Similar systems are, known as both earthworks and cropmarks within the survey area. Although some of these may be contemporary with the Welshbury examples, they have not been dated with any degree of certainly and are discussed more fully in 4.4.2.1 above.

4.4.2.2 Settlement evidence

In situ settlement evidence

The Forest of Dean Survey area contains no excavated *in situ* evidence of Bronze Age settlement. Earthworks recorded as part of the probably late Bronze Age field system at Welshbury (Glos SMR 5161) have been interpreted as the remains of "an unenclosed settlement …contemporary with the pre-hillfort phase of the field system" (McOmish & Smith 1996, 57) but the validity of this interpretation has not been tested through excavation.

4.4.2.3 Artefact scatters

With the exception of the artefacts recovered during excavation of the Soldiers Tump round barrow (Glos SMR 5012) all dated evidence of Bronze Age activity within the Forest of Dean Survey area is in the form of sites where artefacts of Bronze Age date have been found. Forty-three such sites are known within the survey area and these are discussed in relation to the principal types of artefact recovered.

Flint finds

Twenty-nine sites have produced flints of diagnostic Bronze Age type. Sixteen of these sites are single finds or small assemblages of flint artefacts identified as chance finds, whilst a further 11 sites are represented by surface scatters of flint flakes or implements recovered during field walking. Most of these are undiagnostic in terms of the nature of the activity they represent, although the evidence of three of the field walking sites (Glos SMR 5726, 9746, 9747) has been interpreted as evidence of short-stay campsites spread over a wide area. A further two sites are known by flints recovered during archaeological excavation work.

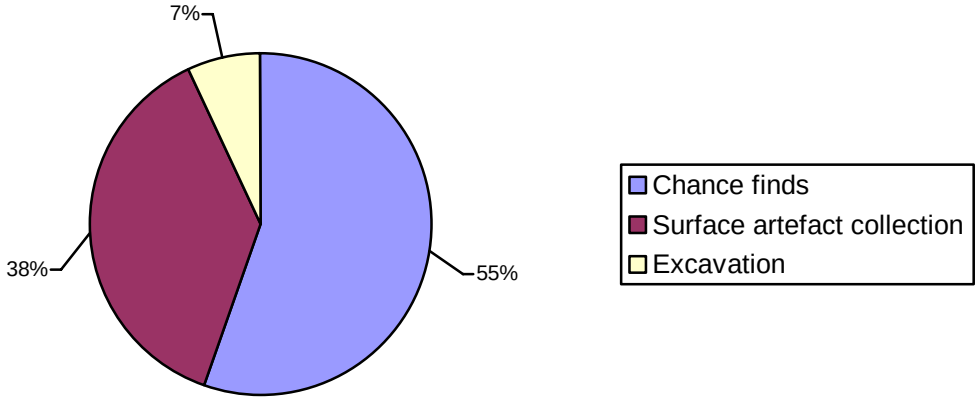

Chart 32: Bronze Age flint finds: method of discovery

Landuse

Although the highest proportion of sites known through flint finds (55%) were identified as chance finds, the bulk of this material, in terms of number of flints, is likely to be represented by the assemblages recovered by the systematic and non-systematic collection of artefacts from field surfaces, and a rapid check of written SMR information would suggest that between 45 and 62% of these finds are from arable fields.

Only 10% of these sites were identified within areas of woodland, and all of these (Glos SMR 19 - scraper, 18413 - arrowhead, 19946 - scraper) are single artefacts recovered as chance finds.

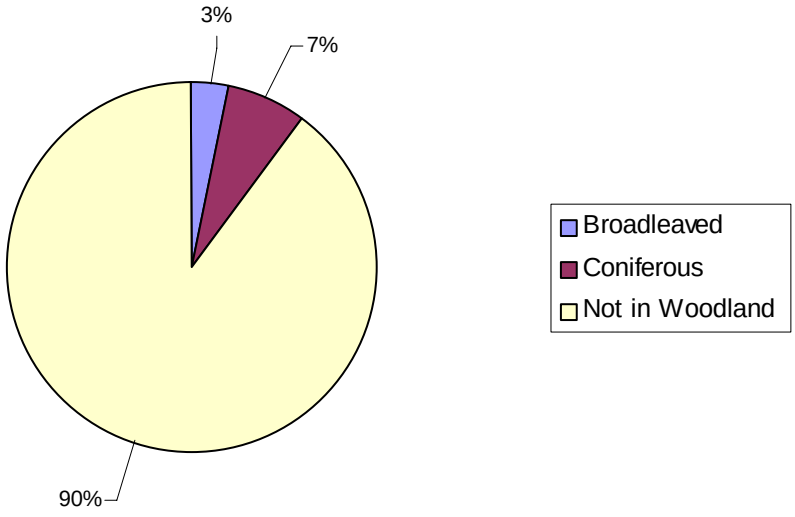

Chart 33: Bronze Age flint artefacts and woodland

Height aspect and slope

Bronze Age flints have been recovered from all topographic locations within the Forest of Dean Survey area, although the majority of these (almost 90%) are from relatively level ground (up to 10°) which displays no particular preferred aspect.

A higher proportion of these finds are from between 180 and 199m OD although it could equally be expressed as the majority of these artefacts (*c.* 70%) are found above 160m OD.

Geology

The relationship between Bronze Age flint finds and solid geology would suggest a slight preference for Dolomotised Limestone, Limestone and Mudstone, whilst relatively few finds overlie Mudstone and Sandstone. No Bronze Age flints have been identified in areas of recorded drift geology.

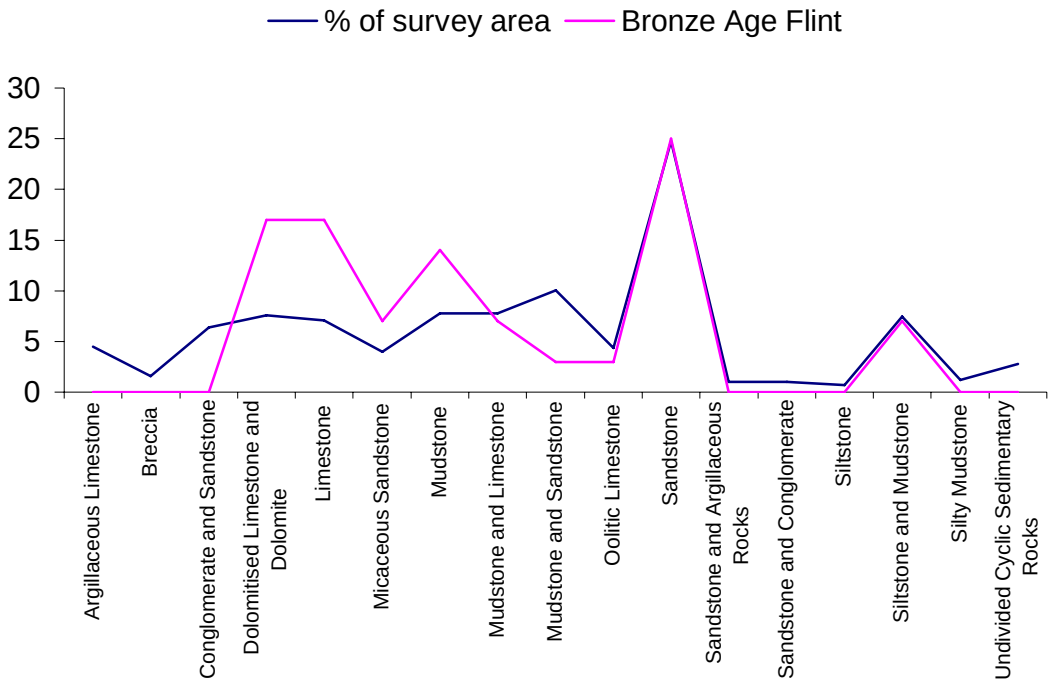

Chart 34: Bronze Age flint and solid geology

Pottery

In addition to the flint finds, sherds of pottery, which has been assigned a Bronze Age date, have been found at the following three locations:

- Drybrook Quarry, Drybrook (Glos SMR 4371).
- Rodmore Farm, St Briavels (Glos SMR 4390).
- Lydney (Glos SMR 5139).

The actual date of none of these sherds is clear, and the postulated theory that one of these sites (Glos SMR 5139) represents a Bronze Age cinerary urn must be considered uncertain.

The distribution of Bronze Age pottery finds has not been analysed as the number of known sites is too small for any sound conclusions to be drawn from this process

Axes and palstaves

Fourteen Bronze Age palstaves and axe heads (mostly of bronze, but one, Glos SMR 21464, of stone) have also been found. Many of these were isolated find spots although five bronze axe heads, recovered as chance finds on Sling Common over a thirty year period (Glos SMR 5084) have been interpreted as a possible founders hoard. Another possible hoard (Glos SMR 5045) has been reported from Tidenham Chase, although the details of this are too sketchy for any conclusions to be drawn.

In addition to these, a possible early Bronze Age miniature "votive flat axe" (Glos SMR 27587) found at Littledean, may be indicative of possible ritual activity in this area at that time, although the precise provenance and circumstances of discovery of these finds is not known.

Distribution

Landuse

Only two (14%) of the identified Bronze Age axes (Glos SMR 5131, 6006) were found within areas of woodland.

Height aspect and slope

Like flint finds, Bronze Age axes and palstaves have been recovered from all topographic locations within the Forest of Dean Survey area, the majority of these (75%) are from relatively level ground (up to 10^{o}) This category of find has a very marked preference for an east-facing aspect with 42% facing east and a further 67% facing between northeast and southeast. None are from slopes facing between north and northwest.

As with flint finds from this period, a higher proportion of these finds are from between 180 and 199m OD, although only *c.* 58% are found above 160m OD.

Geology

The relationship between Bronze Age axes and palstaves and solid geology, suggests a slight preference for Dolomotised Limestone, Limestone and Mudstone, and Oolitic limestone whilst relatively few finds overlie Mudstone and Sandstone.

Two Bronze Age palstave and axe finds (Glos SMR 16600, ST 5400094000) have been recovered from alluvial deposits adjacent to the Rivers Wye and at Hawkwell brickworks north of Cinderford (Glos SMR 19916, SO 6436615380).

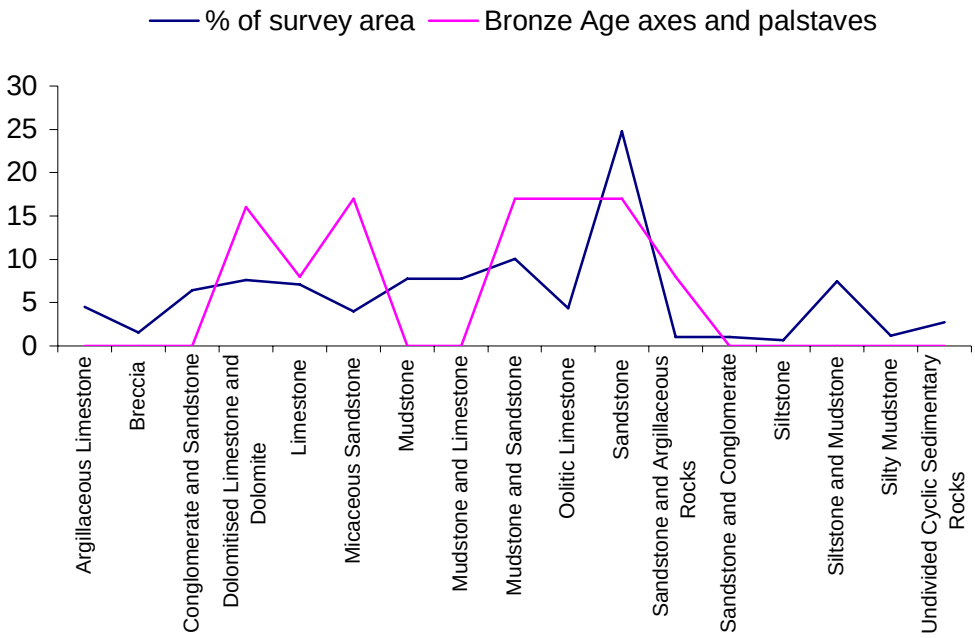

Chart 35: Bronze Age axes and palstaves and solid geology

Discussion of the distribution of Bronze Age artefacts

The significance of the distribution of these artefacts in relation to topography is not clear.

Around 78% of the Forest of Dean Survey area is on a slope of 0 – 10^{o} and the figures for Bronze Age material would seem to fit into this general pattern. Only *c.* 28% of the land area, however, is above 160m OD, which would suggest that a disproportionate number of both Bronze Age flint finds and axes are found within this height zone.

Similarly, whilst the aspect of flint finds (i.e. no particular preference) is in accordance with the general picture for the Forest of Dean Survey area, the marked preference for sites of Bronze Age axes to be on land facing between northeast and southeast may be significant, although the data set is too small and too little is known of the nature of the original deposition of these artefacts, for this information to be of much value in furthering an understanding of the Bronze Age in the Forest of Dean at the present time.

Flint finds and axe and palstave finds have a similar distribution pattern in relation to solid geology with a slight preference towards areas overlying types of limestone. The significance of this is not clear as the data sets are relatively small, but is likely to be a product of the relationship between land use and solid geology as the types of land use in which the majority of these features have been recovered (i.e. cultivated land) tend to favour these geological conditions.

The lack of flint assemblages from areas of recorded drift geology might be used to suggest that these areas were not frequented during the Bronze Age. Two palstaves were recovered from these areas, however, and areas with underlying drift deposits, such as the gravels of the Thames valley, were occupied during this period. This would suggest that this distribution is, in fact, the result of limited knowledge of the full extent of Bronze Age activity within the Forest of Dean Survey area and that further research in these areas would find currently unknown sites.

It is also unlikely that the lack of known Bronze Age activity within woodland (with the exception of occasional chance finds) is an indication that these areas were not exploited during this period.

Fieldwork within woodland in Welshbury Wood, Blaisdon (see 4.4.2.1 above) has identified undated earthworks interpreted as late Bronze Age enclosure boundaries (McOmish & Smith 1996). The significance of these features is not just that they are likely to date from this period, but this is one of the few areas of woodland within the Forest of Dean Survey area where systematic field survey has taken place, and consequently, there is a reasonable expectation that further fieldwork would identify further sites of this type. This expectation is supported by the number of placenames which may indicate the sites of Bronze Age barrows or enclosure known within woodland (see 4.4.1.8 above).

The incidence of Neolithic, and undated prehistoric finds suggests that activity took place within currently wooded areas from at least the Neolithic period (see 1.1 above and 4.5 below). Accordingly it is difficult to envisage a scenario in which areas suitable for Neolithic activity would not have continued to have been exploited during the Bronze Age, especially as climatic improvement led to population growth and increased utilisation of the landscape throughout this period (Darvill 1987). Accordingly it is very likely that further evidence for Bronze Age activity awaits discovery within the currently wooded areas of the Forest of Dean.

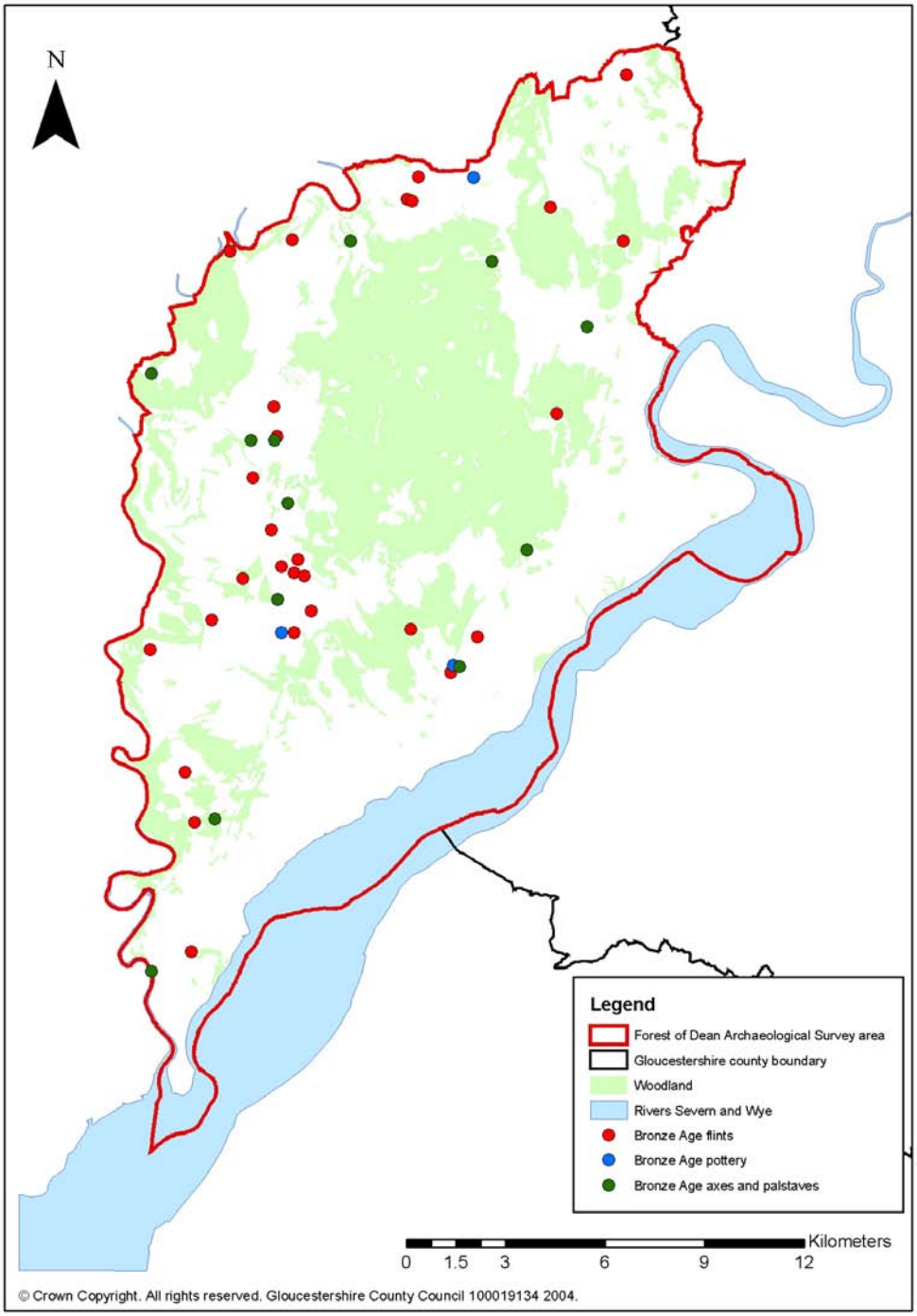

Figure 10: Bronze Age artefacts

4.5 The Iron Age

In 1984, Saville stated that “in comparison with the previous prehistoric phases, the Iron Age in Gloucestershire is prolific in archaeological material available for study, both in terms of sites and artefacts” (Saville 1984b, 140). Within the Forest of Dean Survey area, however, evidence for this period is relatively poor, and the amount of artefactual evidence compares unfavourably with that for earlier periods such as the Mesolithic or Neolithic.

4.5.1 Earthworks or other landscape features

Earthwork features of known Iron Age date are restricted to the recognised hillfort sites (see 4.5.1.1 below), although a number of undated earthworks and enclosures (see 4.6.3 below) may also be Iron Age in date.

4.5.1.1 Hillforts

The predominant feature of the Iron Age within Gloucestershire is undoubtedly its collection of hillforts, although opinion varies as to precisely how many of these the county contains. The Gloucestershire SMR records 46 sites with a specific site type of hillfort, although a number of these are clearly dubious and published estimates range from 32 (Saville 1984b, 143) to “about 35” (Darvill 1987, 125). It is also clear that this simple designation will encompass a range of sites constructed at different times and for different purposes, which have been grouped together by modern archaeologists on the basis of their morphological similarity.

The Forest of Dean Survey area contains only four sites which, on the basis of size and morphology, are generally accepted as hillfort sites, although a number of other earthwork features such as Soudley Camp, Soudley (Glos SMR 444) and the circular enclosure at May Hill, Longhope (Glos SMR 5189) have been placed in this category by some authorities. These sites are discussed as Undated Enclosures (see 4.6.3 below).

Nature of the evidence

Form

All of the following are recognized as hillfort sites on morphological grounds.

Three sites are with a series of banks and ditches cutting off a natural promontory:

- Symonds Yat promontory fort, Glos SMR 19. Five banks and ditches cut off a natural promontory.
- Lancaut promontory fort, Glos SMR 23. Three banks and ditches cut off a natural promontory.
- Camp Hill promontory fort, Lydney, Glos SMR 25. Two banks and ditches cut of a natural promontory.
- Welshbury Hillfort, Glos SMR 5161. A sub-rectangular area multivallate hillfort enclosed by up to three banks and ditches.

Status and date

The current form of all the identified hillfort sites suggests they fall within the “developed hillfort” tradition dating from the middle Iron Age (from *c.* 300 BC), and could be interpreted as “central places in discrete socio-economic territories” (Cunliffe 1978, 273). Defended hilltop settlements began to appear in Britain in the earlier part of the Iron Age (*c.* 700 BC, Darvill 1987) or possibly even the latter part of the Bronze Age (from *c.* 1000 BC, Savory 1976), and it is not known if any of these features were

originally constructed (perhaps in a simpler form) during these earlier periods and subsequently modified.

The status and date of only one of these (Camp Hill, Lydney - Glos SMR 25) has been confirmed by excavation (Wheeler and Wheeler 1932), whilst small-scale excavations, and observations at Symonds Yat (Glos SMR 19) have identified late Iron Age to early Roman activity, perhaps associated with smelting (Parry 1994, Walters 1992a, Hoyle et al. 2004, Hoyle 2005) but have not confirmed the status or date of the earthworks themselves. Geophysical survey undertaken in the interior of Lancaut (Glos SMR 23) proved inconclusive (Barker et al 2000), whilst the hillfort at Welshbury (Glos SMR 5161) has been subjected to detailed topographical survey (McOmish & Smith 1996) but no further archaeological investigation has been undertaken.

Distribution

These sites are positioned around the periphery of the higher ground of the Forest of Dean with access to major watercourses (the Rivers Severn and Wye), areas currently used for arable cultivation, and (in the case of Symonds Yat, Welshbury and Lydney) mineral resources in the form of the iron ore outcrops in the Carboniferous Limestones around the edge of the Statutory Forest.

Although it may be tempting to envisage these dividing and controlling the available resources within Dean throughout the middle Iron Age, the actual status, date or longevity of these sites is currently unknown, and it is not clear that they fulfilled similar functions, or were even contemporary features.

Landuse

All of the hillforts are currently under woodland. Two (Symonds Yat and Welshbury) in the ownership of the Forestry Commission, whilst the remaining two are privately owned. None of these sites is currently managed as commercial woodland.

Topography and geology and height

The four hillforts are at a range of heights ranging from *c.* 75m OD (Lydney Glos SMR 25) to *c.* 175m OD (Welshbury Glos SMR 5161)

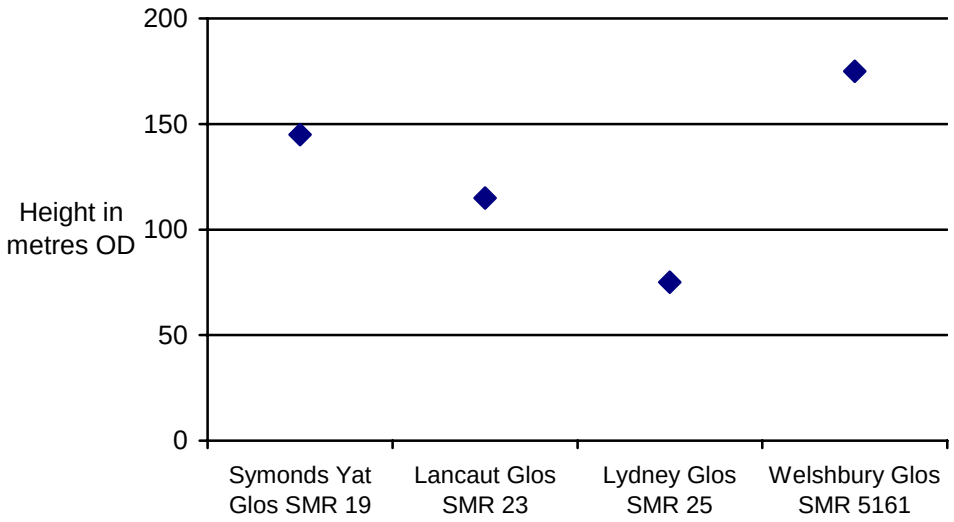

Figure 11: Hillfort sites and height

The interiors of three of these sites have a generally northerly and northwesterly aspect with only one (Lydney Glos SMR 25) trending towards a southerly aspect. All four sites contain a mix of relatively level areas (below 5^{o}) with some steeper ground (up to 12^{o}).

All of these sites are located in prominent topographical locations, with a number of sides protected by either steep slopes or sheer cliffs, and it is clear that this combination of defensive advantage combined with visual prominence will have been a major factor in the selection of these sites. Considerations such as height, aspect, geology or slope are likely to have been secondary to this.

4.5.1.2 Field systems

No definite evidence for Iron Age field systems are known within the survey area, although it is highly likely that the late Bronze Age field system associated with Welshbury Hillfort (Glos SMR 5161, 22116) continued to be used during the life of the hillfort, and some elements of this system may have been established during this period.

Similarly a number of the undated field systems known within the survey area may also date to this period (see 4.6.4.2 below).

4.5.2 Other *in situ* evidence of Iron Age activity

With the exception of the recognised hillfort sites, the Forest of Dean Survey area contains very little evidence of *in situ* Iron Age activity.

In situ hearths and postholes have been found in conjunction with Iron Age pottery at Coldwell Cave (Glos SMR 17222) close to Symonds Yat hillfort (SO 57101560) suggesting that the cave was occupied at that time, and postholes found during an archaeological evaluation at Sedbury, Tidenham, (Glos SMR 22228) have been tentatively interpreted as evidence of an Iron Age structure.

Iron weapons and equipment found at High Nash, Coleford (Glos SMR 4929; SO 57681020) have been interpreted as evidence of a late Iron Age warrior burial (Glos SMR 4929; Walters 1992a), although the circumstances under which these were found, and the location of the human remains which presumably accompanied them, remains unclear. The warrior burial and cave occupation are unlikely to be typical of Iron Age activity within the survey area, and it is clear that the full range of Iron Age activity has not been recognised.

Two remaining features may be of Iron Age date, but are in fact undated. The remains of two stone hut circles in East Vaga Woods, Tidenham (Glos SMR 5041, 5042) are frequently ascribed an Iron Age date purely on morphological grounds without any supporting evidence, whilst a reputedly Iron Age holloway at Edge Farm, Woolaston (Glos SMR 5032) has been dated on the basis of its association with what is, in fact, an undated enclosure (Glos SMR 6386) which is discussed more fully in 4.6.3 below.

4.5.3 Artefacts of Iron Age date

Fourteen sites have been identified on the Gloucestershire Sites and Monuments Record for the Forest of Dean Survey area.

4.5.3.1 Nature of the evidence

The artefacts that have been identified in the Gloucestershire Sites and Monuments Record mainly consist of pottery, brooches and coins. Three of these (Glos SMR 25, 4929, 17222) relate to *in situ* Iron Age remains and are discussed above, two (Glos SMR 4390, 6377) were recovered during excavation of sites dating mainly to the

Roman period, two (Glos SMR 5138, 5036) as a result of earthmoving activities, whilst the majority (seven) were found as chance surface finds. None of the dated Iron Age artefacts have been recovered as a result of deliberate and systematic collection of artefacts from the surface of cultivated fields.

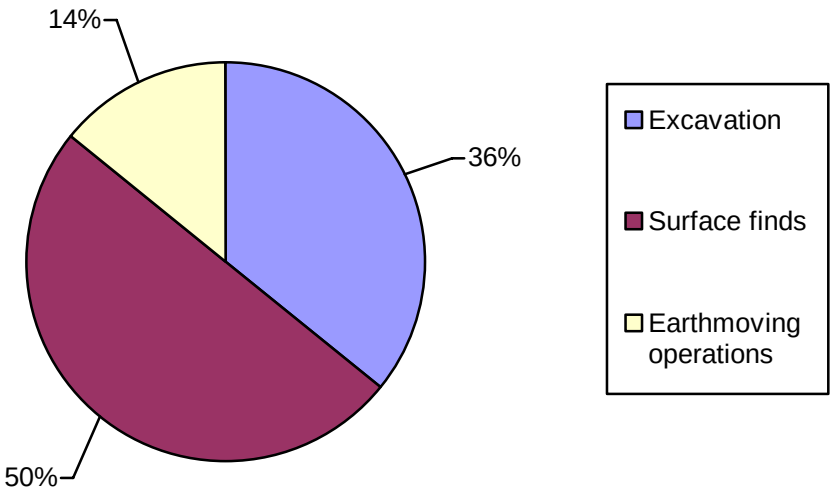

Chart 36: Iron Age artefacts: Method of discovery

Distribution

Landuse

Half (50%) of Iron Age artefacts have been found outside of woodland areas. The remainder are divided between broadleaved and mixed woodland with 8% found in conifer woodland.

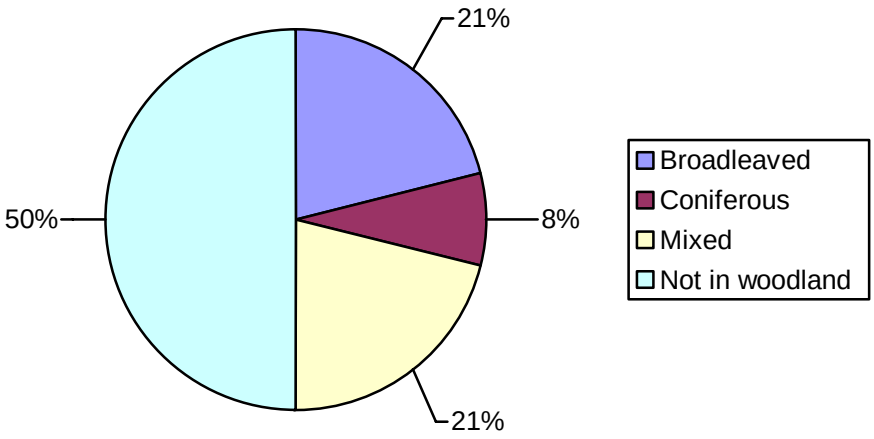

Chart 37: Iron Age artefacts and woodland

Geology

A greater proportion of Iron Age artefacts has been found in areas with an underlying solid geology of Dolomotised Limestone and Mudstone and Sandstone, whilst few of these finds overlie a solid geology of Sandstone.

O the 14 sites of Iron Age artefacts, only two of these have underlying drift geology; Glos SMR 6377 overlies deposits of silty clay and Glos SMR 5138 overlies gravel deposits.

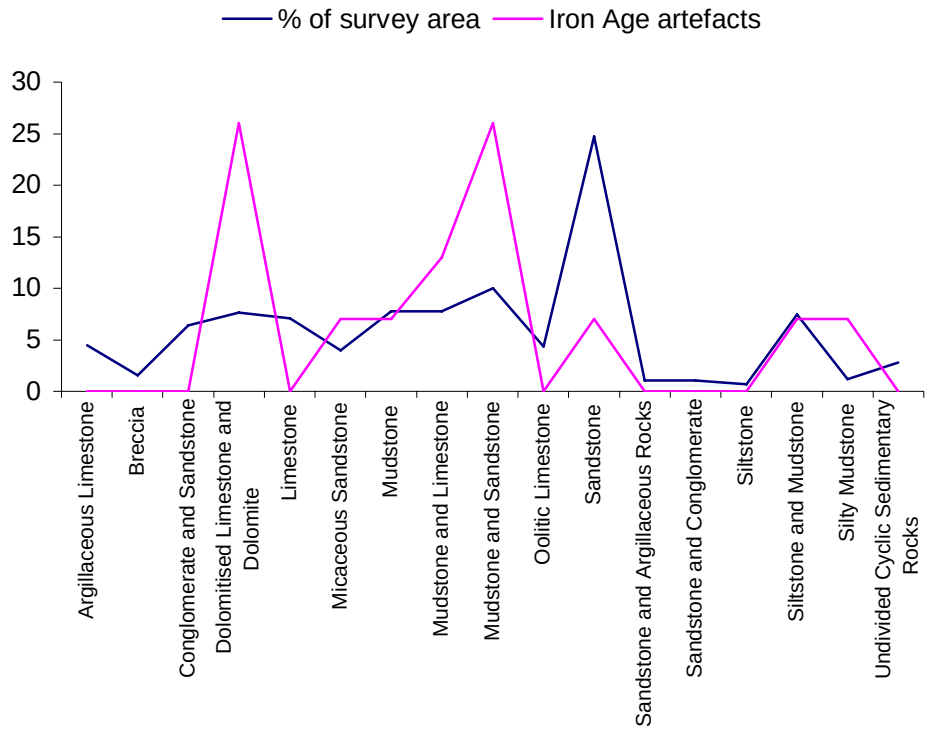

Chart 38: Iron Age artefacts and solid geology

Height aspect and slope

Iron Age artefacts have been found at all heights within the survey area with no clear patterning. Half of the sites where Iron Age artefacts have been found lie on gentle slopes (between 0 and 5^{o}). The remainder can be found on slopes between 5 and 30^{o} with three 3 on slopes of between 15 and 20^{o}. A significant number of sites which have produced Iron Age artefacts have a southeasterly aspect with only two facing northwest and one facing northeast.

4.5.3.2 Discussion of the distribution

The available dataset (14 sites) is too small for any definitive statements to be made concerning the distribution of these artefacts.

The disproportionate number of these finds from within woodland is likely to be unrepresentative as three of these sites (43%) are actually form a single area of woodland (Chestnuts Wood, Littledean, SO 67811448) and consist of two late Iron Age/early Roman bronze fibulae (Glos SMR 21706, 21707) and a sherd of Late Iron Age pottery (Glos SMR 5180) found within *c.* 350m of each other in an area of woodland known to be frequented by interested and observant amateurs.

Another two of these sites (Glos SMR 24, 17222) representing a further 14% of the total, were recovered during excavations at Lydney Park and a cave site near Symonds Yat respectively, and neither of these were actually located within the woodland found in the vicinity of these areas.

4.5.3.3 Iron Age industrial activity

The evidence for pre-Roman iron ore extraction and iron smelting within the survey area is discussed in the report on the Scowles and Associated Iron Industry Survey (Hoyle et al. 2004).

In summary, however, there are no securely dated sites of either pre-Roman ore extraction from within the Forest of Dean Survey area, although exploitation of the iron ore outcrops in this area during the latter part of the Iron Age is, suggested by scientific analysis of the composition of either datable iron artefacts or processing waste. Late Iron Age artefacts excavated at Beckford in Worcestershire had been manufactured using iron smelted from low phosphorous ores, consistent with the ores from the Carboniferous Limestones of the Forest of Dean (Chris Salter pers. comm.), and slags from late Iron Age contexts at Frocester in the vale of Gloucester have a chemical make-up (a low uranium content) which suggests that they may have been derived from ore from the eastern outcrop of the Forest of Dean Carboniferous Limestones (Tim Young pers. comm.). The actual location or scale of this industry during this period remains unclear.

Similarly there are no confirmed pre-Roman smelting sites from within the Forest of Dean, although small quantities of “bloomery” slag has been reported from a tree throw hollow within the Iron Age Promontory Fort at Symonds Yat (Glos SMR 19) in conjunction with pottery (Severn Valley Ware) dating from the late Iron Age/early Roman transitional period (Walters 1992b, 6) and undated bloomery slag has also been found on the eastern slopes of Welshbury Hill, Blaisdon (Glos SMR 22116) within *c.* 500m of the Iron Age hillfort (Glos SMR 5161). Clearly neither of these instances is indicative of *in situ* pre-Roman smelting, but they do suggest the possibility that there may be a connection between these sites and the contemporary iron industry.

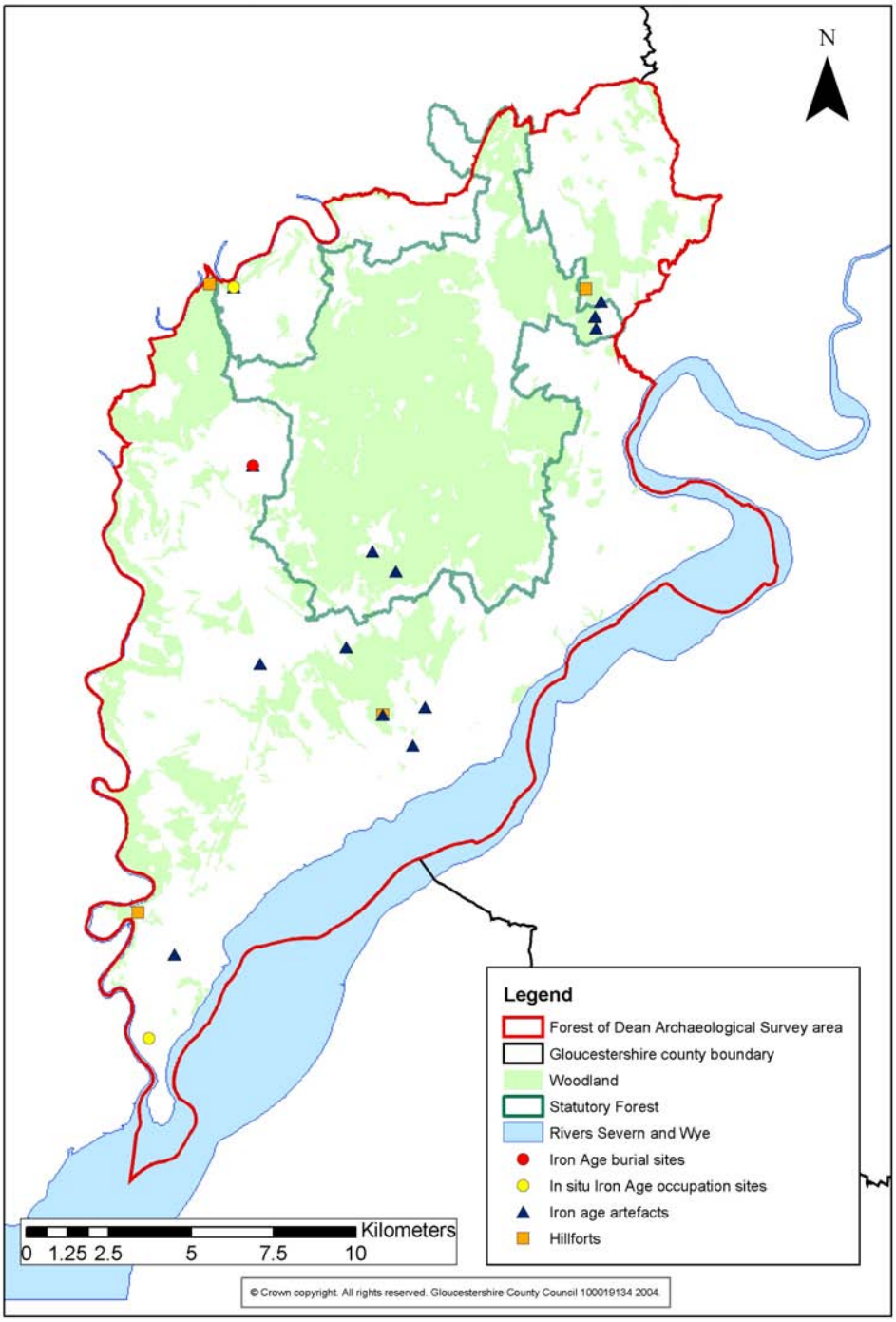

Figure 12: Iron Age sites

4.6 Undated prehistoric sites and artefacts

Undated evidence of prehistoric activity falls into the following categories:

- Sites which contain features that are probably indicative of prehistoric activity, but which have not been more closely dated.
- Artefacts (generally flint) which are indicative of prehistoric activity, but have not been more closely dated. The actual status of the majority of these assemblages is not clear from the data within the SMR and it is not known what proportion of these are actually undiagnostic and what proportion have been classified in this way as they have not been examined by a recognised specialist.
- Features known as either earthworks or cropmarks which are morphologically consistent with a prehistoric date, but which have not been more closely dated by excavation. These tend to take the form of evidence of enclosures or field systems, but other types of feature are known (see 4.6.1 below).
- Placename evidence which suggests the site of possible prehistoric activity.

4.6.1 Undated probably prehistoric sites

The Gloucestershire Sites and Monuments Record identifies only one site within the Forest of Dean Survey area which contains features of prehistoric date which have not been more closely dated. This site consists of two circles of stone (Glos SMR 5041, 5042) measuring *c.* 10m and *c.* 16.5m in diameter in East Vaga Woods, Tidenham.

Although these features have been interpreted as the possible remains of Bronze Age round barrows (Walters 1992a, 32), they are generally considered to be the remains of prehistoric hut circles (Isaac 1990; Scott Garret 1918-1958). These features are assumed to be prehistoric in date on account of their form, and their proximity to the only excavated round barrow in the area (Glos SMR 5043, *c.* 400m to the northeast), although these features have not been dated with any certainty and both their date and interpretation remains unclear.

4.6.2 Undated prehistoric artefacts

The Gloucestershire County SMR identifies 101 sites representing prehistoric flint finds that have not been more closely dated.

4.6.2.1 Nature of the evidence

Surface finds recovered through surface artefact collection in areas of arable cultivation represented 64% of these sites, and 13% are chance surface finds. 10% of these have been identified as a result of archaeological observation of earthmoving activity or archaeological excavation, whilst the recovery method of 13% of these sites is not recorded in the Gloucestershire SMR.

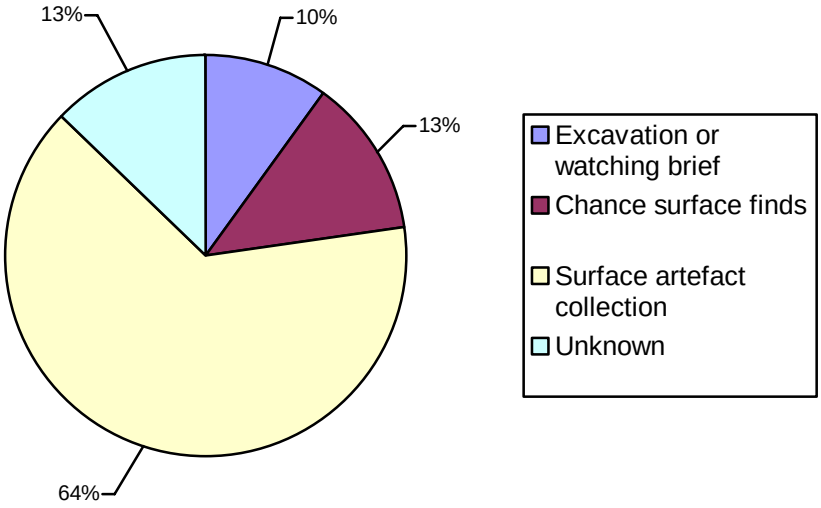

Chart 39: Undated prehistoric artefacts: Methods of recovery

4.6.2.2 Distribution

Landuse

Only 14% of these sites are known from areas currently under woodland.

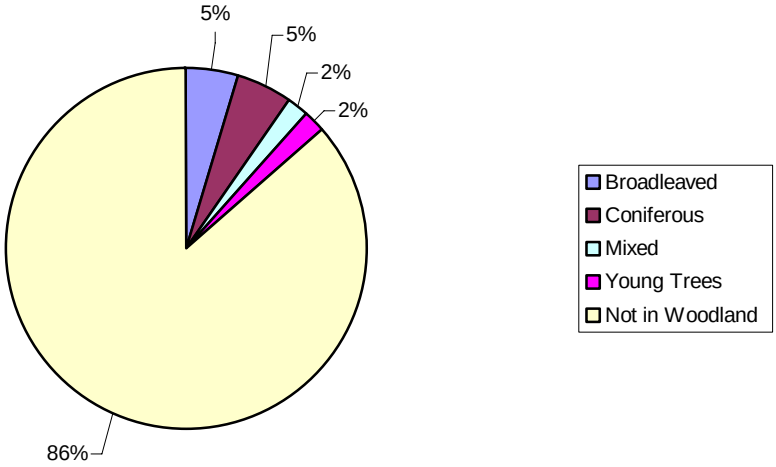

Chart 40: Undated prehistoric artefacts and woodland

Height aspect and slope

Evidence for undated prehistoric activity is found at all heights within the survey area, although the highest proportion (27%) of these sites are found at between 180 and 199m OD. 82% of the sites of undated prehistoric artefacts are found on slopes of between 0 and 10^{o} indicating a preference for relatively level terrain, whilst 47% of these sites are found on ground which faces from east to southeast, with a peak (26%) facing southeast.

Geology

A relatively large number of sites where prehistoric artefacts have been recovered overlie areas with a solid geology of Dolomotised Limestone and Dolomite, Limestone, and Limestone and Mudstone, whilst relatively few sites overlie Sandstone geology (see Chart 6 below).

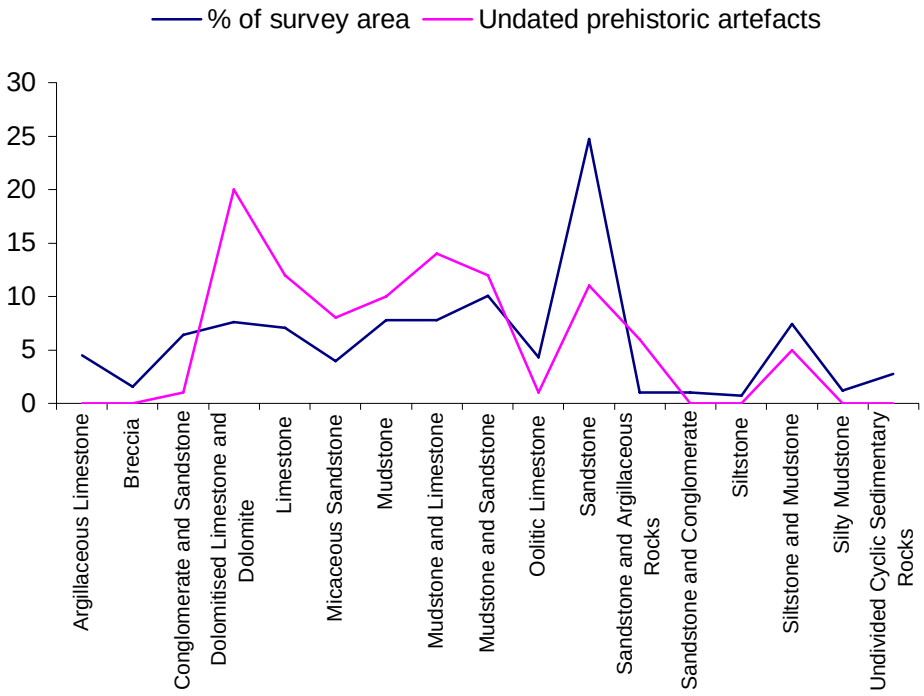

Chart 41: Solid geology of undated prehistoric artefacts

The distribution of these sites in relation to known drift geology broadly reflects the distribution of this throughout the survey area.

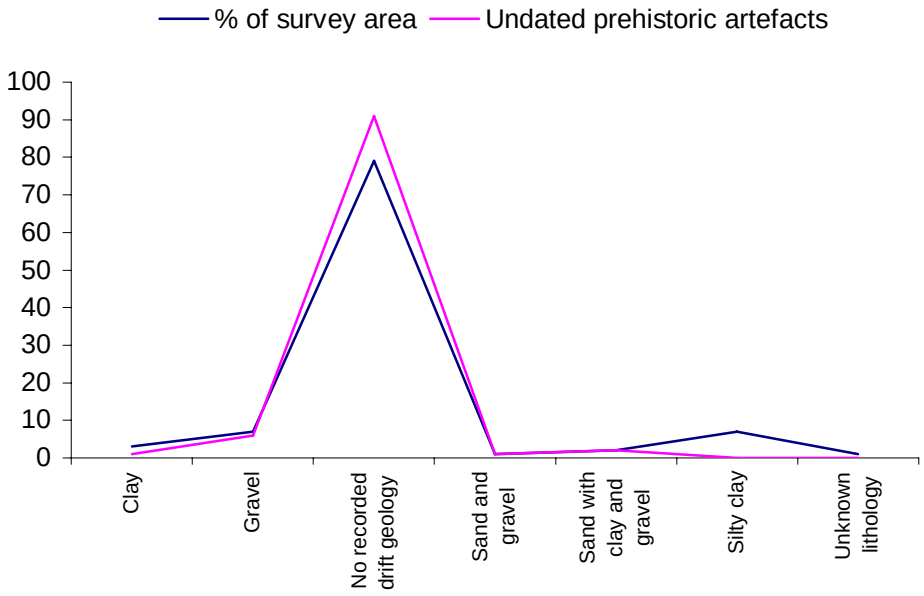

Chart 42: Drift geology of undated prehistoric artefacts

4.6.2.3 Discussion of the distribution

The significance of the distribution of undated prehistoric artefacts in relation to topography is not clear. The height range of undated prehistoric artefact sites accords with the general distribution of more closely dated prehistoric sites (see 1.1 above), whilst both the slope and aspect of these sites is broadly consistent with that of the survey area as a whole.

The geology of undated prehistoric artefacts mirrors that of more closely dated prehistoric artefacts in that they display a preference towards Limestone solid geologies and an aversion to Silty Clay drift geologies. As with the more closely dated drift deposits, this distribution is likely to be a reflection of the landuse of the survey area and the recovery method of these artefacts (64% of which were recovered as a result of surface artefact collection from the surface of cultivated fields), as the cultivated land within the survey area tends to favour Limestones whilst the woodland favours Sandstones (see 1.8 above).

Given this, it is unlikely that the lack of undated prehistoric artefacts within woodland is an indication that these areas were not exploited during this period. The argument for the correlation between woodland and recovered artefacts has already been rehearsed (see 1.1 and1.1 above) and it may be significant that of the eleven recorded sites of undiagnostic flint from within woodland, five (Glos SMR 25402 – 25407) have been recovered within an area of *c.* 5km^2 by a single individual (Mr Peter Bond of Brockweir) whilst two others (Glos SMR 19406, 21712) were also found in close proximity (Chestnuts Wood, Littledean). All of these were found by interested individuals who frequently walk these areas, suggesting that a similar level of interest in other part of the woodland might produce similar results.

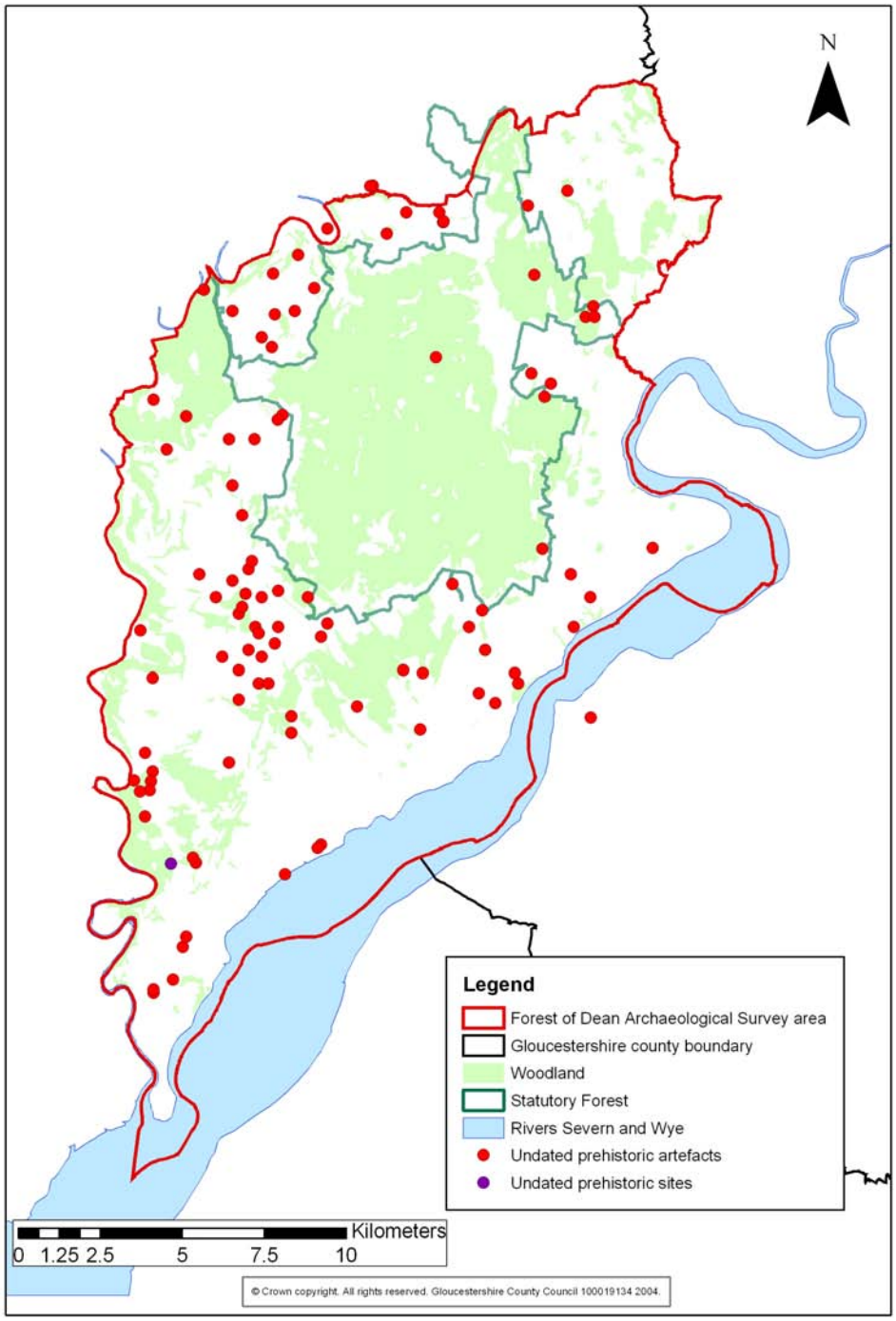

Figure 13: Distribution of undated prehistoric sites and artefacts

4.6.3 Undated enclosures which may be prehistoric in date

The Gloucestershire Sites and Monuments Record identifies 51 sites within the Forest of Dean Survey area which are evidence of undated enclosures.

These include large sub-circular areas demarcated by modern field boundaries and cropmark evidence for groups of interconnected rectilinear enclosures interpreted as evidence of medieval or post-medieval field systems. Of the 51 sites recognised, 16 can easily be discounted as likely evidence of prehistoric or later settlement or associated activity in the Forest of Dean. The remaining 35 sites are discussed in this section.

For the purposes of discussion these can be divided into the following broad categories:

- Sub-circular and other enclosures.
- Sub-rectangular enclosures.

4.6.3.1 Sub-circular and other enclosures

Twenty-two sub-circular enclosures were identified. Six of these are known only as cropmarks, whilst the remaining 14 survive as earthworks.

Small sub-circular enclosures (up to *c.* 25m in diameter)

Six small sub-circular enclosures were identified within the survey area. These are discussed with possible barrow sites (see 4.4.1.3 above).

Larger sub-circular enclosures (*c.* 50 – *c.* 140m in diameter)

Larger sub-circular enclosures may represent the sites of prehistoric settlement, although they could equally represent other types contemporary feature such as ritual sites or stock enclosures, or may represent features of a later date.

Large sub-circular enclosures thought unlikely to be prehistoric in date

Of the remaining larger enclosures, Tallards Marsh earthwork, Sedbury (Glos SMR 5056) has been interpreted as a possible part of Offa's Dyke (Hoyle and Vallender 1997)

An enclosure at Morse Grove, Newnham (Glos SMR 4627), known only from cropmark evidence, may be natural in origin, whilst a further cropmark site at Folly Farm Coleford (Glos SMR 4393) may be the remains of industrial activity. A site east of Purton (Glos SMR 18412) is known only as a result of dowsing survey and its status has not been confirmed, whilst two sites at Sedbury, (Glos SMR 21154, 21155) have been identified on the basis of modern field boundary shapes, which do not form a complete circuit, and their status is also uncertain. A circular enclosure on the summit of May Hill, Longhope (Glos SMR 5189) has been interpreted as a prehistoric enclosure, but may be an early 19th century enclosure to protect trees from grazing animals.

Large sub-circular enclosure of probable prehistoric date which have been destroyed

Two sites recorded at Coombesbury Wood, Tidenham in the 19th century (Glos SMR 5036, 5037) were destroyed by quarrying in the earlier part of this century, and another site at Mitcheldean (Glos SMR 22761), visible on aerial photographs taken in 1947, has been destroyed by housing development.

A further enclosure site at Stroat (Oldbury Camp, Glos SMR 5035) was described as "mostly ploughed out" by the mid-19th century, although this will only refer to the ramparts and any buried archaeological deposits are likely to remain intact within the enclosed area.

Ashbury Camp, Tidenham (Glos SMR 5008) was described in 1951 as "quite a likely site of a camp but no well marked banks or vallums are to be seen" (Scott Garret & Harris 1932), this interpretation is supported by both the placenames Ashbury (or Ashberry) and Caer Wood, and prehistoric flint artefacts are recorded from the area.

A further enclosure, Dinnegar Camp (Glos SMR 5022) near Stroat may also have been destroyed. The site is reported to be beneath the orchard at Stroat Farm (Hart 1967). No trace of the site is remains at this location, however, although this site is at the foot of slope, *c.* 500m to the east of the hill summit called "Dinnegar" on the Tidenham Tithe map of 1845 (Gwatkin 1995), perhaps suggesting that the actual site

of this enclosure is towards the summit of the hill rather than at its base, although there is no record that this area has been searched.

Large sub-circular enclosures which may be prehistoric in date

A possible enclosure at Coldharbour St Briavels (Glos SMR 26756) has been recognised principally on the basis of the configuration of field boundaries in the area, although when the site was visited in 1995 as part of the Offa's Dyke survey for management, no visible earthwork features were identified (Hoyle & Vallender 1997).

The remaining site in this category consists of a large (*c.* 100m in diameter) earthwork in Dry Wood Rusbridge (Glos SMR 21982). This site was discovered as a result of the National Mapping Programme for the Forest of Dean. The existence of earthworks here was validated by a site visit in early 2003, but nothing is known of either the status or date of this site.

Other possible prehistoric enclosure sites

A number of other sites that may represent the sites of prehistoric enclosures have been identified within the Forest of Dean Survey area, although as the status and date of these are not clear, they have not been included on Figure 14.

D-shaped enclosures

Three sites have been categorised as D-shaped enclosures, although the status of these is clear:

- One of these (Glos SMR 4095) near Woolaston Grange, Woolaston, has been interpreted as a pre-modern drainage system associate with a probable mill site.
- Another (Glos SMR 22514) at Tidenham is known only from aerial photographs and coincides with a curving path through woodland on early Ordnance Survey maps of the area, suggesting that the mark could be a result of the path rather than an archaeologically significant feature (although it remains possible that the path followed an earlier feature).
- The third (Glos SMR 22759), also known only from aerial photographs, is described as "dubious" in the SMR record.

Other possible prehistoric settlement sites

Soudley Camp, a small triangular promontory (*c.* 0.3ha) demarcated by a massive bank and ditch on its western side and with steep (possibly enhanced) slopes on the remaining sides (Glos SMR 444), has also been classified as prehistoric by some authorities (Saville 1984a, 165). Some sherds of late Romano-British pottery and bloomery slag have been found within this feature although its date and function remain unclear, and possible interpretations for this feature range from an Iron Age defended settlement to the site of an early Norman watchtower (Hoyle 2000a).

Three other sites have been identified by earlier researchers as possible sites of prehistoric settlement, but their status and location is particularly unclear:

- Maidenham, south of Littledean (Glos SMR 27880). This site appears to have been identified on the basis of placename evidence alone.
- Wellhouse, south of Purton (Glos SMR 27881). The origin of this site is not clear, although as it is near an area of woodland known as Kear's Wood. Hart suggests that Kear is a corruption of *Caer* (Hart 1967, 15) but it is also a surname common in the Forest of Dean.
- The possible "Iron Age camp" on Naas Cliff, Lydney (Glos SMR 6500). The evidence for the existence of this site is based on an early post-medieval reference to a "castle" on the site, and no known earthworks are reported.

Discussion of sub-circular enclosures and other possible prehistoric settlement sites

It is clear that a number of the sites recorded as undated enclosures or other possible prehistoric settlement sites are very equivocal in terms of their archaeological potential. Accordingly it is not proposed to discuss all of these, but to simply select those thought likely to represent archaeologically significant sites.

This does not mean that those not included are necessarily devoid of all archaeological interest, but that they are considered less likely to warrant further research at the present time.

The following sites are considered to be of particular archaeological interest.

Table 14: Destroyed enclosures

SMR No.	Description
5036	Site of a small circular enclosure, possibly Iron Age, on Combesbury Hill, Tidenham. Destroyed by recent quarrying.
5037	Site of a possible promontory fort on a spur of land to the west of St. Mary's and St. Peter's Church, Tidenham. Destroyed by recent quarrying.
22761	A large curvilinear enclosure of unknown date which was seen as an incomplete cropmark on land now developed for housing, Mitcheldean. Destroyed by recent housing development.

Table 15: Undated sub-circular or other enclosures

SMR No.	Description
444	Soudley Camp (SAM 59), a small promontory fort of indeterminate date, Lower Soudley. Possibly an Iron Age promontory fort or defended medieval site.
4616	Undated ovoid enclosure, located at Sallowvallets Inclosure, west of the A4136 between Edge End and Worral Hill.
5008	Enclosure of unknown date, described by Playne as being half a mile north of Yewbury, at a place called Ashbury, Tidenham.
5022	Site of Dinnegar Camp, a possible prehistoric enclosure northwest of Stroat Farm Stroat.
5035	Site of Oldbury Camp, a possible Iron Age cattle enclosure southwest of Stroat. SMR 6367 described as Oblong enclosure
21982	Earthworks of unknown date possibly forming an enclosure, located on a ridge in Dry Wood, Ruspidge.
22740	An earthwork oval enclosure of uncertain date mapped from aerial photographs, Mitcheldean.
26756	Undated sub-circular enclosure known as "Coldharbour" approximately 1km to the southwest of St Briavels.

The interpretation and date of none these sites has been established, and all could relate to relatively modern features such as post-medieval tree or stock enclosures.

4.6.3.2 Distribution of large sub-circular enclosures

Landuse

Only three of the eight larger sub-circular enclosures (37.5%), and are known from areas currently under woodland. None of the destroyed sub-circular enclosures are within wooded areas, although two of them (Glos SMR 5036, 5037) were within woodland when they were first recorded.

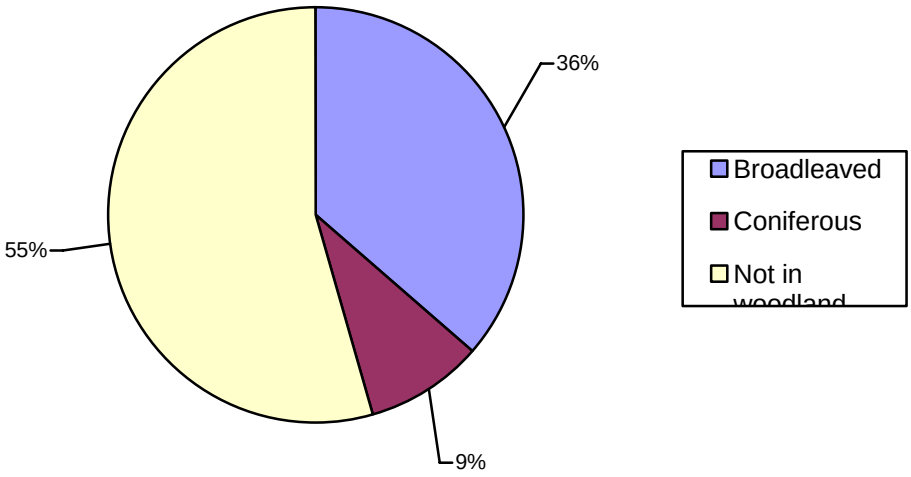

Chart 43: Large sub-circular enclosures: Landuse

Geology

A relatively high number of the 11 larger sub-circular enclosure sites (three of which have been destroyed) overlie a solid geology, not only of types of limestone, but also Miceaous Sandstone, Mudstone and Mudstone and Sandstone. Only one of these sites (Dinnegar Camp Glos SMR 5022) overlies a geology of Mercia Mudstone which is not a type of either sandstone or limestone. The actual location of this site, however, is disputed and it is thought more likely to be located to the west of its currently recorded location overlying a geology of Micaeous Sandstone.

None of these sites overlie recorded drift geological deposits, although the majority of these sites are within *c.* 500m of recognised drift deposits.

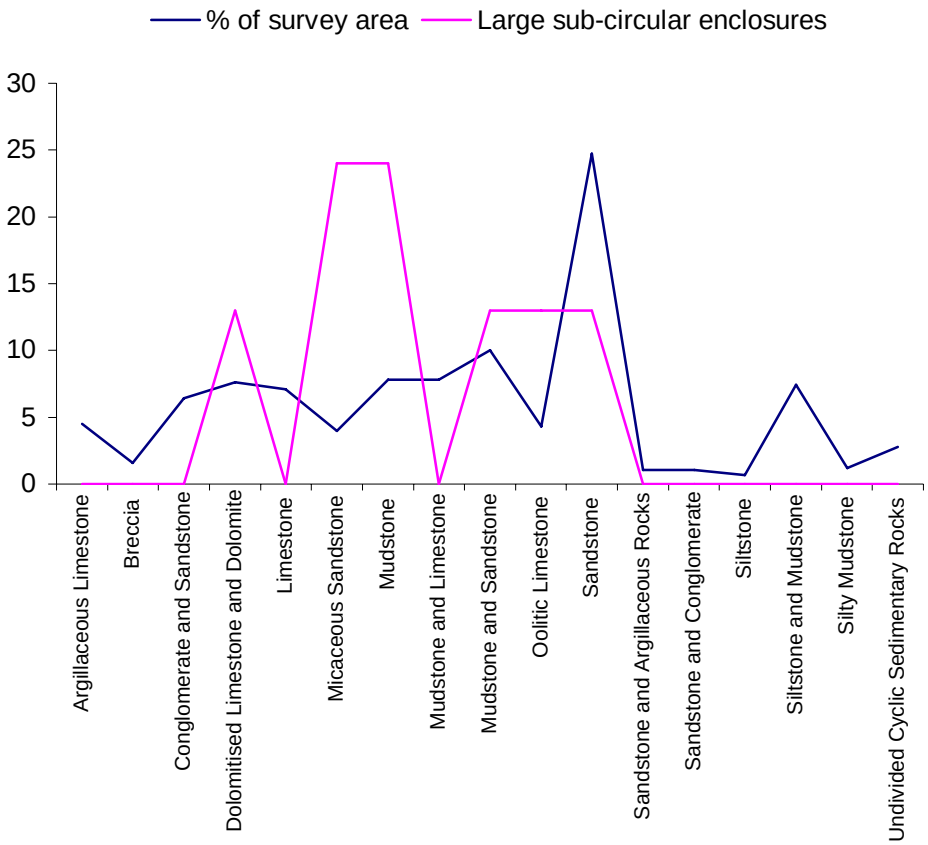

Chart 44: Large sub-circular enclosures: Solid geology

Height slope and aspect

The majority of these enclosures (including those destroyed) are at heights above 100m OD with only three below 50m OD. The actual location of one of these sites (Dinnegar Camp, Glos SMR 5022) is not clear and this site may be on higher ground than that suggested by the Sites and Monuments Record.

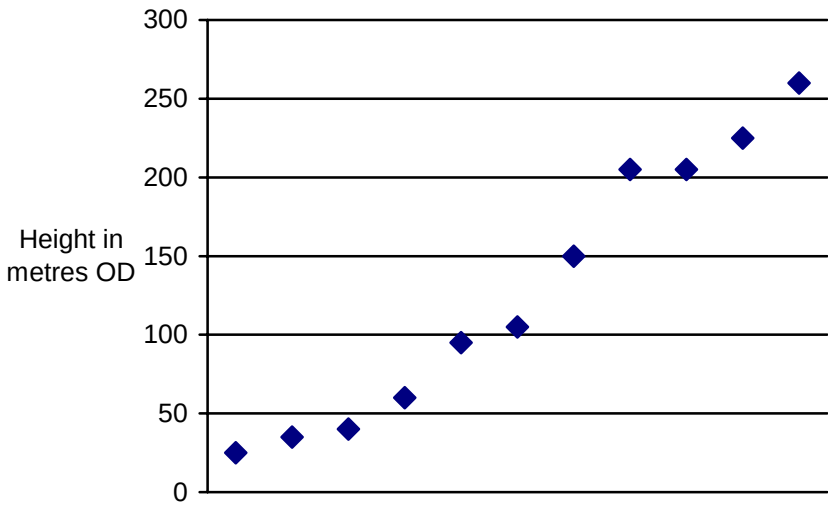

Chart 45: Heights of large sub-circular enclosures

All the large sub-circular enclosures were found on slopes with southerly aspect with the 73% of them facing between southeast and southwest, whilst almost all of these

sites were on relatively level ground (below 5°) with only one (Glos SMR 5008) on slightly steeper ground (*c.* 6°).

Discussion of the distribution of large sub-circular enclosures

Although the data sets are small, the distribution of large sub-circular enclosures is of some interest.

The fact that 45% of these sites are known from within woodland, a relatively high proportion when compared with the 36% of woodland within the survey area may suggest two things:

- Earthwork features may survive better in woodland where they have not been subject to recent agricultural regimes.
- The distribution of large earthwork features, which are more likely to be recognised within woodland than buried archaeological deposits or less distinct earthworks, may reflect the actual distribution of evidence for prehistoric activity that could be predicted within the woodland of the Forest of Dean.

The distribution of these sites in relation to solid geology is not consistent with the distribution of the majority of known prehistoric sites and artefacts, since a relatively high proportion are found in areas where the solid geology is a form of Sandstone, reflecting the fact that a relatively high proportion of these sites are within woodland, which favours the Sandstone geology. The distribution of more recognisable features such as these may be more accurately indicative of the actual distribution of prehistoric activity within the survey area than the known distribution of less clearly visible sites or those identified by artefact scatters.

Although the majority of these sites are on relatively high ground, generally on either the summits or of the sides of slopes, they are all on fairly level terrain within these areas, and this type of site has a clear preference for southerly facing aspects. Whilst it is tempting to interpret this as evidence that these sites were used for habitation, favouring level ground and mild southerly aspects, this needs to be treated with a degree of caution, and there is very little comparative information on the location and position of prehistoric settlement sites within the Forest of Dean Survey area, and three of the four known hillfort sites (see 4.5.1.1 above) have a northerly aspect.

Thus, although it may be reasonable to suggest that enclosures of a similar shape or size, and which share similar topographical attributes, may have fulfilled a similar function, It is not possible, at the present time, to make any definitive statements about the nature or date of these.

4.6.3.3 Sub-rectangular enclosures

In addition to the possible sub-circular enclosures identified within the survey area, 15 sub-rectangular enclosures have also been identified.

Sub-rectangular enclosure of dubious validity

One of these enclosures (Glos SMR 4351) is of dubious validity as it is not clearly defined on aerial photographic sources and was not recorded by the NMP project

Sub-rectangular enclosure though likely to represent post-medieval activity

Four of these sites are thought likely to represent post-medieval activity:

- Glos SMR 4540 – probable modern field boundary
- Glos SMR 14880 – this enclosure may conform to a post-medieval field boundary recorded in 1608 (PRO 1608).
- Glos SMR 22375 – Unclear linear or rectilinear earthwork visible in a domestic garden.
- Glos SMR 22567 – may be residue from a Second World War Prisoner of War Camp, or may relate to the modern campsite in this area.

Sub-rectangular enclosure though likely to represent medieval activity

Four of these sites have been interpreted as part of boundary systems dating to the medieval or later period:

- Glos SMR 26180.
- Glos SMR 26197.
- Glos SMR 26198.
- Glos SMR 26429.

Sub-rectangular enclosure which may represent earlier activity

The remaining six possible earthworks (Glos SMR 4053, 4353, 6386, 21767, 22703, 22767) are all rectilinear or square cropmarks or earthworks ranging in size from 52m x 32m (Glos SMR 22767) to 125m x 125m (Glos SMR 4053). The status or date of none of these is known, although their form suggests a Romano-British, or later date. Some, however, may represent evidence of prehistoric activity of some kind, and the following two are associated with placenames which may suggest the site of early ramparts:

- Glos SMR 4053 – Wilsbury.
- Glos SMR 21767 – Hangerberry.

A further enclosure which may fall into this category (Glos SMR 5035) is described as "oblong" but is discussed with sub-circular enclosures (see 4.6.3.1 above).

Distribution of sub-rectangular enclosures which may represent early activity

Landuse

Only one of the rectilinear enclosures (Glos SMR 4353) is currently within woodland

Geology

With one exception (Glos SMR 21767, which overlies a limestone solid geology) all of the rectilinear enclosures overlie a geology of sandstone. None of these features overlie drift deposits, although the majority of them are within *c.* 500m of these.

Height, slope and aspect

With a single exception (Glos SMR 6386) all sub-rectangular enclosures are located above 100m OD and 50% of these are above 200m OD

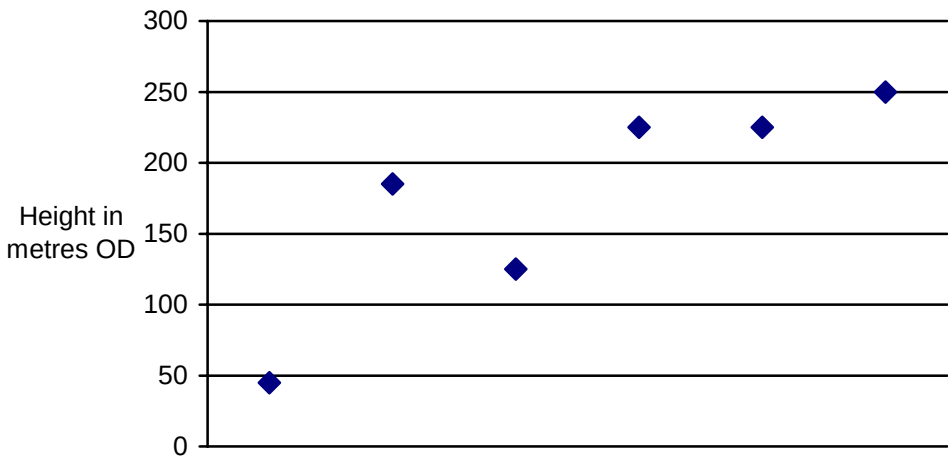

Chart 46: Heights of sub-rectangular enclosures which may represent early activity

The aspect of these features displays a slight preference towards north facing aspects with three sites (50%) facing between north and northwest. Only one of these sites (Glos SMR 4053) had a southerly aspect. Almost all of these sites were on slopes of 5^{O} or less, with the exception of Glos SMR 22767, which was on a slope of *c.* 17^{O}.

Discussion of distribution sub-rectangular enclosures which may represent early activity

As with the sub-circular and other enclosures, the function of the sub-rectangular enclosures is not clear and none can be dated with any certainty. It may be reasonable to suggest that features of similar shape and dimensions which occupy a similar topographical position may have fulfilled a similar function.

The enclosure at Edge Farm Woolaston (Glos SMR 6386) measures 98m x 27m, and the remaining enclosures are either square (Glos SMR 4053, 4353, 22703) or less than twice as long as they are wide.

Of the remaining five rectilinear enclosures the site at Mitcheldean (Glos SMR 22767) is on an unusually steep slope, although as this information is generated from OS contour data, a site visit would be required to ascertain whether the interior of the enclosure is actually on this slope, or whether this simply indicates the hillslope of the area surrounding the enclosure which is actually on more level ground.

The square enclosure at Close Turf Farm, St Briavels (Glos SMR 4053) is relatively large (125 x 125m) and is consistent in size and general shape with an early Roman fort (Salway 1993, 102;), although no entrances are visible. The smaller square enclosures at Fairplay (Glos SMR 4353, measuring 53 x 53m) and Ruardean (Glos SMR 22703, measuring 70 x 70m) are consistent in shape and size with small Roman fortlets (Adkins & Adkins 1982, 100; Breeze 1982, 101), and all these sites could be evidence of early Roman military expansion and consolidation of the Forest of Dean area from the mid-1st century AD.

The majority of these sites (again with the exception of the Edge Farm earthwork Glos SMR 6386) are within *c.* 1km of the modern boundaries of the Statutory Forest. The system of forest lodges constructed following the Dean Forest Reafforestation Act of 1668 is well known (Jurica 1996c) and has been the subject of recent research (Waygood 2003; 2004). Physical evidence of the administration of the crown woodland prior to this, however, is not currently known, and it remains possible that some of these sites represent early forest or hunting lodges predating the post-medieval administrative reforms.

The variety of features which may be represented by these rectilinear enclosures, remains very wide, and other possibilities, ranging from prehistoric or Romano-British farmsteads to medieval moated sites or hunting lodges, are possible interpretations for some or all of these features.

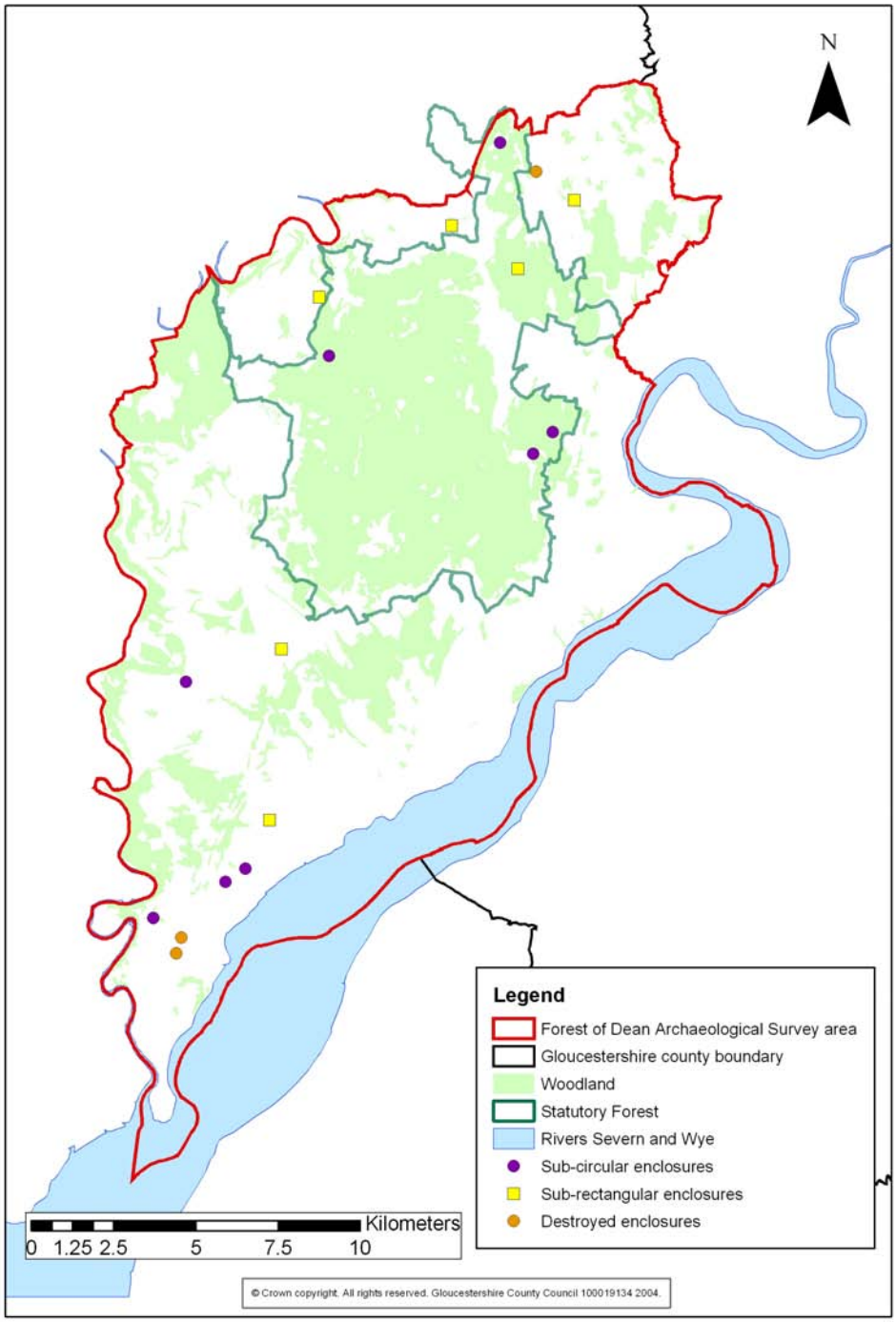

Figure 14: Undated enclosures

4.6.4 Undated and possible prehistoric field systems

4.6.4.1 Probable prehistoric field system

Only one field system within the survey area is currently interpreted as prehistoric in date. This system (Glos SMR 5161) survives as low lynchets and has been interpreted as late Bronze Age in date on account of its relationship with the ramparts of the near by Iron Age hillfort at Welshbury. Other lynchets on the eastern slopes of the hill (Glos SMR 22116) have been interpreted as part of the same system (see 1.1 above).

This field system is within an area of mixed (largely deciduous woodland) overlying a sandstone solid geology. The Gloucestershire Sites and Monument record lists these enclosures at a height of *c.* 160m OD on a west-facing slope of *c.* 6.5°, although in

reality they range in height from *c.* 150-175m OD and are on slopes of up to 16° on a *southwest*erly to westerly aspect. Similar earthworks, which may be part of the same system as these, are also found on the eastern side of the hill. These are at heights of between 120 and 140m OD and on southeasterly to northeasterly facing slopes of between 6 and 12°.

4.6.4.2 Undated field systems

Thirteen undated field systems are identified within the Gloucestershire SMR within the Forest of Dean the Survey area. These are a combination of cropmarks and earthwork features, often recorded by aerial photography. No firm date has been established for these features, although they have been designated a possible prehistoric or Romano-British date on the basis of associated archaeological finds or features, and all of these could represent agricultural processes dating to other periods.

Possible prehistoric field systems which may be prehistoric

Linear earthworks have been recorded by field survey at Chestnuts Hill (Glos SMR 22053; Hoyle 2003b), *c.* 0.5km to the south of the recognised prehistoric field system at Welshbury (see 4.6.4.1 above) and although these have not been dated they may be part of the contemporary landscape. They are within mixed woodland overlying a sandstone geology and although the information generated by the Gloucestershire Sites and Monuments Record suggests these are at a height of 190m OD with a level west-facing aspect, they in fact have a height range of between *c.* 150 - 190m OD, and are on slopes of between 6 and 16° which facing in all directions except south.

Recent LiDAR survey of the area of Welshbury Wood, Chestnuts Wood and Flaxley Woods, to the north of Welshbury Wood, has suggested that the recorded earthworks at Welshbury and Chestnuts Woods may be part of an extensive system or linear and rectilinear features which may represent the remains of prehistoric field boundaries (Peter Crow, Forestry Commission pers. comm.). The interpretation of these features (and, indeed, the extent to which the LIDAR results accurately reflect the existence of earthwork features) remains open to question, although the possibility that extensive evidence for prehistoric enclosure survives in this area must be considered in any future analysis of the location and extent of prehistoric activity in the Forest of Dean.

Undated field systems whose status is not clear

Twelve sites interpreted as remains of undated field systems were identified within the survey area. Eight of these are known as earthworks, whilst the remaining four have been recognised only from cropmark evidence.

Distribution of undated field systems of unclear status

Landuse

None of this category of site was within woodland in 2004.

Height, slope and aspect

These sites are fairly evenly distributed throughout a range of heights from 20 to 240m OD. They were all on relatively level ground with slopes of less than 10°. displaying a marked preference for easterly, and southeasterly aspects.

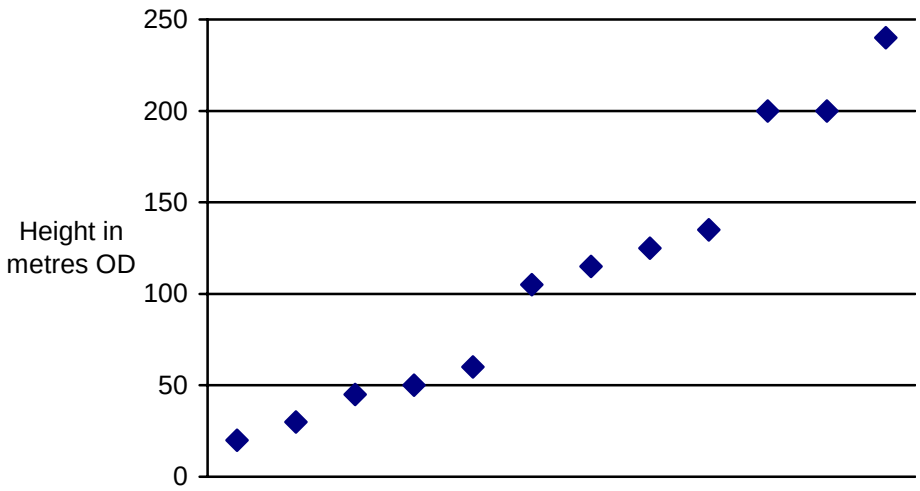

Chart 47: Undated field systems: Height

Geology

Only one of these sites (Glos SMR 4058) overlay a recorded drift geology of gravel.

These sites also overlay the following range of solid geologies and displayed a slight preference for sites overlying a solid geology of Dolomotised Limestone and Dolomite, Mudstone, Mudstone and Limestone, Mudstone and Sandstone and Oolitic Limestone.

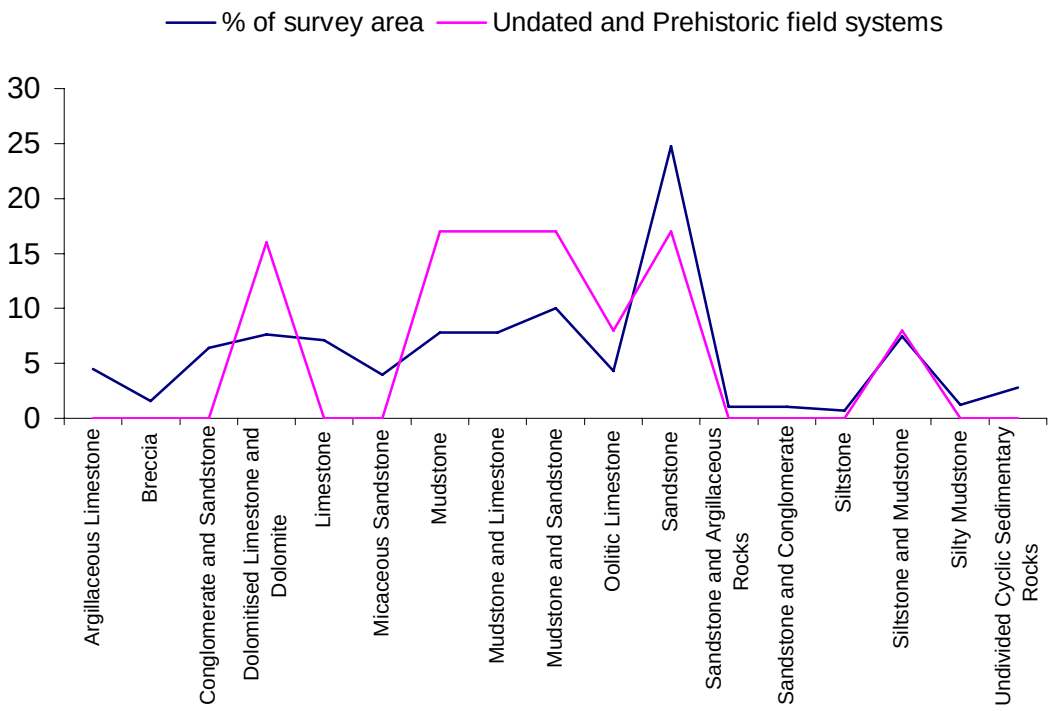

Chart 48: Undated field systems: Geology

4.6.4.3 Discussion of the distribution of undated field systems

The Forest of Dean Survey area contains only one field system (Glos SMR 5161) which can be designated a prehistoric date with any confidence, and, consequently, there is no data against which undated field systems can be compared.

The range of heights displayed by these features broadly reflects the general trends of these within the survey area and simply illustrate the fact that these features are likely to be widespread within this area, whilst their distribution in relation to solid geology is a reflection of their scarcity within areas currently under woodland.

There were, however, marked differences between both the slope and aspect of undated field systems and those which have been interpreted as probably medieval in date (see 4.10 below). A significant proportion of undated field systems is found on steeper slopes than the ridge and furrow, and the undated field systems also have a distinct preference for an easterly aspect, whilst ridge and furrow prefers westerly aspects. In places (e.g. Newland, Glos SMR 26270, 26279, 26293; English Bicknor, Glos SMR 4395, 6255) the undated field systems occupy separate topographical locations in the same area as ridge and furrow. The significance of this is not clear, especially given the small size of the data set and the lack of information on the date of these features. The following possible explanations for this should be considered:

- These represent contemporary features which are which are the remains of different agricultural regimes in different topographical locations.
- The undated field systems in these areas represent the remains of an earlier system of enclosure, which has been obliterated by medieval ridge and furrow, except in areas where this was restricted by the steepness of the slope.
- The undated field systems represent later enclosure of steep slopes, which had been unenclosed and uncultivated common pasture or waste at the edges of open fields.

Perhaps the most significant factor in the known distribution of undated field systems is woodland. Only one example of these (Chestnuts Wood Glos SMR 22053) has been identified within woodland (although see 4.6.4.2 above), and like the probable prehistoric field system at Welshbury hill (Glos SMR 5161) to the north, these have been identified as a result of rapid field investigation in these woods, suggesting that similar features may await discovery in other areas of woodland within Dean.

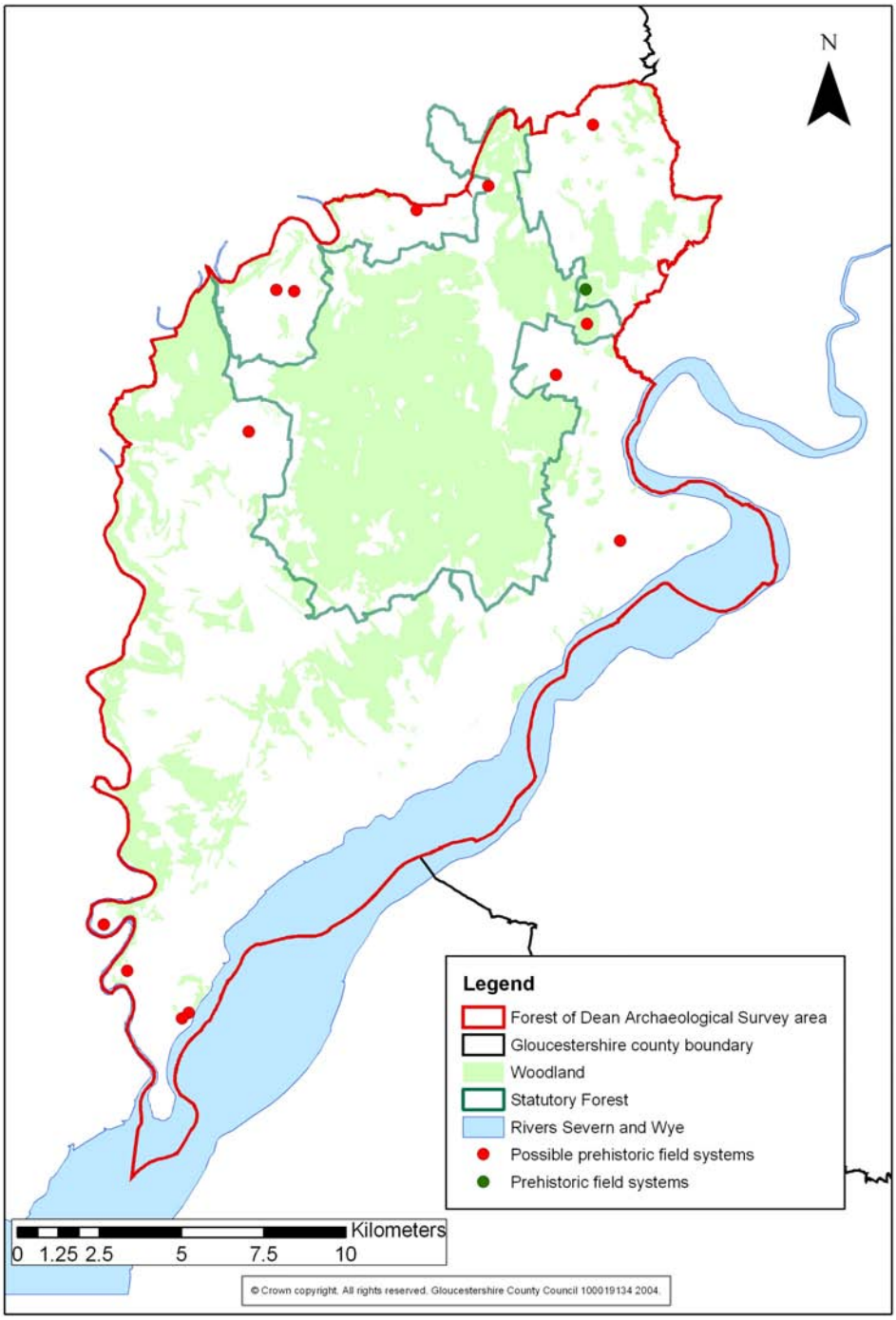

Figure 15: Prehistoric and undated field systems

4.6.5 Placename evidence which may be indicative of prehistoric activity

The Gloucestershire County Sites and Monuments Record for the Forest of Dean Survey area contains 639 sites categorised as either fieldname or placenames.

Although placename evidence can be used to suggest site of potential archaeological significance, placenames may generally have a number of meanings and derivations, and this type of evidence is rarely conclusive in itself, and should be used with caution. In addition to this, it is often not possible to locate the features to which the placenames may refer without detailed field survey, and consequently analysis of the location of these names must necessarily be imprecise, and can only be used to identify general underlying trends.

The County Sites and Monuments Record has no protocol for recording this type of site, and not all of these names are likely to indicate sites of potential archaeological significance. Five hundred and eighty-one (91%) of the names within the Forest of Dean Survey area were added to the SMR as part of Stage 1 of the survey. The selection of suitable names was undertaken in accordance with the specifications set out in Appendix D, and consequently a relatively high proportion of placenames within the survey area may indicate archaeologically significant sites.

Not all placenames are discussed in this report, and the following is a discussion of selected placenames which are thought more likely to be indicative of specific types of archaeological feature.

4.6.5.1 Placenames which may indicate the sites of prehistoric funerary monuments

Tump/Barrow/Berry names

Placenames in this category contain the following elements or words derived from them:

- Tump.
- Barrow.
- Berry.

Fifty-nine sites are known within the survey area with these characteristics. The most common form of these names (73%) are those containing elements derived from Tump, although it is highly likely that a number of these refer to either natural features such as small mounds or hillocks, or artificial mounds, such as smelting waste, medieval castle or windmill mounds, which do not indicate evidence for prehistoric funerary activity. This figure may also be slightly inflated as two placenames, Pingry Tump (Glos SMR 10589/25379) and Tumpy Field (Glos SMR 13957/23527) have been recorded twice because they appear on different sources and could not be located with any accuracy.

Similarly those placenames containing elements derived from Barrow or Berry could also have a range of meanings not associated with prehistoric barrow sites, and both of these could easily be corrupted forms of Bury generally interpreted as indicative of earthwork enclosures rather than barrow sites.

Table 16: Tump/Barrow/Berry placenames within the survey area

Placenames	Number in SMR	Percentage
Barrow Placenames	5	8
Berry Placenames	11	19
Tump Placenames	43	73
Total	**59**	**100**

Distribution of Tump/Barrow/Berry names

Landuse

Of these placenames, 36% are found within woodland, although no Barrow names are known within this landuse.

Table 17: Tump/Berry/Barrow names: Woodland

Woodland cover	Tump name	Berry name	Barrow name	Total	Percentage
Broadleaved	5	2	0	7	12
Coniferous	9	3	0	12	20
Mixed	1	0	0	1	2
Felled	1	0	0	1	2
Not in woodland	27	6	5	38	64
Total	**43**	**11**	**5**	**59**	**100**

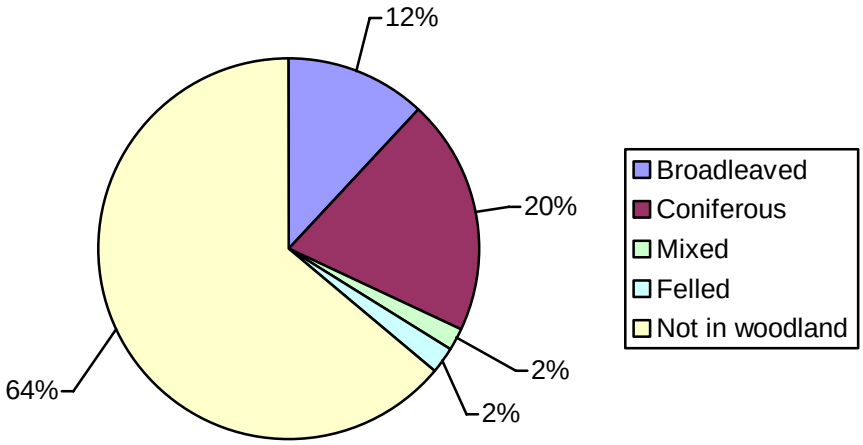

Chart 49: Tump/Berry/Barrow names: Woodland

Geology

Four of this category of sites, all of which are Tump placenames, overlie drift deposits. Three of these (Glos SMR 21532, 25373, 25423) overlie gravel, whilst the fourth (Glos SMR 17257) overlies silty clay alluvium.

These placenames, however, are found overlying a range of solid geologies, and although the highest proportion of these sites (22%) overlie a Sandstone solid geology, they display a disproportionate preference for Mudstone, Mudstone and Limestone and Mudstone and Sandstone.

Table 18: Tump/Berry/Barrow names: Solid geology

Solid geology	Tump name	Berry name	Barrow name	Total	Percentage
ARGILLACEOUS LIMESTONE	2			2	3
DOLOMITISED LIMESTONE AND DOLOMITE	5	1		6	10
LIMESTONE	1		1	2	3
MICACEOUS SANDSTONE	3			3	5
MUDSTONE	7	3		10	17
MUDSTONE AND LIMESTONE	7	2		9	15
MUDSTONE AND SANDSTONE	6	2		8	14
SANDSTONE	9	3	1	13	22
SILTSTONE AND MUDSTONE	2		3	5	8
SILTY MUDSTONE	1			1	2
Total	**43**	**11**	**5**	**59**	**99**

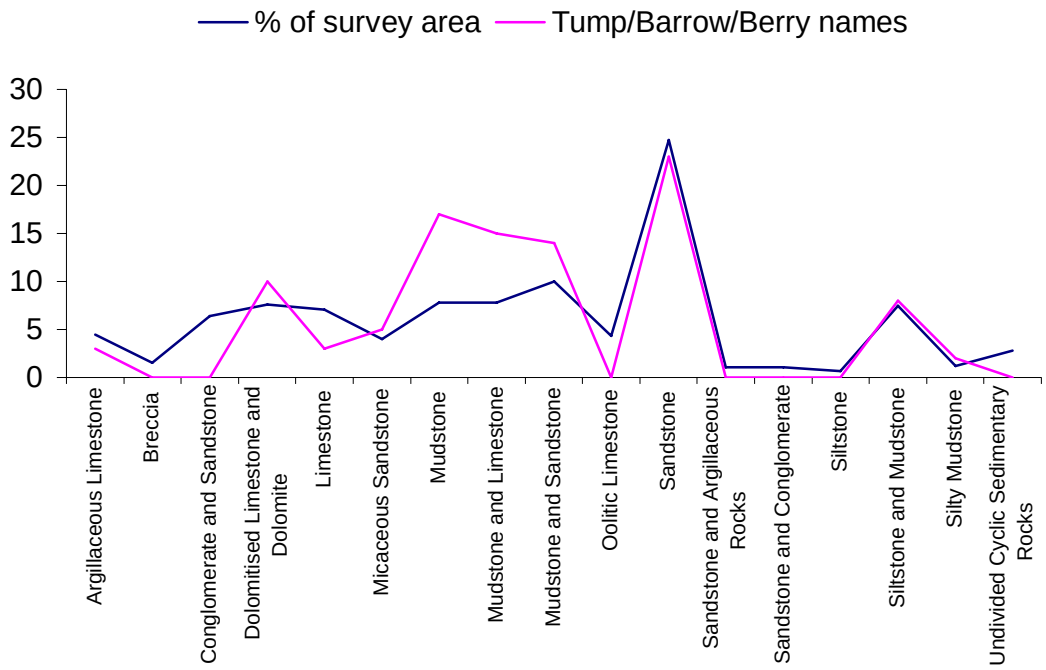

Chart 3: Tump/Berry/Barrow names: Solid geology

Height, aspect and slope

Tump, Barrow and Berry placenames are found at a range of heights within the survey area. Of these, 69% are above 100m OD, whilst 22% are at heights of 200m OD or above.

Table 19: Tump/Barrow/Berry names: Height

Height in meters OD	Tump names	Berry names	Barrow names	Total	Percentage
0-19	1	1	0	2	3
20-39	3	0	0	3	5
40-59	1	0	1	2	3
60-79	4	2	1	7	12
80-99	4	0	0	4	7
100-119	3	0	1	4	7
120-139	0	1	0	1	2
140-159	6	3	0	9	15
160-179	5	1	0	6	10
180-199	4	1	1	6	10
200-219	8	2	0	10	17
220-239	1	0	1	2	3
240-259	2	0	0	2	3
260-279	1	0	0	1	2
Total	**43**	**11**	**5**	**59**	**99**

The majority of these sites (66%) are at slopes of 10^{o} or less, although a number are at slopes in excess of this, with 17% of these sites on slopes steeper than 15^{o}.

Table 20: Tump/Berry/Barrow names: slope

Slope in degrees	Tump names	Berry names	Barrow names	Total	Percentage
0-5	20	3	2	25	42
5-10	11	1	2	14	24
10-15	6	3	1	10	17
15-20	5	4	0	9	15
20-25	1	0	0	1	2
Total	**43**	**11**	**5**	**59**	**100**

These placenames are found on sites which face in all directions and they display a slight preference for westerly aspect with 48% facing between southwest and northwest.

Table 21: Tump/Berry/Barrow names: Aspect

Aspect	Tump name	Berry name	Barrow name	Total	Percentage
N	5	1	0	6	10
NE	4	2	3	9	15
E	3	2	0	5	8
SE	4	2	0	6	10
S	4	1	0	5	8
SW	8	1	1	10	17
W	8	1	1	10	17
NW	7	1	0	8	14
Total	**43**	**11**	**5**	**59**	**99**

Discussion of the distribution

Analysis of the height and slope of these names indicates that a relatively high proportion of these placename sites are on land above 100m OD and at slopes of between 10 and 15^{o}, whist a relatively high number of these sites have a westerly aspect.

Although the height range is broadly consistent with that of undated mounds, which may also indicate the sites of prehistoric funerary monuments, the relative steepness of the slopes on which these sites are found, together with their westerly aspect, does not correspond with the slope and aspect distribution of undated mounds. This may imply that a proportion of the undated mounds represent a different type of feature than that suggested by these placenames.

In considering this data, it should be remembered that the precise location of possible features to which these names refer is not always clear (see 4.6.5 above) and consequently topographical data, which can only be compared to a notional OS grid point, may not accurately represent the topographical situation of any features.

Although Tump/Barrow/Berry placenames display a slight preference for certain types of solid geology, the general distribution of these names correlates reasonably closely with the distribution of these geological types within the Forest of Dean, whilst their relation to woodland almost precisely mirrors the incidence of this within the survey area; a relationship counter to the norm for identified features within the Forest of Dean Survey area, a relatively high number of which tend to have been found outside areas of woodland.

The reasons for this are not altogether clear. The earliest map of the area which displays placenames of this type dates to 1608 (PRO 1608) and the earliest records of these names are post-medieval in date. This means that the date of origin of the names cannot be precisely determined and the origins of some placenames, particularly those which refer to fixtures, such as visible landscape features, could be

of considerable antiquity. Consequently, the distribution of these need not be analogous with the distribution of artefacts of visible earthwork features which have been identified as a result of relatively recent observation or investigation, and may be more representative of the actual distribution of prehistoric activity within the survey area than the known distribution of prehistoric artefacts or sites. It is also clear that, although these sites are also distributed throughout the Statutory Forest, a number of them do appear to be in areas which post-medieval maps suggest were either un-wooded or not heavily wooded (Taylor 1777), and it may be that any features represented by these names were more “visible” in the past than they are now.

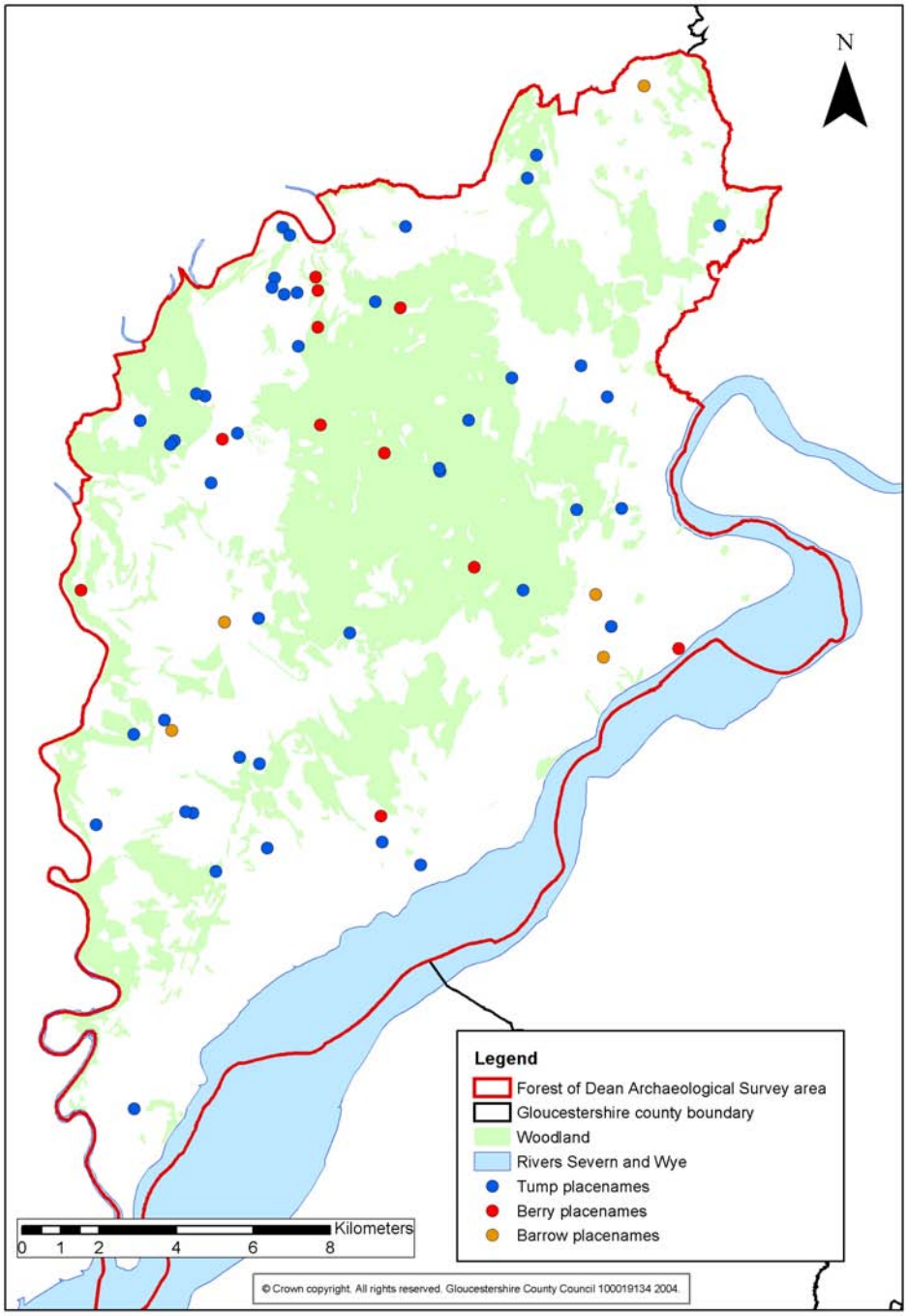

Figure 16: Tump, Barrow and Berry placenames

Loe names

Another category of placename which may indicate the site of prehistoric funerary activity is the element Loe derived from the Old English *hlaw* meaning a mound or

tumulus (Smith 1964, IV). This word is frequently used to indicate natural hills in the northern part of England, although its usage in the south is generally considered to indicate an artificial mound (Gelling 1997, 134-137). The name is often associated with the meeting places of hundreds, or burial mounds of the early Saxon period, but it cannot be assumed that any mounds indicated by this name necessarily date to this period, and earlier mounds may have been named or re-used at this time (Heighway 1987, 25).

The Gloucestershire Sites and Monuments Record lists eight placenames which contain the element Loe or a derivative of it. Of these, one (Glos SMR 21630, Lewcroft Piece) is thought likely to be a personal name, and was recorded on the SMR as the croft element of the name is thought to refer to the remains of a stone building reported on the site. This site is not included in the following analysis and discussion.

A further two names (Low field Orchard, Glos SMR 25361 and Broadlow Field, Glos SMR 25362) may refer to topography and would not normally have been recorded in accordance with the specifications set out in Appendix D. Their proximity to other Loe placenames, however, suggested that the Low element may be a corruption of Loe, and consequently they are included in the following discussion.

Distribution

With a single exception (Glos SMR 25418, Saintlow Enclosure), all of the remaining Loe placenames are found within an area of *c.* 6.5km^2 in the parish of Awre, one of the parishes to the east of the Statutory Forest, adjacent to the river Severn.

Height, aspect and slope

With one exception, all these are found at heights of between 35 and 60m OD. The exception is the name Saintlow Enclosure (Glos SMR 25418) which is at a height of 145m OD.

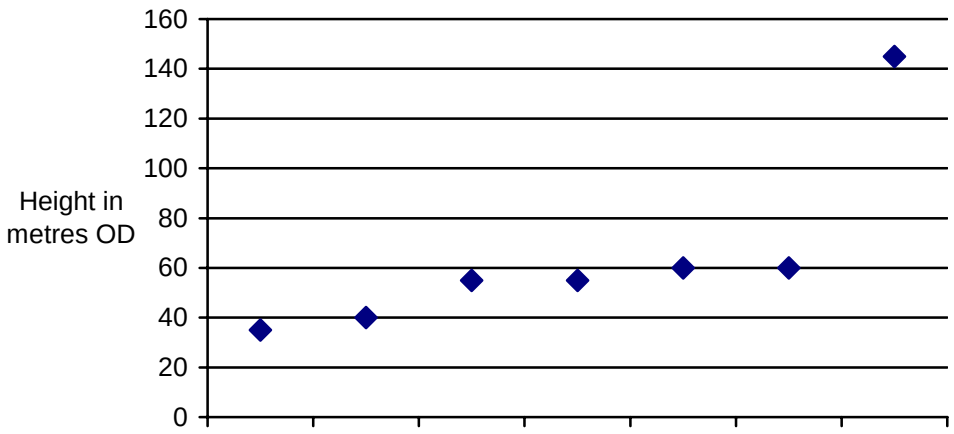

Chart 50: Loe names: height

Two of these sites are found at slopes of 0-5°, but the majority (71%) are at slopes of between 5-10°. These sites have a marked preference for a southerly aspect with 71% of them facing between southwest and southeast, and 42% facing southwest.

Geology

None of these sites overlie recorded drift geology and share a solid geology of Siltstone and Mudstone, with the exception of Saintlow Enclosure (Glos SMR 25418) which overlies a gravel drift geology and a Sandstone solid geology.

Landuse

With the exception of Saintlow Enclosure (Glos SMR 25418), which is within an area of conifer, none of these sites are within woodland.

Discussion of the distribution

Where there are clear similarities between sites in this category, the exception to the rule is invariably Saintlow Enclosure (Glos SMR 25418).

The Low element of this placename is reportedly derived from Ley meaning a small woodland clearing (Smith 1964, 219). This placename is associated with the site of a possible medieval castle (Glos SMR 7407) recorded as “Seynteleycastel” in 1282, and also the placename Turners Tump (Glos SMR 7404). The latter site was reported as a small mound and described as “a typical Norman small earthen tump, with a well at its foot” when the site was visited by members of Dean Archaeological Group in 2000.

This indicates not only that the Saintlow placename is unlikely to relate to prehistoric funerary activity but also emphasises the fact that the Loe placenames in Awre parish form a distinctive and discrete group with a number of similar characteristics, and consequently may be indicative of the likely location of a single class of monument.

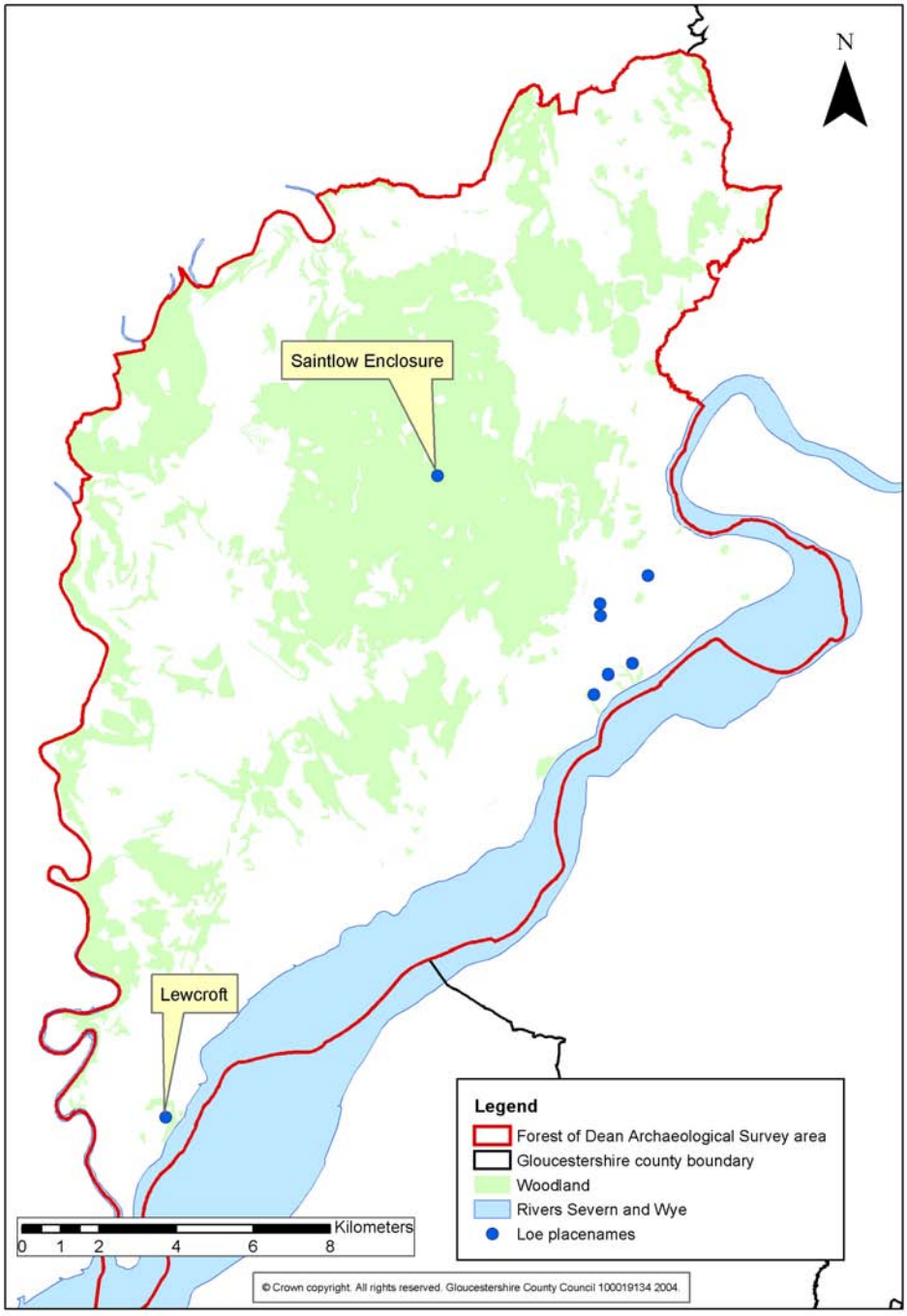

Figure 17: Loe placenames

Other placenames

A number of other placenames were identified within the Forest of Dean Survey area which may indicate the sites of prehistoric funerary monuments but which are considered more likely to represent other types of feature. These names can be summarised as follows:

Table 22: Other placenames which may indicate prehistoric burial mounds

Name category	Number known	Other comments
Coney	10	This name is thought likely to relate to the sites of pillow mounds which are medieval rabbit warrens.
Hill	35	This name is thought likely to relate to topographical features rather than discrete mounds within fields. A number of these names (e.g. Tump Hill) also incorporate elements discussed separately.
Pillow	4	This name is thought likely to relate to the sites of pillow mounds which are medieval rabbit warrens.
Windmill (not associated with known windmills)	6	This name is thought likely to relate to the sites of medieval windmill mounds.
Mound	1	Only one site with this category of name was identified. This site (Glos SMR 82) is recorded as Plague Mound and is thought likely to relate to a bank which may be part of the defences of Lancaut hillfort.

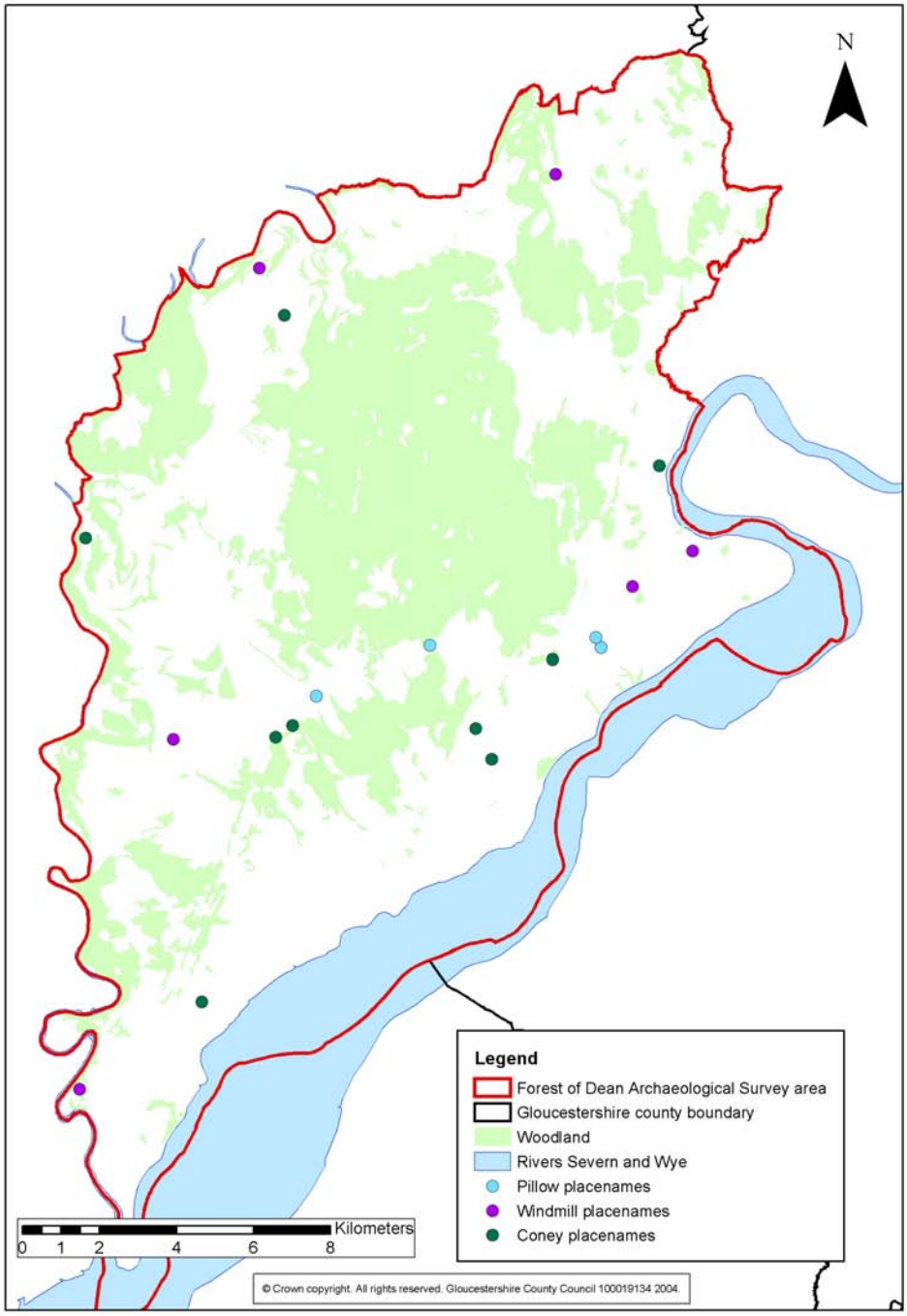

Figure 18: Pillow, Windmill and Coney placenames

4.6.5.2 Placenames which may indicate the site of earthwork enclosures

As with the placenames which may indicate the sites of prehistoric funerary activity, a number of names fall into this category.

Bury/Berry names

This category includes names which contain the element Bury, or a derivative of it, and also those which contain Berry or one of its derivatives.

The difficulties of identifying the meaning of placenames has already been discussed (see above), and the element Berry has already been assessed as a possible indicator of the sites of prehistoric funerary mounds. Without further, more detailed investigation of the derivation of individual names, it is not possible to distinguish

between these two possible meanings of this name, and for the purposes of this discussion Berry names are included with Bury names.

The Gloucestershire SMR records 24 names with the element Bury or one of its derivatives, and 11 Berry names. Of these, only one (Welshbury hillfort Glos SMR 5161) is known to relate to a datable archaeological feature, and is not included in the following analysis. In addition to Welshbury, a further five Bury/Berry names (Glos SMR 5008, 5035, 5036, 25429/25381, 21817/25433) may be associated with undated enclosures. As the status of these enclosures has not been confirmed, these names are included in the following discussion.

Distribution

Geology

Only one of these (Cinderbury Croft, Glos SMR 21582) overlies gravel drift geology. The relationship of these placenames with solid geology.

These sites overlie a range of solid geologies, although this displays a slightly higher preference towards Limestone and Mudstone.

Table 23: Bury/Berry names: Solid geology

Solid geology	Bury name	Berry name	Total	Percentage
CONGLOMERATE AND SANDSTONE	1	0	1	3
DOLOMITISED LIMESTONE AND DOLOMITE	1	1	2	6
LIMESTONE	4	0	4	12
MICACEOUS SANDSTONE	2	0	2	6
MUDSTONE	3	3	6	18
MUDSTONE AND LIMESTONE	1	2	3	9
MUDSTONE AND SANDSTONE	1	2	3	9
OOLITIC LIMESTONE	2	0	2	6
SANDSTONE	7	3	10	29
SANDSTONE AND ARGILLACEOUS ROCKS	1	0	1	3
Total	**23**	**11**	**34**	**101**

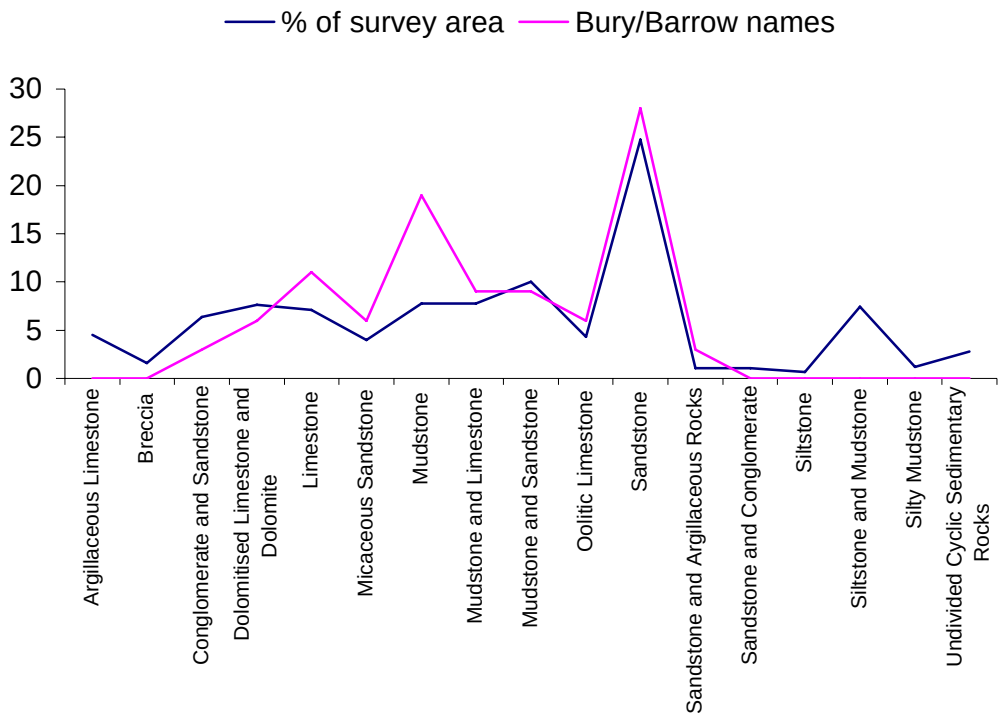

Chart 51: Bury/Berry names: Solid geology

Landuse

A total of 38% of these sites are within woodland.

Table 24: Bury/Berry names: Woodland

Woodland cover	Bury Name	Berry name	Total	Percentage
Broadleaved	5	2	7	20
Coniferous	3	3	6	18
Not in woodland	15	6	21	62
Total	**23**	**11**	**34**	**100**

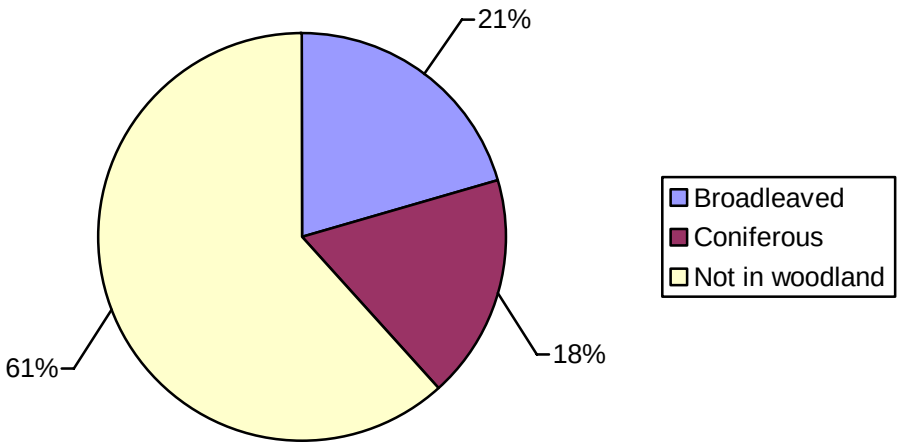

Chart 52: Bury/Berry names: Woodland

Height, aspect and slope

These names are found at a range of heights within the Forest of Dean Survey area, with 70% of at heights of 100m or more above Ordnance Datum.

Table 25: Bury/Berry names: Height

Height in meters OD	Bury names	Berry names	Total	Percentage
0-19	0	1	1	3
20-39	3	0	3	9
40-59	3	0	3	9
60-79	0	2	2	6
80-99	1	0	1	3
100-119	2	0	2	6
120-139	3	1	4	12
140-159	4	3	7	20
160-179	6	1	7	20
180-199	1	1	2	6
200-219	0	2	2	6
Total	**23**	**11**	**34**	**100**

The majority of these (65%) are on slopes in excess of 5^{o} with 47% on slopes in excess of 10^{o} although these sites display no particular preference for any aspect.

Table 26: Bury/Berry names: slope

Slope in degrees	Bury names	Berry names	Total	Percentage
0-5	9	3	12	35
5-10	5	1	6	18
10-15	6	3	9	26
15-20	2	4	6	18
20-25	0	0	0	0

Slope in degrees	Bury names	Berry names	Total	Percentage
25-30	1	0	1	3
Total	**23**	**11**	**34**	**100**

Table 27: Bury/Berry names: Aspect

Aspect	Tump name	Berry name	Total	Percentage
N	0	1	1	3
NE	2	2	4	12
E	3	2	5	15
SE	5	2	7	20
S	1	1	2	6
SW	4	1	5	15
W	4	1	5	15
NW	4	1	5	15
Total	**23**	**11**	**34**	**101**

Discussion of the distribution

Analysis of the height of these names indicates that a relatively high proportion of these sites are on land above 100m OD, a distribution broadly consistent with that of undated enclosures, the type of site with which this placename is most likely to correspond. The general lack of a preferred aspect is also consistent with that of undated enclosures (see 4.6.3 above).

Although these placenames are found on relatively steep slopes, with a particularly high proportion on slopes of between 10 and 20^{o}, the results of this analysis for this type of site should be treated with a degree of caution as the precise location of these sites cannot generally be determined with any degree of accuracy, and this level of analysis can only be undertaken with reference to a single OS grid point which represents the position of the placename. The potential difficulties of this are illustrated by the Bury placename sited on a slope in excess of 25^{o} (Aconbury, Glos SMR 25382), a name which refers to the same general area as the Berry name Great Berry Wood (Glos SMR 25426) which is at a slope of less than 1^{o}. This site is a level hilltop with very steep sides to the north and east, and the anomaly is a result of the OS grid point locating these two names being positioned on different parts of the hill.

A slightly higher proportion of these names is found overlying a solid geology of Limestone and Mudstone, and their complete lack in areas Siltstone, Siltstone and Mudstone, Silty Mudstone and Undivided Cyclic Sedimentary Rocks would seem to relate to the height distribution of these sites, as relatively few are found on the relatively low ground adjacent to the River Severn where these geologies are most common.

As with the Tump/Barrow/Berry placenames, the relationship of these placenames to woodland very closely correlates with the actual distribution of woodland, although relatively few are found within the area of the Statutory Forest.

The reasons for this have already been discussed (see 4.6.5.1 above), and the placename evidence may be more representative of the actual distribution of archaeologically significant features within the survey area than archaeological sites identified since the 19th century.

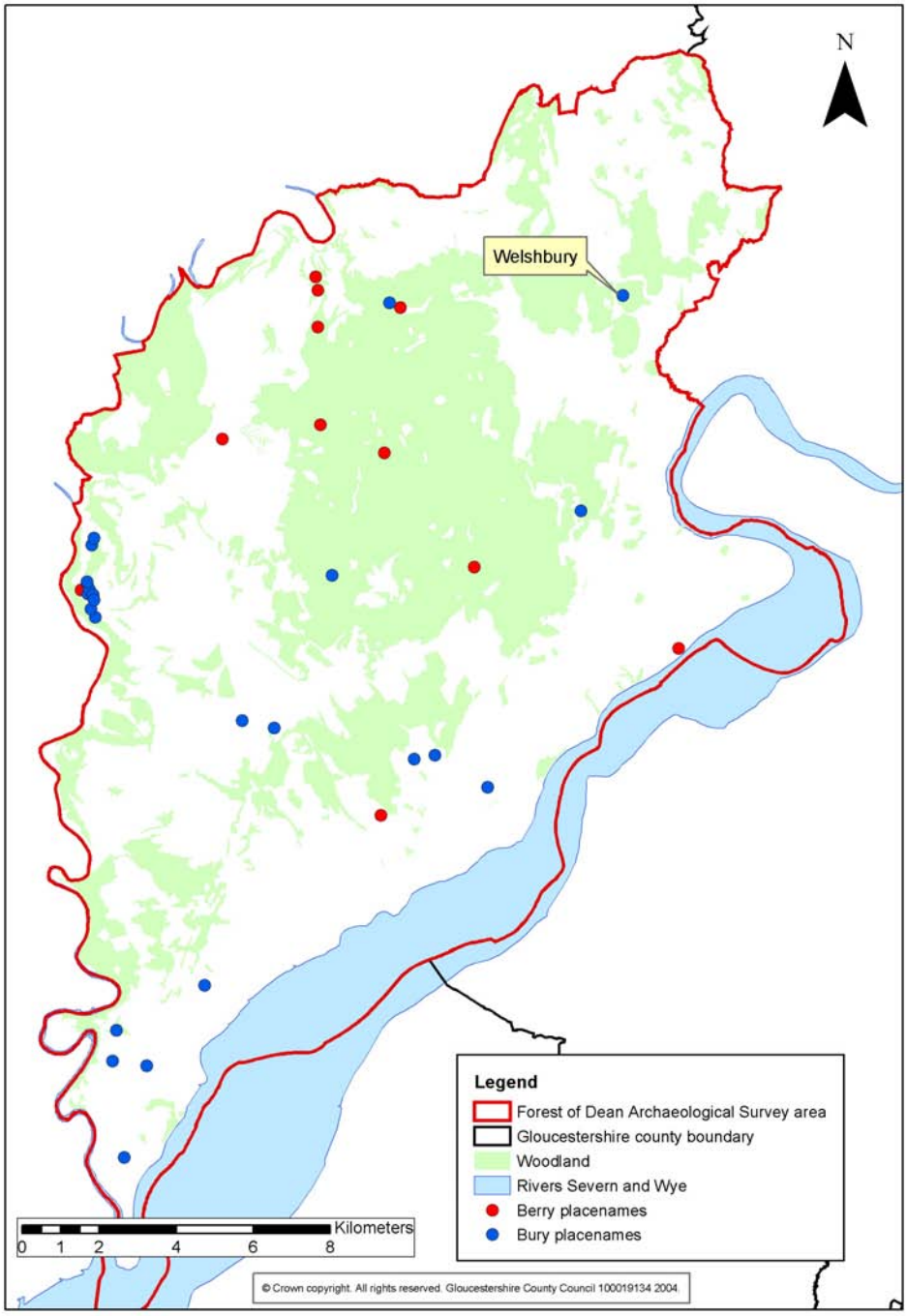

Figure 19: Berry and Bury placenames

4.6.5.3 Other placenames which may indicate the site of earthwork enclosures

The Gloucestershire Sites and Monuments Recorded a number of other placenames which may indicate the site of earthwork enclosures or other features relating to prehistoric settlement. The actual status of none of these names is known, and they have not been analysed further for the purposes of this report. These names can be summarised as follows:

Table 28: Other placenames which may indicate prehistoric earthworks

Name category	Number known	Other comments
Bank/Ditch	4	The status of none of these names is clear but they my relate to existing or former earthwork features.
Bulwarks	1	This placename Glos SMR 4027 records a linear earthwork of unknown date which cut off the southern section of the Beachley Peninsular. This earthwork was recorded in the late 18th century, but is currently under recent buildings.
Lunch	1	The name can be interpreted as a corruption of "Lynch" from the Old English "*hlinc*" meaning ridge or bank, and may refer to a linear earthwork in this field.

Bailey placenames

Ten Bailey placenames are recorded in the Gloucestershire County Sites and Monuments Record, although the status of many of these is not clear they are thought likely to relate to medieval features and are discussed in 4.9.5.3 below.

Castle placenames

The majority of castle placenames, of which nine sites are known within the Forest of Dean Survey area, relate to the known or suspected medieval fortifications, and are discussed more fully in 4.9.5.3 below.

The status and significance of the four sites which do not relate to known medieval fortifications (Castle Field Glos SMR 6041, Castle Ways Glos SMR 21673, Shutcastle Glos SMR 25376 and Doncastle Farm Glos SMR 27763) is not clear, and these could refer to fortifications or earthworks of prehistoric date.

Another site (Naas Castle, Glos SMR 6500) could refer to a putative medieval fortification, although the existence of which has not been established with any certainty and it could equally indicate the site of prehistoric fortifications at Naas Cliff, east of Lydney, a possibility that remains to be explored (see 4.6.3 above).

Wall/Well placenames

The Gloucestershire SMR lists 12 placenames which contain the element Wall or Well.

The majority of these are likely to refer to the sites of wells of other water sources, whilst others may be a corruption of the Old English *weald* indicating woodland (Ekwall 1960).

It remains possible, that, with some of these names the Wall/Well element may derive either from the Old English *weall* indicating a wall or fortification, or the Old English *wahl* indicating a Briton (Ekwall 1960) and may suggest sites of pre-medieval fortifications or settlement. This is particularly true of the placename Walston (Glos SMR 25380) which is a field name immediately adjacent to the undated sub-circular enclosure at Coldharbour St Briavels (Glos SMR 26756).

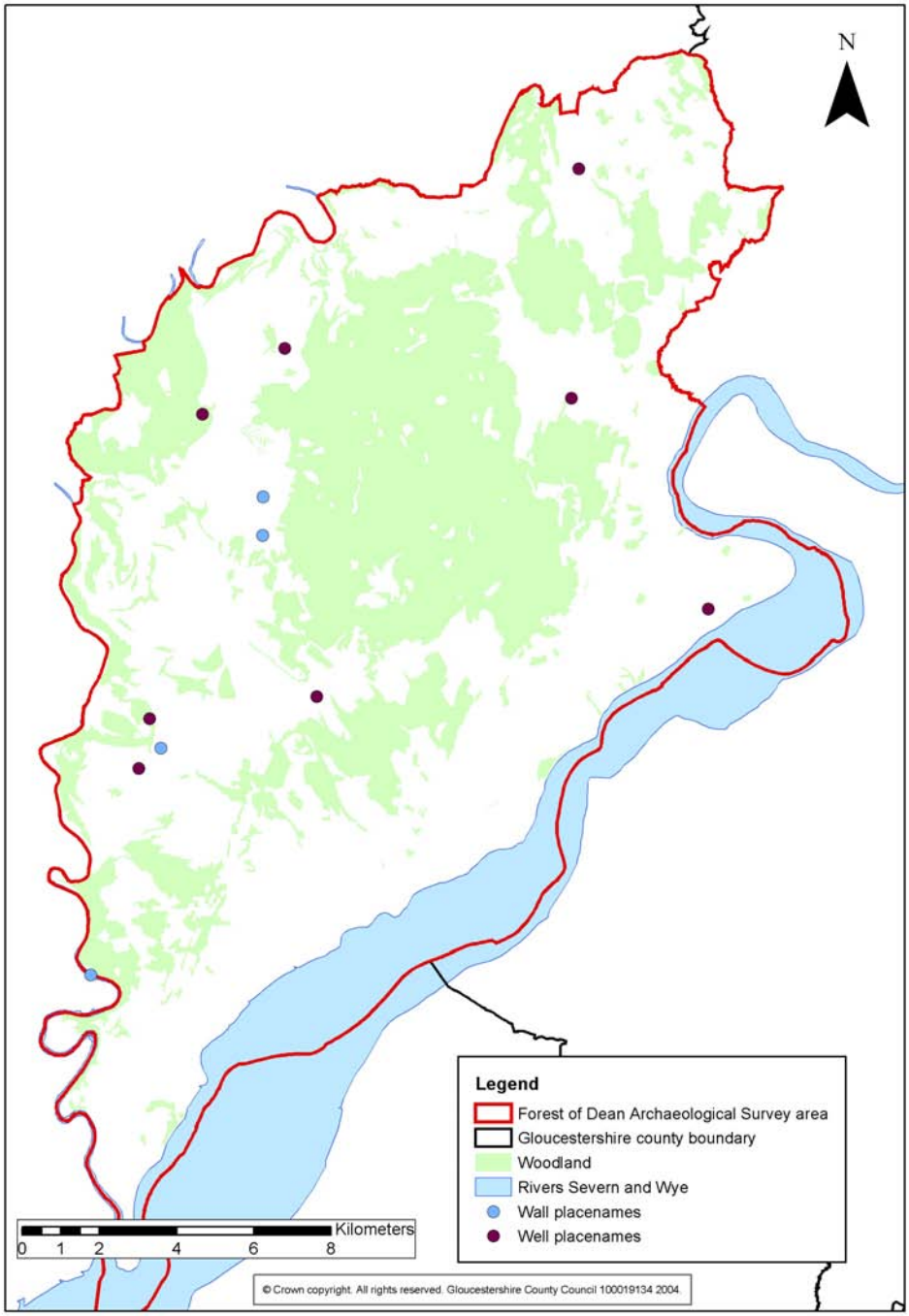

Figure 20: Wall and Well placenames

4.6.5.4 Discussion of placename evidence which may indicate prehistoric activity

Placename evidence must be treated with caution and should never be accepted at face value. The origins and possible meaning of all placenames should be investigated as completely as possible, and the range of possible meanings for given placenames should be wholly understood before this data is accepted as a means of identifying archaeological sites or features of particular types.

If the potential and limitations of this data are fully appreciated, placename evidence clearly could prove a valuable resource in indicating potentially significant archaeological sites within the Forest of Dean Survey area.

4.7 Discussion of the prehistoric periods and general recommendations for future research

4.7.1 The Palaeolithic period

4.7.1.1 Summary of the Palaeolithic period

Current knowledge about the Palaeolithic period is largely restricted to the Upper Palaeolithic period and also to the Wye Gorge where natural limestone caves and rock shelters are found although it is unlikely that Palaeolithic activity was restricted to either this period or this location (see 1 above).

4.7.1.2 Recommendations for future research

It is clear that any future work on the Palaeolithic within the Forest of Dean Survey area should concentrate on the caves and rock shelters of the Wye Valley (and particularly the Upper Wye Gorge), where Upper Palaeolithic occupation has already been identified and where new sites undoubtedly await discovery. In the light of recent discoveries of Palaeolithic cave art at Creswell Crags (Pettit 2003) particular attention should be given to the identification of similar features in this area.

It is also important that all flint artefacts recovered through future excavations and chance finds, particularly in areas which overlie a gravel geology, should be submitted for expert identification to ensure that any recovered Palaeolithic artefacts do not go unrecorded. Any significant increase in Palaeolithic findspots could then inform future research.

Given the paucity of environmental evidence relating to the Palaeolithic period from the survey area, it is recommended that, where appropriate, palaeoenvironmental sampling should be a feature of all future field research relating to this period.

4.7.2 Mesolithic period

4.7.2.1 Summary of the Mesolithic period

The Mesolithic within the Forest of Dean is known entirely from artefacts assemblages, the majority of which have been found as a result of surface artefact collection, and no assemblages have been sufficiently analysed by competent specialists to allow for further interpretation of their significance.

The distribution of known sites is heavily biased in favour of areas of arable cultivation suitable for the recovery of artefacts, and the distribution of evidence for this period is likely to reflect this, rather than providing an indication of the original distribution of activity during the Mesolithic. It can therefore be assumed that further evidence of Mesolithic activity awaits discovery in areas, such as pasture and woodland, where this type of collection strategy is not possible, or in other areas of arable where this has not been undertaken.

4.7.2.2 Relationship with archaeological features or sites from other periods

With only a single exception (Glos SMR 18409), Mesolithic flints have been found in conjunction with prehistoric flints artefacts or flakes dating to the Neolithic, Bronze Age, or which could not be dated with any certainty. On five sites Mesolithic flints were also found in conjunction with artefacts from the Romano-British period. As with their distribution, this is a reflection of the method of recovery of evidence for this period, and too little is currently known about either the assemblages or their special relationship with finds from other periods, to allow for any conclusions about continuity of settlement or other activities to be drawn from this.

4.7.2.3 Recommendations for future research

The following is recommended for further investigation of the Mesolithic period within the Forest of Dean Survey area:

- Analysis of Mesolithic flint assemblages that have been found by surface artefact collection to enable these assemblages to be properly quantified and evaluated.
- Further prospective work in areas that have yielded large assemblages of Mesolithic flint, for example in the area of the Trow Green fieldwalking findspots (Glos SMR 5726, 9747, 9748, 11050, 17612), and those areas where Mesolithic artefacts have been found in conjunction with finds or features from other periods.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of Mesolithic activity (in the form of flints) may be exposed during these operations.
- Given the lack of environmental evidence relating to the Mesolithic period from the survey area, it is recommended that, where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.

4.7.3 The Neolithic period

4.7.3.1 Summary of the Neolithic period

The Neolithic period in the Forest of Dean Survey area is currently recognised exclusively from artefact assemblages. Three of these sites (Glos SMR 5726, 9746, 9747) have been interpreted as temporary campsites, and a single site (Glos SMR 6011) is recorded as “traces” of Neolithic settlement. None of these have been subject to sufficient levels of specialist analysis for their significance or function to be interpreted with any degree of confidence. The stone axes recovered within the survey area (Glos SMR 5080, 5164, 6374, 16922) which had been manufactured in areas as diverse as Cornwall and Cumberland, and axe heads from the near vicinity of the survey area (Walters 1992a, 26) indicate that Neolithic peoples within Dean operated within a wide network of trade and communication links, although precisely what activities were taking place within the area is currently not clear.

4.7.3.2 Relationship with archaeological features or sites from other periods

Although there are no known Neolithic landscape features within the survey area, Neolithic artefacts have been found in conjunction with finds and features from other periods of the prehistoric.

At only one site (Glos SMR 17988) have Neolithic flints not been recovered in conjunction with flints artefacts or flakes from prehistoric periods, although on five sites Neolithic flints have been found in conjunction only with flakes which could not be ascribed to any particularly period in prehistory, and may therefore be unrecognised evidence of Neolithic activity. On the remaining 18 sites (75% of all Neolithic sites), Neolithic flints have been found in conjunction with artefact from the Mesolithic, Bronze Age, or on a single site (Glos SMR 19949) of Palaeolithic date. On six sites Neolithic flints have also been found in conjunction with material dating to the Romano-British period.

In addition to this, artefacts and “traces” of Neolithic settlement in the vicinity of Staunton Coleford (Glos SMR 19936 and 21727) are within *c.* 1 km of both the Long Stone Staunton (Glos SMR 5099) and a number of undated mounds in Blakes Wood Staunton (Glos SMR 13937, 13938, 13939, 13945), whilst Neolithic flint scatters Glos SMR 5726, 9749, 9746 are within *c.* 1km of the former site of the Long Stone St Briavels (Glos SMR 5076).

A rapid visual search of the evidence within the Gloucestershire SMR identified thirteen sites of Neolithic artefacts within *c.* 0.5km of site which either placename evidence or earthworks suggest may be the sites of Neolithic or Bronze Age funerary activity, whilst a further seven sites were known within *c.* 1km of known Bronze Age standing stone sites.

4.7.3.3 Conclusion

Many of the diagnostically Neolithic artefacts recovered, such as flint implements, or stone axes, are the types of implement which could have been lost on short-term hunting or foraging trips and are not clearly indicative of *in situ* settlement, whilst known ritual monuments (particularly long barrows), generally considered to suggest nearby settlement are absent, perhaps suggesting that the area was not extensively settled in any long-term way during this period.

It has been demonstrated, however, that what evidence is available for Neolithic activity within the survey area is likely to under represent the range and actual distribution of activity dating to this period.

The existing evidence has been recovered on a piecemeal and *ad hoc* basis and is limited by a lack of specialist analysis of existing assemblages resulting in a bias in favour of the identification of clearly diagnostic implements rather than an examination of the overall significance of a whole assemblage. The known distribution of sites is heavily biased against the recognition of finds or features in areas currently under woodland, and there has been no structured investigation of sites where placename or other evidence suggests the possible survival of Neolithic field monuments. The lack of investigation of the relationship of known Neolithic activity with finds or features from other periods may have overlooked evidence for continuity or change in the ways in which the landscape was exploited over time.

4.7.3.4 Recommendations for future research

The following is recommended for further investigation of the Neolithic period within the Forest of Dean Survey area

- Identification of and detailed analysis of known Neolithic artefact assemblages, to enable them to be interpreted and their true significance evaluated.
- Further analysis of the distribution of Neolithic artefacts in relation to other areas of prehistoric activity and potentially contemporary activity to identify areas in which prehistoric activity is concentrated.
- Further prospective work (systematic fieldwalking and rapid earthwork survey) in the vicinity of those areas that have yielded large assemblages of Neolithic flint, and particularly those areas where these have been found in proximity to features which may indicate contemporary activity (see 4.7.3.2 above) or where they are found in association with other prehistoric assemblages.
- Rapid walkover survey in areas of woodland, particularly where placename or other evidence suggests that Neolithic earthworks or other evidence may be identified.
- Exploratory fieldwork, in the form of excavation, geophysical survey or environmental sampling as appropriate, to test the interpretation and date of recognised features (particularly possible long barrow sites) which have been identified as a result of rapid walkover survey, or where such sites have been suggested by earlier exploration.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of Neolithic activity (in the form of flints) may be exposed during these operations.

- Given the lack of environmental evidence relating to the Neolithic period from the survey area, it is recommended that where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.

4.7.4 The Bronze Age

4.7.4.1 Summary of the Bronze Age

Unlike the evidence for earlier periods of prehistory, the Bronze Age within the Forest of Dean is represented not only by artefact scatters but also a number of contemporary landscape features.

Evidence for ritual activity from this period takes the form of known or possible barrow sites and standing stones, whilst earthworks on Welshbury Hill (Glos SMR 5161) have been interpreted as a late Bronze Age field system, perhaps incorporating a late Bonze Age settlement. Although there is no recorded *in situ* Bronze Age settlement within the survey area, feature such as these are generally considered to be indicative of nearby settlement.

A rapid visual search of the evidence within the Gloucestershire SMR identified twelve sites of Bronze Age artefacts within *c.* 0.5km of sites which either placename evidence or earthworks suggest may be the sites of Bronze Age barrows, whilst a further eight artefact sites were recorded within *c.* 1km of sites of recognised standing stones a relationship which would suggest that some of these at least represent the sites of established and long-term settlement.

The standing stones in particular appear to act as a focus for Bronze Age activity with four of the five possible prehistoric standing stone sites are located with *c.* 1km of known assemblages of Neolithic, Bronze Age or undated prehistoric artefacts. Seventeen (68%) of these were in the vicinity of the former site of the Longstone, St Briavels representing the highest concentration of this material in relating to a standing stone site. The exception is the Oudeceus Stone (Glos SMR 5050) which does not relate to any form of known or possible prehistoric activity. The significance of this is not entirely clear, but it may be that of the five possible prehistoric standing stones within the Forest of Dean Survey area, the Oudeceus Stone, should perhaps be treated with most caution as a genuine site of prehistoric ritual activity, although a better understanding of the actual distribution of prehistoric activity within the Forest of Dean Survey area would be required before this possibility can be fully assessed.

The significance of the correlation between standing stones and artefact scatters needs to be treated with some caution, however, as the majority of the latter have been identified as a result of surface artefact collection which has been concentrated in this area where arable cultivation predominates. Thus, although there is a clear concentration of known prehistoric activity in this area, it is not clear whether this is actually greater than other parts of the survey area or is simply the results of differences in the level of archaeological exploration which has taken place in this area.

Two standing stone sites are also known from the vicinity of possible sites of prehistoric funerary activity. The Broadstone, Stroat (Glos SMR 21) is within *c.* 0.5km of three undated possible barrow sites, whilst the Long Stone, Staunton (Glos SMR 5099) is within *c.* 0.5km of five undated possible barrow sites and also two sites where placename evidence may suggest the site of prehistoric funerary activity (see 4.4.1.8 above).

The Bronze Age within southern Britain is often seen as a period in which society became “increasingly hierarchical and class-based” (Parker Pearson 1993, 13), dominated by powerful elite groups. Little is known about the nature of society within the Forest of Dean during this period, however, and Walters has cited the lack of major late Neolithic or early Bronze Age monuments, such as henges or stone

circles, as evidence that powerful elites did not dominate this area (Walters 1992a, 31). The only excavated early Bronze Age barrow within the survey area (Soldiers Tump, Tidenham Glos SMR 5012) however, has produced evidence of a “dagger grave” which not only relates to six other examples known from the Cotswolds to the east, but is a feature of high status Wessex culture burials (Darvill 1987, 99), and strongly implies that social division was a feature of Bronze Age society within the Forest of Dean. Similarly the possible hoard of Bronze Axes from Sling Common (Glos SMR 5084) may be evidence of Bronze Age “conspicuous consumption” designed to increase the prestige of a powerful individual (Parker Pearson 1993, 117)

The Forest of Dean does not contain the raw materials necessary for the making of Bronze, and although metalworking undoubtedly took place within the county of Gloucestershire (Darvill 1987, 115), there is no clear evidence of bronze manufacture within the survey area. The model of production for much of the Bronze Age, however, is thought to have comprised two levels of manufacture with local metalworkers producing every day items such as tools, perhaps on a part-time basis, whilst more specialist items, such as weapons, were produced by highly skilled professional craftsmen in regional production centres (Darvill 1987, 117). Accordingly, it is highly likely that at least the lower level industry was practised in Dean, and a network of communication systems, perhaps based on the Rivers Severn and Wye, would have been required for the transportation of ores from areas such as Central and North Wales or Devon and Cornwall, and for the distribution of more specialised items.

The Bronze Age was also a period where a warmer and drier climate led to a longer growing season. This allowed for the colonisation and cultivation of areas of upland, such as Dartmoor, and was able to both support increased population levels, and reduce competition for agricultural land (Darvill 1987, 94).

Too little is currently known about the details of Bronze Age settlement within the survey area to be confident that colonisation of marginal areas and population expansion is represented in this area.

Known Bronze Age artefacts are not distributed across a significantly wider area than those dating to the Neolithic (compare Figure 7 and Figure 8), and there is, in fact a close correlation between the distribution of known artefacts from these periods, although this is as likely to reflect their common method of recovery as the actual distribution of activity from these periods.

What is significant about the distribution of evidence for Bronze Age activity is the fact that it is rarely found within areas of modern woodland, which tend to occupy the areas of higher and more marginal land, which may have been colonised and farmed during this period. The possible Bronze Age field system at Welshbury Hill (Glos SMR 5161), the undated linear earthworks at Chestnuts Hill (Glos SMR 22053) and the as yet unexplored system of linear features and possible enclosures identified through LiDAR survey in Flaxley Woods and Welshbury (see 4.6.4 above) all occupy upland areas which are currently wooded, and further exploration of these areas may identify further evidence of the colonisation and farming of the marginal uplands during the Bronze Age.

4.7.4.2 Relationship with archaeological features or sites from other periods

In addition to their relationship with known or suspected contemporary field monuments, 19 of the sites where Bronze Age artefacts have been discovered (*c.* 45% of the total) have also produced evidence of Mesolithic, Neolithic, or undated prehistoric artefacts, generally in the form of flint assemblages, whilst four sites have also produced evidence of Romano-British activity, a feature particularly true of those sites identified through surface artefact scatters in areas of arable cultivation.

4.7.4.3 Recommendations for further research

The following is recommended for further investigation of the extent and nature of Bronze Age activity within the Forest of Dean Survey area:

- The priority for the investigation of the Bronze Age is to undertake rapid walkover survey in areas of upland woodland, particularly where placename or other evidence suggests that Bonze Age earthworks or other evidence may be identified, to identify features which may be indicative of Bronze Age colonisation of these areas.
- Exploratory fieldwork, in the form of excavation, geophysical survey or environmental sampling as appropriate, to test the interpretation and date of recognised features which have been identified as a result of rapid walkover survey.
- Known Bronze Age artefact assemblages, particularly flint and pottery, should be identified and subjected to specialist analysis of to enable them to be interpreted and their true significance evaluated.
- Further analysis of the distribution of Bronze Age and Neolithic artefacts in relation to other areas of prehistoric activity and potentially contemporary activity to identify areas in which prehistoric activity is concentrated.
- Further prospective work (systematic fieldwalking and rapid earthwork survey) in the vicinity of those areas that have yielded large assemblages of Bronze Age artefacts, and particularly those areas where these have been found in proximity to features such as the sites of standing stones or undated mounds, which may indicate contemporary activity, or where they are found in association with other prehistoric assemblages.
- Exploratory investigation to determine the status and date of selected undated mounds within the survey area which may represent the sites of Bronze Age barrows.
- Further prospective work (rapid earthwork survey and possibly geophysical survey) in the area of Sling Common where a significant number of Bronze axe heads have been found.
- Non-intrusive investigation (such as geophysical, or topographical survey) of the sites of the destroyed Long Stone, St Briavels (Glos SMR 5076) and the original site of the Cradock Stone, Clearwell (Glos SMR 21425), and also the immediate environs to the two remaining stones at Stroat (Glos SMR 21), and Staunton (Glos SMR 5099) should be undertaken to identify the presence of buried, and possibly, associated features. This could be followed up by small-scale excavation or sampling as deemed appropriate. Given the practical difficulties associated with undertaking investigative work in the tidal muds of the lower Wye, it is not clear what could practically be achieved in the area of the Oudoceus stone (Glos SMR 5060), although site visits during unusually low tides, or after unusual river conditions, such as floods, might lead to the re-discovery of the remains of this stone.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of Bronze Age activity (in the form of artefacts) may be exposed during these operations.
- Given the lack of environmental evidence relating to the Bronze Age period from the survey area, it is recommended that, where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.

4.7.5 The Iron Age

As with the preceding periods of the prehistoric, the Iron Age within the Forest of Dean Survey area is poorly understood.

Settlement evidence is largely represented by the four hillforts within the area. Any discussion of the function of hillforts is very complex and it is clear that typologically similar sites may not have been contemporary, operated in an identical way or fulfilled a similar purpose. Hillforts, however, are not generally interpreted as military installations, and excavated evidence from their interiors would suggest that some functioned as defended settlements, perhaps the economic and political centres of a small region (Cunliffe 1984; Darvill 1987; Saville 1984b; Savory 1976).

Although hillforts are generally considered to have developed as a response to land hunger caused by a deteriorating climate in the Late Bronze Age/early Iron Age period (Darvill 1987, 124; Savory 1976), this transition from undefended Bronze Age settlement to early hillfort is only suggested at Welshbury (Glos SMR 5161) where a field system, and possible undefended settlement and round barrow appear to predate some elements of the hillfort (McOmish & Smith 1996).

Morphologically all of these sites could be classified as Middle Iron Age developed hillforts which are likely to have been constructed in their present form *c.* 400-300 BC, although whether these were modified from simple late Bronze Age/early Iron Age defended hilltop settlements, and to what extent physical additions to the fortifications reflected a changing social and economic function, or significance within the contemporary landscape is not known.

Throughout the early and middle Iron Age the majority of the population lived in a range of small enclosures or undefended farmsteads, and although this type of site is not uncommon within Gloucestershire, none are currently known in the Forest of Dean (Darvill 1987, 140). With the exception of a clearly atypical cave site (Glos SMR 17222) and a single possible Iron Age structure (Glos SMR 22228) there is visually no knowledge of other types of Iron Age settlement, or other activity.

The situation in the Forest of Dean during the late Iron Age, between *c.* 100 BC and *c.* AD 50) is also not clear. In southeastern Britain, and the eastern part of the modern county of Gloucestershire, hillforts appear to have been abandoned as political influence was refocused towards defended lowland sites such as Salmonsbury, or the partly defended territorial oppida such as Bagendon (Cunliffe 1995, 69) and it is not known what, if any, effect these political changes had within the survey area. Late Iron Age/early Roman pottery has been found at Symonds Yat hillfort (Glos SMR 19) although this does not necessarily indicate that the site continued to function as a territorial centre during this period, whilst Wheeler's 1st century AD date for the construction of the hillfort at Camp Hill, Lydney (Glos SMR 25) was based on an understanding of Iron Age pottery which has since been superseded. The iron weapons and equipment found at High Nash, Coleford have been interpreted as evidence of a late Iron Age warrior burial (Glos SMR 4929; Walters 1992a), although how typical this was of local burial practices and what it tells us about late Iron Age society within the Forest of Dean is far from clear.

Similarly there is no evidence from within the Forest of Dean that clearly indicates the extent and nature of any transition from Iron Age to Romano-British society. The hillfort at Lydney Camp (Glos SMR 25) has produced evidence of Roman mining activity and also the site of a later Roman temple complex, which at least suggests a significant change in function (and apparently status) for the site, even if there was no chronological break in activity. It is debatable whether the evidence from Symonds Yat (see above) is indicative of continuous activity, and the undated "Roman type" spearhead (Walters 1992a) from Welshbury (Glos SMR 5161) cannot be used as evidence of continuity of settlement. The relationship between the Iron Age warrior burial and the later Roman temple at High Nash (Glos SMR 4929) has led to the suggestion that the two activities on the site indicate the continuous ritual significance of the site (Walters 1992a), although as the status of both of these sites is questionable (see 1.10 above and 4.8 below), and this theory should be treated with caution. Four of the sites which have produced Iron Age artefacts (Glos SMR 25,4390, 4929, 6377) are known as a result of excavations the main thrust of which

was to investigate Romano-British remains on these sites. As with the evidence of Romano-British activity identified at the hillfort sites (see 4.5.1.1 above), none of these necessarily indicate a transition of continuous activity on these sites throughout these periods.

4.7.5.1 Recommendations for further research

It is clear that the Iron Age within the Forest of Dean is not clearly understood.

Although four hillfort sites are known, their status, date range, and function is unclear, and the almost total lack of understanding of contemporary settlement or activity reduces these to discrete islands of Iron Age activity isolated within a later landscape.

The existence of contemporary activity is attested by the distribution of artefacts from this period, and a number of possible sites of Iron Age settlement, or other activity are known as undated earthworks (see 4.6.3 above), or suggested by placename evidence (see 4.6.5.1 above).

Further research into this period should concentrate on:

- Establishing the date range and function of the known hillfort sites.
- Further analysis of assemblages of Iron Age artefacts to establish their status and date
- Further investigation of possible Iron Age sites suggested by artefacts, placenames or undated earthworks.
- Where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of Iron Age activity (in the form of artefacts) may be exposed during these operations.
- Given the lack of environmental evidence relating to the Iron Age from the survey area, it is recommended that, where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.

4.7.6 Evidence for undated prehistoric activity

4.7.6.1 Sites identified by prehistoric artefacts which have not been more closely dated

Of the 28 finds of undated prehistoric flint artefacts, 17 have been found in association with flint artefacts which are diagnostically Neolithic or Bronze Age in date, eight have been found in association with Romano-British artefacts whilst the remaining three been found in conjunction with finds from a combination of these.

This combination of artefacts from different periods is a reflection both of the nature of recovery of artefacts in this category, 64% of which were recovered as the result of surface artefact collection from cultivated fields. Where these are found in combination with dated flints from other periods, this is likely to reflect contemporary artefacts which are simply part of the same assemblage as those which have been dated. Where these are found in conjunction with Romano-British artefacts, the implications of this are less clear. This may indicate re-use of the same location in different periods, although, as the significance of few of these assemblages are actually understood, this cannot be determined at the present time. It is possible that the Romano-British material may simply represent the remains of ceramic material incorporated in midden waste and subsequently dispersed on field surfaces which were cultivated during that period.

Undated flint assemblages have also be identified in the vicinity of both possible prehistoric funerary monuments and also a number of undated enclosures. The possible significance of this is discussed below

Recommendations for further research

The following is recommended for further investigation of the sites of undated prehistoric artefacts within the Forest of Dean Survey area

- Identification of and detailed analysis of known undated flint assemblages to enable them to be interpreted and their true significance evaluated.
- Further analysis of the undated prehistoric artefacts in relation to other areas of prehistoric activity and potentially contemporary activity to identify areas in which prehistoric activity is concentrated.
- Further prospective work (systematic fieldwalking and rapid earthwork survey) in the vicinity of those areas that have yielded large assemblages of undated prehistoric artefacts, particularly where these have been found in association with more datable prehistoric artefacts or features which may indicate contemporary activity.
- Further archaeological investigation of areas of woodland, particularly where undated prehistoric artefacts have been discovered or where placename or other evidence suggests that prehistoric earthworks or other evidence may be identified.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of Prehistoric activity (in the form of artefacts) may be exposed during these operations.
- Where appropriate, palaeoenvironmental sampling should be included in future field research relating to the prehistoric period.

4.7.6.2 Undated field monuments or other sites which may be prehistoric in date

None of the following sites have been securely dated and their status cannot be determined without further archaeological investigation. Their relationship with the sites of datable finds or features, or other undated sites of possible archaeological significance, may, however, be significant.

Undated enclosures

There is very little known correlation between the sites of undated existing large non-rectangular enclosures and known finds of prehistoric artefacts with only Soudley Camp (Glos SMR 444) being found within *c.* 0.5km of known artefact sites. The significance of this is not clear as Soudley Camp, a small triangular promontory demarcated by a large single rampart, is atypical of this type of site, and has been suggested as a possible site of an early Norman watchtower, rather than a prehistoric enclosure (Hoyle 2000a).

Soudley Camp is also associated with finds of Romano-British pottery, and this has also been found within *c.* 0.5km of Dinnegar Camp (Glos SMR 5022).

Two of the destroyed enclosures (Glos SMR 5036, 5037) are both within *c.* 0.5km of finds of undated prehistoric flint, whilst a sherd of Iron Age pottery has been reported from the site of Glos SMR 5036.

Only one of the rectilinear enclosures (Glos SMR 4353) is not in the vicinity of known artefact finds with four (Glos SMR 4053, 21767, 22767, 22703) within *c.* 0.5km of prehistoric flint artefacts, and all of these, and also Glos SMR 6386 are within *c.* 0.5km of finds of Romano-British material.

In addition to this, seven of these sites (Glos SMR 4053, 5008, 5022, 5035, 5036, 21767, 26756) are also associated with placename evidence which suggests that these may be the sites of archaeologically significant earthworks.

It is tempting to suggest that those enclosures most likely to be of archaeological significance are found in the vicinity of other, possibly contemporary sites, or where placename evidence supports an interpretation of these as early earthworks. Considerable caution, however, needs to be applied to any interpretation of these features based on these factors, particularly where sites have been identified in the vicinity of known prehistoric or Romano-British artefacts. The fact that no artefact sites are known within *c.* 0.5km of the four undated enclosures found within woodland (Glos SMR 4343, 4616, 21982, 22740) is likely to reflect the relationship between known artefact sites and landuse (i.e. these are much less likely to be identified within areas of woodland), rather than to have any implications on the date of these features.

Recommendations for further research

The following is recommended for further investigation of undated enclosures:

- Site visits to validate location, form and current condition of undated enclosures.
- Site visits to investigate possible sites of undated enclosures suggest by placename evidence.
- Geophysical survey, topographical survey, surface artefact collection or sample excavation as appropriate to determine the status of identified features.

Possible barrow sites

Possible prehistoric barrow sites are known from a variety of evidence ranging from undated mounds, through cropmark evidence to placenames which may suggest these sites, and in all cases further fieldwork would be required to shed much more light on these possible sites. Given the numbers of possible barrow sites any correlation between these and other sites of known or potential prehistoric activity may allow selected sites to be targeted for future survey.

Nineteen possible barrow sites, known as either earthworks or cropmarks are found within *c.* 0.5km of sites of Neolithic, Bronze Age or undated artefact finds, whilst 28 placenames, which may suggest barrow sites (placenames containing elements derived for “barrow”, “berry” or “tump”) are also found within *c.* 0.5km of these sites. Perhaps significantly only two possible barrows known as earthworks (Glos SMR 5063 and Glos SMR 4622) are found in conjunction with both placename evidence (Glos SMR 27762, Glos SMR 20095 and 21774) and prehistoric artefact sites (Glos SMR 20049, Glos SMR 5730).

Although there is no particular discernable concentration of sites where placenames, earthworks, and known artefact sites are found in close proximity, it is noticeable that a number of these sites are found on the higher ground to the west of the statutory Forest in the vicinity of (but not necessarily in close proximity to) the sites of the three prehistoric standing stone sites (Glos SMR 5079, 5099, 21425).

Recommendation for further research

The following is recommended for further investigation of possible burial mound sites:

- Site ands field visits to establish size and form and current condition of selected mounds.
- Site visits to investigate possible sites of burial mounds suggested by placename evidence.
- Geophysical survey, topographical survey, surface artefact collection or sample excavation as appropriate to determine the status of identified features.

4.8 The Roman period

The Gloucestershire Sites and Monuments Record identifies 157 sites which contain some evidence of Roman activity within the Forest of Dean Archaeological Survey Area. These include excavated evidence of high status structures, modern routes thought likely to be Roman in origin and chance surface finds of Roman date.

The Forest of Dean is most commonly associated with the Romano-British iron ore extraction and smelting industries (Salway 1981, 637), and the assumption that this industry was central to any understanding of the Romano-British period within the Forest of Dean has permeated much past research into this period, forming the central theme of much of the popular understanding of the area (Walters 1992a, 62-108). Details of the scale, nature and significance of this industry are fully discussed in the report on the Scowles and Associated Iron Industry Survey (Hoyle et al. 2004) which was a daughter project to the Forest of Dean Archaeological Survey (Project No.3342/ANL), and the following discusses that evidence for Romano-British activity within the area which either does not directly relate to the iron industry, or to which the iron industry may have been ancillary.

4.8.1 *In situ* evidence for Romano-British settlement

The Gloucestershire SMR contains 17 sites which are interpreted as *in situ* evidence of Romano-British settlement within the Forest of Dean Survey area.

4.8.1.1 Villas

Six of these structural remains have been classed as villas. The term “villa” is difficult to define, but suggests a site of with a high status domestic building generally associated with outbuildings and forming the centre of a rural estate (RCHME 1998).

Only three of these (Woolaston, Glos SMR 16; Boughspring, Glos SMR 20 and Park Farm Lydney, Glos SMR 6377) have been excavated to a sufficient degree for this interpretation to be considered reasonable. All of these take the form of substantial masonry structures and have produced not only evidence for high status domestic occupation, but also indications of ancillary buildings suitable for industrial or agricultural use. They have also produced some evidence to suggest that they are associated with iron smelting in some way, but only at Woolaston has this association been confirmed (Fulford & Allen 1992), and this industry need not have been central to the economy of the site (Hoyle et al. 2004).

Another possible villa is an early (1st-2nd century AD) substantial stone structure, perhaps with an associated bathhouse and hypocaust, at Blakeney (Glos SMR 18426). The interpretation of this structure is not clear, although it has been suggested as the residence of the Roman government’s administrator of the iron industry in the period immediately following the Roman conquest (Walters 1992a, 77). This interpretation, however, is based on an assumption about the nature of imperial control of the industry at that time (Walters 1992b, see also Hoyle et al. 2004, 5.2.2.1), and alternative explanations, such as an early guest house or *mansio* associated with the Roman road following the Severn between Newnham and Caerleon along the line of the modern A48 (Margary 1957, 55-56; Road 60a), are possible.

Stock Farm Villa (Glos SMR 5611) is known mainly from aerial photographic evidence, although small-scale excavation suggests that a substantial building may be present on the site. The fifth “villa” site (The Grange Newnham, Glos SMR 7280) is known only from reports of wall, tiles and pottery, and cannot be classed as a villa with any degree of certainty on the basis of available evidence.

A putative seventh villa at Clearwell (Glos 5079), is not included on Figure 21 as its existence is entirely hypothetical and not based on any known structural remains.

4.8.1.2 Temples

The Gloucestershire SMR records three temple sites from within the survey area.

The most substantial of these (Lydney Park Glos SMR 25) is represented by an extensive range of buildings, including temple, baths, a guesthouse and *abaton* or healing centre. This site was excavated in the late 1920s (Wheeler & Wheeler 1932) and has been interpreted as a major centre of pilgrimage and healing dedicated to the god Nodens.

The second temple site, at High Nash Coleford (Glos SMR 4929), which has only been published as interim notes, was discovered and excavated by volunteers in advance of road construction in the mid 1980s. The published summaries of the excavations suggest the foundations of a rectangular building, *c.* 14m wide, although its length is not known, with a semi-circular apse 9m wide positioned centrally on its western side. This was discovered in association with pottery dating to the 3rd and 4th centuries AD.

This structure was interpreted as a temple partly on architectural grounds and partly due to its spatial association with artefacts which are reported to have accompanied a Late Iron Age warrior burial (Glos SMR 4929) found *c.* 92.5m from the structure (Walters 1992a, 93-94).

In the absence of detailed analysis of the results of this excavation, the interpretation of this structure as a temple site, must remain conjectural, although it would seem likely that structural remains of a 3rd-4th century AD building of some sort were present on the site.

A third structure from Littledean (Glos SMR 9782) has been reported as a temple site, and although the excavation results have only been published in summary form, a site plan showing a rectangular structure (*c.* 23 x 29m) with a small apse attached to its western side is widely available in published summaries of the Roman period in Dean (Sindrey 1990, 24-25; Walters 1992a, 103). The interpretation of this structure as a Roman temple has, from the outset, been questioned by a number of authorities, and a report by inspectors from the Historic Buildings and Monuments Commission suggested that the remains were actually those of an early post-medieval farmhouse (see Glos SMR 9782).

As with the putative temple site at High Nash (see above) the interpretation of this site is unclear. There has been no detailed analysis of the excavation results, and although evidence for Romano-British activity including pottery and a number of coins is known from the site, the status of the structural remains is not clear.

4.8.1.3 Other masonry structures

Another structure (Glos SMR 18) consisted of the foundations of a small rectangular building associated with the villa site at Woolaston (Glos SMR 16). This has been interpreted as the remains of a lighthouse, perhaps used to guide shipping through a gap in Guscar Rocks to a wharf at Lay Pill. An area of flagstones reported in the area (Glos SMR 17) may have been the base of a beacon which, when used in conjunction with the lighthouse aided navigation in the area, although the precise location, and interpretation of this feature is not clear. A structure recorded at Park Farm Villa, Lydney (Glos SMR 6377) has also been interpreted as a possible lighthouse (see 4.8.1.1 above).

Evidence for two other masonry structures dating from the Roman period are known from within the survey area. These are:

- Evidence of masonry structures from Rodmore Farm, St Briavels (Glos SMR 4390). These are associated with evidence of iron smelting and pottery dating to the 2nd and 3rd centuries AD.
- A stone flagged floor from the area between Welshbury and Chestnuts Hills (Glos SMR 6463). This was associated with pottery dating to the 4th century AD.

4.8.1.4 Other evidence of Romano-British settlement activity

A further four sites (Glos SMR 5179, 9739, 17988, 21290) have produced evidence suggesting domestic occupation (principally pottery finds), although all of these are also associated with evidence for iron smelting activity, and the precise nature of the relationship between domestic and industrial processes is not clear.

The Sites and Monuments Record records ten other sites, interpreted as evidence of Romano-British occupation, and known from other forms of evidence.

Seven of these sites (Glos SMR 5065, 5138, 5181, 9735, 22228, 22448, 27570) are represented by features such as ditches, gullies or house platforms identified and dated as the result of archaeological excavation or watching brief, whilst two (Glos SMR 5146, 9734) consist of earthwork features associated with finds of Romano-British date, and their status as Romano-British features has not been established. The remaining site (Glos SMR 4026) is known only from cropmark evidence and cannot be assigned a Romano-British date with any certainty.

4.8.1.5 Distribution of evidence for Romano-British settlement

Landuse

Only 16% of known Romano-British settlement sites have been identified within areas of woodland.

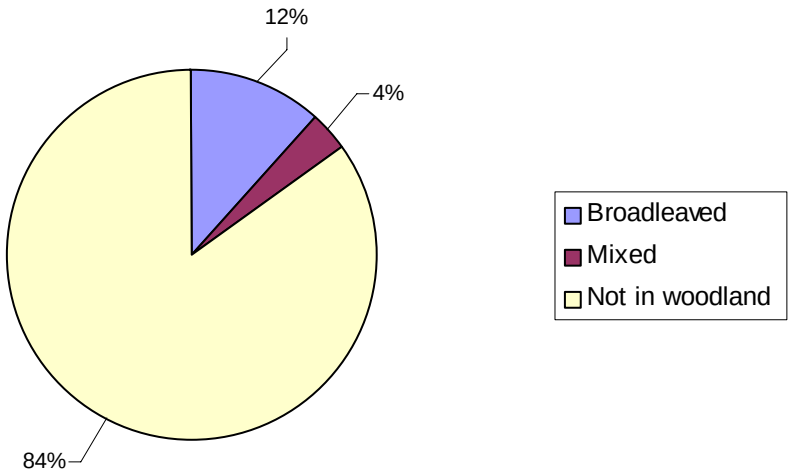

Chart 53: *In situ* evidence of Romano-British settlement and woodland

This data set is very small, and close examination of the four sites recorded in woodland indicates that the statistics may be misleading as only one of these sites (Boughspring Villa, Glos SMR 20) is both definitely Romano-British in date and actually in woodland.

Detailed information of the remaining sites is as follows:

- Lydney Park temple complex, Glos SMR 20: This site is actually within a large cleared area within a generally wooded environment. The designation of this site as woodland is a product of the differences in scale of the information processed to produce the statistics
- Romano-British hut platform site in Chestnuts Wood, Glos SMR 5181: The Roman date of this features is not clear (Hoyle et al. 2004, 5242).
- Romano-British activity, including smelting, at Great Howle Farm Ruardean (Glos SMR 9734): This site spans the county boundary between Herefordshire and Gloucestershire, and its precise status has not been established (see 1.1.3.2 above).

Geology, height slope and aspect

In general the types of site categorised under Romano-British settlement was considered to be too diverse for any meaningful analysis of their distribution in relation to geology, height, slope or aspect.

Geographical location

All of the possible villa sites are within *c.* 250m of a watercourse, all of which had associated drift geological deposits, and with the exception of the possible villa site at Stock Farm, Clearwell (Glos SMR 5611), all are located on the relatively low ground along the northern bank of the River Severn, providing ready access to a range of landscapes, including areas which have historically been used for agricultural purposes and also upland areas and steeper slopes which may have been more suitable for woodland or pasture (Hoyle 2006). This type of location would also have allowed for easy access to communication routes in the form of the River Severn itself and the Roman road (Glos SMR 6212) between Newent and Caerleon which followed the northern bank of the Severn Estuary along a similar alignment as the modern A48.

Discussion of the distribution

The lack of sites within areas currently under woodland mirrors the general distribution of most prehistoric or Romano-British artefact sites within the survey area. Where sites have been found in woodland, the circumstances of discovery suggests that they're known distribution is a result of differential investigation and opportunity for discovery rather than a reflection of an actual distribution. Accordingly the distribution of Romano-British settlement remains is likely to be a reflection of this rather than the suggestion, apparently based on this lack of evidence, that the area of woodland which became the later Statutory Forest was depopulated throughout the Roman period (Walters 1992a).

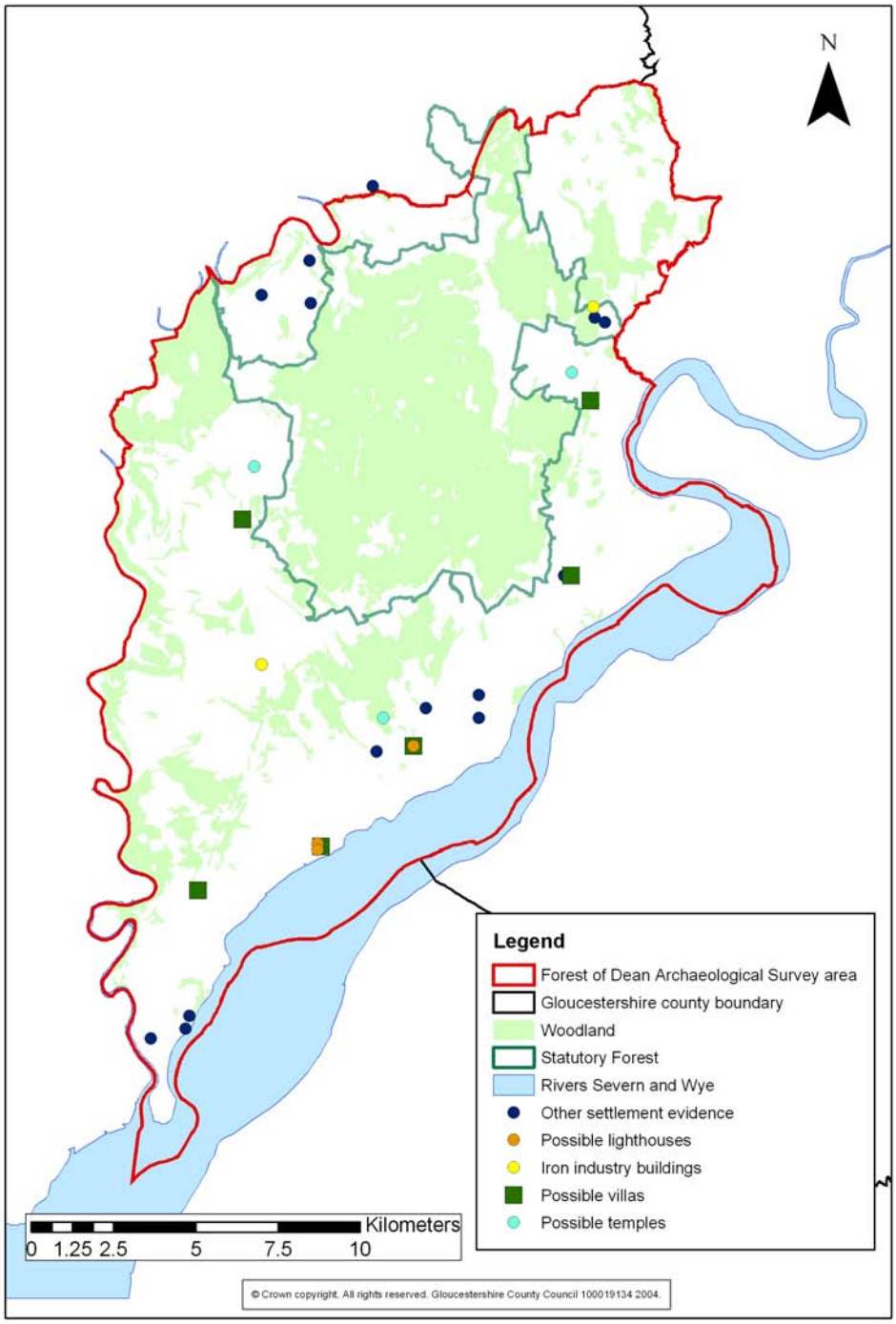

Figure 21: Romano-British structures and settlement evidence

4.8.2 Romano-British industrial sites

4.8.2.1 The iron industry

The vast majority of known or possible industrial sites from this period relate to the iron industry. This industry has been discussed at length in the report of the Scowles and Associated Iron industry Survey (Hoyle et al. 2004, Sections 4.2 and 5.2), and it is not the place of this report to simply reproduce that information.

Thirty-one sites (almost 20% of the total known Romano-British sites) are known where bloomery slag, or other evidence of Romano-British iron production has been

found in conjunction with datable Romano-British artefacts of features, although in only 17 of these is there sufficient evidence to suggest Romano-British smelting activity. The remaining 14 sites can only be interpreted as possibly representative of Romano-British iron working activity on the basis of available evidence (Hoyle et al. 2004, Appendix L, Appendix M).

4.8.2.2 Pottery kilns

A single pottery kiln site (Glos SMR 5066) to the east of Sedbury Park Tidenham, is know from within the survey area. This site was excavated in the 1850s, and its status as a genuine kiln site remains unclear.

4.8.3 Romano-British artefacts

4.8.3.1 Nature of the evidence

The majority of recorded Romano-British sites (199) are known as a result of finds of Romano-British artefacts rather than as *in situ* archaeological deposits of known Roman date.

Of these 70 are effectively chance surface finds, 10 represent assemblages of Roman material recovered as surface artefact scatters during fieldwalking operations, and 17 are assemblages recovered during some form of archaeological intervention, such as excavation or watching brief. The remaining item (Glos SMR 6001) represents a Norman font from Staunton Coleford which some early authorities considered to be fashioned from a Roman altar.

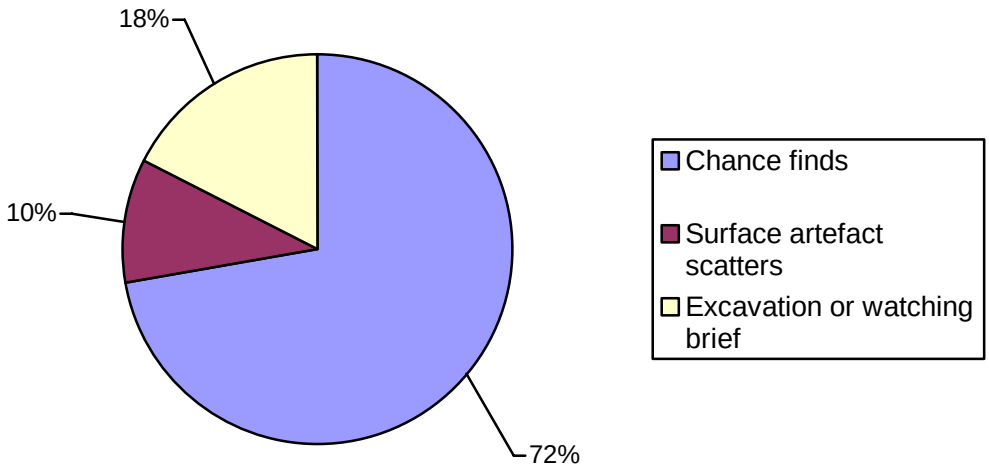

Chart 54: Method of recovery of Romano-British artefacts not associated with *in situ* remains

The sites known from artefact assemblages can be broken down into the following broad types:

- 55 of these sites are represented by finds of pottery and tile.
- 33 sites are finds of individual or small assemblages of coins.
- 11 sites have produced items of jewellery, including brooches, rings and glass beads

- 14 sites represent hoards of over 100 coins. One these sites, Glos SMR 27879, cannot be mapped accurately on Figure 22 as it was found in the 19th century and its precise location is not clear. Two further hoards were discovered during excavations at Lydney Park Roman temple (Glos SMR 25). As these were found in association with *in situ* remains they have not been included in the following analysis, but are shown on Figure 22.
- 3 altars have been found (including the doubtful altar, Glos SMR 6001 discussed above)
- 12 have produced miscellaneous items such as a stone sarcophagus, possible quern rough-outs, a "Roman type" spearhead, and oyster shells, not all of which are necessarily Romano-British in date.

A further two sites (Glos SMR 9736, 9739) have been identified by whetstone finds which may be Romano-British in date, although as this dating is not certain, neither of these have been included in the following analysis.

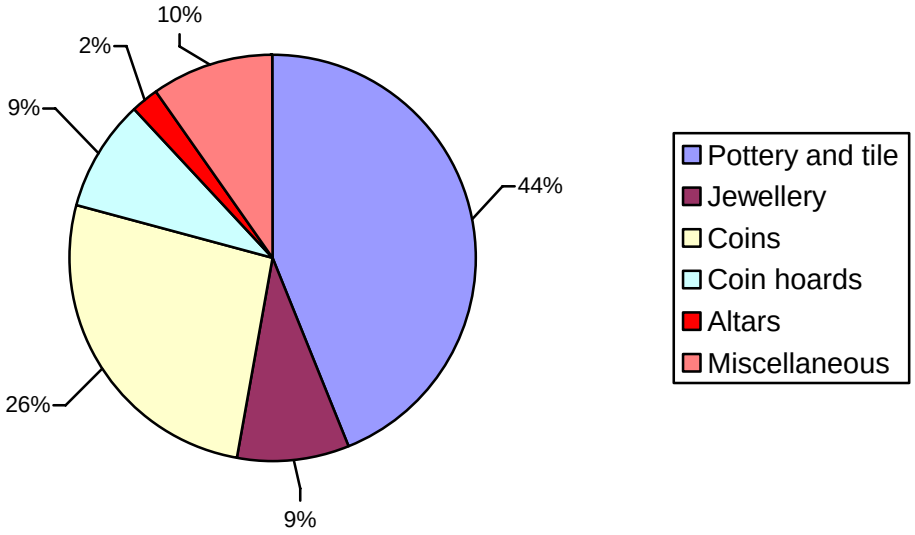

Chart 55: Romano-British artefact types by sites not associated with *in situ* remains

4.8.3.2 Discussion of the significance of Romano-British artefact finds

The larger assemblages of pottery, and particularly those which include roof tile and other structural debris (e.g. Glos SMR 21766) may indicate the site of contemporary settlements, although specialist analysis of these assemblages has rarely been undertaken, and consequently, although these are likely to be indicative of Romano-British activity is present, their actual significance remains unclear.

The significance of the location of the coin hoards is also unclear. The majority of these hoards dated to the 3rd or 4th century AD (the exceptions being Glos SMR 19414, a small hoard from Bream, consisting of 155 coins, and Glos SMR 27879, a small hoard of "more than 100 *denarii*" (Bagnall-Oakley 1881-2, 108) both of which contained coins dating from 1st – 2nd centuries AD). The true meaning of coin hoards is rarely clear and a diverse range of complex processes can have contributed to the deposition, location and lack or recovery of individual hoards (Reece 1987, 46-49). It is not possible to generalise about the significance of these finds, or their relationship to features or settlement patterns in the contemporary landscape.

Similarly the significance of the three altars and single stone coffin find is also not clear as none of these were found in their original position. The actual provenance of one of the altars (Glos SMR 5014) is not established, the interpretation of another (Glos SMR 6001) has been called into question, whilst the sarcophagus (Glos SMR 20567) had been reused as an agricultural water trough and was effectively unprovenanced.

The jewellery, isolated coin finds and other miscellaneous items are also difficult to interpret as indicators of contemporary features as such items could be lost in locations far from centres of settlement or other activity.

4.8.3.3 Distribution

Landuse

Only 21% of Romano-British artefacts which are not related to known *in situ* sites, have been recovered from within woodland.

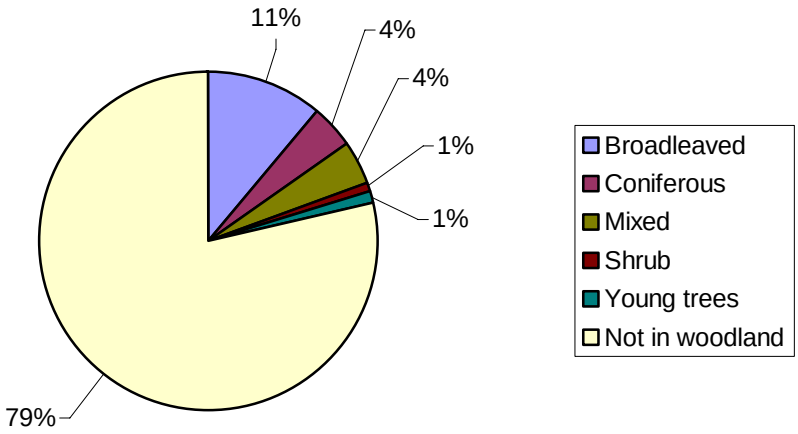

Chart 56: Landuse and Romano-British artefacts not associated with known *in situ* remains

Geology

Romano-British artefacts are found throughout the range of solid geologies within the survey area. A relatively higher number of these overlie a solid geology of Dolomotised Limestone and Dolomite, Miceaous Sandstone, Mudstone and Mudstone and Sandstone, whilst Sandstone solid geologies are underrepresented.

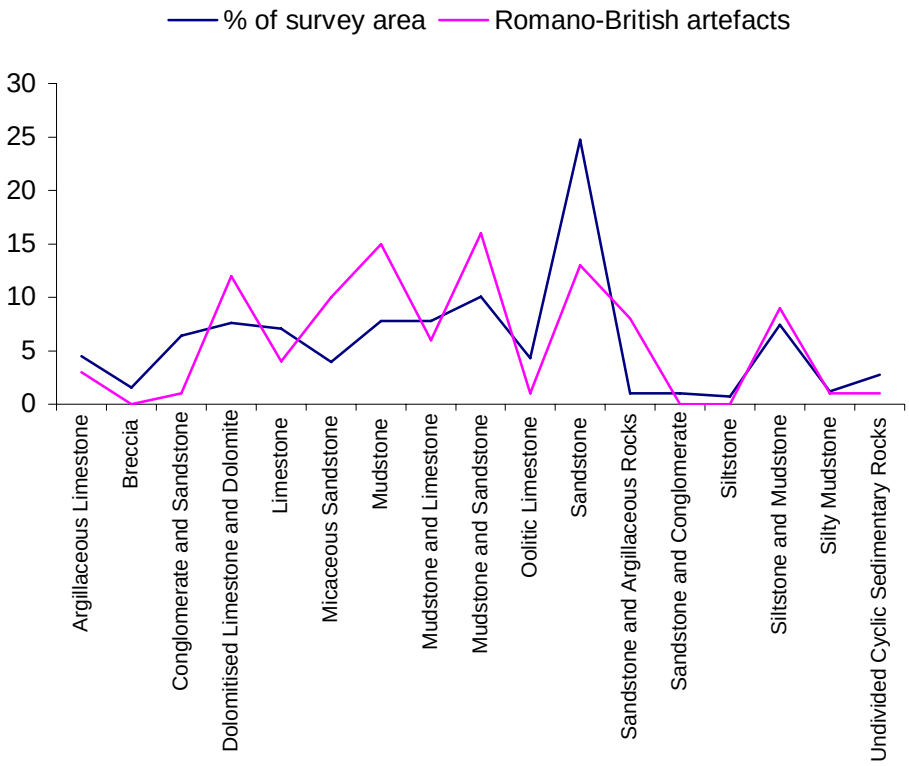

Chart 57: Romano-British artefacts: Solid geology

18% of Romano-British artefacts were founds in areas of recorded drift geology. The distribution of these corresponded closely with that of drift deposits within the survey area with the exception of areas of Silty Clay where no Romano-British artefacts were found.

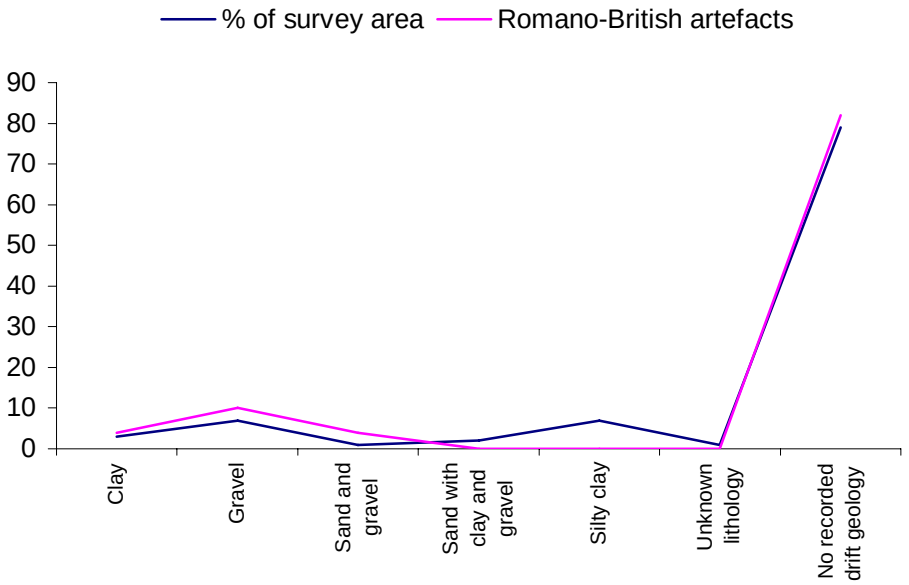

Chart 58: Romano-British artefacts: Drift geology

Height, slope and aspect

Romano-British artefacts were found throughout the range of heights within the Forest of Dean Survey area, although there are clear peaks at 20-29m OD and 160-199m OD. In total, 78% of these artefact sites are on slopes below 10° with only 4% on slopes in excess of three degrees. They are also found at all possible aspects within the survey area, although there is a preference for aspects ranging from southerly to easterly with the majority facing southeast.

4.8.3.4 Discussion of the distribution

Few conclusions can be drawn from the distribution of these sites in relation to height slope or aspect.

The increased number of sites at 160-199m OD can be interpreted as reflecting the general trend of the height range of the survey area, whilst the relatively higher number of sites from 20-39m OD may partly reflect disproportionate levels of archaeological exploration in these areas, and particularly the collection of artefacts in the vicinity of known Romano-British sites on relatively low ground on the northern side of the River Severn. The relative lack of sites from between 120-139m OD is more difficult to explain without more detailed analysis of the data.

The preference for southerly and easterly facing slopes may signify an actual preference for sites with this orientation. Although this distribution may simply reflect the range of available aspects within the survey area. Similarly the preference for relatively level sites is unsurprising and broadly reflects that range of slopes within the survey area.

The relationship of these sites to geology also does not appear to be of major significance. The distribution of these sites in relation to drift geology is similar to the range of recorded drift deposits within the survey area, whilst the identifiable anomalies in their distribution in relation to solid geology are generally within 10% of the expected norm. The slight preference for sandstone solid geologies, at the expense of limestones does, however, has parallels with the distribution of Chester placenames (see 4.8.5.1 below). This preference may reflect the availability of suitable stone for the construction of masonry structures, although as this preference is not displayed in the distribution of known Romano-British settlement (see above), this would seem unlikely.

As with the distribution of artefacts from earlier periods, the relationship of assemblages of Romano-British artefacts with current landuse is potentially more significant.

The relative lack of Romano-British artefacts from within woodland mirrors that identified from other periods. The actual circumstances in which many of the 21 sites known from a wooded environment were found, is not clear, although six (Glos SMR 19, 5014, 5102, 19421, 21710, 23529) are likely to have been identified as a result of operations in which ground disturbance had taken place. This strongly suggests that there is further evidence of Romano-British activity within wooded areas which has not yet been identified.

At first sight it would appear that there is no significant relationship between the known distribution of Romano-British artefact sites and those areas where archaeological investigation has taken place, as only 28% of sites have been identified as a result of apparently pro-active archaeological investigation such as excavation or surface artefact collection. The statistics presented above, however, may be misleading. It is clear that a number of artefact sites recorded as identified as stray surface finds (e.g. the area of Chestnuts Wood, Littledean centred at SO 67812144) have been found in areas where interested and observant amateurs habitually walk. It is not clear to what extent this factor has affected the overall

distribution of “stray finds” but it is a fact that a human presence is required to identify artefacts. Consequently, it is unsurprising that these tend to be found in areas where people are most frequently found, and are absent in areas which are much less frequented.

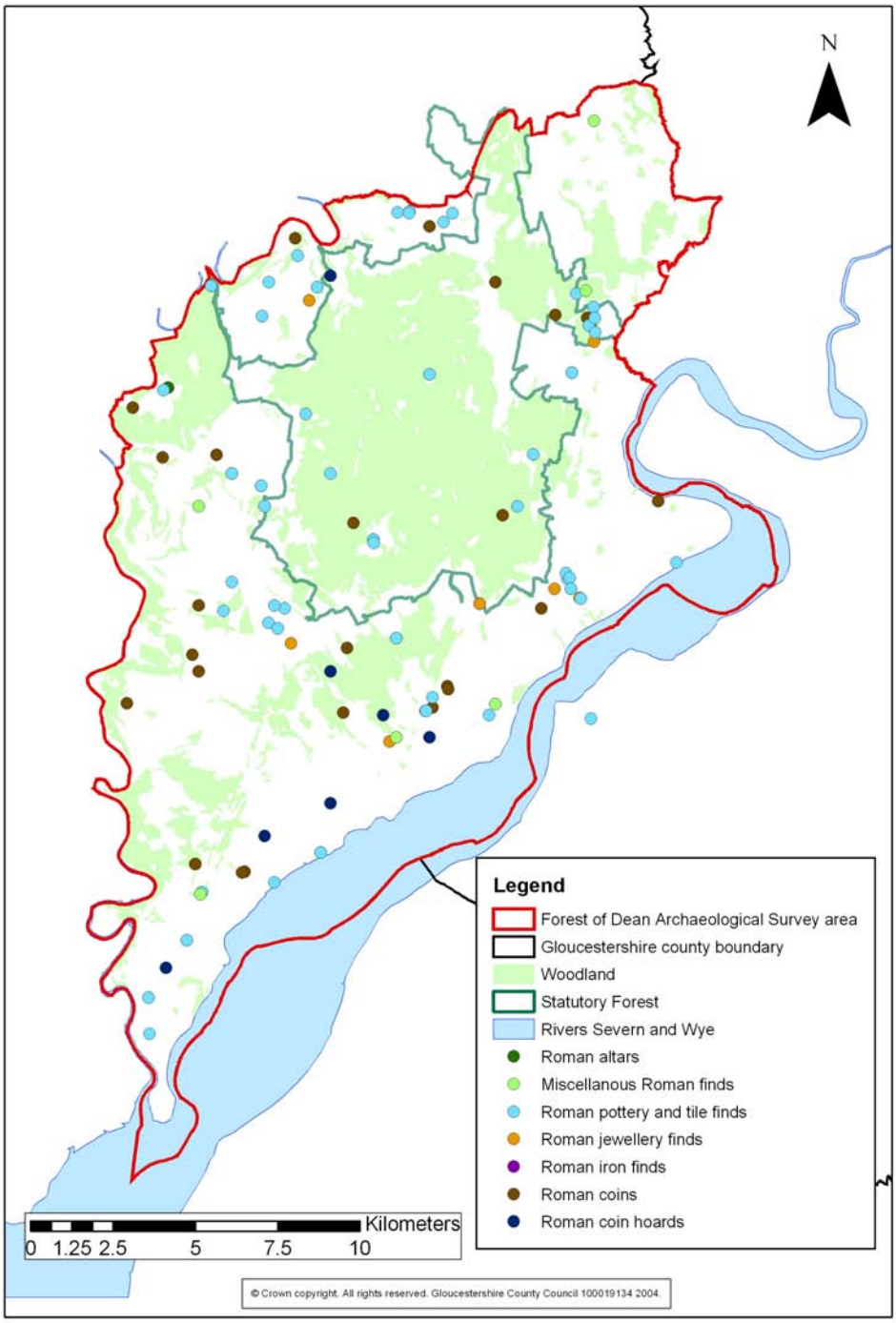

Figure 22: Romano-British artefacts

4.8.4 Romano-British communications

The Gloucestershire Sites and Monuments Record lists 25 sites of possible Roman roads within the Forest of Dean Survey area.

In only two cases (Glos SMR 6212, 7123) is there sufficient evidence to support this interpretation, and 17 of these are simply identified as “traces of Roman paving” on the 1st Series 25” scale Ordnance Survey maps of the area dating to *c.* 1880.

The majority of these roads were interpreted as Roman by Bellows, a 19th century antiquarian and cartographer, who advised the Ordnance Survey during the production of these maps. This identification of remnants of paving as Roman roads needs to be treated with considerable caution as Bellows boasted that he had identified "every carriage road but two in the Forest of Dean" as Roman on the same basis (Standing 1988, 35), and it has been suggested that this paving is likely to represent the remains of extensive road repairs carried out in the Forest of Dean in the 19th century (Codrington 1905, 286).

The origin of a further six of these is less clear. Stone paving and kerbing have been identified at two of these sites (The Dean Road, Glos SMR 5904; Silver Street, Mitcheldean, Glos SMR 7235), whilst one (Glos SMR 6189) is represented by a terrace. The remaining three (Glos SMR 5040, 5143, 5902) appear to have been identified as Romano-British routes on account of their proximity to or orientation towards Romano-British features and the nature of their physical remains is not clear.

The most fully investigated of these is the Dean Road (Glos SMR 5904), and the status of this route may be typical of those others in this group.

The Dean Road has been cited a Roman in a number of recently published works (Sindrey 1990; Walters 1992a; 1992b) which suggest it was the main transportation route between the Forest of Dean and the iron smelting centre at *Ariconium* (Weston-under-Penyard in Herefordshire) to the north of the survey area. The status and date of this features warrants particular attention in any discussion of Romano-British communications routes within the Forest of Dean.

Tradition has long identified the Dean Road as a paved Roman road. It has been known locally as "the Roman road" since at least the 19th century (Standing 1988, 35), although the earliest published account of the road refers to it only as "ancient" (Nicholls 1858, 198). Later 19th century antiquarians, such as Witts, accepted a Roman date for the road, despite a paucity of supporting evidence (Witts 1880). Bellows, suggested that the road had been built in the first century AD, basing his argument largely on the fact it was paved and had kerbstones. In the early 20th century, St Claire Baddeley considered "...there was sufficient reason..." to regard the road as Roman, and cited its width as "...strong corroboration..." of this (PCNFC 1914). This section of the Dean Road was also assumed to be Roman in Codrington's discussion of Roman roads in Britain (Codrington 1905, 360).

The course of the Dean Road between Lydney and Mitcheldean was established by Trotter in 1936 (Trotter 1936, plan 1), who also suggested its interpretation as part of a road constructed to transport iron ore between Lydney and *Ariconium* during the Roman period (Trotter 1936, 5). Although Trotter himself found no clear evidence that the road was Roman (Hart 1967, 38), this date and function was accepted by Margary in 1955 (Margary 1955, 64). Margary's preferred course diverged slightly from that put forward by Trotter, and he suggested that the road was narrow by Roman standards (Margary 1955, 64). The Dean Road has also been accepted as the Roman road between *Ariconium* and Lydney in more recent histories (McWhirr 1981, 131).

The Roman date of the Dean Road remained unchallenged until 1968, when Bridgewater argued that it had none of the characteristics of a Roman road. Excavations of minor Roman roads in the vicinity of *Ariconium* had failed to expose a single example with a paved and kerbed construction similar to that of the Dean Road (Bridgewater 1959) and he suggested that this type of construction was in fact typical of a metalled pre-turnpike road. He did not, however, preclude the possibility that the road followed the line of an earlier route (Bridgewater 1968, 3).

The only recorded excavation of a section of the road was undertaken by the Forest of Dean Local History Society in early 1985, when a short (six metres long) section of road surface was exposed (Walters 1985). As a part of this excavation a radiocarbon

date was obtained from a sample of a charcoal layer “completely sealed” below a portion of road surface (Walters 1985, 5). The sample produced a date which fell within a very wide possible range, but was not earlier than 1660. This suggests that, in this area at least, the metalled road surface is no earlier the post-medieval period (Standing 1988, 40-41).

In response to this dating evidence, the Roman date of the road has been questioned by Standing. He argues that the road appears to respect post-Roman features such as churches, and, unlike many Roman roads elsewhere, was not used as a landscape feature forming parts of early parish or bailiwick boundaries (Standing 1988, 38-39). In the same paper, Standing argues that, despite earlier claims (Codrington 1903, 289), the Dean Road could not, with any certainty, be equated to the *Via Regia (*literally the “King’s highway”) mentioned in the 13th century perambulations of the Forest bailiwicks (Standing *op. cit.*). He points out that the road was not mapped as a single continuous entity on the earliest large-scale map of the Forest of Dean (Taylor 1777), and questions the need for a road to transport iron ore between Lydney and *Ariconium* during the Roman period, as both areas were amply supplied with iron ore. He goes on to suggest that the Dean Road, as currently recognised, is in fact made up of a number of discrete paved roads constructed, perhaps by the Government, to serve increased traffic in timber and coal during the post-medieval period, and the anticipated production of timber for Naval requirements following the Dean Forest Reafforestation Act of 1668. In support of this he cites documentary evidence of the cost of “stoning” and “filling” roads (which may have been of existing roads) in a document dating between 1680 and 1720 (Standing 1988, 39-43).

More recently doubt has been cast by Walters on the reliability of the radiocarbon date, who, despite his earlier assertions (see above), suggests that the sample was not securely sealed. He maintains the view that the Dean Road is a single entity, constructed by the Roman army during the 1st century AD to transport iron ore between Lydney and *Ariconium.* As “conclusive evidence” of this interpretation he cites the 1991 discovery of a 4th century AD coin hoard “only 12 metres to the east” of the road. This hoard may originally have been concealed in a boundary wall which ran parallel to the road alignment near Oldcroft *c.* 2km to the south of the management plan area (Walters 1991, 9; Walters 1992a, 68).

Although within the Forest of Dean the interpretation of the Dean Road as a Roman road is widely accepted, it is clear that this theory lacks supporting evidence, and what little evidence does exist would suggest that the road as it currently exists is considerably later in date.

In summary, the status and date, not only of the Dean Road, but also of all the routes in this category must be treated with considerable caution and, although a number of them may represent the line of early routes, their Roman origin cannot be substantiated.

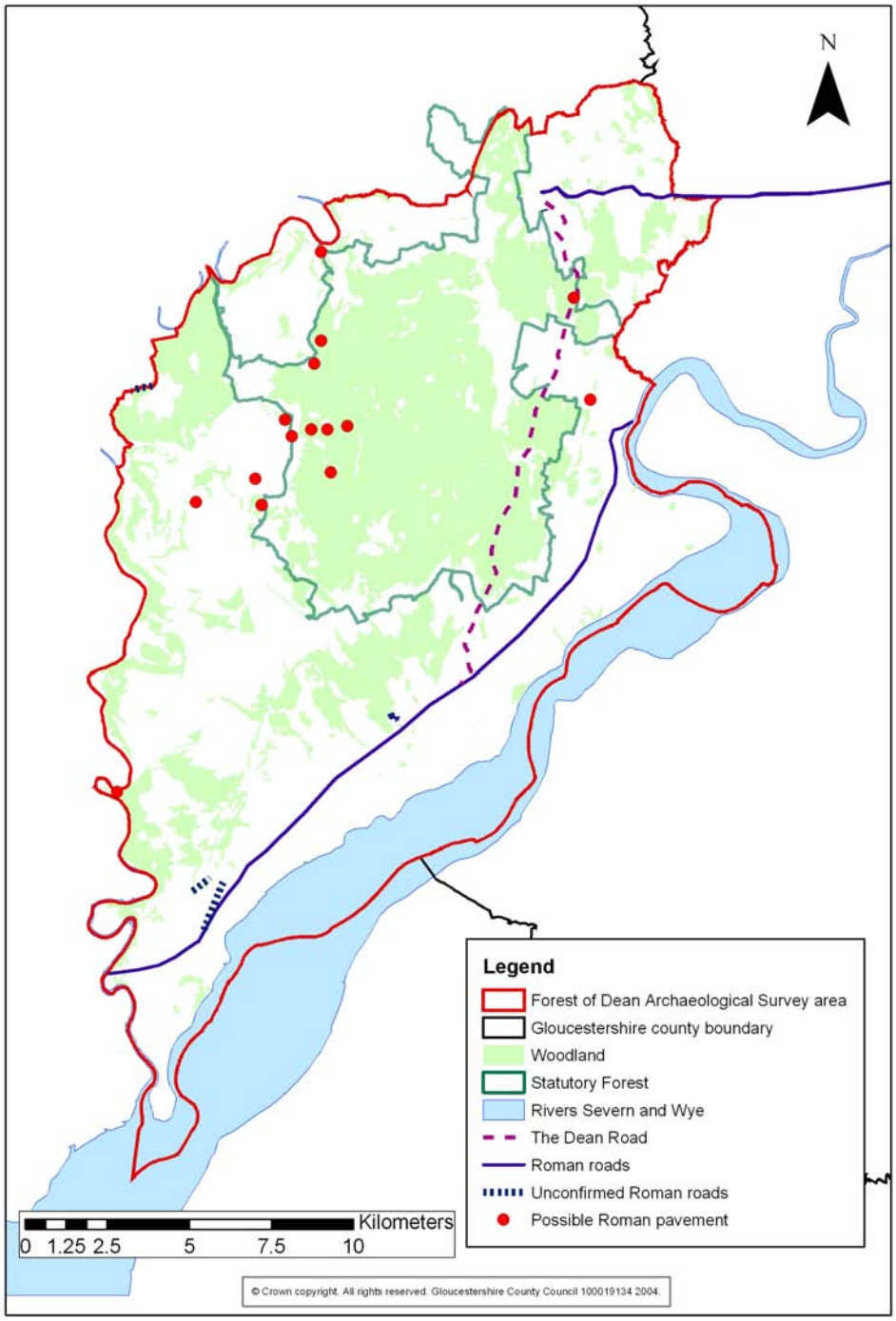

Figure 23: Roman Roads, The Dean Road and sites of reported Roman pavement

4.8.5 Placenames which may indicate the site of Romano-British features.

As with placenames which may be indicative of prehistoric activity (see 4.6.5 above), all those which may indicate Romano-British activity can have a number of meanings, and features often cannot be located without detailed field survey.

4.8.5.1 Chester placenames

The Gloucestershire SMR lists fourteen records which include placenames containing the element Chester or some derivative of it. One of these (Glos SMR 22053) is

Chestnuts Wood, Littledean which was recorded as *Castenariiss* from the old French for chestnut in 1282 (Smith 1964). This placename is likely to refer to chestnuts growing on the site and is not included in the following analysis.

The remaining thirteen names, however, may be derived from the Latin *castra*, meaning a military camp which was transformed into the Old English *ceaster* meaning a Roman fort or city or *ceastel* indicating deposits of stones. Names with this element are taken to indicate the presence of masonry remains, usually considered to be Romano-British in date (Smith 1964).

Two of these sites (Glos SMR 16362, 16365) refer to the placenames “Caswell Grove” in Tidenham. The interpretation of this name is not clear, and the modern version is rendered as “Causeway”. These names are found in close proximity to both Offa’s Dyke (Glos SMR 502) and also the deserted settlement site of Madgett (Glos SMR 6033), which was referred to as a prehistoric or Roman camp by some earlier authorities. Given this, the “Cas” element in this name may refer to either of these features, neither of which are currently thought to be Romano-British in date, and these two sites are not included in the following analysis.

Distribution

Landuse

None of the remaining 11 sites are within woodland.

Geology

Each of these sites overlies a different solid geology, although eight of these sites overlie sandstones with only two (Glos SMR 4390, 26855) overlying limestones, and one (Glos SMR 25368) overlying miscellaneous siltstones and mudstones. Only two sites (Glos SMR 16, 21533) overlie a recorded drift geology of gravel.

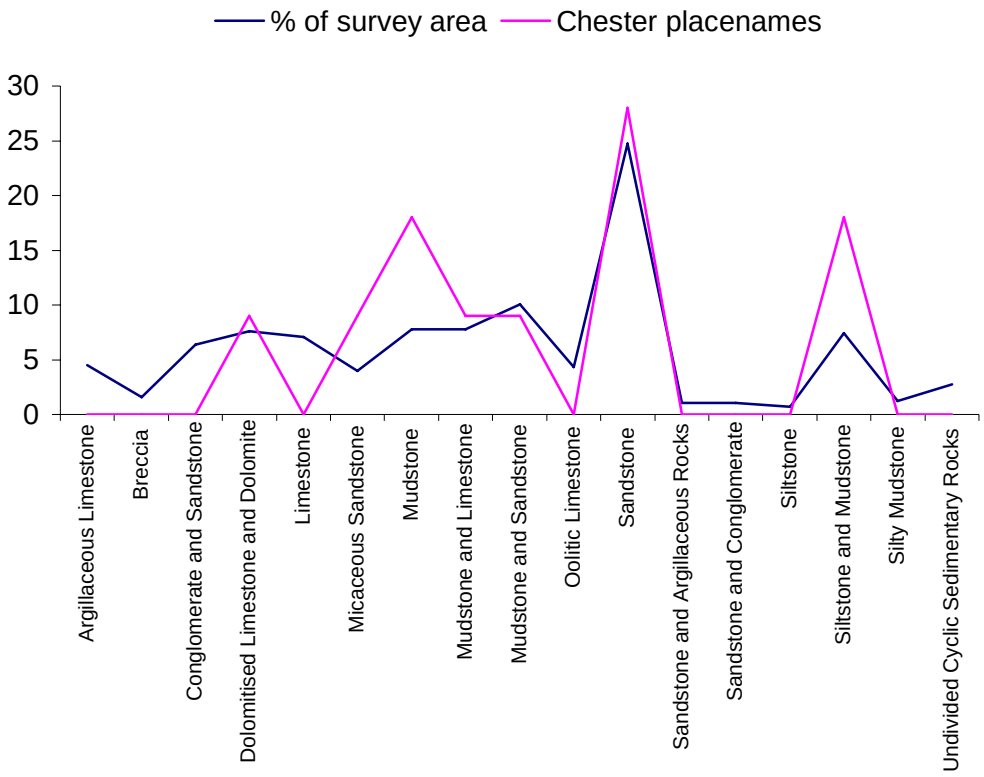

Chart 59: Chester names: Solid geology

Height aspect and slope

These sites are distributed across all height ranges within the Forest of Dean Survey area with no identifiable pattern.

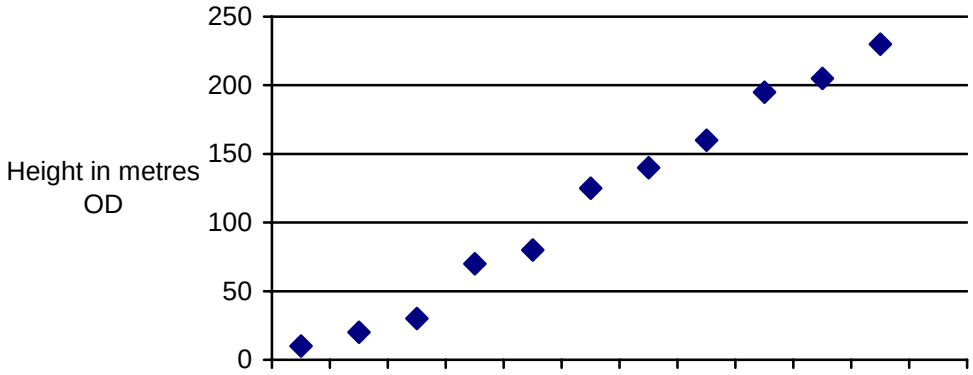

Chart 60: Chester names: Height

These sites tend to be found on relatively level ground, although three sites (Glos SMR 16484, 21387, 21533) are found on slopes in excess of 10°. These sites also display a slight preference for southerly facing slopes, although one of these sites (Glos SMR 21533) is on such level ground that no aspect could be recognised.

Discussion of the distribution

Analysis of the height, aspect and slope of these sites provides little information of value to a further understanding of them.

The preference for sandstone solid geologies, however, may be of interest. Quarrying for both limestone and sandstone, have been an important industry in the Forest of Dean "since earliest times" (Cross 1982, 26), and in the historical period limestones have tended to be quarried for the production of lime, whilst sandstones were principally quarried to provide building stone or millstones (Jurica 1996b). This category of placenames is thought most likely to represent evidence of masonry structures, and it may be that sites represented by these are more prevalent in areas where sandstone is readily available. It should, however, be noted that this distribution is at odds with the distribution of known evidence for *in situ* Romano-British settlement (see 4.8.1.5 above), and consequently the preference for a sandstone geology may either be anomalous, or a product of the circumstance under which certain types of placename are applied (see below).

The lack of this type of site within the woodland is likely to reflect the fact that this information is derived primarily from field name data, which is not available for areas of woodland. The significance of this may, however, be greater than simply a lack of available data, as "Tump" placenames as almost as widely distributed within woodland as outside of it. Consequently it is necessary to interpret this distribution as either indicative of the fact that the types of archaeological site represented by these names are less prevalent in areas currently under woodland, or that the mechanism by which sites indicated by these names are identified (e.g. the exposure of masonry remains by cultivation) is less prevalent in area of woodland.

Further exploration of this would require detailed analysis of the origin of placenames and the circumstances under which they are applied which is beyond the scope of this report.

Contemporary features

One of these sites (Glos SMR 16) clearly relates to the known Romano-British remains of Woolaston Roman Villa (Glos SMR 16), whilst another (Glos SMR 4390) may relate to Romano-British remains at Rodmore Farm, St Briavels (Glos SMR 4390).

Only three of the remaining sites (Glos SMR 21564, 25368, 26855) are found within *c.* 0.5km of known Romano-British sites represented by either artefact scatters or other remains.

4.8.5.2 Castle placenames

The majority of castle placename sites of which nine are known within the Forest of Dean Survey area, relate to the sites of medieval fortifications, and this category is discussed more fully in 4.9.5.3 below.

The status and significance of four of these sites (Castle Field Glos SMR 6041, Castle Ways Glos SMR 21673, Shutcastle Glos SMR 25376 and Doncastle Farm Glos SMR 27763) is not clear, and these could signify masonry remains from the Romano-British period.

4.8.5.3 Stone placenames

The Gloucestershire SMR records 11 placenames which contain elements referring either to stones or rubble. Whilst the majority of these are likely to relate to ground conditions (i.e. recording that an area is particularly stony) a number may indicate the sites of masonry remains of possible Romano-British or later date.

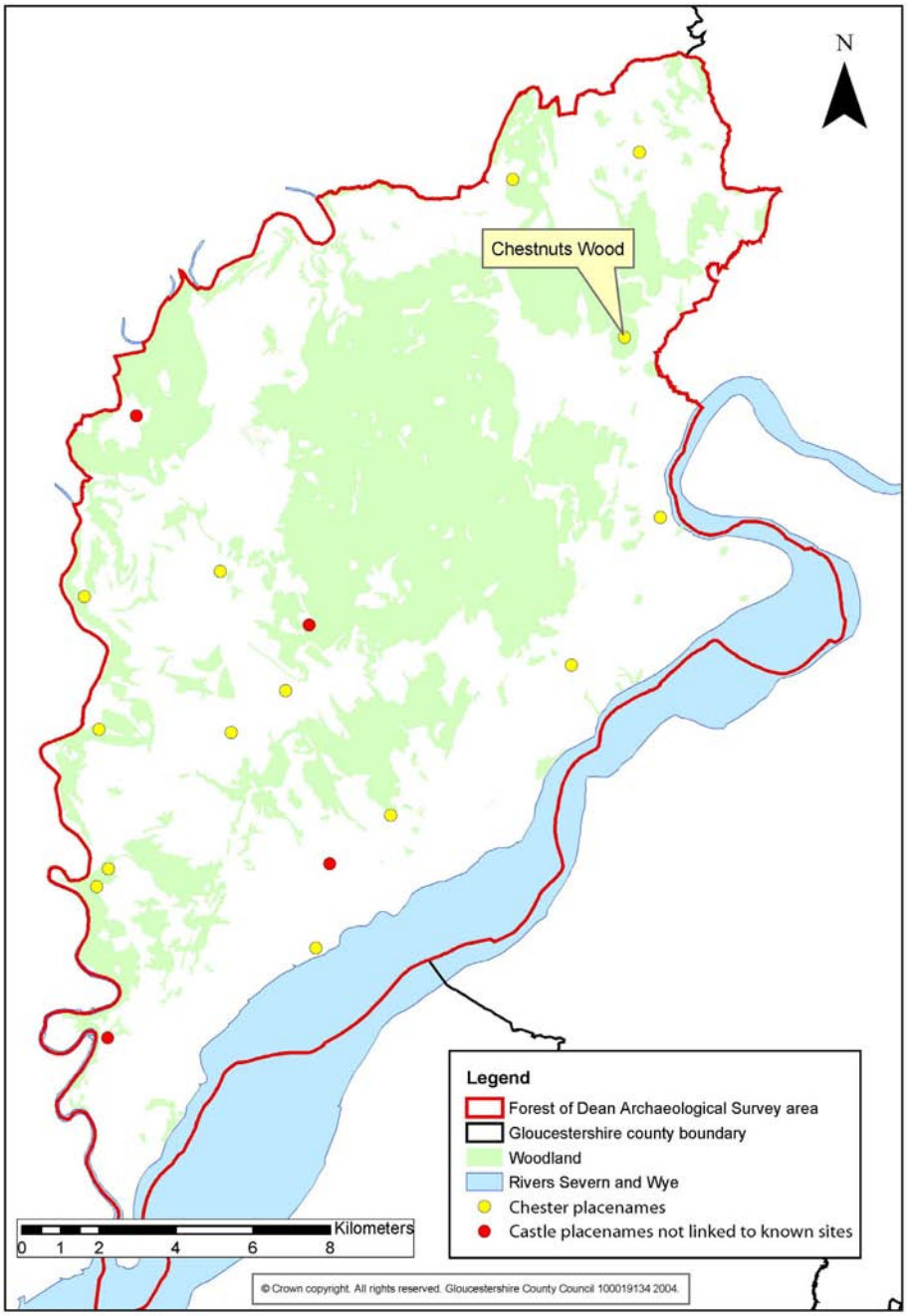

Figure 24: Chester and Castle placenames not linked to known medieval sites

4.8.6 Discussion of the Romano-British period

Compared with earlier periods, there is a relative wealth of Romano-British material known within the survey area. Despite this, however, very little is actually known about the nature and status of many of the sites where this activity has been identified. The distribution, and nature of settlement within the survey area is not understood, and what *in situ* remains have been identified have generally been interpreted as high status sites such as possible villas or temples. Notwithstanding the uncertain status of the majority of these, this type of structure is unlikely to have ever constituted the only, or indeed the most prevalent type of contemporary settlement. These would not have been discrete sites isolated within an otherwise

unpopulated landscape, which is likely to have been occupied by a range of lower status sites ranging from isolated farmsteads to small settlements.

Many of these are likely to be represented by scatters of Romano-British artefacts, and where these have been identified in the vicinity of known *in situ* remains, they may be indicative of concentrations of Romano-British activity.

The only clear clustering of Romano-British artefacts in the vicinity of *in situ* settlement evidence is in the area to the southeast of the Statutory Forest around Blakeney and Lydney, along the line of the modern A48, the probable Roman road following the Severn between Newnham and Caerleon (Margary 1957, 55-56; Road 60a), and also in the area of Chestnuts Wood to the North of Littledean and immediately to the west of the possible Romano-British iron working settlement at Popes's Hill (Glos SMR 5179).

Artefacts in the area to the north and west of Close Turf Farm, St Briavels (centred at SO58390555) may also be indicative of a concentration of Romano-British activity. Although this can partly be attributed to the fact that surface artefact collection has been undertaken in the arable fields in this area (Glos SMR 5726, 6489, 9737, 9747, 9748), Romano-British structural remains (Glos SMR 4390), three "chester" placenames (Castors, Glos SMR 21539; Chess Reading Field and Chess Reading Meadow Glos SMR 4390), and a rectilinear enclosure known from cropmarks (Glos SMR 4053) possibly associated with a "bury" placename (Wilsbury Glos SMR 25429) are also found in this area.

Romano-British artefacts are found in the same general area as contemporary *in situ* remains in the vicinity of English Bicknor and Lower Lydbrook in the northern part of the Forest of Dean (centred at SO 58851590) and there are clusters of known artefact finds in other areas (e.g. the area to the north of Ruardean centred at SO 63701720, and the area to the southwest of Coleford centred at SO 56942093), but these are not focussed enough for likely sites to be located with any degree of accuracy.

A number of known Romano-British sites have been found in conjunction with prehistoric material although the majority of these are the result of some form of deliberate archaeological exploration such as evaluation, excavation, watching brief or surface artefact collection, and as the status of neither the prehistoric nor Romano-British material is generally known, the significance of this correlation cannot be determined.

The network of communication routes which would have existed in the area during the Romano-British period is also not clear. The two likely Roman roads in the area, (Glos SMR 6212, 7123) represent the line of a major roads which would have linked the survey area with the national network of Roman communications to the west and east, whilst the network of Roman roads which would have served the settlements and industrial sites within the survey is poorly understood.

4.8.6.1 Main issues

The lack of knowledge about the Romano-British iron industry within the survey area has already been discussed and recommendations made to address this (Hoyle et al. 2004). This lack of detailed knowledge is not, however, restricted to the Romano-British iron industry and applies equally to other areas of settlement and landuse.

Other areas of particular interest to an understanding of the Romano-British period are:

- The actual date range and status of the assemblages of Romano-British material identified as a result of surface artefact collection.
- The actual date and status of the two possible temple sites at Littledean (Glos SMR 9782) and High Nash Coleford (Glos SMR 4929).

- The actual status of the possible kiln site (Glos SMR 5066), and the nature and distribution of non-iron working industries within the area.
- The status of sites which have been interpreted as villas and the relationship between identified villa sites and patterns of contemporary settlement and landuse.
- The status of possible Romano-British roads in the area, and their relationship with contemporary settlement sites.
- The impact of the Roman invasion of the area and the transition from late Iron Age to Romano-British societies.
- The impact of the withdrawal of Roman control of the area.

4.8.6.2 Recommendations

In addition to the recommendation for further work on the Romano-British iron industry set out in Hoyle et al. 2004, the following recommendations are made for the further investigation of the Roman-British period within the Forest of Dean

- Detailed analysis of available artefact assemblages, particularly those recovered as a result of surface artefact collection, to determine their status and date range.
- Further systematic surface artefact collection in areas of arable cultivation to refine knowledge of existing artefact distributions and identify new sites.
- Rapid field survey in areas of woodland, particularly in areas where artefacts of this date have been identified or where placename evidence suggests the survival of Romano-British material, to identify earthwork features which may relate to Romano-British activity.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of Romano-British activity (in the form of artefacts) may be exposed during these operations.
- Given the paucity of environmental evidence relating to the Roman period from the survey area, it is recommended that, where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.
- Re-assessment of the excavation records of the two possible Romano-British temple sites at Littledean (Glos SMR 9782) and High Nash Coleford (Glos SMR 4929).
- Further investigation of the possible villa sites at Stock Farm Clearwell (Glos SMR 5611) and The Grange Newnham (Glos SMR 7280) to determine the status and date of these sites.
- Investigation of areas outside of woodland, where placename evidence suggests that Romano-British sites may be present.

4.9 The medieval period

The medieval period within the Forest of Dean Survey area is represented by a diverse range of sites and artefacts which defy simple generalisation. It includes the period during which the Royal Forest was created (sometime between 1066 and 1086), a process which had a lasting (although not necessarily immediate) effect on the distribution of settlement, agriculture, and industry in the area.

The following discussion adopts a thematic approach to the discussion of the evidence for medieval activity within the survey area, and general recommendations for further research are made in relation to each theme as appropriate.

4.9.1 Evidence for early medieval activity

Very little is known about the Forest of Dean Survey area during the period immediately following the withdrawal of the Roman army in AD410.

Excavations in the late 1920s suggested that the hillfort at Lydney Park (Glos SMR 25) was re-fortified during the period following the withdrawal of Roman imperial power (Wheeler and Wheeler 1932). It is not clear what the significance of this re-fortification was, and whilst it is tempting to interpret this as evidence of Lydney being a fortified stronghold of a sub-Roman British warlord in the manner of South Cadbury, Somerset (Alcock 1972), no contemporary structures have been found and alternative suggestions such as the provision of short-term shelter for a post-Roman cavalry force have also been suggested (Walters 1992a). The re-fortification of the hillfort at Welshbury (Glos SMR 5161) during this period has also been suggested (McOmish & Smith 1996) although the evidence for this is far from conclusive.

With the exception of sites relating to Offa's Dyke (see below), the Gloucestershire Sites and Monuments Record lists 17 early medieval sites within the Forest of Dean Survey area.

Eight of these are either shrunken settlement or religious sites and are discussed more fully in 4.9.3 and 4.9.4 below.

Six sites are effectively known only from documentary references and comprise a holloway (Glos SMR 4924), a named tree which acted as a Saxon boundary marker (Glos SMR 4931) the site of a possible Saxon boundary (Glos SMR 5034), the site of a possible Saxon well (Glos SMR 5028), a ferry crossing (Glos SMR 5801) and the site of a mill (Glos SMR 5885).

A further site Glos SMR 22353, represents undated surface coal workings which have been designated a range of possible dates from the Roman to the post-medieval periods (including early medieval), whilst another, the sea defences at Lydney (Glos SMR 17256) has been given an early medieval date solely on the basis of the fact that it is clearly respected by adjacent ridge and furrow.

Micla Bridge at Alvington (Glos SMR 5837) has been designated as early medieval on the basis of its form, but is effectively undated.

Few of these can be dated with any certainty and any analysis of these in relation to such factors as landuse, geology, or their relationship with other archaeological feature would seem premature at the present time.

Only three artefacts (none of which have been dated with any certainty) have been designated an early medieval date. These are discussed more fully in 4.9.2 below.

A number of placenames containing the element Loe are found within the Forest of Dean particularly in Awre parish in the eastern part of the survey area. The name,

which is derived from the Old English *hlaw* indicating a mound or tumulus (Smith 1964, IV), is often interpreted as evidence of pagan Saxon burial activity, and may be indicative of a small enclave of early Saxon settlement or other activity in this area, although archaeological evidence for Saxon activity from this period is largely confined to the eastern part of Gloucestershire (Heighway 1987). The distribution of these names is discussed more fully in 4.6.5.1 above.

4.9.2 Artefactual evidence for medieval activity

4.9.2.1 Early medieval artefacts

The Gloucestershire SMR lists only three artefacts as early medieval. These comprise two putative Anglo-Saxon spearheads (Glos SMR 5059, 20465), recovered as unstratified stray finds and a font (Glos SMR 6001) which may actually be early Norman in date.

A further artefact (Glos SMR 19417) found at Closeturf Farm St Briavels, has been interpreted as a Romano-British altar (see 4.8.3 above) which may have been debased in the early Christian period.

4.9.2.2 Later medieval artefacts

The Gloucestershire SMR records 72 sites described as medieval artefacts, although it may be that some of these artefacts are in fact early medieval in date but have not been recognised as such, and the actual date of some, such as a supposed medieval bell (Glos SMR 26875), is unclear.

Artefact types

The majority (59%) of this material is made up of pottery finds although a range of artefact types are also represented. This includes five medieval fonts (although two of these (Glos SMR 6001) are from a single church), five coins and a number of miscellaneous items such as a key, horse furniture, items of personal equipment and a spindle whorl. One of these sites (Glos SMR 21728) is identified as “settlement evidence” without further explanation whilst another site (Glos SMR 9330) is described as “medieval occupation debris”, although further inspection of the SMR record suggests it may be material derived from Sherborne Abbey and not *in situ* medieval remains.

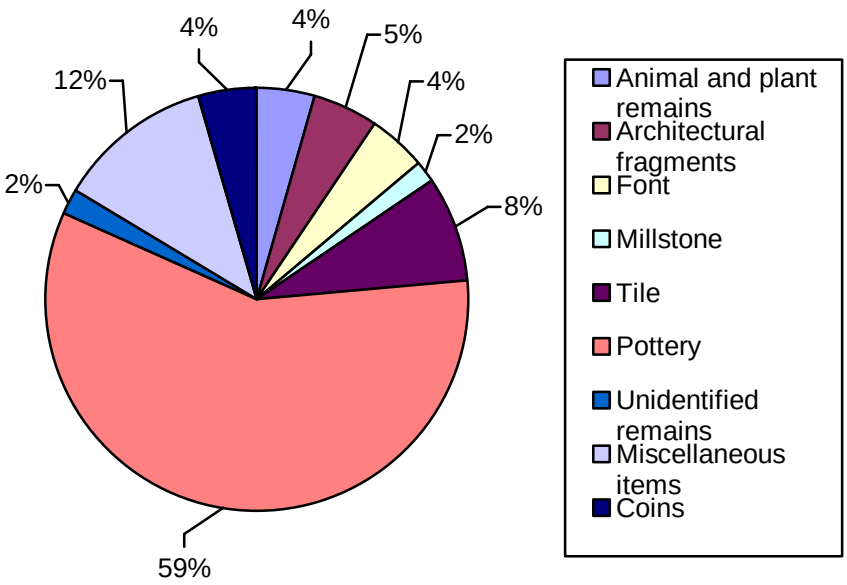

Chart 61: Types of medieval artefact

Method of discovery

Just over half of these sites have been identified as a result of some form of archaeological activity, with 12 of these (16%) identified as a result of watching briefs, and 30 sites (38%) found as a result of proactive archaeological excavation or evaluation. Six of these sites (8%) are known as a result of the collection of artefacts from field surfaces, and nine sites (12%) were recorded as stray finds. Three of these sites (4%) were found as a result of metal detector surveys, whilst the method of discovery of 12 of these (16%) is not known for certain. The remaining five sites (6%) are known as a result of recorded observation of features such as fonts or tiled floors sited within churches (Glos SMR 327, 5855, 6001, 6037) or a bell of possible medieval date re-used in a later building (Glos SMR 26875).

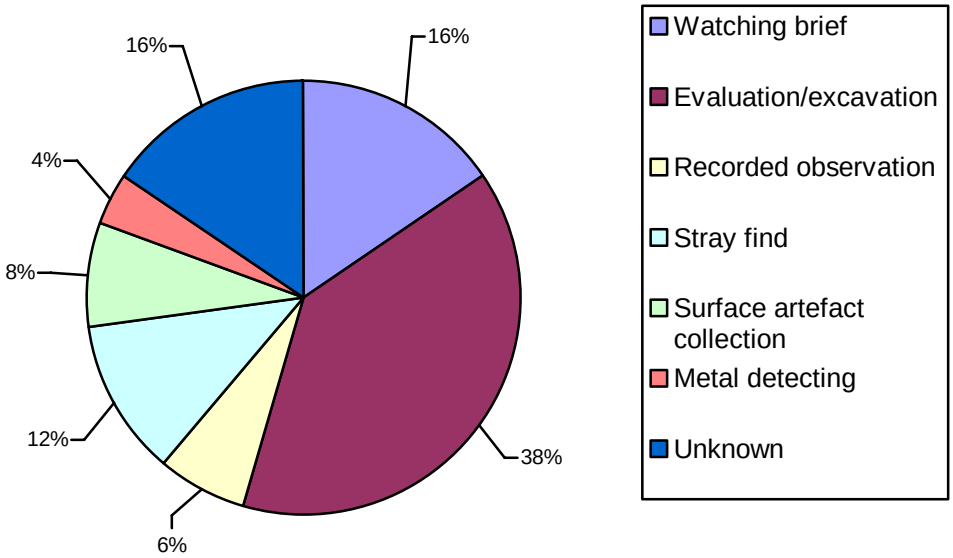

Chart 62: Medieval artefacts: Method of discovery

Landuse

Five of the later medieval sites are represented by fixtures or fittings within existing buildings (see above), and have not been included in this analysis.

Of the remaining sites, only five (6%) are known from woodland. Of these, one (Glos SMR 2264) is a stray find, and another (Glos SMR 26876) was found by a metal detectorist. Three of these (Glos SMR 20567, 21419, 20567) were found as a result of either archaeological excavations or watching brief, whilst the circumstances under which the remaining site (Glos SMR 9330) was discovered is not clear, nor is the actual status of these finds (see above).

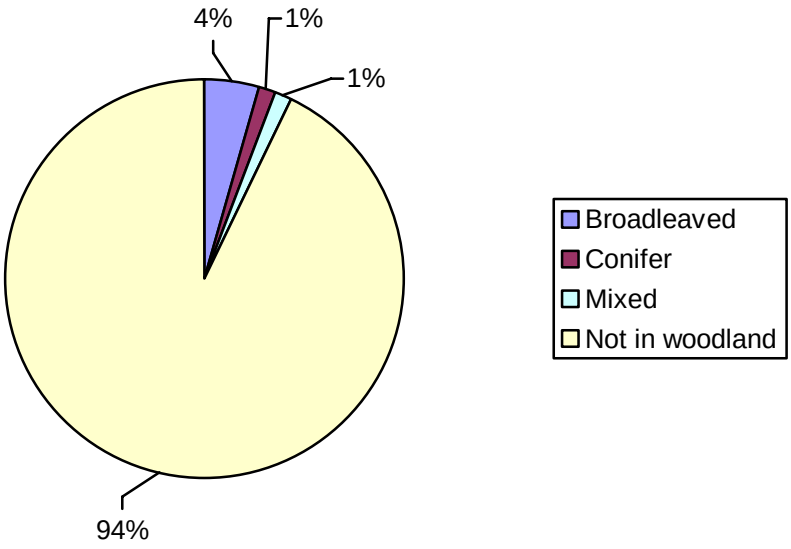

Chart 4: Medieval artefacts: Woodland

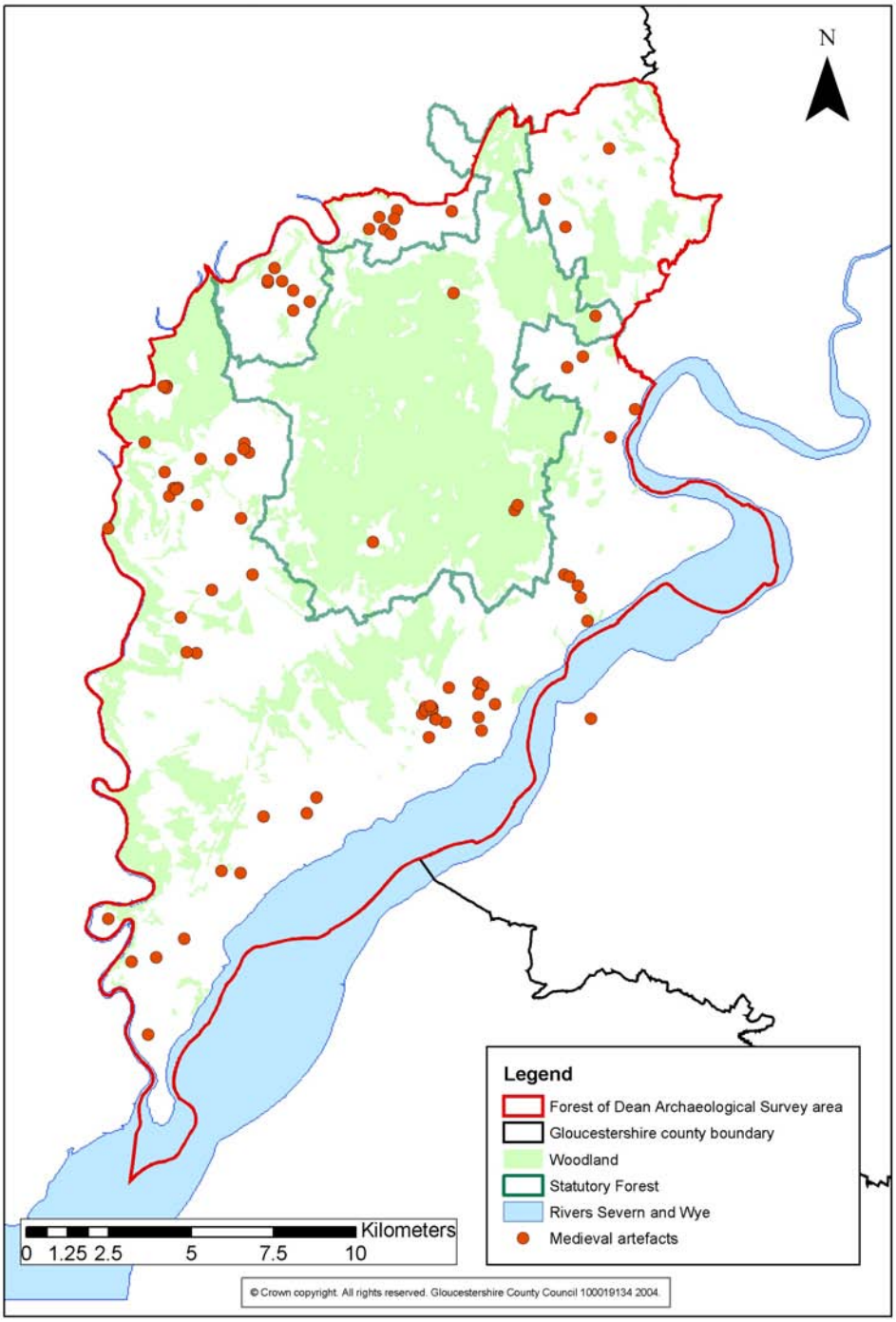

Figure 25: Medieval artefacts not associated with known sites

4.9.3 Settlement

4.9.3.1 Former medieval settlement sites

The Gloucestershire SMR contains 44 sites in the Forest of Dean Survey area which display evidence of deserted, shrunken or shifted settlement, probably dating to the medieval period.

Very little is currently known about the actual status or date of many of the areas which appear to represent former medieval settlement activity, and any discussion of "deserted settlement" from the medieval or later periods is fraught with problems not

least of which is a lack of any definition of what constitutes either “desertion” or “settlement” in this context. Consequently the range of features which are broadly categorised under this heading actually encompass a range of settlement features which includes substantial settlements which have become completely de-populated, shrunken settlements which now survive as isolated farms or small groups of houses, and evidence of “settlement drift” in the vicinity of existing communities.

Nature of the evidence

Fourteen of the sites are known primarily from documentary evidence, and no visible archaeological features (with the exception of existing farm buildings) indicative of former settlement have been recorded in association with them. Three sites (Glos SMR 327, 6033, 6035) are known primarily from documentary evidence but are also known to contain settlement earthworks.

Thirteen of these sites are known primarily as earthworks, and are represented by features such as house platforms, or small enclosures, and another 13 are recognised on the basis of aerial photographic evidence which has identified earthworks or cropmarks morphologically consistent with medieval settlement. A single site (Glos SMR 5723) has been recognised solely on the basis of artefactual evidence.

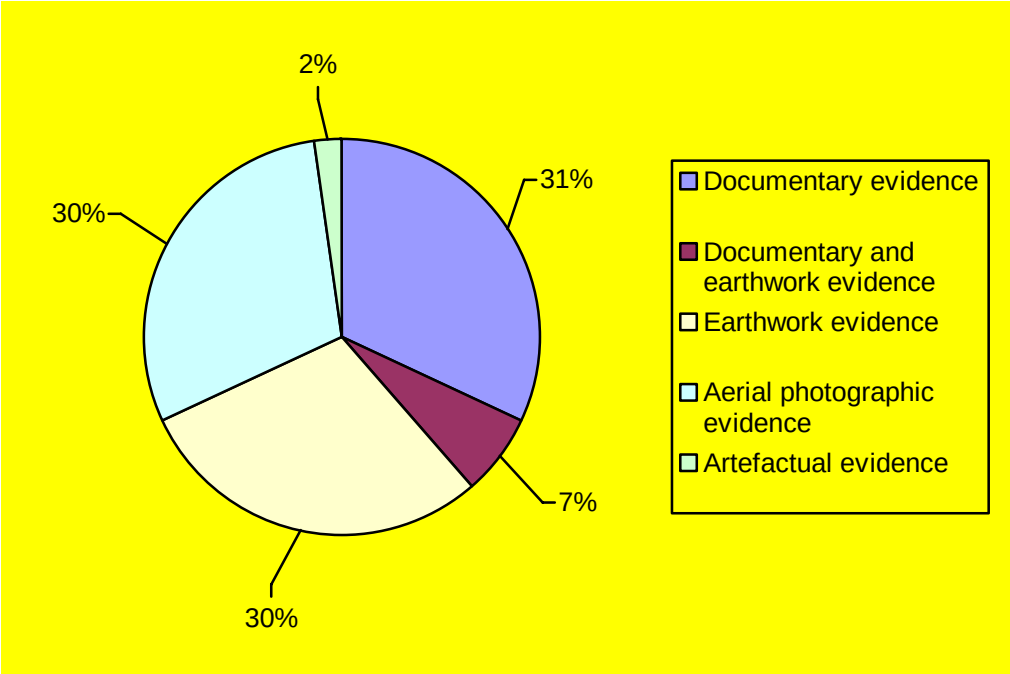

Chart 63: Former medieval settlement: Nature of the evidence

The actual status and date of many of these is not clear. Few are dated with any degree of certainty and the majority have been ascribed a medieval date on the basis of either placename evidence, or association with features of known medieval date. It is not always clear whether these sites represent evidence for a substantial deserted or shrunken settlement, a single dwelling, or a mid-sized settlement, and in this respect, the site known only from recovered artefacts (Glos SMR 5732) should be regarded as particularly suspect.

Where evidence for earlier settlement is in the immediate vicinity of the existing settlement (see for example St Briavels SO55770443), this is likely to simply indicate evidence for settlement drift caused by settlements expanding, contracting or re-focussing over time.

The majority of these sites consist of evidence for earlier settlement some distance from the main settlement, and are likely to be indicative of relatively dispersed settlement patterns with either clusters of farms or dwellings outside of the core settlement, or perhaps a situation in which the settlement within a parish was lacking any nucleated core. For many of the areas in which evidence of medieval settlement is found within the survey area, some level of dispersal remains the norm. Even where there is a clearly defined core settlement for example at English Bicknor (SO58091576), small satellite settlements often focussed on farmsteads or small clusters of dwellings abound, and in some areas such as Woolaston (SP58109949) and perhaps also Awre (SO 69780843), there remains no clearly defined nucleated core settlement. Consequently, the evidence may suggest that in the broad sense, the pattern of settlement in these areas as not markedly different from that visible today.

The surviving evidence of former medieval settlement known from the Forest of Dean Survey area does not in itself form an adequate information base to discuss the nature of settlement in the area prior to the Norman conquest of 1066 and the establishment of the Royal Forest before 1086. Any discussion must also synthesise a range of historical information of a type which would not be added to the Sites and Monuments Record database, and consequently is not included in the project database.

4.9.3.2 Known early medieval settlement

Three sites within the Forest of Dean Survey area (Lancaut, Glos SMR 327, Madgetts, Glos SMR 6035 and Wyegate Glos SMR 26752) represent deserted or shrunken settlement sites which have been designated an early medieval date. of these, only Lancaut (Glos SMR 327) was not recorded in the Domesday survey of 1086.

Both Madgetts (Glos SMR 6035) and Wyegate (Glos SMR 26752) were recorded in the Domesday survey, although a further 27 placenames within the survey area, were also recorded at that time (Figure 26).

Not all of these appear to have been active settlements in 1086. Seven of these sites have no recorded population with Upper and Lower Redbrook, and Staunton recorded as “Waste” and “in the Kings Wood” in 1086, whilst Whippington was simply recorded as “Waste”. The status of Newarne is not recorded and the remaining two sites, Hewelsfield and Wyegate were both recorded as “in the forest by the kings order” perhaps suggesting deliberate clearance to make way for the Royal Forest, although as neither of these are actually in the near vicinity to the current boundaries of the Statutory Forest, this interpretation should be treated with caution. Madgett was recorded as having only a single villager at this time.

Whatever their status at the time of the Domesday survey, it is likely that most of the sites recorded at this time existed in some form before the Norman conquest of 1066, and consequently evidence of early medieval settlement is likely to be found in the vicinity of the modern settlements (or in some cases farmsteads) which now bear these names.

Two of these (Whippinton and Newarne) do not have a modern counterparts and their precise location is not known. Whippington is thought to be in the western part of Mailscot Wood (Jurica 1996f), and the name “Whippington Corner” survives as a road junction to the south of Staunton. The location of another site “Newarne” is also unclear. This site is not the modern Newerne (which is recorded as *Niwar* in Domesday – Smith 1964, 219, 259) and Moore places this site in the centre of the area of the Statutory Forest at the site of the modern Speech House at *c.* SO62161207 (Moore 1982, map of Northwest Gloucestershire Ha:4, E2), whilst Smith suggests this sites was to the south or southwest of Cinderford (Smith 1964, 218-219). Newarne appears to have been sited more or less centrally within the statutory

Forest (see above), and is the only one of the Domesday sites not outside of the area of the modern Statutory Forest. The name literally means “New House” (Smith 1964, 218), and if Moore’s location in the vicinity of the present Speech House is correct, it is tempting to equate this with the building at Kensley where the Forest court met in 1338, 1566, and 1608. This building is reported to have been “very close” to the site of the later Speech House (Jurica 1996b), adjacent to the modern Little Kensley Enclosure. This association perhaps indicates that the Newarne mentioned in Domesday was a newly constructed hunting lodge or similar structure which also served an administrative function in the newly created Forest. This site is also less than 1.5km to the north of the supposed site of Seynteleycastel (Glos SMR 7404) mentioned in 1282 (see also the placename Saintlow Enclosure – Glos SMR 25418). Although this site is currently connected with the site of Turners Tump (Glos SMR 7404), this association has not been established and it may be that the Domesday Newarne and the 13th century Seynteleycastel are on the same site.

The fact that the majority of these sites are outside of the area of the Statutory Forest suggests that by 1086 this area was effectively clear of authorized settlement, a situation which continued until the mid-19th century (Jurica 1969b). It may also be significant, however, that with the exception of Newarne which may be atypical, the Domesday survey makes no reference to former settlement within the Statutory Forest, and all of the sites recorded as “Waste” or “within the Forest” are outside of this area (see above). This may support the view that a large area of woodland and waste centred on the modern Statutory Forest was depopulated and used as a Royal hunting reserve in the later Saxon period prior to the Norman conquest of 1066 (Herbert 1996). Even if this is the case, the date at which this area was set aside for this purpose is not clear, and parts of this modern Statutory Forest may have been settled and farmed during the earlier medieval period.

4.9.3.3 Recommendations for early medieval settlement sites

The following general recommendations are made for the further investigation of early medieval settlement in the Forest of Dean:

- Detailed analysis of available artefact assemblages, particularly those recovered as a result of surface artefact collection, to determine their status and date range.
- Further systematic surface artefact collection in areas of arable cultivation to refine knowledge of existing artefact distributions and identify new sites.
- Rapid field survey in areas of woodland, particularly in areas where placename evidence suggests the survival of early medieval settlement sites (particularly Newarne and Whippington), to identify earthwork features which may relate to Romano-British activity.
- Earthmoving activities sometimes take place in areas currently under woodland. This can take the form of forestry activities such as soil scarification on sites to be re-stocked with trees, the creation of new roads or paths or the excavation of drainage channels, or, the excavation of new services by utility companies. Where these occur, they should be observed as evidence of early medieval settlement activity (in the form of artefacts) may be exposed during these operations.
- Given the paucity of environmental evidence relating to the early medieval period from the survey area, it is recommended that, where appropriate, palaeoenvironmental sampling should be included in future field research relating to this period.
- Investigation of areas outside of woodland, where placename evidence suggests that early medieval settlement sites may be present.

4.9.3.4 Later medieval settlements

It is not the purpose of this report to make a detailed analysis of the later medieval settlement pattern within the Forest of Dean Survey area. However, eight of the modern parochial centres are not mentioned in the Domesday Survey of 1086, and brief discussion of these offers some insight into the development of settlement throughout the medieval periods.

Of the existing parochial settlements Aylburton, Blaisdon, Coleford, and Newland are all sited outside of the area of the Statutory Forest, and were not only first recorded in the later medieval period but were also settlements during that period. The remaining four parochial centres, Cinderford, Drybrook, Lydbrook, Ruspidge and Soudley were all first recorded in the later medieval period. These are sited at the immediate edge of or within the modern bounds of the Statutory Forest, and did not develop into settlements of any size or significance until the influx of workers to meet the increased demands of rapidly growing industries in the later post-medieval period. All of these settlements owe their origins to an extensive ring of squatter settlement consisting of a disordered mix of cabins and small enclosures which fringes of the former Crown land of the Statutory Forest. This is a distinctive feature of the settlement pattern of the Forest of Dean, indicative of the conflict between the housing needs of workers required to meet the expanding industries of the area and the government restrictions on settlement and other activity within Crown land (Hoyle 2006; Jurica 1996b).

This distribution of settlement is typical of the Forest of Dean Survey area, with all known medieval settlements both in the form of evidence of former settlement and of settlement which currently exists, located around the periphery of the central wooded area of the Forest of Dean (The Statutory Forest), and none of these sites are recorded within the belt of “squatter settlement“ which grew up around the periphery of the Crown Land from the 18th century to accommodate the increased population demands of a growing industrial workforce (Hoyle 2006).

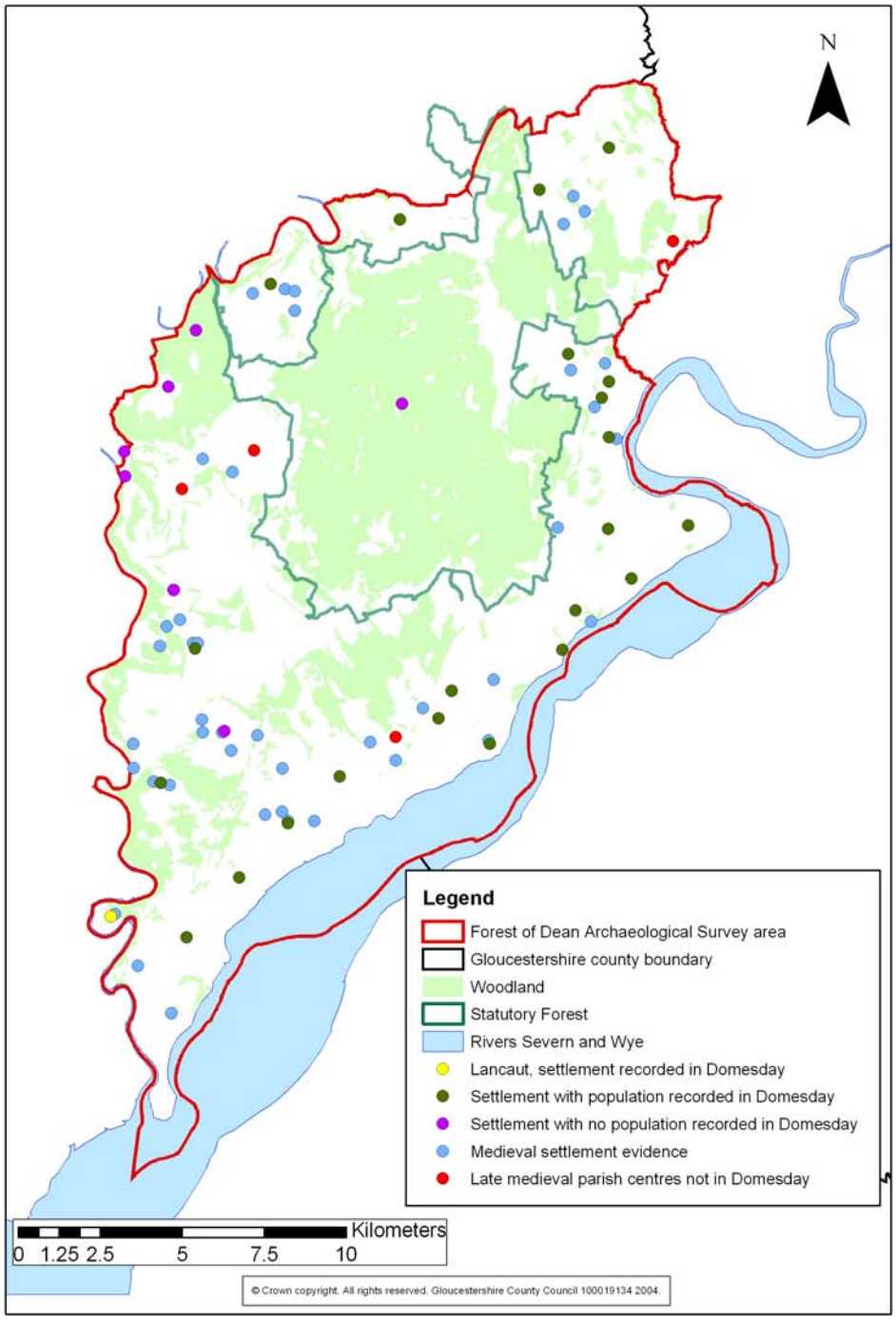

Figure 26: Medieval settlement

4.9.4 Religious sites

4.9.4.1 Early medieval religious sites

The Gloucestershire SMR lists seven religious sites within the Forest of Dean Survey area which are either known to be, or can be inferred to be early medieval in date. These comprise a chapel at Lancaut (Glos SMR 327) and the churches at Tidenham (Glos SMR 8395) Newham (Glos SMR 5184) and Awre (Glos SMR 8300) which have been dated on the basis of documentary records for these establishments.

A fourth site, St Twrogs chapel on Chapel Rock to the south of Beachley Point (Glos SMR 5055) has been suggested as early medieval in origin on the basis mainly of its dedication to a Celtic saint, rather than any direct documentary or architectural evidence.

The sub-circular churchyards at Woolaston (Glos SMR 5031) and Hewelsfield (Glos SMR 12597) *c.* 3.5km to the northwest are also listed, as early medieval on the grounds that their shape is suggestive of an early Christian foundation, although neither of these sites has produced direct evidence of this date.

The remaining site in this category is a displaced fragment of cross slab, thought to be either late Saxon or early Norman in date which has been re-used in the construction of an early post-medieval building at St Briavels (Glos SMR 20211). The significance of this artefact is not entirely clear, but it is likely to derive from the nearby parish church (Glos SMR 6101) which is early Norman in date.

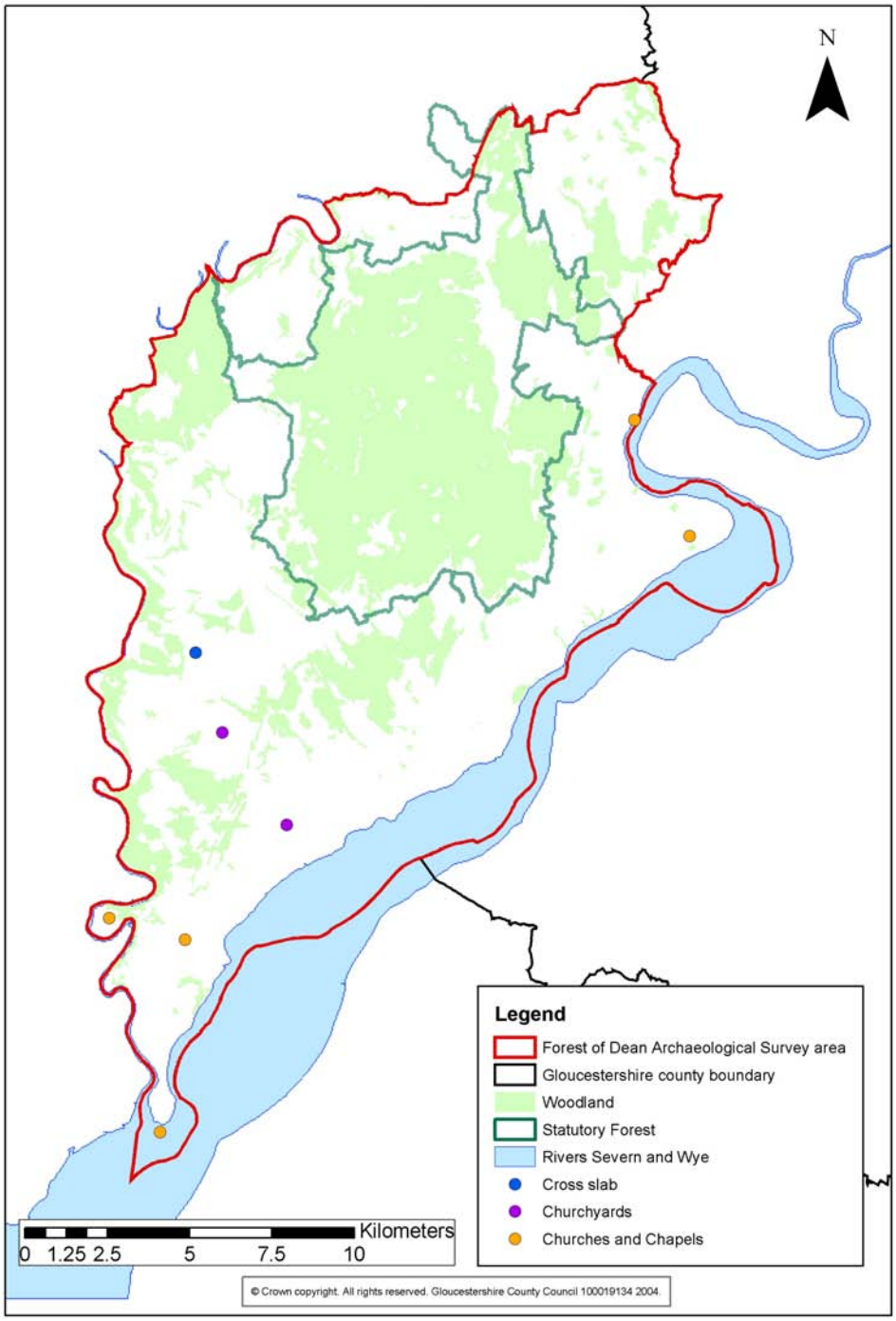

Figure 27: Early medieval religious sites

4.9.4.2 Later medieval religious sites

The Gloucestershire SMR records 81 separate late medieval religious sites (within 67 archaeological area records).

This is too large a data set to discuss in detail and can be summarised as follows:

Monastic sites

The area contains a single monastery (Flaxley Abbey Glos SMR 5160), and also the reported site of a medieval nunnery at Tidenham (Glos SMR 21634).

In addition to this seven sites are recorded as monastic granges. Two of these (Glos SMR 5175, 21297) are granges of Flaxley Abbey, one (Glos SMR 5145) is part of a grange of Llanthony Priory, the site of Stowe Grange (Glos SMR 6103) belonged to the Abbey of Grace Dieu, whilst the site of a medieval mill at Brockweir (Glos SMR 21570) and two grange sites at Woolaston (Glos SMR 12879, 21337) belonged to Tintern Abbey.

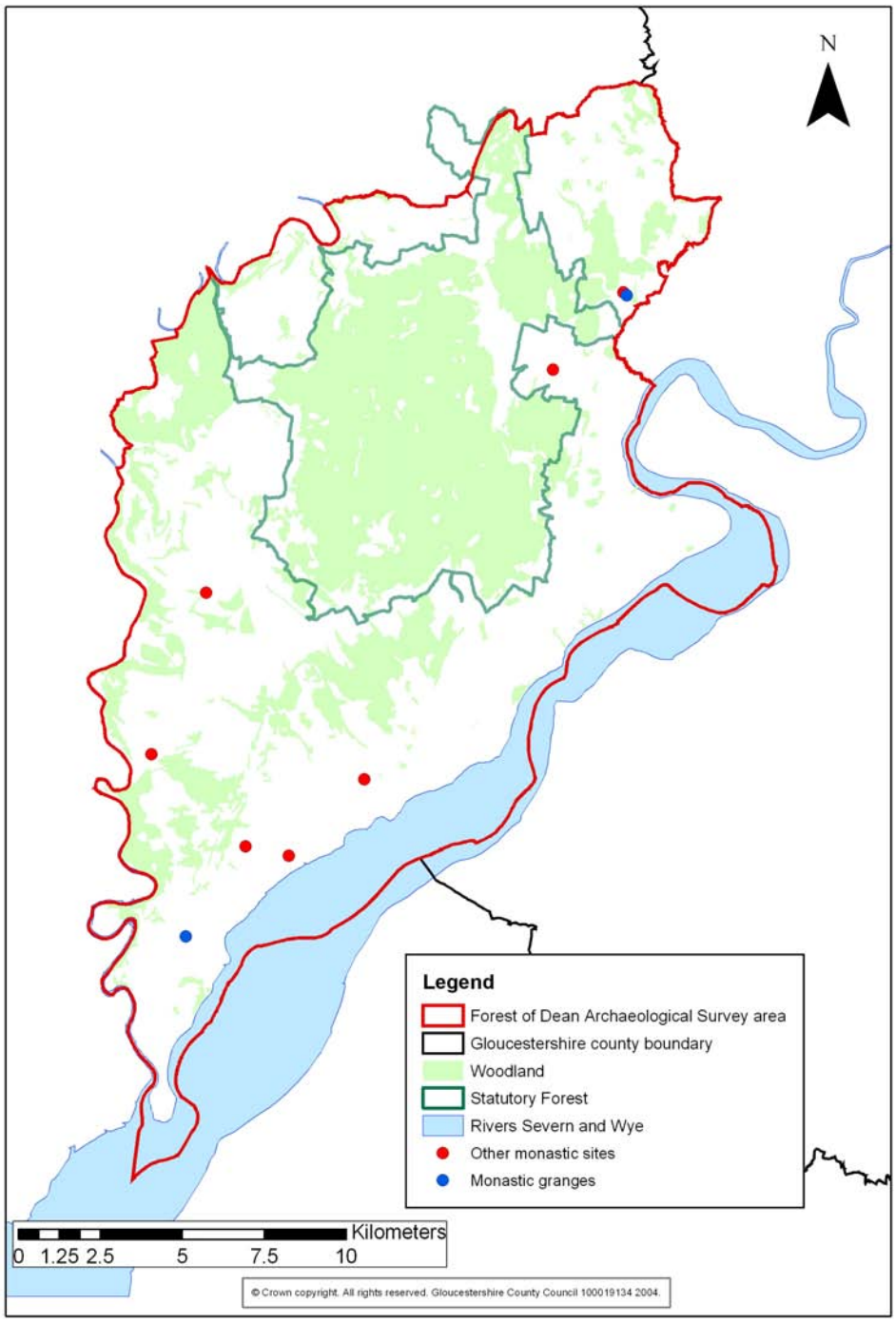

Figure 28: Late medieval monastic sites

Chapels

The Gloucestershire SMR records 20 medieval chapels within the survey area of which three (Glos SMR 5624, 6103, 20153) are recorded as “Hermitages”. Two

additional chapel sites (St Twrog's Chapel Glos SMR 5055, and St Peters Newnham, Glos SMR 5184) may have been founded in the early medieval period and are discussed above.

Only two of these sites (Woolaston Grange Glos SMR 5021, St Margaret's Chapel, Stowe Glos SMR 6022) are recorded as surviving as ruined structures, and one (St Mary's Chantry St Briavels Glos SMR 5094) has been converted into a dwelling.

Four (Glos SMR 5052, 5135, 6026, 26879) are recorded on early map sources. These are labelled "site of" and are not a mapped depiction of the actual building. St David's Chapel Tutshill (Glos SMR 5052, and 26879) actually represents alternative sites for the same chapel and although the actual site is reported to have been located by an antiquarian excavation, the veracity of this report has been questioned (see Glos SMR 5052).

The remaining 14 sites are known from documentary sources and their precise location is not clear, and the two chapels recorded at Mork (Glos SMR 6026 and 21471) almost certainly represent a single chapel.

All of these chapel sites are outside the area of the Statutory Forest, and only one (the possible site of St David's Chapel Glos SMR 26879) is recorded within woodland, although as the precise location of this site is disputed (see above) the significance of this is not clear.

Four of these chapel sites are not associated with areas of medieval settlement or monastic sites.

Two of the remainder (St Ewens' Chapel at Beachley, Glos SMR 5067; and St David's Chapel, Tutshill Glos SMR 5052/26879) are sited at crossing points of the rivers Severn and Wye respectively and were constructed for the benefit of travellers. The third chapel in this category Dryslade Farm, Glos SMR 6015 was sited near "an ancient road junction" and may have fulfilled a similar function, whilst the fourth (Glos SMR 21474) was constructed by a private individual to serve as a chantry chapel on his estate.

The Gloucestershire SMR contains six sites of placenames which denote or suggest the site of a chapel, (Glos SMR 5052, 6015, 6026 {two names}, 16338, 25393) and an additional name (St Margaret's Grove, Glos SMR 6027) which is associated with a known chapel site. All of these relate to known chapel sites with the exception of Chapel Meadow (Glos SMR 25393). Although no chapel is known from this site, it is located immediately to the east of the site of the known former medieval settlement of Madgetts (Glos SMR 6033), and may therefore indicate the site of a chapel associated with that settlement.

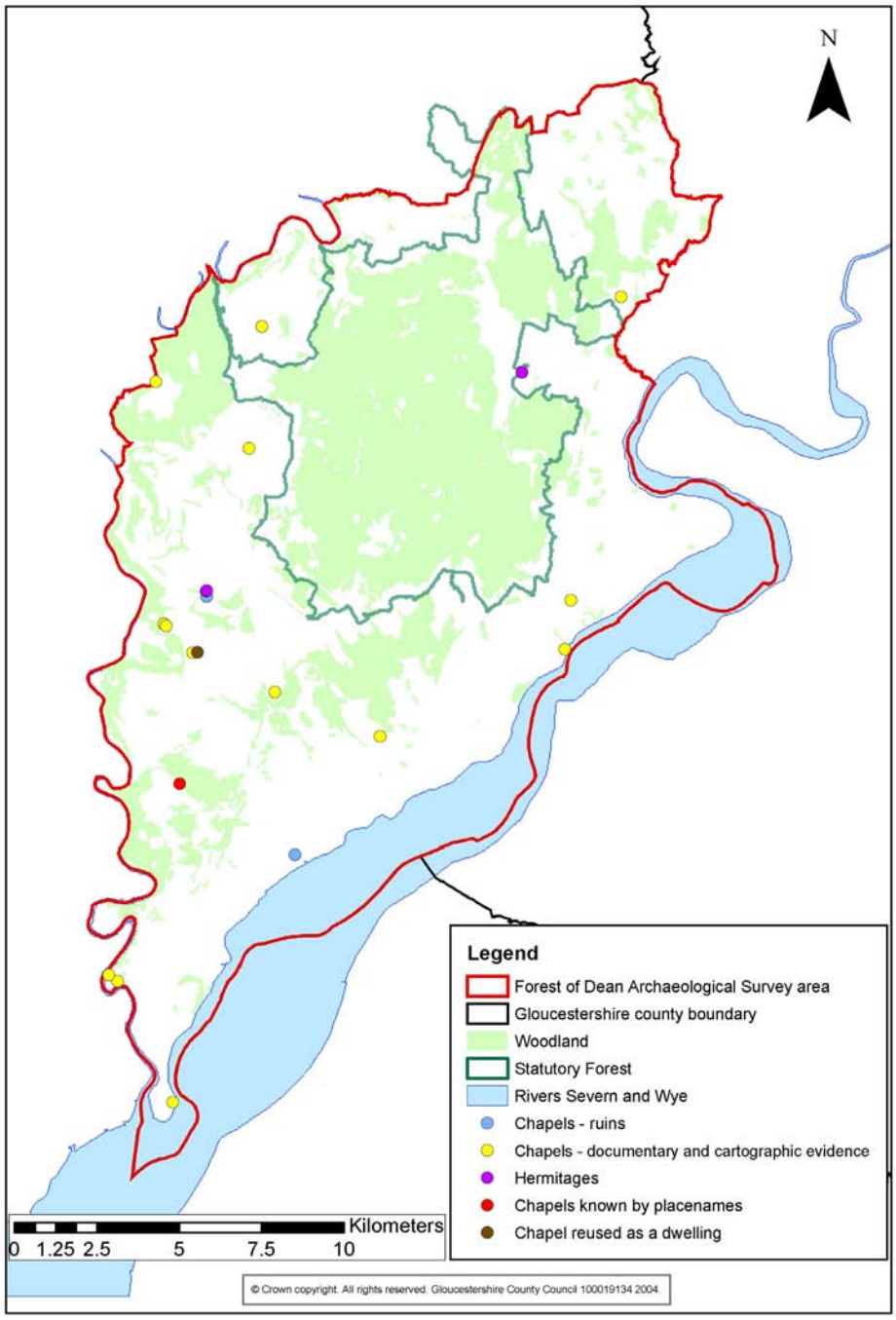

Figure 29: Late medieval chapels

Churches

In addition to the Chapels 22, churches are recorded as later medieval in date. With the exception of the site of the Abbey Church of Flaxley Abbey (Glos SMR 22163) which should perhaps be classed as part of a monastic site, these all represent the sites of churches serving areas of medieval settlement, and three of these (Lancaut Glos SMR 327, Newnham Glos SMR 5184, and Tidenham Glos 5184) superseded early medieval churches or chapels.

The majority of these sites are active churches serving existing settlements of medieval origin, although the 12th century church at Newnham (Glos SMR 5184) was abandoned and replaced by the present church (Glos SMR 21593) in the 14th

century, and the medieval church at Bream (Glos SMR 8311) was replaced by the present church in the 19th century.

Only one site (Lancaut Glos SMR 327) represents a redundant and semi-ruinous standing structure in an isolated position, indicating the site of a former settlement (Glos SMR 327).

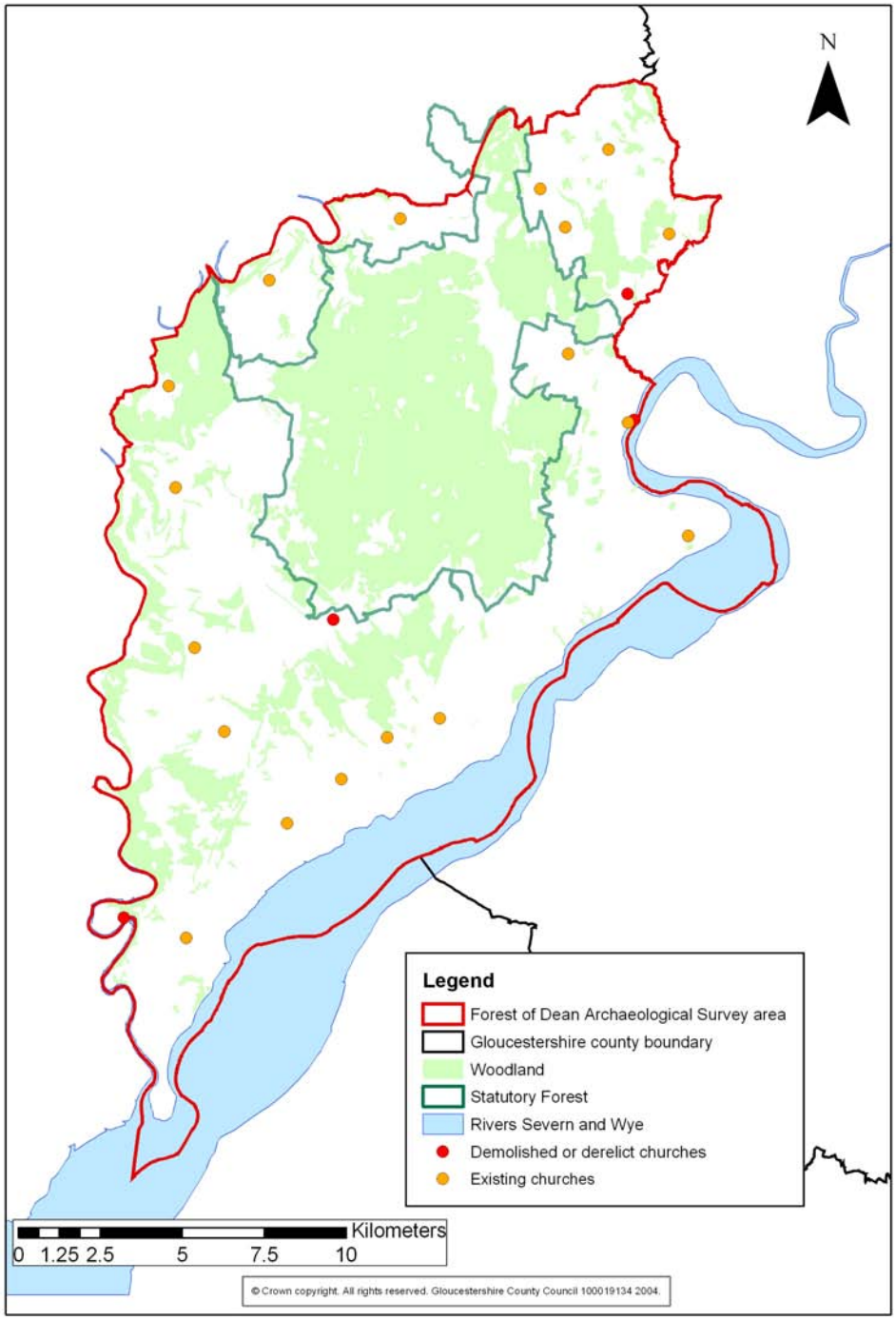

Figure 30: Late medieval churches

Crosses

The Gloucestershire SMR lists 20 crosses within the Forest of Dean Survey area which are either late medieval or can be inferred to be this date on the basis of available evidence.

Nine of these still exist in their original location in some form, although at least two of these (Lydney Glos SMR 27 and Clearwell Glos SMR 22) have been restored, whilst others (e.g. Hewelsfield Court Glos SMR 12599 and Woolaston Glos SMR 5031) are in a fragmentary condition.

Eleven of these sites no longer exist as visible crosses and are known from documentary or cartographic sources only. The remaining site (Littledean Hotel Glos SMR 6772) represents fragments of the medieval cross which originally stood in Littledean (Glos SMR 21744).

Three of these crosses (Glos SMR 5031, 5157, 6037) are found within the churchyards of medieval churches, whilst a further four (Glos SMR 28, 5156, 5186, 26850) are recorded as wayside crosses, and either stand or stood next to roads.

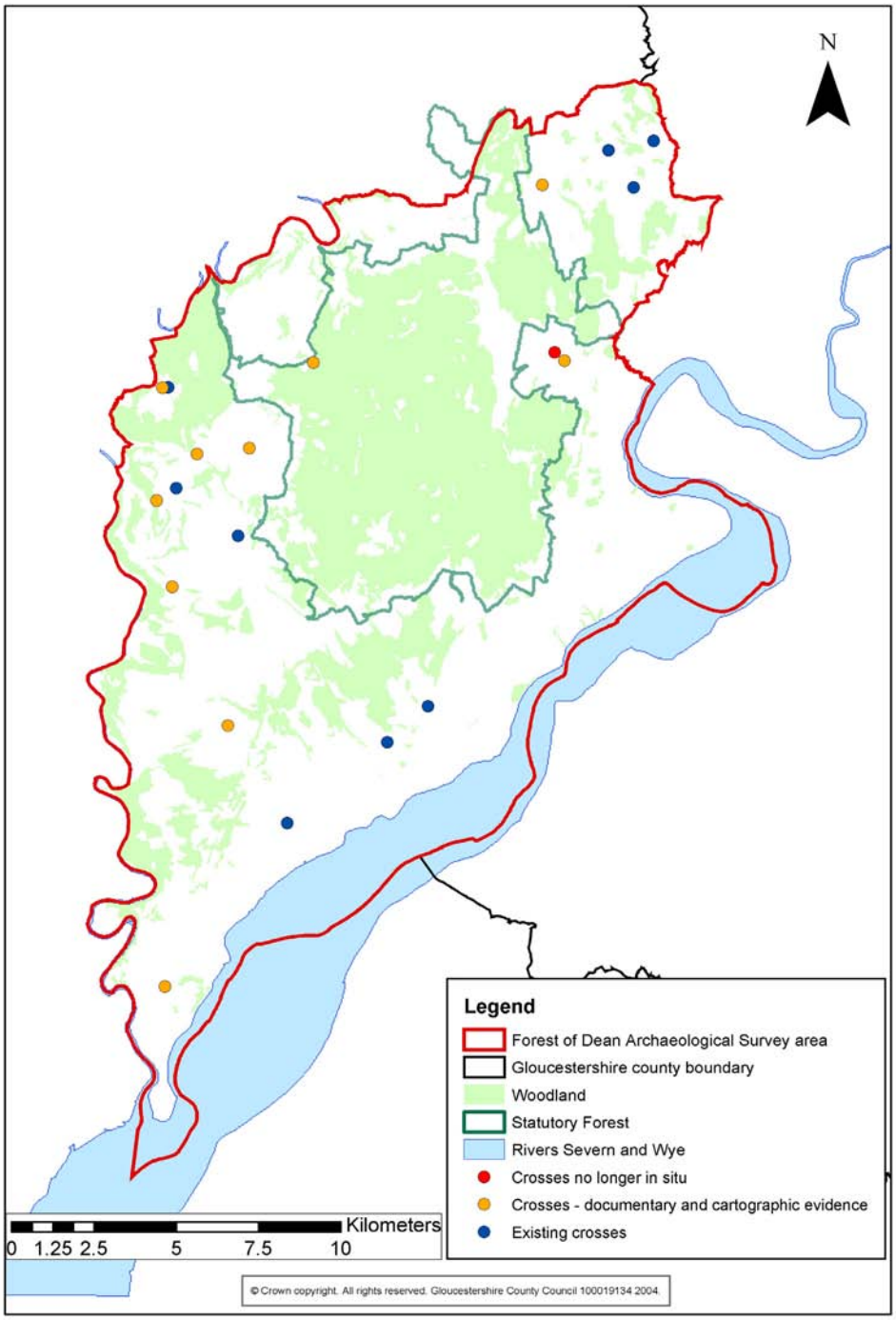

Figure 31: Late medieval crosses

4.9.4.3 Recommendations for religious sites

The following is recommended for further research into medieval religious sites within the survey area:

- Further investigation of those fields with chapel fieldnames, where the precise location of the associated chapel is either not clear, or where there is no known associated chapel.

4.9.5 Defensive or military sites

The following encompasses all sites within the Forest of Dean Survey area which could be interpreted as having a military or defensive function.

4.9.5.1 Early medieval defensive sites - Offa's Dyke

The most significant monument in this category within the survey area is the discontinuous linear earthwork system between Sedbury in the south and Lydbrook in the north and which have been interpreted as part of Offa's Dyke, the 8th century AD frontier system constructed by the Mercian King Offa to demarcate, protect and control the frontier between Mercia and the Welsh kingdoms to the west.

Although this earthwork system is represented by 447 individual SMR Area records 425 of these were created as part of the Offa's Dyke Survey for Management (Hoyle and Vallender 1997) and relate to records of individual land parcels within that survey.

As part of Stage 1 of the Forest of Dean Survey, this information was amalgamated with and incorporated into existing records for this monument resulting in 22 individual records. One of these SMR records (Glos 5753) relates to a watching brief undertaken on one section of the monument. Nineteen of these records (Glos SMR 500-517, 6417) relate to separate sections of earthwork, and another site (Glos SMR 381) is a discrete mound (Buttington Tump) which has also been interpreted as an integral part of the earthwork and may indicate the site of an original entrance. Another of these records (Glos SMR 5056) is the Tallard's Marsh earthwork, which, although not contiguous with the linear earthwork may be a small fortification integral to Offa's Dyke (Hoyle and Vallender 1997).

An undated lynchet (the Elm Villa lynchet Glos SMR 21591) and a field boundary at Lindors Farm St Briavels (Glos SMR 26769) may also indicate the line of Offa's Dyke, but the status of these features has not been substantiated by excavation.

The actual status and date of the earthwork (including sections of Offa's Dyke outside of the survey area to the north) and its relationship to both contemporary and earlier features, has not been established with any degree of certainly (Hoyle and Vallender 1997), and the generally accepted interpretation of this earthwork as Offa's Dyke, propounded since at least 1831 (Fosbroke 1831; MaClean 1893-94), has frequently been questioned. As early as 1877 Bellows suggested that parts of the dyke at least were "...on the tract of far more ancient encampments" (Bellows 1877), although he may have been referring to the promontory fort ramparts at Symond's Yat (Glos SMR 19) and Lancaut (Glos SMR 23) which are no longer accepted as the work of Offa (Hoyle and Vallender 1997). In the same year Playne put forward the view, which he recognised as "heresy", that the southern part of the earthwork had not been constructed during Offa's reign (Playne 1877), whilst in 1892 M'Kenny Hughes argued that portions of Offa's Dyke were constructed during the Roman period, and also suggested that earthworks of different date may have been linked together to form a single boundary (M'Kenny Hughes 1892). This possibility has also been propounded more recently (Hoyle 1996), although some authorities have questioned the interpretation of the whole of the Gloucestershire earthworks as part of Offa's frontier dyke (Hill and Worthington 2003). Hill's contention that the earthwork within Gloucestershire was designated Offa's Dyke as a result of Fox's survey in the late 1920s (Hill and Worthington 2003, Fox 1955), fails to recognise the work of 19th century antiquarians (see above), although Hoyle and Vallender also use the absence of a folkloric association between the Gloucestershire earthwork and Offa's Dyke to support the view that this connection was a relatively recent interpretation (Hoyle and Vallender 1997). More recent research, however, has uncovered a 14th century reference to part of the earthwork at Lindors Farm to the west of St Briavels as *Offedich* (Herbert 1996e) suggesting that at least parts of this monument had been considered to be Offa's Dyke from an early date.

4.9.5.2 Late medieval castles

For the purposes of the following discussion the term “castle” is used to mean fortified buildings or sites constructed after the Norman conquest of 1066 (Hey 1996, 68).

Physical evidence

The Gloucestershire SMR records 10 sites where physical remains interpreted as medieval castle sites survive.

All of these sites may have their origins in the years immediately following the Norman conquest of 1066.

Three of these sites (Stowe Glos SMR 24, Littledean Camp Glos SMR 48, Newnham Glos SMR 5177) are ringworks, whilst the remainder are represented by mottes or motte and bailey earthworks, with the exception of two sites where a later stone castle (St Briavels Glos SMR 15) or fortified stone manor house (Ruardean Glos SMR 32) is likely to have superseded an earlier Norman motte and bailey castle.

At two other sites (Little Camp Hill Lydney Glos SMR 44 and Littledean Camp Littledean Glos SMR 48) excavations have demonstrated that the sites were constructed in the late 11th or early 12th centuries, consistent with an interpretation of either early Norman fortifications constructed to establish Norman control of the area, or adulterine castles constructed during the anarchy of 1139-1147.

All of these castle sites are in the vicinity of recorded medieval settlement sites, with only two (Littledean Camp Glos SMR 48, Ayleford Motte Glos SMR 18442) not associated with sites recorded in the Domesday survey of 1086. At only five sites, however, (St Briavels Glos SMR 15, English Bicknor Glos SMR 249, Hewlesfield Glos SMR 5177, Newnham Glos SMR 5177, and Ruardean Glos SMR 32) is there a visible association between castle, church and settlement (although it might be possible to make this connection at Littledean, Glos SMR 48). This may suggest that a number of the remaining castle sites were relatively short-lived structures constructed to meet the immediate need of the conquering Norman administration, although further research into other castle sites may revise this observation, particularly at places such as Awre (SO 70870808), Staunton (SO 55111255) and Alvingon (SO 60230076), where early settlements, churches and placenames suggesting early castle sites are found.

As these sites tend to be associated with medieval settlement (see above) all are located outside of the Statutory Forest.

Documentary/map evidence

A further eight possible castle sites are known on the basis of documentary evidence.

The status of the majority of these is not clear and two of these sites (Glos SMR 6358 and 6370) have been identified solely on the basis of masonry remains identified from antiquarian excavations and should be regarded as dubious. At the other end of this spectrum, however, the now destroyed motte at Bledisloe (Glos SMR 5127) was excavated in the 1960s and demonstrated to be an 11th or 12th century motte on which a short-lived timber tower had been constructed.

In most of the remaining cases, the precise location and status of these sites is not clear, although a number (e.g. Castle–a-Buff Brockweir Glos SMR 5088, Naas Castle Glos SMR 20730 and Eastbach Glos SMR 26848) are associated with placename evidence which may help indicate their location more precisely.

The remaining two sites (Mosley Castle Glos SMR 6777 and Saintlow Castle Glos SMR 7407) are known only from a 13th century reference and their precise location remains unclear.

All of these sites are found in the vicinity of areas of known medieval settlement outside of the statutory Forest, with the exception of Saintlow and Mosley Castles (see above) which appear to be isolated sites within the Statutory Forest.

A further site (Soudley Camp Glos SMR 444) within the Statutory Forest has been suggested as a possible (if atypical) early Norman fortification (Hoyle 2000a), although the actual status of this site has not been established, and it is thought more likely to be late prehistoric in date.

4.9.5.3 Placename evidence for late medieval castle fortified sites

A number of possible castle sites within the Forest of Dean survey area may be identified on the basis of placename evidence.

Castle placenames

The Gloucestershire Sites and Monuments Record list nine SMR Areas which record sites of placenames containing the elements castle, or a derivative of this. Of these, five are associated with known or possible sites of medieval castles, although one of these sites (Glos SMR 6500) is linked to a possible medieval fortification, the existence of which has not been established with any certainty.

The status and significance of the remaining four names (Castle Field Glos SMR 6041, Castle Ways Glos SMR 21673, Shutcastle Glos SMR 25376 and Doncastle Farm Glos SMR 27763) is not clear, and although they may refer to the sites of medieval fortifications, they could equally indicate the sites of earthworks or masonry remains from other periods (see 4.6.5.1 above).

Bailey placenames

The Gloucestershire Sites and Monuments Record list ten sites which contain the placename “Bailey” of some derivative of this.

Two of these (Glos SMR 15) relate to the medieval castle at St Briavels, another (Glos SMR 249) refers to the motte and bailey castle at English Bicknor, whilst a third (Glos SMR 5088) relates to the site of a possible early medieval castle at Brockweir.

A fourth of these (Glos SMR 25360) is less than 500m to the east of the possible site of an early medieval castle at Blakeney (Glos SMR 6358), whilst a fifth (Glos SMR 25363) is *c.* 600m to the north of this site. Both these names may relate to this possible castle site.

Of the remaining names, Blaize Bailey (Glos SMR 25388) and Lea Bailey (Glos SMR 25383) are both interpreted as referring to the medieval administrative Forest Bailiwick boundaries and need not indicate the possible sites of early medieval castles or other earthworks (Smith 1964).

The remaining three Bailey placenames are less easy to explain, and may represent the sites of small unrecorded castle, probably dating to the period following the Norman conquest of 1066.

Glos SMR 25373 (Bailey Hill) is also interpreted by Smith as a reference to one of the medieval bailiwicks (Smith 1964, 228), although the reasons for this are not given. The topographical location of this site at the top of edge of a bluff overlooking the valley of the Blackpool Bridge would provide commanding views in most directions and was used as the site of one of the early post-medieval Forest Lodges (Danby

Lodge Glos SMR 12247), but the location of this site within the Statutory Forest and at some distance from known medieval settlement may militate against the interpretation of this site as a medieval fortification, although it may have been the site of a relatively short-lived fortification constructed to meet temporary military requirements in the period immediately following the Norman conquest of 1066.

Glos SMR 25352 (Bailey Close) is sited *c.* 1.5km to the south of the possible early castle site at Blakeney (Glos SMR 6358) and may relate to this site, although the distance between these might suggest that this is an unrelated site.

Glos SMR 25344 (also Bailey Close) is not related to any known caste site but is sited *c*. 350m to the south of Awre church (Glos SMR 8300). Although Awre is one of the settlements mentioned in the Domesday Survey of 1086 (Moore 1982), this document contains no reference to a castle, although the church reportedly dates to the early 13th century (Verey 1970), and a castle in this area may, therefore postdate the Domesday survey

4.9.5.4 Other earthwork features

Three sites within the survey area (Glos SMR 9787, Glos SMR 13630 and Glos SMR 22990) are undated mounds which have been interpreted as medieval windmill mounds on the basis of their form. Although none of these have been tested by any form of fieldwork, they are morphologically consistent with mottes associated with medieval fortification sites, and this possibility should be borne in mind in any future research into their status.

4.9.5.5 Recommendations for medieval military and defensive sites

The following recommendations are made for the further investigation of medieval defensive or military sites within the survey area:

- Recommendations for further research into the extent, function and date of Offa's Dyke are contained in the report on the 1995 survey for management of that monument (Hoyle and Vallender 1997) and are too extensive and complicated to simply reproduce in a rapid resource assessment of this nature.
- Further field work should be undertaken in those areas where the possible sites of medieval fortifications have been identified on the basis of documentary, placename or earthwork evidence in order to establish the status and survival of earthworks or buried archaeological features at those sites.
- Further research should be undertaken to establish the nature of the relationship between medieval fortification sites and contemporary settlement and church sites, particularly at sites such as such as Awre (SO 70870808), Staunton (SO 55111255) and Alvingon (SO 60230076), where early settlements, churches and placenames suggesting early castle sites are found, and also at Bledisloe (SO 68440825) and Naas (SO 65010174) where early settlements are found in conjunction with possible early castle sites.

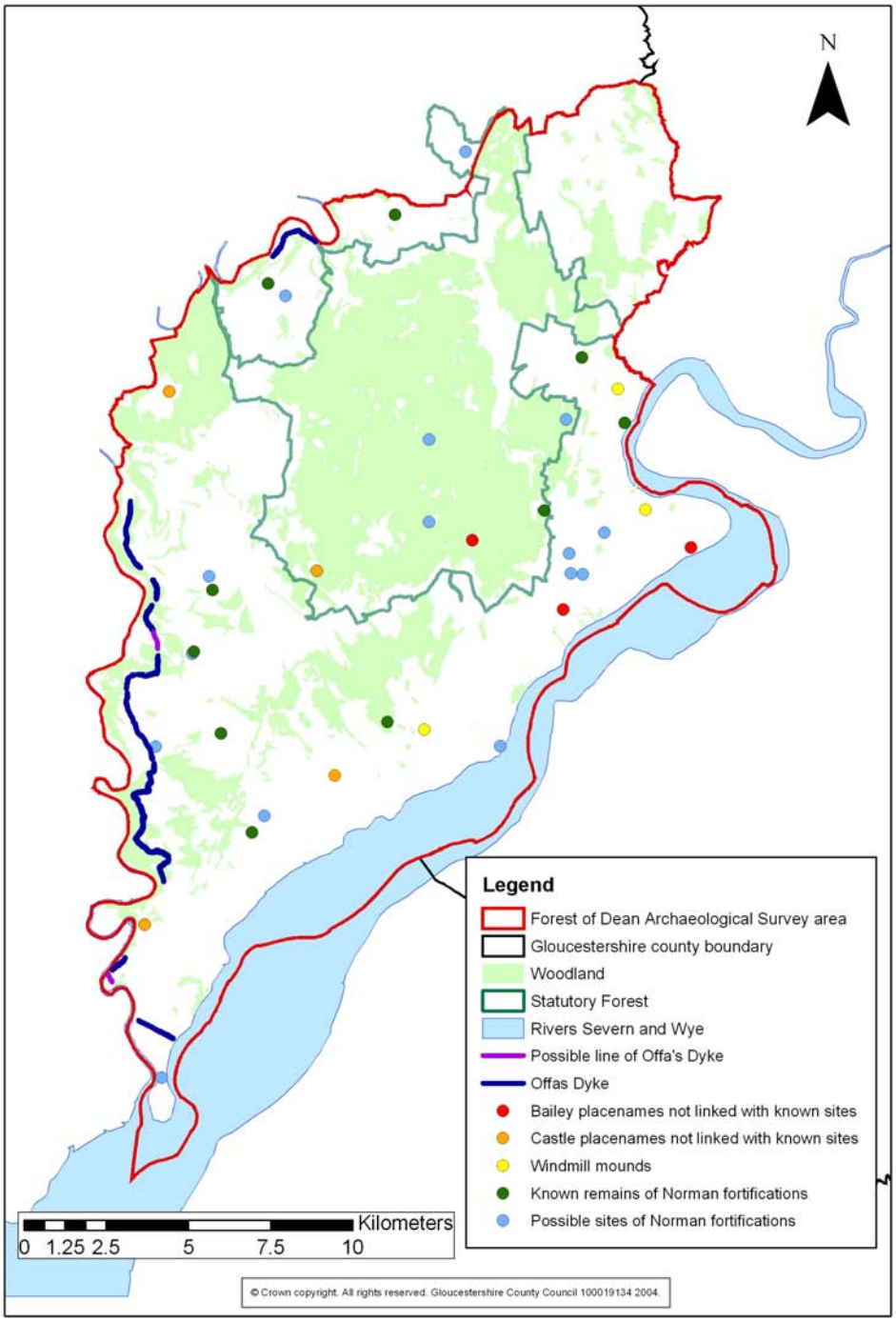

Figure 32: Medieval defensive and military sites

4.10 Medieval field systems

4.10.1 Ridge and furrow – presumed to be medieval or post-medieval

Twenty areas of ridge and furrow are recorded within the Forest of Dean Survey area on the Gloucestershire Sites and Monuments Record. These represent only a small proportion of the extent of known ridge and furrow much of which has been identified by aerial photography, and particularly the work of the National Mapping Programme. This information has not been integrated into the Gloucestershire SMR and exists only as a layer within the GIS.

Two areas of ridge and furrow have also been identified as a result of archaeological excavation.

Table 29: Ridge and furrow recorded during archaeological excavation

SMR No.	Description
14611	Remnant medieval field system, recorded during excavation at the former Lydney Institute, Lydney.
21111	Medieval ridge and furrow beneath land reclamation layer from the evaluation of the proposed flood defence improvement between Cone Pill and Lydney, Lydney.

4.10.1.1 Distribution of ridge and furrow

As much of this is not contained within the Gloucestershire County Sites and Monuments Record it is not possible to use the SMR database and GIS to compare the location of these sites with selected categories of data, and the following is based on a visual comparison of this information with selected datasets.

Landuse

With the exception of a two small areas currently under orchard (SO 70390892, SO 70900769, both in Awre parish) all identified ridge and furrow is sited outside of known areas of woodland.

Topography and geology

The identified ridge and furrow can broadly be identified in two areas, divided by the linear ridge of steep ground (slopes of between 10 and 22^{o}) between the villages of Tidenham (ST 55951960) and Hewelsfield (SO 58070136).

The first area lies to the south of this line and extends northwards along the relatively low and level ground running along the northern bank of the river Severn. This area tends to be below the 100m contour line, and in this area the ridge and furrow overlies the drift deposits of gravel and alluvium in this area and also the Brownstones, St Maughn's Sandstones and Raglan mudstones of the Lower Old Red Sandstone series, and the clays of the Lower Lias. There is no detectable preference for any particular aspect for this type of site in this area, although almost all examples are on slopes of less than *c.* 10^{o}. In a few areas, however, although in a few areas (e.g. Grange Village, SO 67461246, and Boughspring ST 56231973) traces of ridge and furrow have been recorded on slopes of up to *c.* 13^{o}.

The second area of ridge and furrow is on the high plateau (heights of between *c.* 100 and *c.* 200m OD), bounded by the river Wye to the west and the Statutory Forest to the east. The ridge and furrow is found throughout this area, overlying the full range of limestone and sandstone solid geologies. As with the southern area, there is no detectable preference for any particular aspect and these sites are generally on slopes of less than 10^{o}, although in a few areas (e.g. the western side of Clearwell Meend, SO 56890858) traces have been recorded on slopes of up to *c.* 17^{o}.

4.10.2 Other possible medieval field systems

Ten sites have been identified which have been interpreted as medieval field systems, but which are not represented by areas of ridge and furrow. These tend to consist of relatively small rectilinear enclosures, often associated with known sites of medieval occupation or evidence of medieval settlement.

The majority of these sites (90%) have been identified as a result of analysis of aerial photographs undertaken as part of English Heritage's National Mapping Programme

for the Forest of Dean, and it is not clear how many of these survive as visible earthworks. In addition to this the actual status or date these sites has is yet to been tested by excavation or any other form of fieldwork.

A fossilised post-medieval field system within 19th century woodland to the south of Staunton Coleford (Glos SMR 13920) may also have medieval origins.

4.10.2.1 Distribution

All of this type of site is found in the area to the west of the Statutory Forest.

Landuse

None of these sites have been identified within areas of woodland, although this is hardly surprising as the majority have been identified as a result of aerial photographic analysis.

Geology

None of this type of site was found in areas of recorded drift geology, although a disproportionate number of them (67%) overlie a Sandstone solid geology.

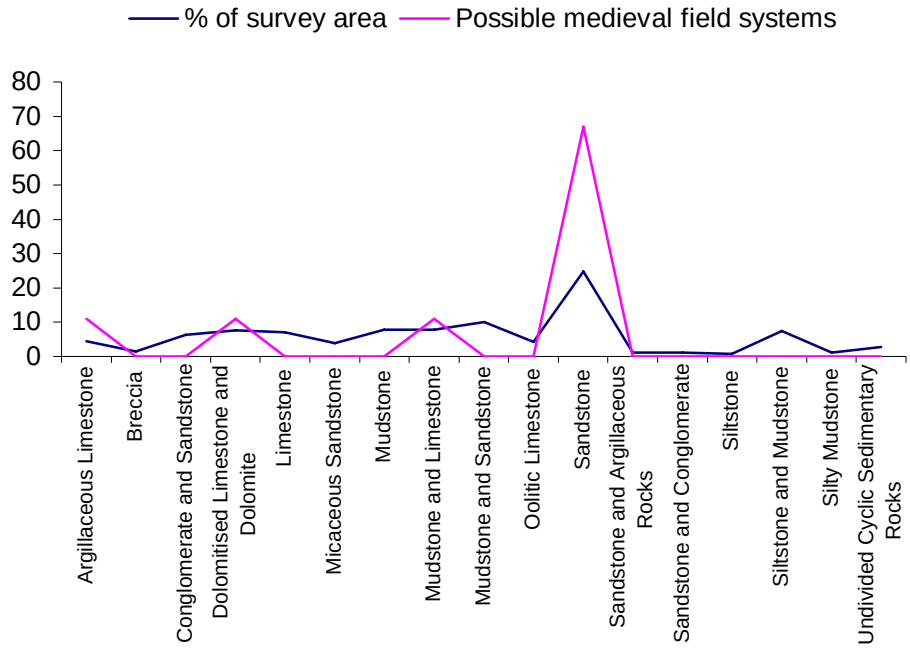

Chart 64: Possible medieval field systems: Solid geology

Height, slope and aspect

The majority (80%) of this site type is found at heights of 100m OD or above, generally on relatively steep ground with 40% on slopes in excess of 10°.

There is also a strong preference for sites with a westerly aspect with (80%) of the sites (the exceptions being Glos SMR 26204 and 26270) facing between southwest and northwest.

4.10.3 Discussion of the distribution of medieval field systems

4.10.3.1 Ridge and furrow

Some ridge and furrow has been identified on relatively steep ground, and this may date to the mid-14th century when population growth combined with poor harvests resulted in the expansion of cultivation into marginal areas, and is a phenomenon noted at the foot of the Cotswolds Edge outside of the survey area to the east of the River Severn (Hoyle 1999). These instances are exceptional, however, and slope would appear to represent one of the determining factors in the distribution of ridge and furrow within the survey area.

The correlation between areas of existing woodland and recognised ridge and furrow is so close that there can be little doubt that the recognition of these features (and almost all of the ridge and furrow is known from aerial photographs) is largely determined by the distribution of this landuse, and extensive areas of land currently under woodland are topographically and geologically similar to areas where ridge and furrow have been recorded.

Given that ridge and furrow is generally interpreted as the remains of an agricultural regime which post-dates the establishment of the Royal Forest in the early 11th century AD, it is tempting to suggest that this distribution is a result of the fact that the bounds of the woodland in Dean may have been fairly established by the medieval period in which most ridge and furrow was created. Outside of the Statutory Forest, however, extensive areas of woodland to the south of the village of Staunton Coleford, are known to have been open farmland prior to the mid-19th Century (PRO 1608. GCRO 1792) and the remains of post-medieval field boundaries, although not ridge and furrow, have been identified in woodland (Hoyle 1992).

Historical evidence would suggest that the Statutory Forest, which was extra parochial and under direct Royal control since the establishment of the Royal Forest (Hoyle 2001), was devoid of established settlement until the 18th century (Herbert 1996) and extensive areas of open field cultivation would not be expected in this area. The boundaries of the Statutory Forest, however, were not established until 1668, and not ratified until 1833 (Herbert 1996). The precise boundaries of this areas are not clear during earlier periods (Hart 1945), and it is possible that open fields may have encroached into the fringes of the Crown land, particularly during the mid-14th century when population pressure combined with poor harvests led to the increased cultivation of marginal areas. This possibility may be supported by evidence for ridge and furrow within the bounds of the Statutory Forest (although not within woodland) at Sling (SO 59030800) and Berry Hill (SO 57561275), and also an area of ridge and furrow recorded from aerial photographs in a small clearing corresponding to the paddocks of Worcester Lodge, a Forest Lodge established in the late 17th century (SO 59471172).

Contemporary features

Areas of ridge and furrow, representing the sites of medieval field systems, are found in the vicinity of recognised areas of medieval settlement, to the south, west and east of the Statutory Forest. It is however, less common in the vicinity of medieval settlements to the north of the Statutory Forest with only one incidence noted in the modern parish of Ruardean, and none in Mitcheldean parish. The reasons for this are not entirely clear. Although both plough teams and cultivated land are recorded in both these parishes throughout the medieval period, “open fields” are not recorded (Jurica 1996d, e) and it may be that the steepness of the terrain in these areas militated against the agricultural practises which created these features.

4.10.3.2 Other medieval field systems

The significance of the distribution of the small enclosures which have been interpreted as medieval fields not clear, although the fact that they are all outside of modern woodland is consistent with the fact that the majority of them have been identified through analysis of aerial photographs.

These features tend to be found in association with areas of ridge and furrow and although analysis of the digital data suggests that the majority of these are on relatively level ground, a visual check of their distribution indicates that these are in fact situated at the periphery of ridge and furrow in areas where the ground begins to steepen.

It has already been stated that slope appears to be a determining factor in the location of ridge and furrow (see 4.10.1.1 above) and the differential enclosure of relatively marginal ground at the periphery of open fields is a phenomenon which has been noted in the area of the Cotswolds AONB (Hoyle 1999).

Their distribution on steepening marginal ground may also partly explain their preference for a Sandstone solid geology as many topographical changes in the western part of the Forest of Dean are found overlying changes in the underlying solid geology and the majority of these sites coincide with areas in which Sandstone outcrops.

Recommendations for future work to investigate field systems.

The following is recommended for further investigation of medieval field systems:

- Detailed topographical survey or trial excavation of selected undated features to determine their date and function.
- Rapid field reconnaissance in woodland around the margins of the Statutory Forest, and the area to the south of Staunton to identify ridge and furrow in areas currently under woodland.

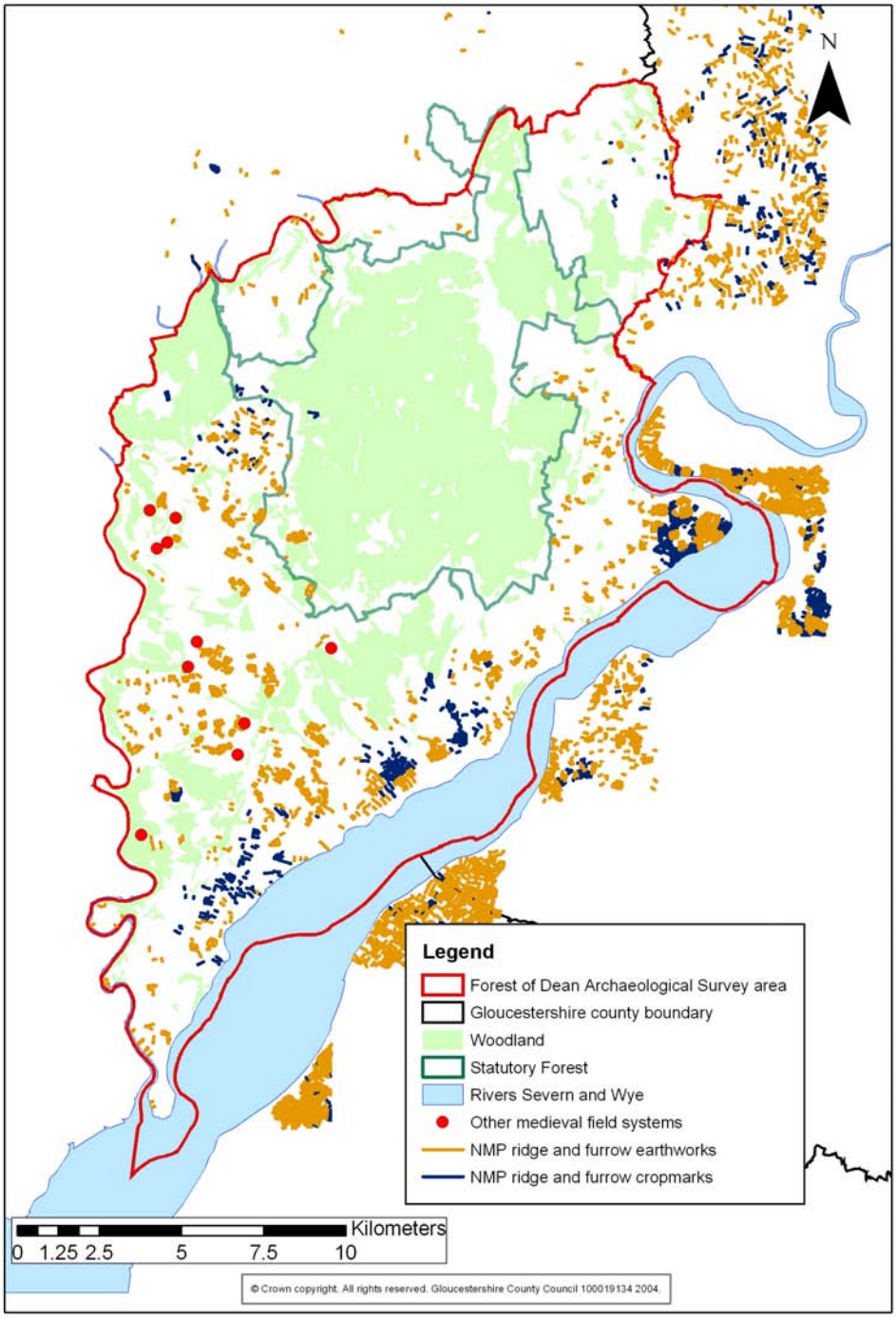

Figure 33: Medieval field systems

4.10.4 Medieval industrial sites

4.10.4.1 The iron industry

The medieval iron industry is the Forest of Dean has been summarised in the report on the Scowles and Associated Iron Industry Survey (Hoyle et al. 2004) and recommendations have been made for further archaeological investigation of this major medieval industry.

Consequently the iron industry is not discussed in this report.

4.10.4.2 The coal industry

The Gloucestershire SMR lists 34 sites which are recorded as medieval coal working sites. All of these represent a palimpsest of surface workings and with two exceptions (Glos SMR 18434, 18493), all have been identified as a result of the National Mapping Programme investigation of aerial photographs. All of these overlie outcrops of coal within the Carboniferous Sandstones of the central Forest with the exception of Glos SMR 26492 which is sited well to the south of the main group (ST 53023 99019). No coal outcrops are noted on the 1:50000 scale geology map of this area (BGS 1981) although this site does overlie the fault which demarcates the division between Lower Drybrook Sandstone and Upper Drybrook Sandstone. The status of this site as a coal production site must be questioned, although more detailed investigation beyond the scope of this stage of the survey would be required to resolve this.

Coal has been identified at Romano-British villa sites in the Forest of Dean where it was probably used either for industrial heating or other processes such as ore roasting which did not need very high temperatures (Fulford and Allen 1992). Coal is also known to have been exploited throughout the medieval period, and would have continued to be exploited by means of irregular surface workings until deep mining became the norm as drainage techniques improved from the 17th century (Hart 1971). Surface workings however, continued to be worked on a smaller scale and in an *ad hoc* way after this period and some surface coal extraction is reported from the 20th century (Brian Johns pers. comm.).

Although surface workings of this type are generally considered to be late medieval or early post-medieval in date, none of these sites have actually been dated with any degree of certainty, and the Gloucestershire SMR includes 59 identical surface coal extraction sites which have been recorded as post-medieval or of Unknown date in the SMR, and are as likely (or unlikely) to be medieval as those recorded as such.

It has been suggested that the earliest exploitation of coal deposits may have taken place in those areas closest to the iron ore outcrops around the edge of the Statutory Forest (Hoyle et al. 2004) as these would have been able to make use of the existing communications infrastructure set up for iron ore exploitation in these areas (D. Bick pers. comm.). No serious archaeological exploration to determine the date of individual areas of surface coal workings has, however, been undertaken and all of these features should be regarded as undated.

As many of the coal outcrops are in areas currently under woodland, and as features of this type are generally not recorded on the map sources consulted as part of Stage 1 of the survey, it is highly likely that extensive areas of features similar to these await discovery.

Recommendations

Although coal is known to have been used both for domestic heating and as an industrial fuel (for smithing rather than smelting) during the Roman period, the relationship between early coal production sites and those sites where coal may have been used has not been clearly established in the Forest of Dean, and this issue has been identified as one of the archaeological research issues in the report on the Scowles and Associated Iron Industry Survey (Hoyle et al. 2004). In order to fully understand this issue it is necessary to have a firm grasp of the following:

- The location and date of coal production sites.
- The location and date of smithing sites.

It is an unrealistic goal to achieve this in the short term as the following information is lacking:

- Knowledge of the location and date of pre-industrial revolution coal production sites.

- Knowledge of the location or date of sites where coal was used.

The following, however, will contribute towards a better understanding of these issues and inform strategies to address these questions in a more targeted fashion:

- Documentary research to identify pre-industrial revolution coal production sites. This will mainly be based on information from the following sources:
  - Victoria County History.
  - Early map/placename evidence.
  - Other published or unpublished works of relevance to this.
- Rapid field reconnaissance to identify coal production sites in appropriate geological conditions. Methodologies will be adapted from those determined for rapid walkover survey in areas of woodland.

Excavation of possible coal production sites to determine date is not thought likely to produce beneficial results due to:

- Likely lack of datable artefacts, which can be expected within features of this kind.
- Potential logistical difficulties, which are likely to be encountered in the excavation of features of this nature.

Consequently, future research into this issue should concentrate on sampling of coal from datable contexts associated with pre-industrial revolution industries, and submitting these to chemical analysis to determine the likely source of the coal. Due regard to this, and liaison with appropriate specialists, should form an integral part of the designs of all future projects where finds of this type are anticipated.

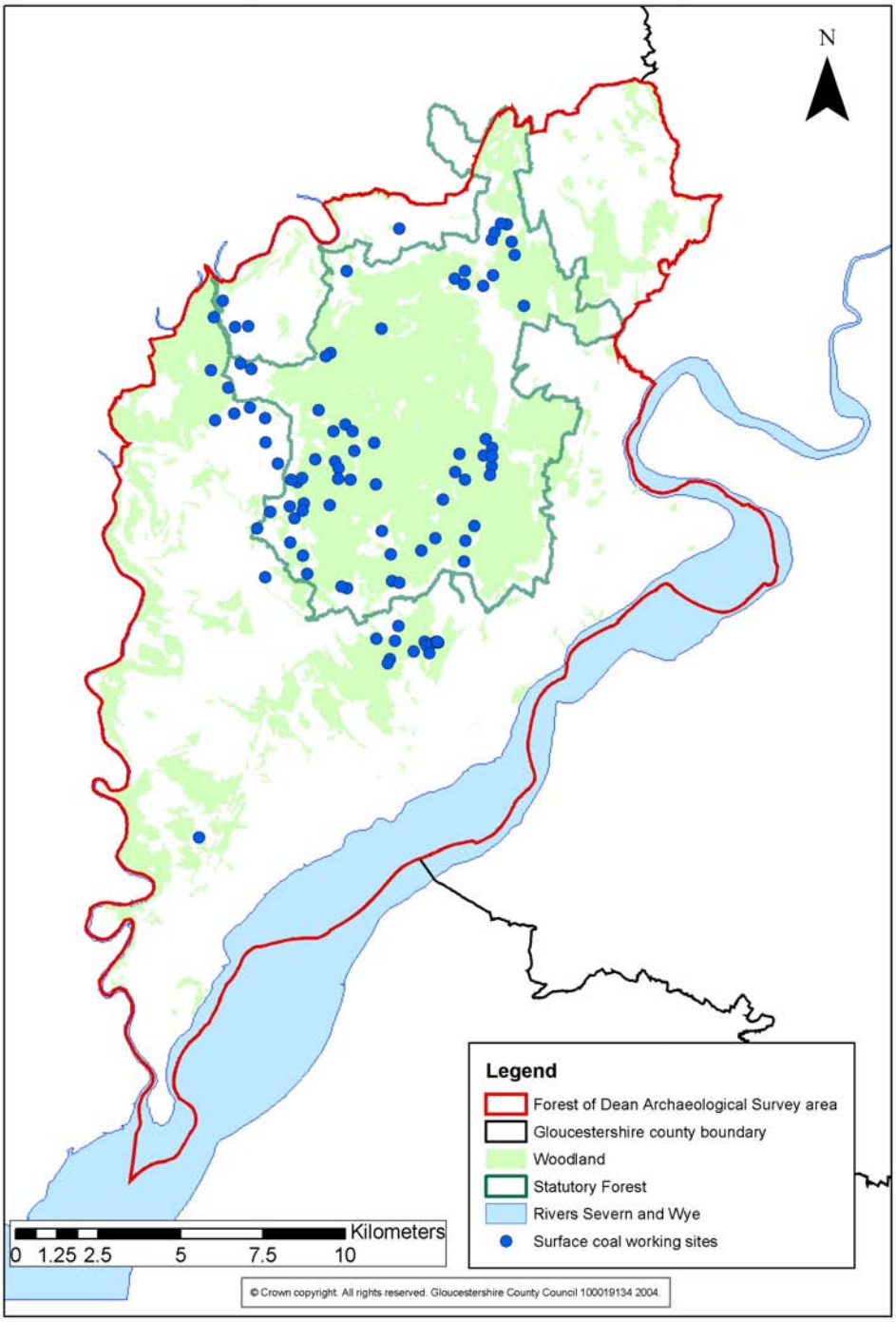

Figure 34: Sites containing undated surface coal workings

4.10.4.3 Quarrying

The Gloucestershire SMR records 60 sites of medieval quarrying within the survey area.

Quarrying for both limestone and sandstone has been an important industry in the Forest of Dean "since earliest times" (Cross 1982, 26). Limestones tended to be quarried for the production of lime, whilst sandstones were principally quarried to provide building stone or millstones (Jurica 1996a). Although Hart states that "There is no evidence to show that the Free Miners' customary privileges extended to the working of stone" the inhabitants of the Forest did, subject to certain qualifications,

acquire the right to quarry stone within the Crown-owned Statutory Forest" (Hart 1971, 298). Although these rights were not confirmed until the Dean Forest (Mines) Act of 1838 (Jurica 1996a, 338), it can be assumed that this right to quarry within the Statutory Forest was exercised during the medieval and earlier post-medieval periods.

The greatest need for building stone and lime within the survey area is likely to have been the post-medieval period to meet the increased demands of both expanding industry and housing requirement (Jurica 1996a). Like the surface coal workings discussed above, however, quarrying can have (and would have) been undertaken from any time since the Romano-British period. The majority of the workings which have been assigned a medieval date have been identified as a result of the National Mapping Programme investigation of aerial photographs and none have been dated with any degree of certainty, and, as a group, are not significantly different from the 274 quarry sites recorded on the SMR which have been assigned an Unknown date.

Recommendations

Although stone quarrying is likely to have been undertaken in Dean since at least Roman times no quarries have been clearly identified as medieval or earlier in date.

As with surface coal production sites, excavation of possible early quarries to determine their date is not thought likely to produce beneficial results due to:

- Likely lack of datable artefacts, which can be expected within features of this kind.
- Potential logistical difficulties, which are likely to be encountered in the excavation of features of this nature.

The following, however, will contribute towards a better understanding of early quarrying within the survey area and inform strategies to address these questions in a more targeted fashion:

- Documentary research to identify early quarrying sites. This will mainly be based on information from the following sources:
  - Victoria County History.
  - Early map/placename evidence.
  - Other published or unpublished works of relevance to this.
- Rapid field reconnaissance to identify early quarrying sites where documentary evidence suggests they may be present.
- Sampling of local stone from datable medieval or earlier structures, and subjecting samples to appropriate specialist analysis to identify their source would also be an invaluable tool for further investigation of medieval or earlier quarrying.

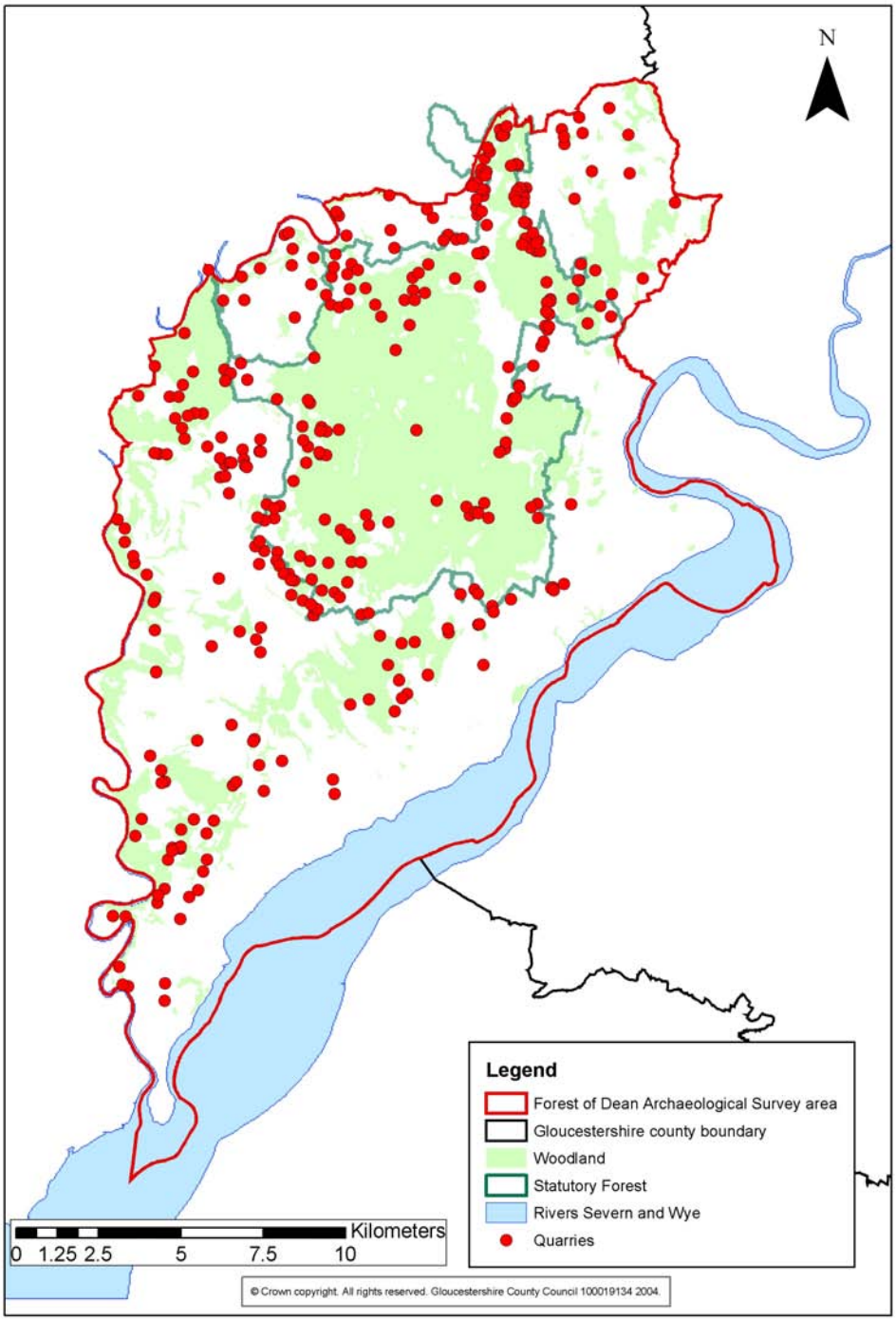

Figure 35: Sites containing possible medieval and undated quarries

4.10.4.4 Charcoal burning

The Gloucestershire SMR records 25 sites (representing 88 separate identified charcoal burning platforms) designated as medieval charcoal burning sites.

These sites all contain charcoal platforms which are the surviving remains of a process of charcoal production in which wood was converted to charcoal by roasting in earth-covered stacks or clamps (Kelley 1996). This method of production was used throughout the Romano-British, medieval and post-medieval periods and provided industrial grade fuel, primarily for the smelting of iron, and it is likely that charcoal production was a significant industry in this area from the Romano-British period until

the introduction of the coke fired blast furnace in the early 19th century (Hoyle 2003b, 3.3.2.1).

Smelting sites were probably sited close to sources of charcoal as it has been estimated that, due to its friable nature, charcoal could not be transported for distances in excess of *c.* 5-6km without considerable and uneconomic wastage (Cleere & Crossley 1985, 135).

The majority of the charcoal platforms which have been assigned a medieval date have been identified as a result of the National Mapping programme analysis of aerial photographic data, although like a number of number of other medieval industrial sites identified in this way such as quarries and coal extraction sites (see above), none of these features have actually been dated with any degree of certainty, and they could have a date range form the Romano-British period until the post-medieval period. Given this, there is actually no difference between these sites and the 30 (representing at least 126 individual platforms) charcoal burning sites which have been assigned a post-medieval or unknown date.

Another problem with any quantification of the extent of these features is that there is inconsistency between the ways in which this type of feature is recorded on the SMR, as some SMR Area records (e.g. Glos SMR 21419) list each individual platform as a separate SMR site, allowing for a numerical quantification of the extent of charcoal burning activity, whilst others (e.g. Glos SMR 22116) record this activity as a single SMR site described as “42 features identified as probable or possible charcoal burning platforms”. A rapid analysis of the descriptions of the undated charcoal platform sites would add at least an additional 159 individual platforms to the total, although a number of these (e.g. Glos SMR 22495) are simply described as “a large group of charcoal hearths”.

Thus it is clear that, although the Gloucestershire SMR records at least 373 individual undated charcoal platforms, the precise number of these cannot be determined without further research.

In any case, the distribution of known charcoal burning sites is directly related to areas in which archaeological investigation has been undertaken as the vast majority of these sites have been recorded as a result either of the work undertaken by the National Mapping Programme or as a result of systematic woodland survey such as that undertaken in Welshbury and Chestnuts Woods (Glos SMR 22053, 22116, Hoyle 1993a, 1993b), or Cadora Woods (Glos SMR 21419).

Landuse

Although charcoal burning was an activity which generally took place within woodland (Armstrong 1978), only 73% of these features were found in areas currently under woodland.

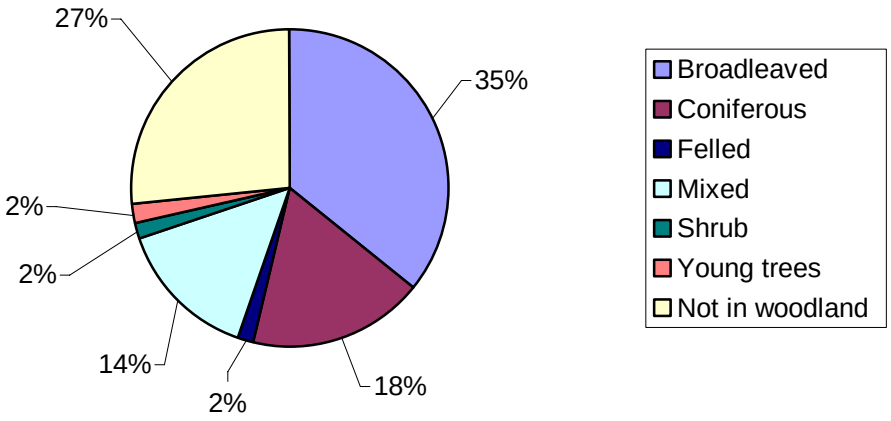

Chart 65: Charcoal burning platforms: Woodland

With a single exception, all the charcoal platform sites recognised outside of woodland were identified as a result of analysis of aerial photographs. These sites tend to be in the general vicinity of existing woodland and presumably indicate areas where former woodland has been cleared. An example of this is the group of charcoal platform sites (Glos SMR 4625, 4626, 26015, 26016, 26017, 26018, 26035, 26036) identified in an area known as the Purlieu (centred at SO65260536) which is recorded as “well wooded” in 1722 (Herbert 1996f) but which appears to have been cleared of woodland by 1777 at which time it was recorded as Purley Common (Taylor 1777). This may be of some significance as knowledge of the date at which the woodland was cleared from selected areas may allow a *terminus ante quem* to be applied to charcoal platforms in these areas.

Only one site (Glos SMR 5860) is both outside of woodland and not recognised from aerial photographs. Although the OS grid reference for this site is *c.* 25m to the west of an area of woodland, analysis of the SMR record indicates that the precise location of the charcoal platforms in this record is not clear, and it is possible that they are sited within the woodland to the east.

Height aspect and slope

It has already been established that although the precise location of the majority of these sites has been recorded, this data has not been added to the Gloucestershire SMR in a systematic way, and in some areas the precise location of individual platforms is unavailable (see above).

Given this, although analysis of the height slope and aspect of these features (particularly aspect and slope) may be informative, and identify trends in the distribution, or at least the visible survival of these features, the currently available data, would not produce reliable results, and this analysis has not been undertaken.

Recommendations

Charcoal platforms are likely to be the most prevalent archaeological feature within the Forest of Dean Survey area, and many of these may survive within currently unexplored areas of woodland.

These features have the potential to provide information about past exploitation of the woodland within Dean and, given the likely close relationship between charcoal production sites and iron production sites (Hoyle et al. 2004), their identification may assist in the identification of other sites of industrial significance.

Further research should be targeted towards establishing:

- The distribution and survival of charcoal platforms, particularly within areas of woodland.
- The impact of tree cover and other forestry operations on the archaeological survival and future potential of these features.
- The degree of preservation and archaeological potential of charcoal platforms, particularly those within woodland. This should focus on their potential to produce evidence for date and palaeoenvironmental material (particularly surviving fragments of charcoal) indicating the types of timber used to produce the charcoal and the coppicing cycles employed.
- The potential of charcoal platforms in this area to display evidence of construction or to have re-used the sites of former archaeological features such as hut platforms.

The most appropriate methodologies for this will be determined on a case by case basis, but the following will be considered:

- Rapid field reconnaissance to identify charcoal production sites in areas of woodland where these have not been previously recognised. Methodologies for this will utilise techniques for rapid woodland survey formulated as a result of Stage 2 of the project.
- Targeted excavation of selected charcoal platforms. Excavation will be undertaken in accordance with normal archaeological procedure, and will have the following objectives:
    - To establish, where possible, the form or structure of the platform.
    - To establish, where possible, the nature of the charcoal burning process, including the types of timber exploited on the site and the coppicing cycles employed.

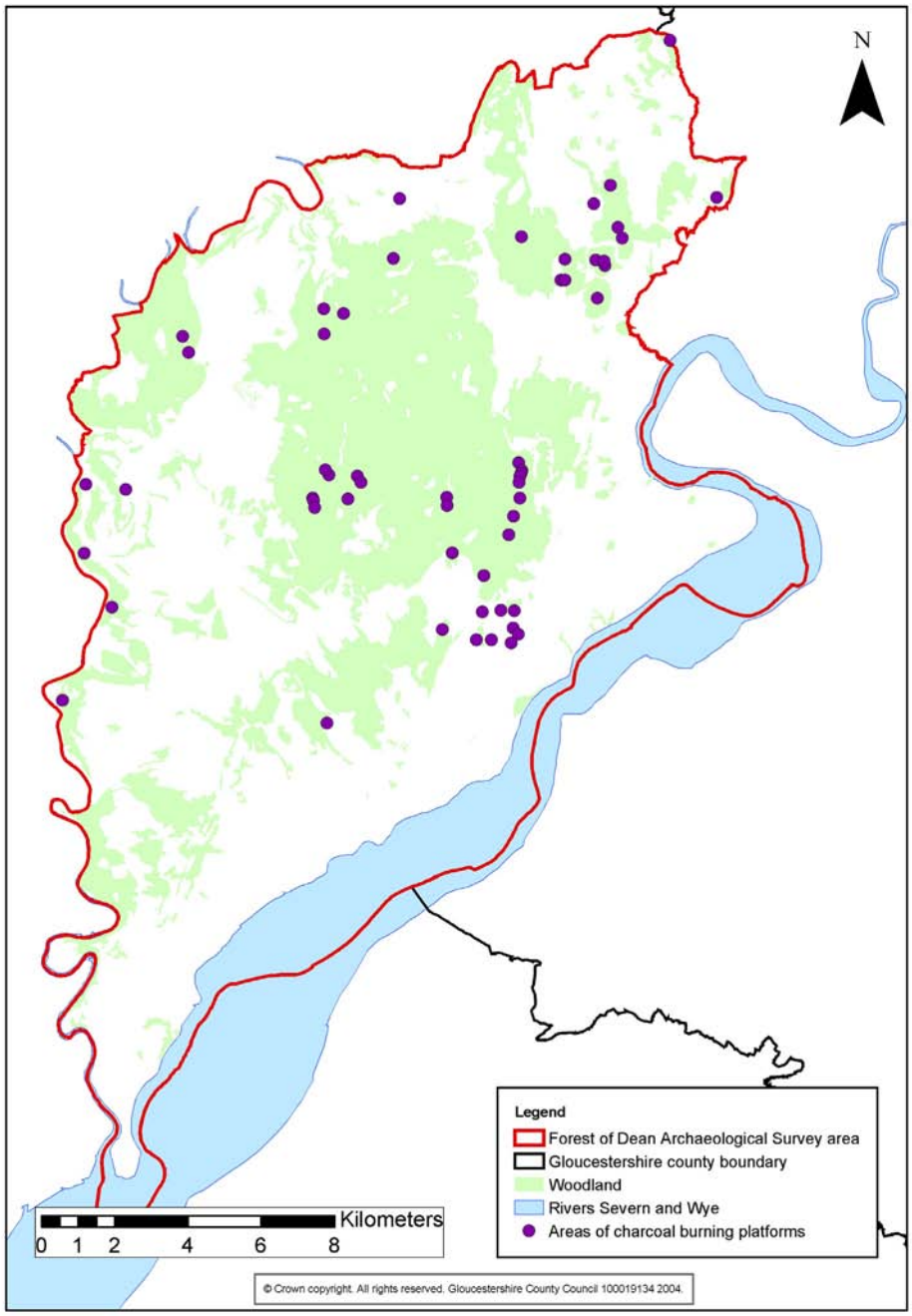

Figure 36: Sites containing undated charcoal platforms

4.10.4.5 Mills

The Gloucestershire SMR records 22 sites of mills which are either known to be medieval in date, or where a medieval origin can be inferred from post-medieval records.

Water-powered mills

The most common type of water-powered mill are corn mills of which 15 are recorded within the survey area. Of these only one, in the Parish of Awre (Glos SMR 5885), is recorded as early medieval in date on the grounds that it was recorded in the Domesday Survey of 1086. In this survey, however, mills are also recorded at

Alvington. Longhope, Lydney, St Briavels and Woolaston. These mills are not currently recorded on the SMR, as their location is not known, although the recorded mills at Woolaston (Glos SMR 5632), Alvington (Glos SMR 5820) and St Briavels (Glos SMR 21471, 21491) may all have been on the site of, or close to, their early medieval counterparts.

This type of site is known principally from documentary sources, although structural evidence survives for two of these mills (Glos SMR 5820, 11328) and the remains of a mill leat have been recorded at a further site (Glos SMR 6771) near Littledean.

In addition to the corn mills, three fulling mills (Glos SMR 6487, 19956, 21426) all of which are known from documentary evidence, are recorded within the survey area, whilst another mill (Glos SMR 9937), also known primarily from documentary sources, is reported to have been used for founding the lead used on the roof of Gloucester Cathedral, although it was also used as a corn mill in the post-medieval period, and this may have been its primary function throughout most of that time.

In addition to the known sites of mills, a further 9 placename sites (not including those which refer specifically to windmills – see below) contain the element “mill” and may indicate the sites of water-powered mills.

Windmills

Only two sites of possible medieval windmills are recorded within the survey area. Both of these (Glos SMR 13956, 21875) are known from documentary sources, and both are associated with field names which contain the element “windmill”.

In addition to these, however, six placenames which are not associated with known sites also contain the element contain the element “windmill” and may denote the sites of medieval windmills, whilst three sites (Glos SMR 9787, 13630, 22990) are undated mounds which have been interpreted as possible windmill mounds.

Recommendations for further investigation of mill sites

The following is recommended for further investigation of medieval mill sites:

- Exploratory fieldwork, particularly walkover survey followed, where appropriate, by sample excavation or geophysical survey, to investigate areas where documentary or earthwork evidence suggests that water mills may have been present.
- Exploratory fieldwork, particularly walkover survey followed where appropriate, by sample excavation or geophysical survey, to investigate areas where documentary or earthwork evidence suggests that wind mills may have been present. This should prioritise the undated mounds which have been interpreted as possible windmill mounds (see above)
- Features associated with watermills have the potential to contain well-preserved organic deposits. Where appropriate environmental sampling should be undertaken at these sites to these sites to obtain palaeoenvironmental information.

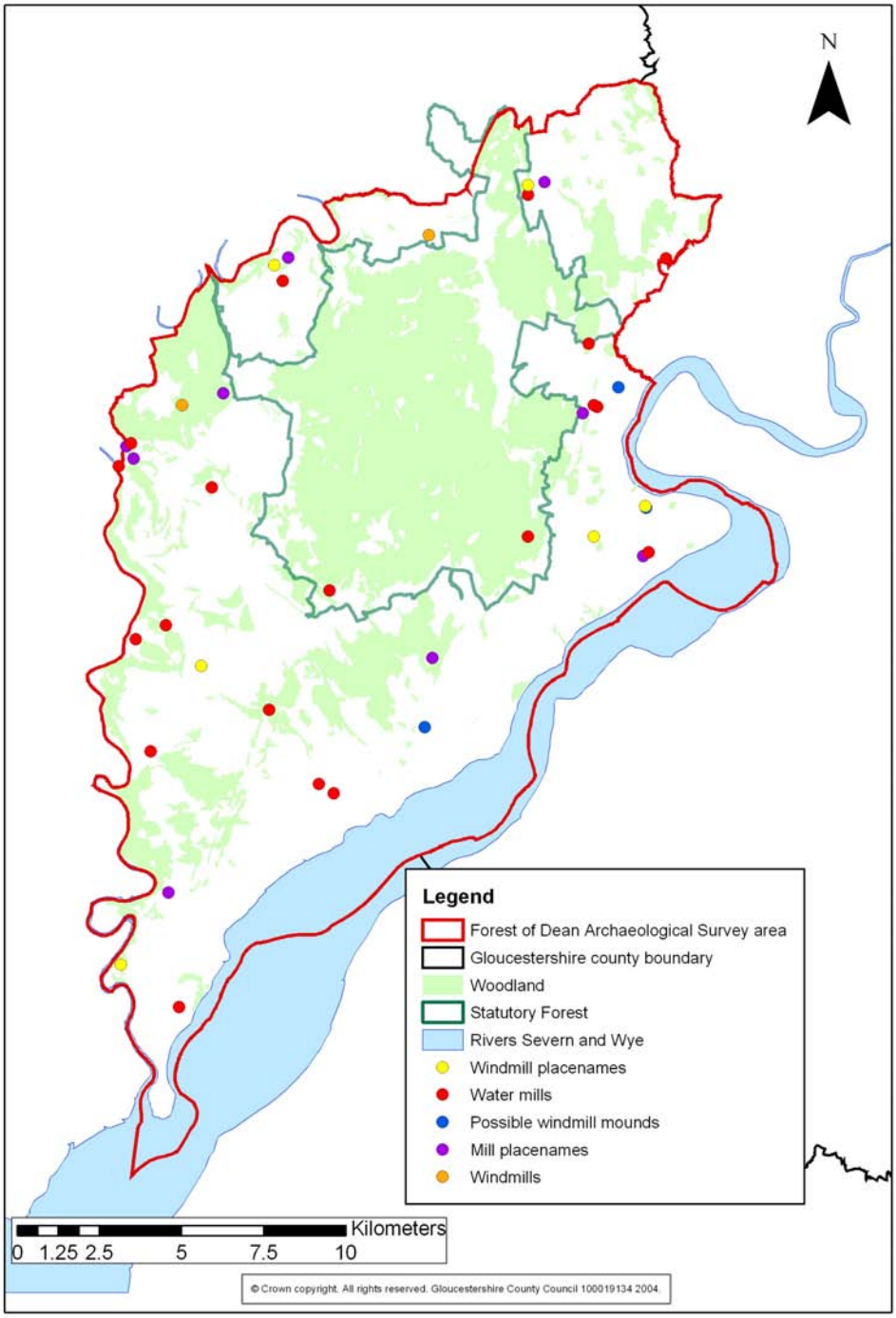

Figure 37: Medieval mill sites

4.10.4.6 Fishponds

The Gloucestershire SMR records nine sites which may represent medieval fish ponds. These sites represent ponds which were used during the medieval period to raise fish for food rather than for ornamental purposes, and were a common feature of both ecclesiastical and lay estates during this period (Hey 1996).

Six of these sites (Glos SMR 4391, 5609, 7276, 9930, 12879, 20487) survive as earthworks, whilst the remaining three sites (Glos SMR 5071, 6759, 12203) are currently known only from documentary sources.

Placenames which suggest the sites of ponds are associated with four of these sites (Glos SMR 4391, 5071, 5609, 6757).

No placenames which may indicate the site of undiscovered medieval fishponds have been recorded within the survey area, although the fieldname “fishpool orchard” (Glos SMR 21746) relates to an undated pool recorded on the 1839 Littledean Tithe map, although this site is thought to be post-medieval in date.

Distribution

All of these sites are located outside of the area of the Statutory Forest in the vicinity of area of known medieval occupation.

Only one probable fish pond site (Glos SMR 12879) is associated with the medieval monastic grange at Woolaston (Glos SMR 12879, 21337), although Glos SMR 9930 was recorded as “Priors Pool” in 1608, and three sites (Glos SMR 4391, 12203, 7276) are within *c.* 2km of the possible grange site of Stowe Grange (Glos SMR 6103), and some of these could be related to that.

The placename and cartographic evidence of a post-medieval pond which may denote earlier ponds (Glos SMR 21746) is sited within 1km of the site of The Grange (Glos SMR 5175) and may be associated with that site, although this is entirely speculative. The SMR records no fishponds associated with the medieval monastery at Flaxley (Glos SMR 5160) and its adjacent grange (Glos SMR 21297). This is intriguing as the topography of the area would be ideal for the formation of pools fed by the Westbury Brook which runs through the valley in which the monastery is sited. Pools are recorded in this area, however (Glos SMR 6460, 6459) although these are associated with post-medieval industrial sites, and it is has not been established they these were originally used as monastic ponds during the medieval period.

With one exception (Glos SMR 12879) the majority of known medieval fishpond sites skirt the southwestern edge of the Statutory Forest. These tend to overlie a sandstone solid geology, although three (Glos SMR 4391, 7276, 20487) overlie limestone. All of these sites are found either on or close to the junction between different types of solid geology and on relatively level ground adjacent to more steeply sloping ground, or within the valleys of small streams, presumably to take best advantage of water supply provided by the streams or springs.

The remaining site (Glos SMR 12879) is close to the junction not only of different types of solid geology, but also at the edge of the alluvial valley of a small tributary of the River Severn, which would have maintained a water supply to the pond.

The site identified as a result of placename evidence (Glos SMR 21746) is found to the east of the Statutory Forest, and although it is in a similar topographical position to the known medieval fishpond sites, it is not at the junction of two types of solid geology.

Recommendation for fish ponds

The following is recommended for further investigation of medieval fishpond sites:

- Further documentary research and fieldwork to identify associated fishponds, particularly in the Flaxley valley.
- Fishpond sites have the potential to contain well-preserved organic deposits. Where appropriate environmental sampling should be undertaken at these sites to these sites to obtain palaeoenvironmental information.

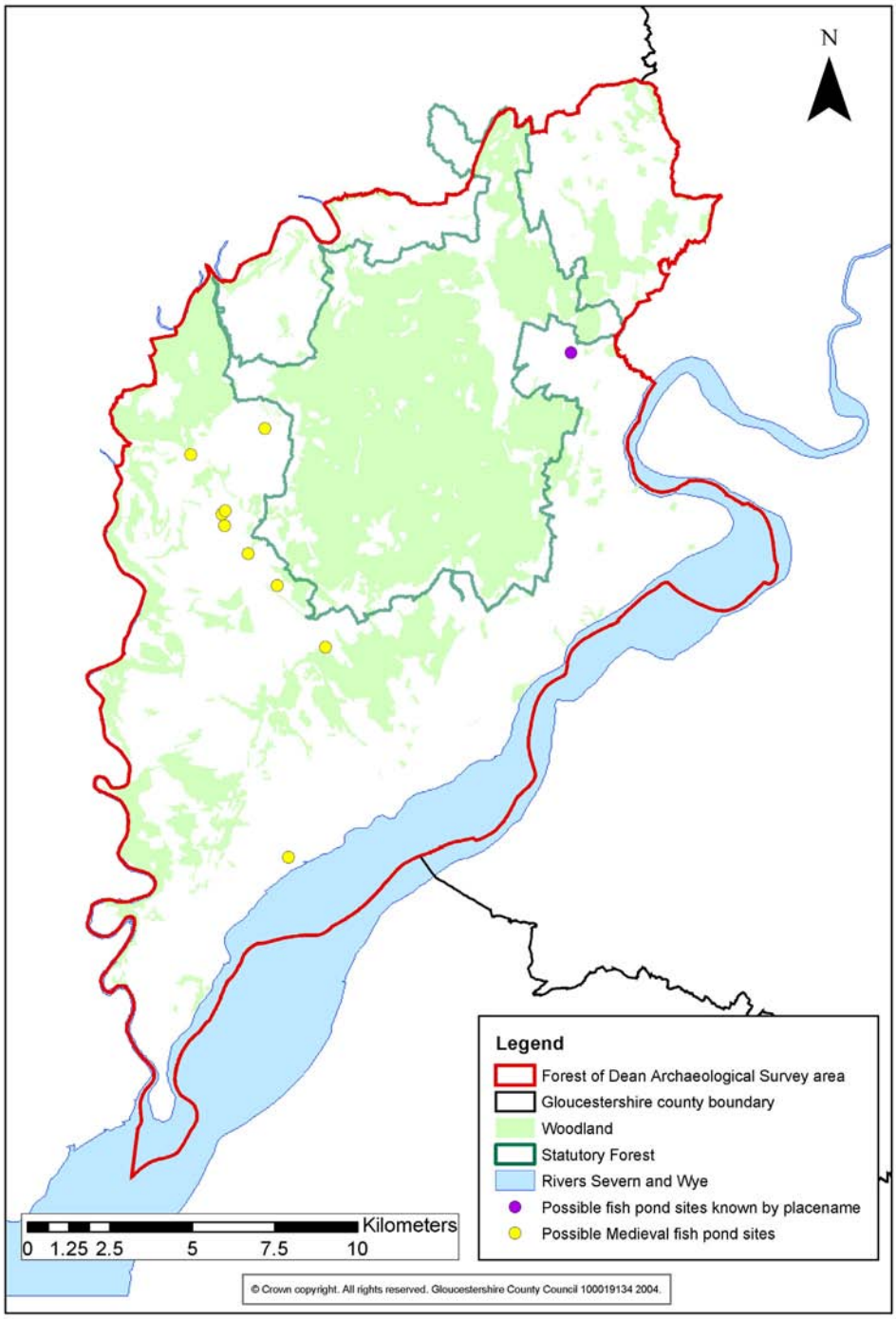

Figure 38: Medieval fishpond sites

4.10.5 Deer parks

The remains of deer parks are a relatively common landscape feature in southern and midland England and it has been estimated that at least 1900 deer parks, most dating to the 12th and 13th centuries, were created in England throughout the medieval period (Hey 1996).

Whilst undoubtedly also status symbols, these parks were principally economic enterprises in which the deer were kept as a food source, and this type of site should not be confused with later ornamental landscapes, in which deer may have been kept primarily for sport or decoration. However, at least four of the known deer parks within

the survey area (Tidenham Glos 5049, Whitemead Park Glos SMR 5119, Old park Lydney Glos SMR 5661, Flaxley Glos SMR 13704) and two of the possible sites (Clearwell Glos SMR 13698 and Ruddle, Newnham Glos SMR 21689) developed into post–medieval ornamental gardens.

4.10.5.1 Known medieval deer parks

The Gloucestershire SMR records seven sites within the Forest of Dean Survey area which are either known to be medieval deer parks, or can be inferred as medieval deer parks on the basis of available evidence. All of these are known from documentary evidence and were recorded as deer parks in either the medieval or early post-medieval periods. The SMR records no earthworks associated with any of these, although the Gloucestershire and Wye Valley AONB Historic Landscape Characterisation (Hoyle 2006) identifies boundaries which correlate with likely deer park boundaries associated with four of these sites (Whitemead Park Glos SMR 5119, and Old Park Lydney Glos SMR 5661, Alvington Glos SMR 21922 and Noxon Park Glos SMR 26864).

One of these sites (Whitemead Park Glos SMR 5119) is within the area of the Statutory Forest. This park, which was enclosed by 1283, appears to have been the result of the emparkation of an existing open area within the Forest (Herbert 1996a), and although within the Parish of Newland remained in Crown ownership and was part of the Royal demesne (Herbert 1996d).

All the remaining known park sites are outside the area of the Statutory Forest, although Noxon Park (Glos SMR 26864) which shares a boundary with the modern Statutory Forest was created out of land assarted under licence in 1317, and may have encroached into land which was originally part of the Royal demesne which later became the Statutory Forest.

4.10.5.2 Possible medieval deer parks

In addition to the known sites of medieval deer parks within the Forest of Dean Survey area, the Gloucestershire SMR lists 12 placenames sites which may indicate the sites of medieval deer parks.

Eight of these are fieldnames, generally recorded in the 19th century, which contain the element Park, and which are not associated with known sites either of medieval deer parks or later post-medieval ornamental parks. Two of these placename sites are associated with post-medieval ornamental gardens, but have been included as possible deer parks as the earliest reference to the name (Glos SMR 13698, Parke Field Clearwell recorded in 1608 and Glos SMR 21689, "Parke Grove", "Parke Laies" and "Parke Meadow" Newnham recorded in 1618) appear to predate the ornamental garden, although it remains possible that they represent early ornamental gardens rather than deer parks.

Another one of these sites (Glos SMR 21586) is only *c.* 500m to the south of a known deer park at St Briavels (Glos SMR 21473). As the two sites are in separate parishes they may refer to separate, if nearby parks, although further, more detailed research beyond the scope of this report would be required to clarify this.

A further site (Tidenham Glos SMR 21680) is associated with an undated earthwork "4ft high" (P. Bond pers. comm.) which may be a surviving part of the park boundary, whilst the Gloucestershire and Wye Valley AONB Historic Landscape Characterisation (Hoyle 2006) identifies boundaries which correlate with likely deer park boundaries associated with two of these (Ruardean Glos SMR 21852 and Mitcheldean Glos SMR 22328).

Three placename sites (Glos SMR 4352, 16361, 21685) contain the element Lypiatt , or a derivative of it, indicating a deer leap, an earthwork features associated with

medieval deer parks. One of these (Lippiatt Hill, Glos SMR 4352, to the southeast of Awre) may be associated with a small rectangular earthwork known from aerial photographic evidence, and which has been interpreted as a possible deer leap, whilst the remaining two (Lupiats Leaze Glos SMR 16361 and Lipyeat Grove Glos SMR 21685) are both in the vicinity of Offa's Dyke. This may suggest that an access point through Offa's dyke was interpreted, or re-used as a deer leap by later generations (Hoyle and Vallender 1997), although a Park field names (Glos SMR 21680) is found on Tidenham chase *c.* 1.5km to the southeast, which may suggest that part of the Offa's Dyke earthwork was reused as a park boundary in the later medieval period.

A single site (Glos SMR 22060) was recorded as Lodge Hill in the 19th century. This field is adjacent to a house recorded as "The Lodge" on modern OS maps and the status of this building, and therefore the name is not clear

Like the majority of the known deer park sites, all of the placename sites are located outside of the Statutory Forest, although one site (Soilwell, Glos SMR 21549) is very close to the Statutory Forest and may represent encroachment into the royal demesne.

Deerpark sites are found at all heights within the survey area, ranging from 15m OD (Glos SMR 4352) to 220m OD (Glos SMR 21680), and almost all are found at the interface between slopes in excess of *c.* 7° and more level ground.

Only five of these sites are found within woodland, although this only represents the landuse of the single OS grid coordinate, which is used to represent the location of these sites, and almost all are found in the vicinity of areas currently under woodland, and the original deer parks would have included both wooded and open areas (Hey 1996).

Recommendation for further investigation of deerparks

The following is recommended for further research into deer parks within the survey area:

- Detailed landscape analysis in the area of known and possible deer park sites to identify field boundaries or other features which may be relict deer park features.
- Field survey in the area of known and possible deer park sites to identify relict deer park features.
- Detailed documentary research of possible deer park sites to identify historical references for their status.
- Detailed documentary research of identified post-medieval ornamental gardens to identify historical references for their possible origins as medieval deer parks.

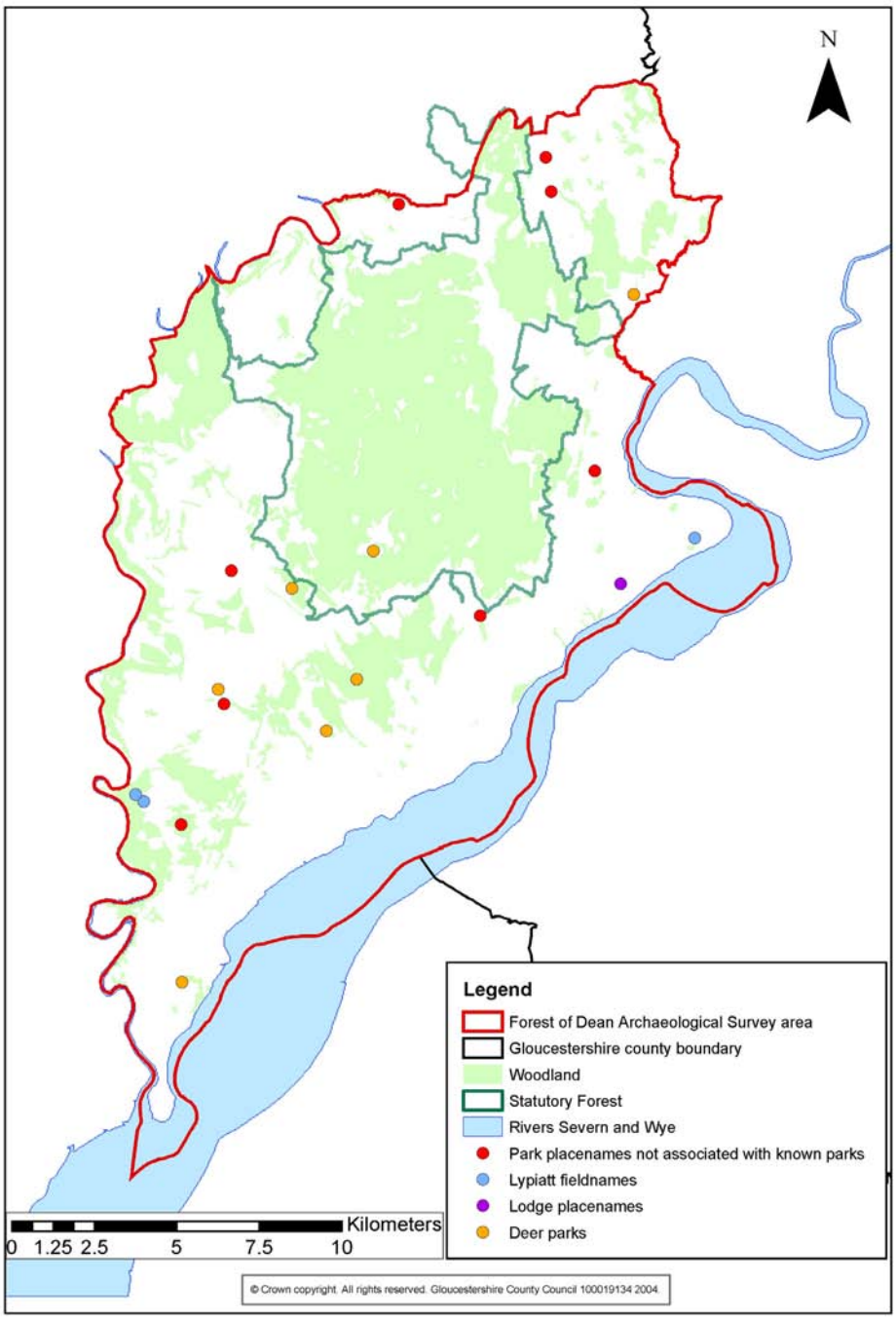

Figure 39: Medieval deer park sites

4.10.6 Moated sites

The Gloucestershire Sites and Monuments Record lists eleven sites within the Forest of Dean Survey area which can be interpreted as medieval moated sites.

Two of these sites (Glos SMR 5058, 6041) are known only from documentary evidence whilst the remaining nine survive as earthworks in some form.

Most of these have been interpreted as the site of a medieval moated manor house although the status of the following three sites has been questioned:

- Glos SMR 4023 – this site may represent the remains of a rabbit warren.
- Glos SMR 5058 – this site may represent the remains of ponds of unknown date.

- Glos SMR 4352 – this site is connected with the placenames Lyppiatt Hill and may represent the remains of a deer leap with associated Holloway (see 4.10.5 above).

Only one of these sites (Glos SMR 5609) is associated with a placenames containing the element “moat” and no other “moat” placenames are recorded on the SMR for the Forest of Dean Survey area.

Some of the six undated sub-rectangular enclosures discussed in 4.6.3.3 above may also represent medieval moated sites, although these sites have not been included in this analysis.

Distribution

All of these sites are located outside of the Statutory Forest and only one (Glos SMR 5090) is within woodland, an area of recent conifer plantation.

These sites are often close to streams, which may have supplied a water source to maintain the moat, and the majority of sites are in the vicinity of a junction between different solid geologies and the edge of recorded areas of drift geology, and also on gentle slopes perhaps suggesting that, in many cases the water in the moat was maintained by springs rather than streams.

Recommendations for further investigation of moated sites

The following is recommended for further investigation of medieval moated sites:

- Exploratory fieldwork, particularly sample excavation or geophysical survey, to investigate areas where documentary or earthwork evidence suggests that moated sites may be present, but where the status of the site is not clear.
- Features associated with moats have the potential to contain well-preserved organic deposits. Where appropriate environmental sampling should be undertaken at these sites to these sites to obtain palaeoenvironmental information.

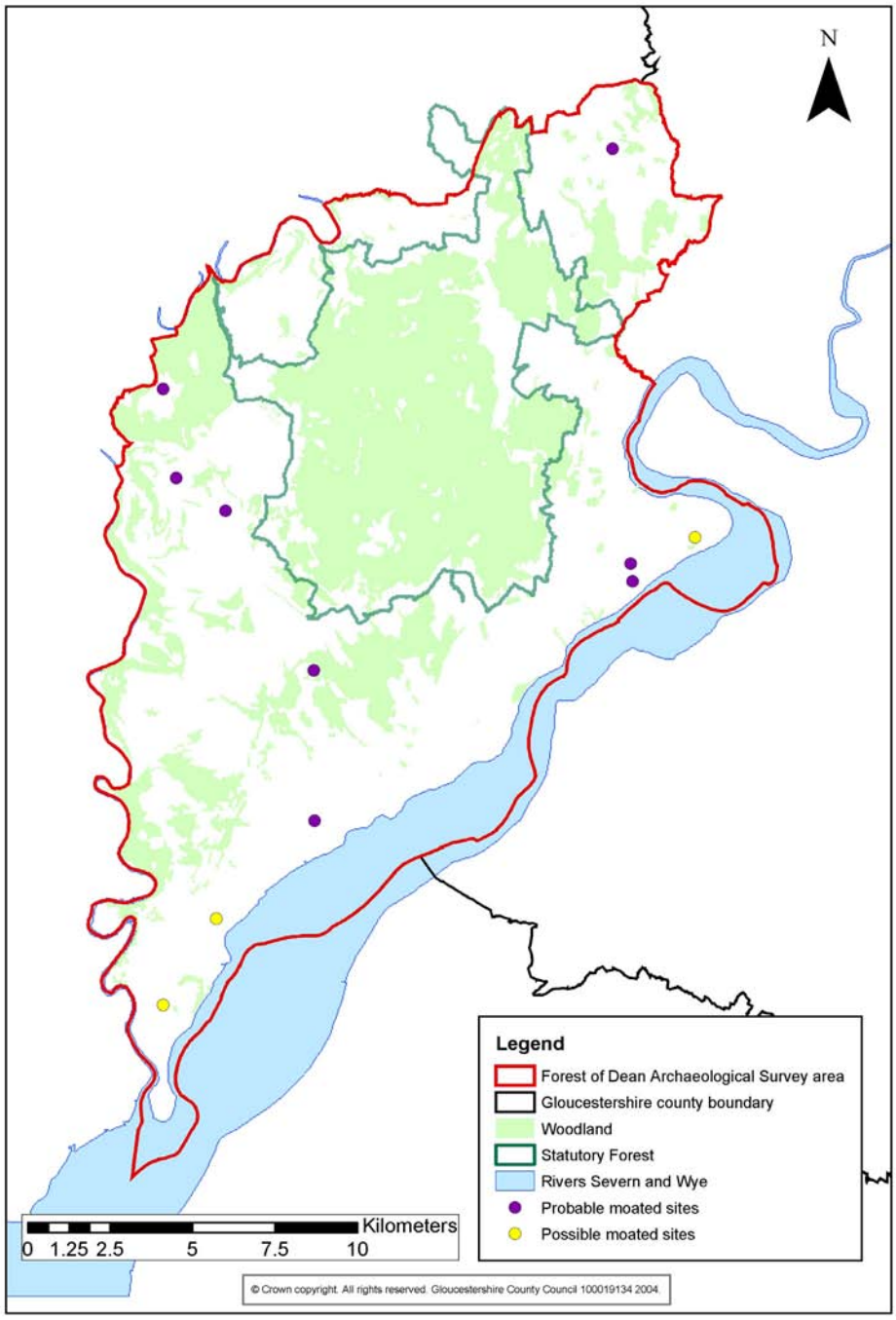

Figure 40: Moated sites

4.11 The post-medieval period

Excluding the 611 post-medieval field and placenames recorded within the Forest of Dean Survey area, the Gloucestershire SMR records 5133 sites which have been assigned a post–medieval date whilst a further 10 sites have been designated a multi period date which includes the post-medieval period. This represents just over 47% of all known sites within the survey area, included within 2551 SMR area records.

4.11.1 Types of site

Post-medieval sites fall into a wide range of general categories. It is not the purpose of this report to discuss each of these in detail, and the following is a rapid quantification of the types of post-medieval site represented within the SMR for the Forest of Dean Survey area.

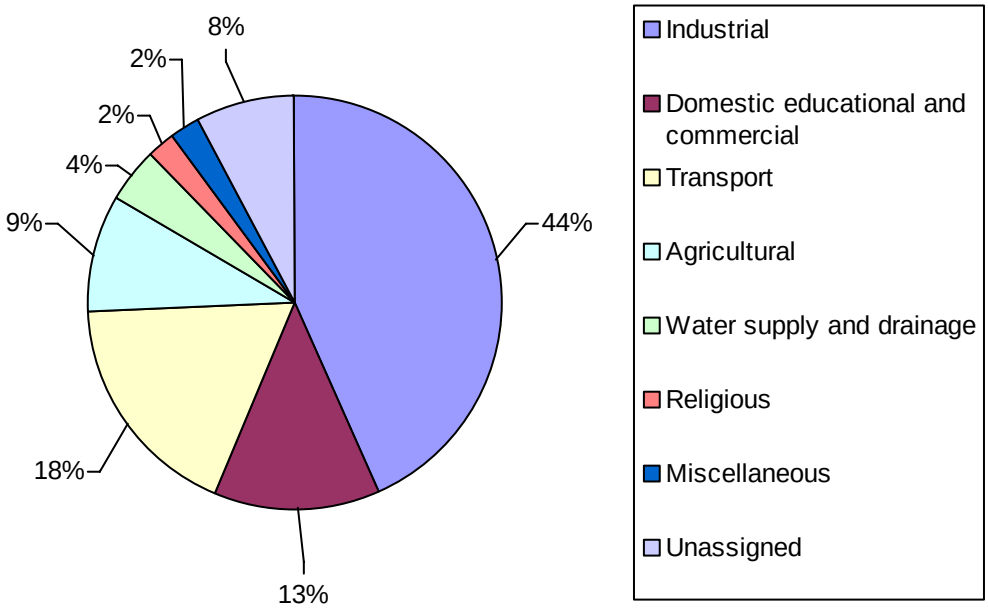

Chart 66: Post-medieval sites: Principal categories of site

4.11.1.1 Industrial sites

Industrial sites comprise the single largest category of post-medieval site recorded in the Gloucestershire SMR for the Forest of Dean Survey area.

This category contains 2231 individual sites, although this includes 12 charcoal burning sites and 44 surface coal extraction sites, all of which could be medieval or even earlier in date and are discussed in 4.10.4.2 and 4.10.4.4 above.

The coal or iron extraction industries was represented by 1305 sites, including 27 drift mines or coal adits, and 12 areas of surface or shallow iron ore extraction (this does not include Scowles which are discussed in the report on the Scowles and Associated Iron Industry Survey, Hoyle et al. 2004). This also includes 216 deep coal mines, 34 deep iron mines and associated features such as 316 shafts and 360 recorded spoil heaps.

Other extractive industries are represented by 82 areas of small scale surface quarries, 313 larger stone quarries for both limestone and sandstone, 10 clay or brickearth pits and three gravel pits, 2 sand pits and a marl pit. In addition to these, 97 sites of surface extraction pits, which could be for coal, iron, sand or gravel, are recorded.

A number of industrial sites represent the processing of raw materials. This includes 85 iron and steel production sites (within 68 SMR Areas) of which 46 relate to the early post-medieval charcoal-fired iron industry, 8 tin-plating works and 3 copper works. Other mineral processing is represented by 153 limekilns, 20 brick and tile making sites (within 15 SMR Areas), 3 stone works, and 1 millstone production site.

Evidence for timber processing is indicated by 36 sites including 12 tanneries, 10 paper mills, 4 bark houses, 3 sawmills and 3 wood chemical works.

This category also includes 51 water mills used for grinding corn, 5 fulling mills and 8 other industrial mills. These mills are associated with 18 sites recorded as millponds or millraces. A single post-medieval windmill is also recorded, although this site (Glos SMR 5009) may have been a look-out tower, and appears to have been converted into a folly in the 19th century.

Miscellaneous industrial sites include 13 smithies, 6 malt houses, 6 gas works or gas holders, 5 ice houses, four chemical works, 4 shipyards, 6 industrial chimneys not associated with mining, and a range of industrial buildings such as blowing houses, engine houses and workshops.

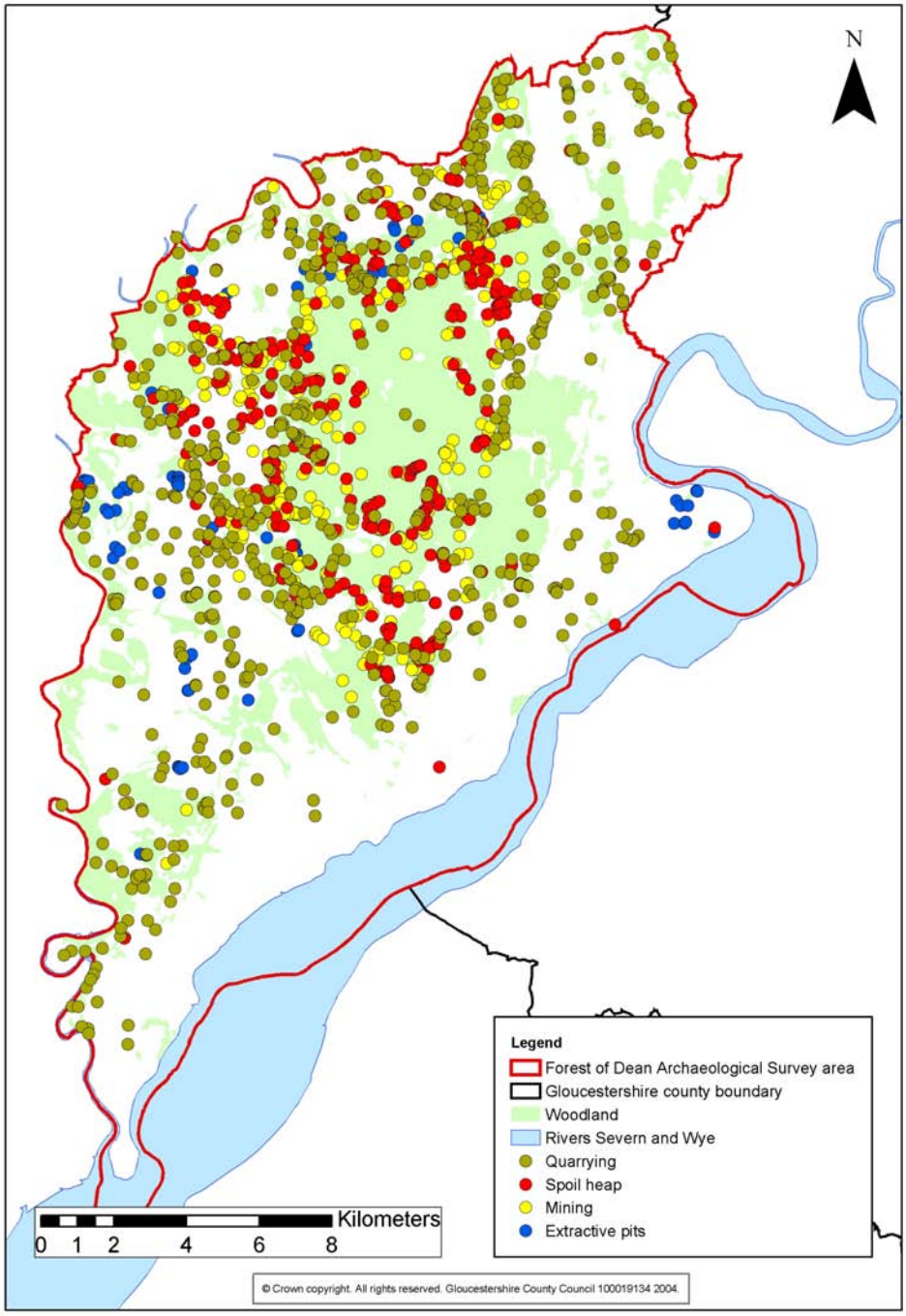

Figure 41: Post-medieval mineral extraction sites

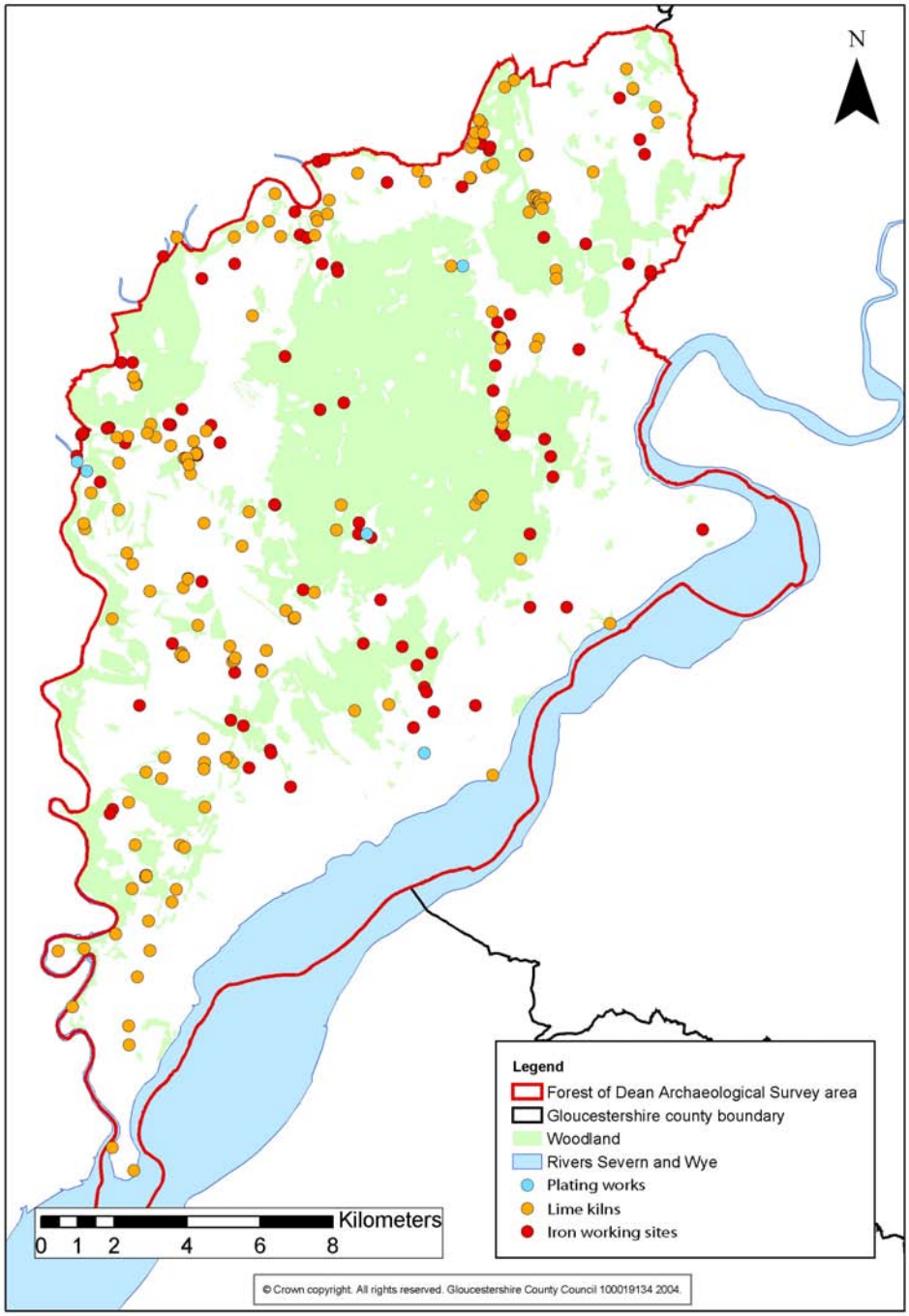

Figure 42: Post-medieval mineral processing sites

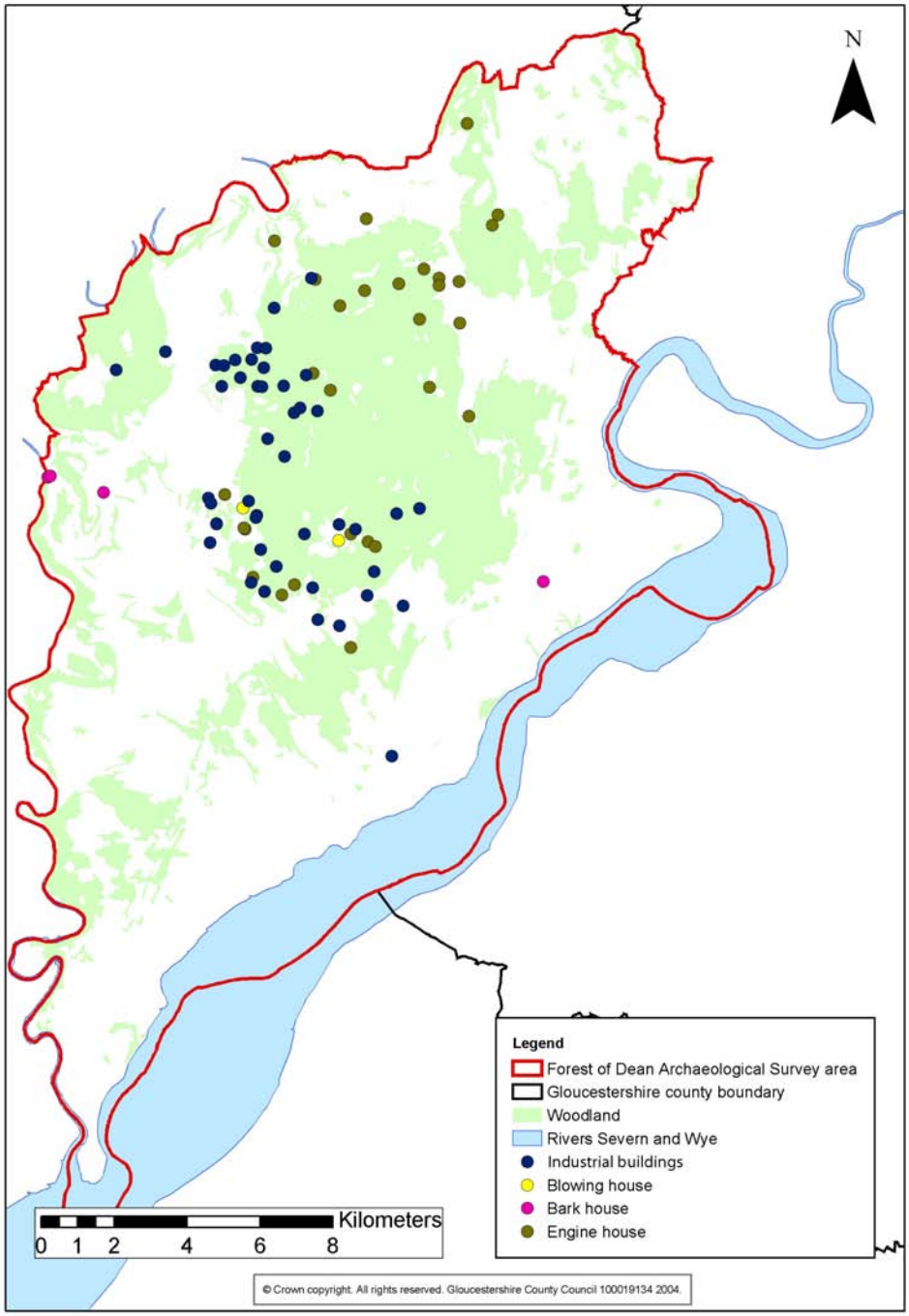

Figure 43: Selected post-medieval structures

4.11.1.2 Domestic, educational and commercial

Six hundred and fifty-one SMR sites relate to activity associated with domesticity, education and commerce. These are classified under Domestic, Civil, Commercial, Recreational, Education, Health and welfare and Institutional within the SMR.

This category includes 75 inns, pubic houses and hotels (including two temperance hotels), 19 shops 13 schools, 9 almshouses, 6 post offices, 6 police station 4 town halls, 3 workhouses, 3 banks, 2 mansion houses, 2 hospitals and a library.

Twelve of these sites are shrunken or deserted settlements, whilst this category also includes 348 houses, six country houses, eight manor houses and 23 assorted

dwellings such as crossing keeper's cottages and domestic terraces. This category also includes 15 vicarages and rectories and 17 lodges.

Thirty-six of the sites categorised as either House or Lodge are Forest Lodges originally established in the later 17th century as a form of Forest administration under the terms of the Dean Forest Reafforestation Act of 1668, in which 11000 acres of Dean was to be enclosed to ensure timber supplies for the Royal Navy (Jurica 1996c). The Lodges were built to house Crown appointed keepers, each with the responsibility of patrolling a section of the Forest of Dean, and each one was assigned *c.* 30 acres of land which the Keeper was able to farm. Enclosure proved unpopular in the Forest of Dean, and further enclosures were required following the initial phase. In 1808 a new Act of Parliament confirmed the 1668 Act and new enclosures were made and new lodges constructed.

An additional site (The Speech House Glos SMR 5168) has been classified as a Forest Lodge, and a further 13 known Forest Lodges, details of which have only recently been published, have not yet been added to the SMR (Waygood 2003, 2004). The precise location of only 7 of these is currently known.

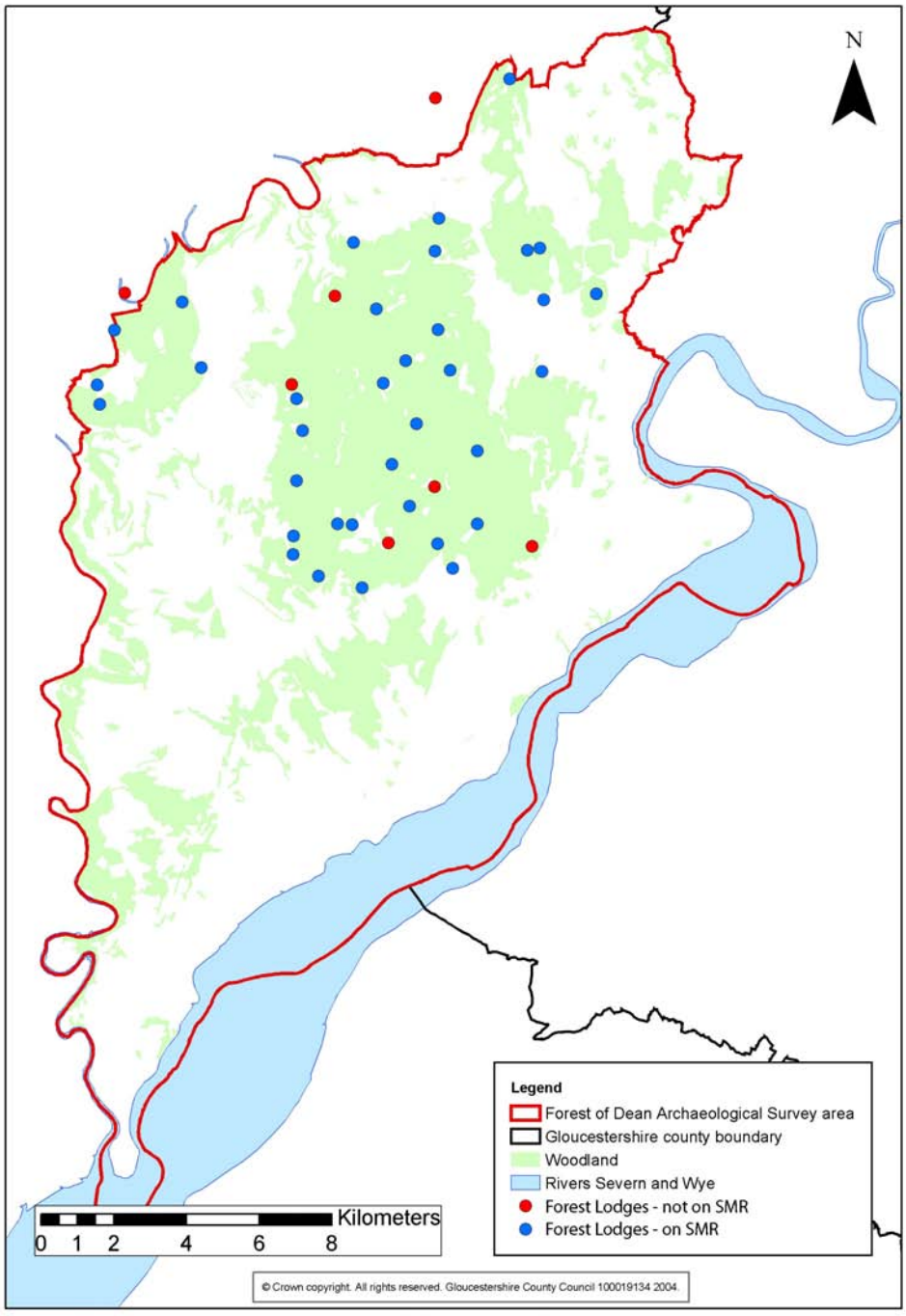

Figure 44: Forest Lodges

4.11.1.3 Transport systems

Nine hundred and twenty-nine post-medieval SMR sites are classified as relating to transport systems.

Of these, however, 25 are cranes within post-medieval quarries which are automatically classified as Transport sites within the Gloucestershire SMR system.

Three hundred and thirty-one of these sites relate the tramroad system within the Forest of Dean. The majority of these represent the courses of earlier tramroads or tramways, although this category also includes 24 bridges, 21 inclined planes, 17

tunnels, 5 embankments, four weigh houses and 2 weighing machines associated with the tramway system.

Three hundred and six of these sites relate to the later rail system which superseded the tram road system, and which is now largely disused. This category includes 94 railway bridges, 40 stations, 17 tunnels , 12 viaducts, and numerous other features relating to the railway.

Road transport is represented by 35 sites which not only include 16 road bridges, 5 toll roads, 4 mile posts, 26 milestones and the sites of 14 toll houses and 6 toll gates, but also the projected line of the Dean Road (Glos SMR 5904), a road previously considered to be Roman but which may represent an early post-medieval timber haulage road constructed by the Royal Navy (see 4.8.4 above).

Seven sites relate to the two post-medieval canals within the survey area, Pidcocks canal Lydney (Glos SMR 5821) constructed to link Lydney docks with post-medieval iron furnaces, and the short stretch of canal (now filled in) at Cinderford (Glos SMR 20428) constructed in the late 18th century to serve the local coal and iron industries.

This category also includes 66 holloways, 59 trackways, 10 paths and assorted transport features such as culverts, cart sheds and footbridges.

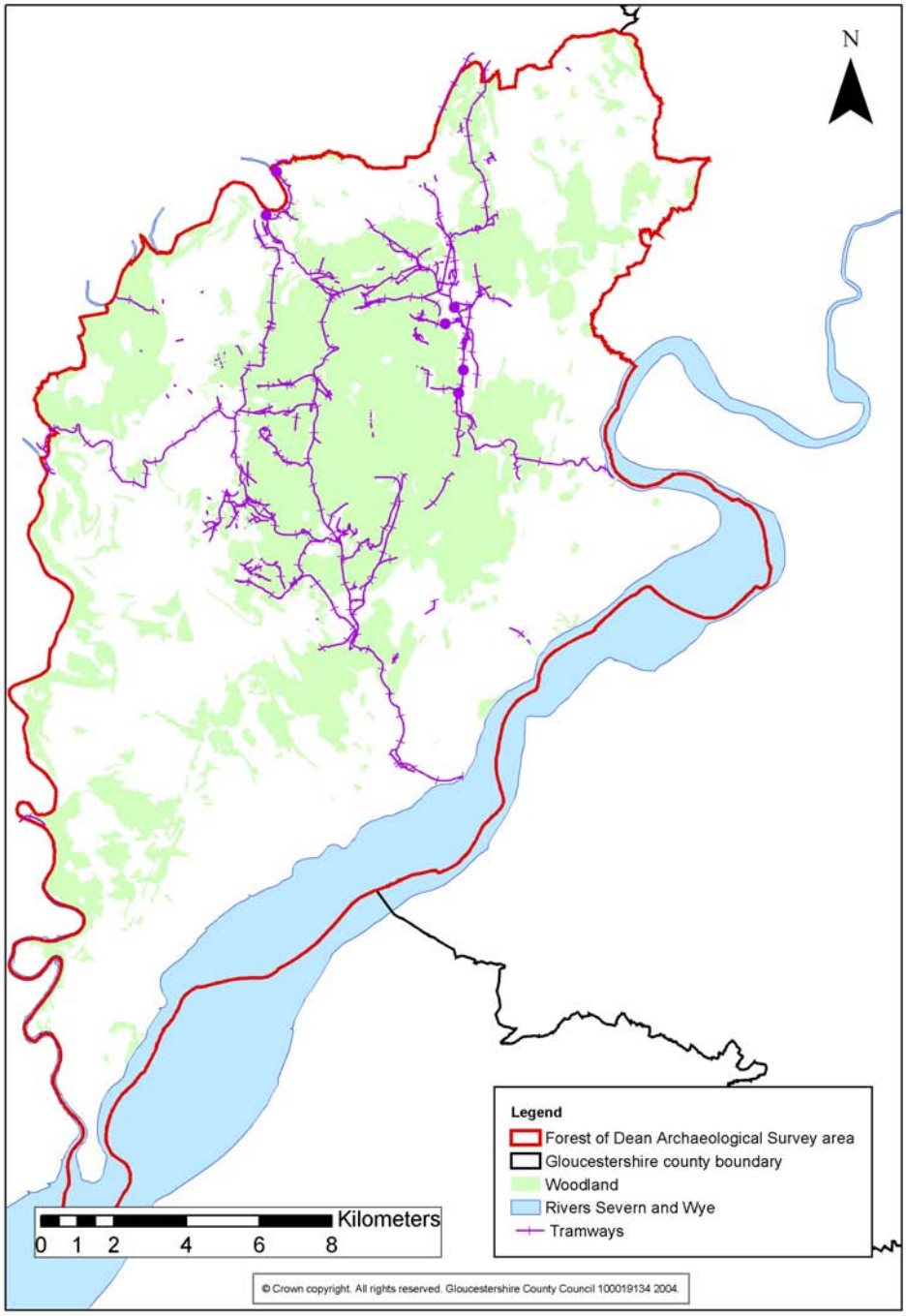

Figure 45: Tramways

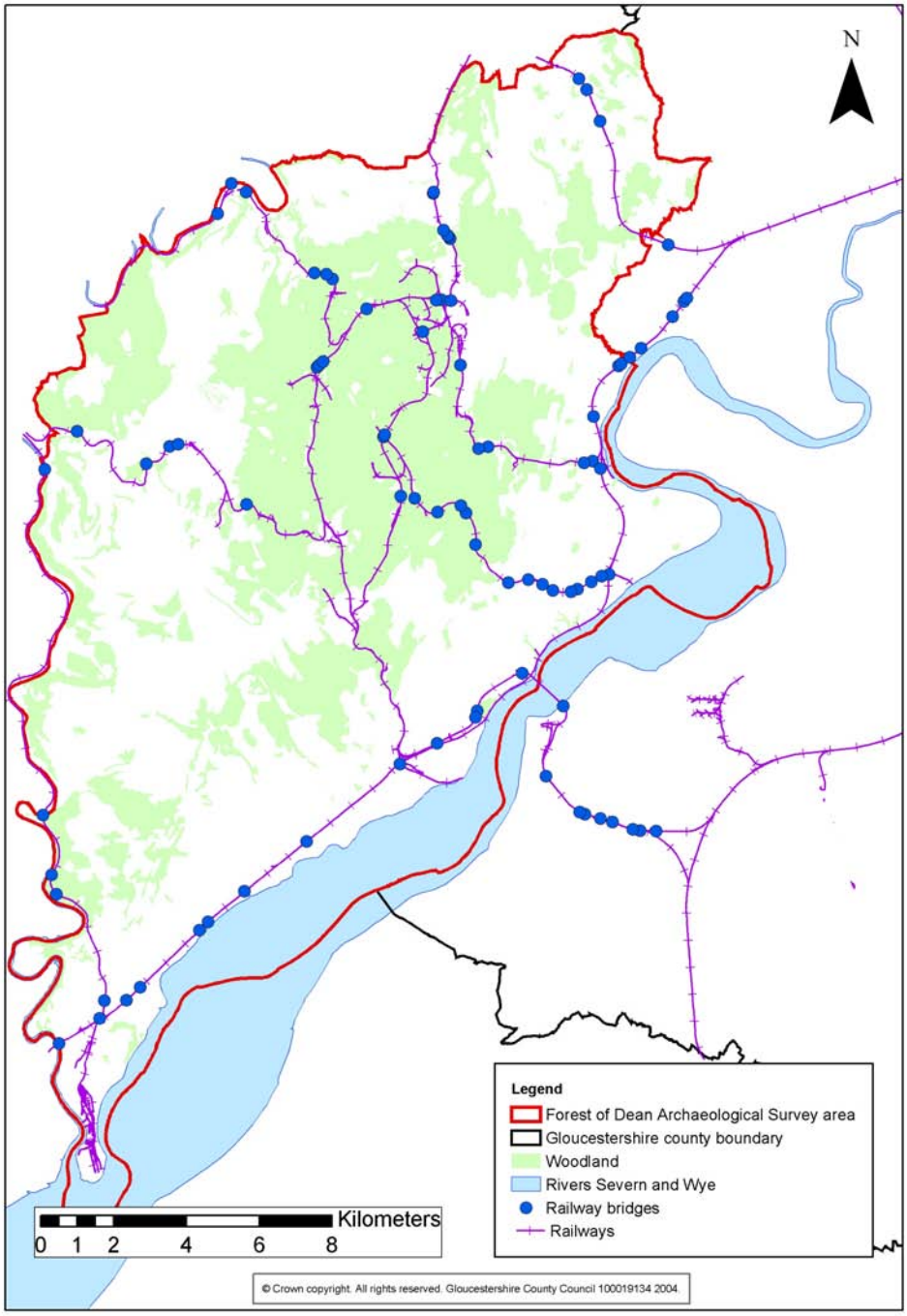

Figure 46: Railways and railway bridges

4.11.1.4 Agricultural sites

There are 478 post-medieval sites in this category. This includes 186 agricultural buildings such as barns, farmhouses, cow houses, pigsties, brew houses or cider mills, whilst a further 61 represent farms or farmsteads. A further 119 of these sites represent field boundaries or associated earthworks and 21 of these are classed as wood banks.

Thirty-five of these sites relate to the catching or processing of fish and include fish weirs, fish traps and fish houses, whilst 16 relate to rabbit farming and a further 12 represent animal pounds or stock enclosures. The remaining sites include water

meadows, gardens, market houses, features associated with early post-medieval deer parks and two dovecotes.

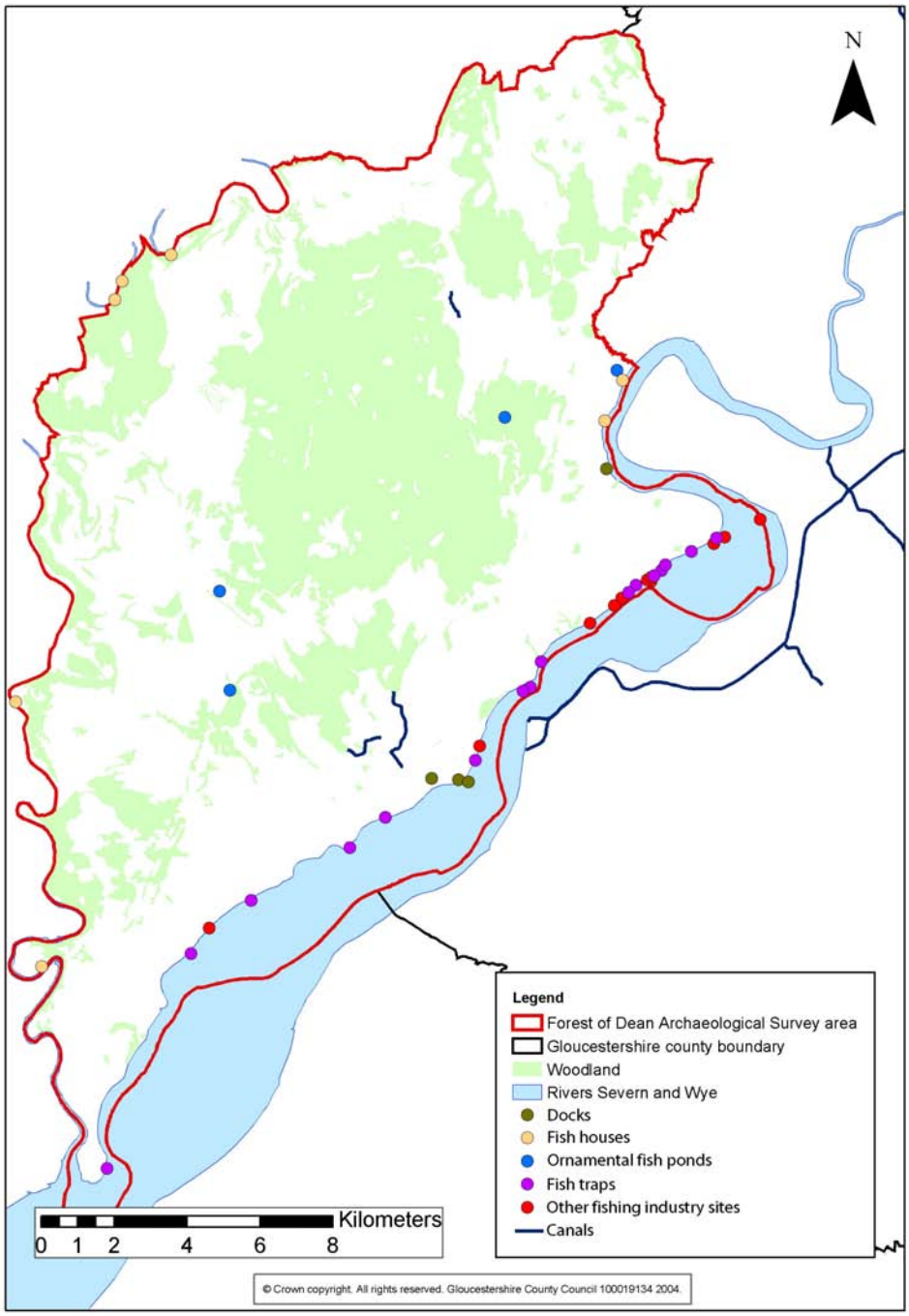

Figure 47: Canals and fisheries

4.11.1.5 Water supply

Two hundred and thirty-eight sites relate to water supply and drainage. This includes 60 ponds, 52 wells, 16 sluices, 14 mill leats, 10 dams, 10 pumps and pump houses, 9 reservoirs, 2 water works, 4 weirs and a range of culverts, drains and ditches and water channels.

4.11.1.6 Religious sites

One hundred and sixteen SMR sites represent religious sites. 95 of these are churches or nonconformist chapels constructed mainly in the 19th century to serve the spiritual needs of a growing population attracted to the Forest of Dean to work in the expanding industries of the area.

The remaining sites in this category are largely burial sites or related features although one of these sites (Gattle Cross, Glos SMR 5072) represents a post-medieval monument erected in the 19th century on what was thought to be the site of the Cradock Stone (Glos SMR 21425) and is designated a religious site as it is classified as a cross, whilst another site (Glos SMR 17328) is a Maypole.

4.11.1.7 Miscellaneous features

This category includes 140 sites which are classified as garden features and include a range of features such as statues, orangeries, bandstands, ha-has and walled gardens. A further 26 sites are classed as maritime and include a range of features such as four boats (including a Severn trow), four groynes, four sea and flood defences, two slipways, and a range of features associated with harbour and docking facilities, whilst 20 sites are classified as commemorative and include 11 named trees, seven commemorative plaques, stones or other monuments, and a single obelisk.

There are also three post-medieval defence sites. Two of these (Glos SMR 12392, 21226) are a 19th century Drill Hall and rifle butts associated with the local militia. The remaining site (Glos SMR 5183) is a linear earthwork constructed by the Royalist garrison at Newnham during the English Civil War.

4.11.1.8 Unassigned features

A total of 396 post-medieval SMR sites have not been included in any other category. This includes 54 walls, 41 features relating to gates, 22 boundary and marker stones, 10 stables associated with industrial complexes rather than farms, five offices, four store houses, three outbuildings, three cellars, three floor surfaces, and one cave.

This category also includes 63 buildings and a range of other features which are also classed as industrial sites, and a range of unspecified earthwork features, and features identified as a result of excavations or watching briefs.

4.11.2 Recommendations for post-medieval sites

Known post-medieval sites within the survey area are so numerous and varied that detailed recommendations are outside the scope of this report. The following, however, is recommended to facilitate the management of the archaeological resource in this area:

- Detailed assessment of the surviving remains, particularly structural remains, of key industrial sites. This will concentrate on the remains of the iron and coal extractive and processing industries.
- More detailed characterisation of the distinctive landscape of the Forest of Dean which has largely been formed by the mineral and forestry industries. This will follow on from the existing Historic landscape Characterisation of the area (Hoyle 2006).
- The important post-medieval (and earlier) shipping and fishing industries, based on the River Severn which forms the southeastern boundary of the survey area are clearly underrepresented. Further research should be undertaken in the area of the northern shore of the River Severn to address this imbalance.

4.12 The modern period

The Gloucestershire Sites and Monuments Record for the survey area includes 1187 sites (within 772 SMR areas) which have been assigned a general period of modern. This represents almost 11% of the total number of SMR sites known within the survey area. As with the post-medieval period the following consists simply of a rapid quantification of the sites within the survey area.

4.12.1 Archaeological events and findspots

537 (45.24%) of these sites are modern archaeological events such as watching briefs, archaeological evaluations, desk-based assessments, or land parcels within large landscape surveys, whilst a further 189 (15.92%) represent findspots of antiquities which are assigned a modern date to reflect the date of their discovery.

4.12.2 Communication systems

201 sites relate to modern communications systems such as railways or roads, although 140 of these are modern footpaths.

4.12.3 Defensive sites

104 sites are defensive and include air raid shelters, slit trenches, pill boxes, gun emplacements the sites of prisoner of war camps, a decontamination building and 2 coastal defence sites, the majority of which date to the Second World War.

4.12.4 Industrial sites

95 sites relate to modern industry and consist of collieries, brickworks, and quarries, and their associated structures, whilst 14 sites are classed as agricultural and comprise modern barns or field boundaries and 8 modern field names

4.12.5 Religious sites

13 modern religious sites are recorded. This includes churches and chapels.

4.12.6 Domestic, educational and commercial

Another 13 sites could be classed as domestic, educational or commercial and include houses, hotels, schools and three red telephone boxes.

4.12.7 Water supply and drainage

Eight sites relate to water supply and drainage, including reservoirs, ponds, wells and water storage tanks.

4.12.8 Miscellaneous and unassigned sites

A further 16 miscellaneous sites include named trees, war memorials and a bandstand, whilst the remaining 10 sites are unassigned and include two foot and mouth pits and a possible Second World War bomb crater.

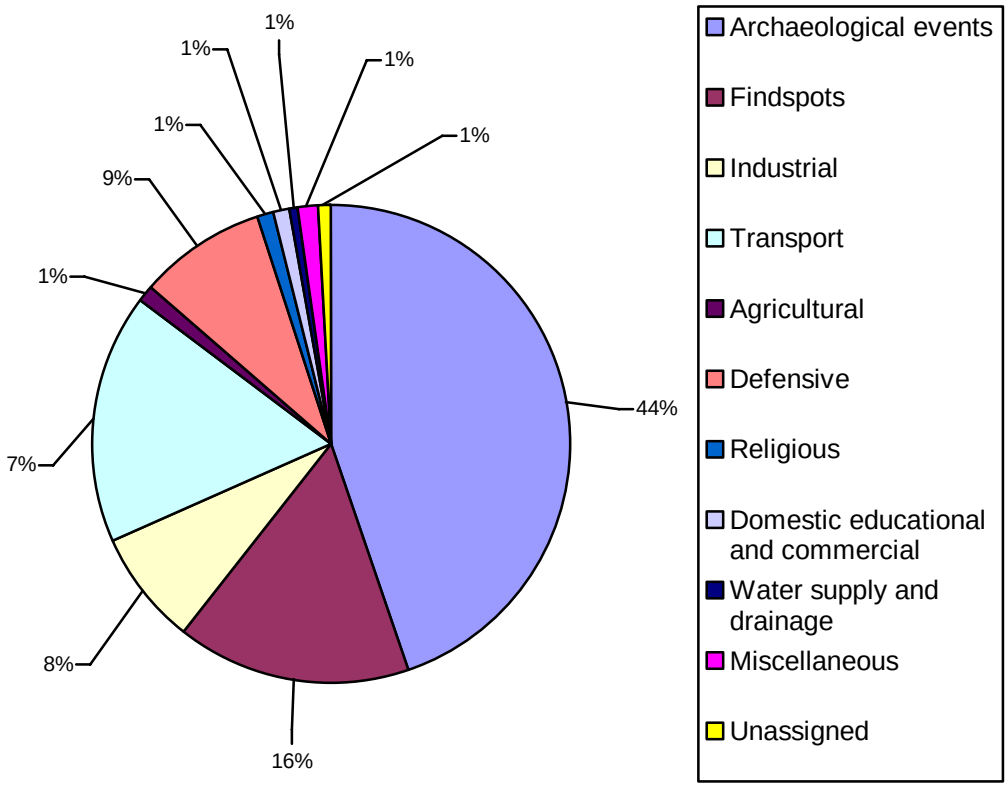

Chart 67: Modern sites: Principal categories of site

5 Outreach

5.1 Introduction

From the outset it was envisaged that stage 1 of the Forest of Dean Archaeological Survey would engage with the wider public within the Forest of Dean Survey area, and the project design for Stage 1 and 2 of the survey (Hoyle 2002a, 3.2.1/6; 3.2.1./7) outlined two ways in which this was to be achieved. These were:

- To publicise the results of the project through:
  - Local interest and community groups.
  - Relevant archaeological and historical journals.
  - Local media.
  - Local schools.
  - The internet through a dedicated project web site set up as part of the project.
- To work closely with local interest groups on the collection of information.

This was envisaged as a relatively modest outreach component, consisting of general local publicity through the media, together with a series of workshops for groups and individuals which would provide a focus for disseminating information and discussing progress.

In the course of the first year of Stage 1 of the project, however, it became clear that there was greater demand for information about and involvement in the project than originally envisaged. This took a number of forms:

- A high level of demand for information on the archaeology of the Forest of Dean and the work of the project from groups, individuals and the media.
- Individuals who had information about the archaeology and history of the area wished to supply it to the project, discuss its implications and make joint site visits.
- There was a desire for active involvement through participation in information collection and field survey.

Not only was it apparent that the enthusiasm with which the project was welcomed locally has exceeded expectations, but the Forest of Dean is an area where there had not always been productive relationships between professionals and amateurs, or amongst the amateur groups themselves, and it was felt the project had the potential to act as a vehicle to develop good co-operation between all of those working in the area. It was, however, recognised that, as originally structured and resourced, the project would be unable to meet the expectations of the interested local groups and individuals without significantly jeopardising the project work programme.

In order to capitalise on this potential to develop wider community interest in the Forest of Dean, it was proposed that the resourcing and scope of the outreach element of Stage 1 of the project should be expanded, not only to enable the project team to meet the demand for information about the survey but also to:

- To encourage and actively support initiatives for heritage projects originating from the local community.
- To extend the outreach work beyond the local historical and archaeological interest groups to the wider community and therefore to individuals who have no specialist knowledge, thus broadening the community interest in and support for the archaeology of the Forest of Dean.

Following discussion with English Heritage, this proposal was submitted as a costed project outline (Hoyle 2002a) for the employment of an additional member of staff for the duration of Stages 1 and 2 of the project to take a lead role in the development and implementation of the outreach programme. The proposal was accepted by English Heritage and in December 2002 Danielle Wootton was appointed as an

Assistant Project Officer with special responsibility for outreach, and she continued in this role for the duration of these stages of the project.

The following report itemises the variety of outreach initiatives undertaken, and where appropriate, discusses their success.

5.2 Workshops

Throughout the project, the survey team organised a variety of workshops in the Forest of Dean. The workshops were organised as a response to groups and individuals who had an established interest in archaeology, and were keen not just to be kept informed about the Survey, but also to learn more about archaeological methods and techniques. The hands-on approach to the workshops provided people with the opportunity to engage more fully with the project, and proved to be very popular with the amateur archaeology community. Many came to look upon them as a social occasion, to meet up with others and discuss their work since the last workshop, as well as to learn more about archaeology in general.

Both indoor and outdoor workshops were organised. Indoor workshops involved a project update, followed by a talk on a specific topic, and then a longer hands-on workshop session, where attendees worked in teams on a particular aspect of the given theme. Outdoor workshops began indoors with a brief project update, followed by a short workshop session, and then a field trip.

5.2.1.1 Workshop 1

This preliminary workshop was held in December 2001 before the survey had actually begun. Its purpose was to introduce the survey and its scope to local groups and to discuss what the archaeological priorities in the Forest of Dean were, how these should be addressed, and to begin to look at how the project team and local groups could work together.

The workshop began with a presentation by Jan Wills on the background of the project, followed by a presentation by Jon Hoyle summarizing the proposed scope and outcomes of the survey. Subsequent to this, attendees split into workshop groups to discuss the main themes outlined above.

5.2.1.2 Workshop 2

This workshop was held in March 2002 to update interested groups on the progress of the survey, and continue to explore practical methods of developing communication between independent groups and the survey team.

The workshop began with a presentation by Jan Wills on the history and function of Sites and Monuments Records followed by a presentation by Jon Hoyle on project progress. This was followed by a workshop session.
This workshop consisted of an update on project progress and an introduction to the history and function of Sites and Monuments Records, after which attendees split into workshop groups to discuss:

- Ways in which individuals or groups with common research interests could co-ordinate future research.
- Areas where independent archaeologists, undertaking work which may be of value to the project, could contribute to the project's objectives.
- An introduction to pro-formas which had been developed by the project team to enable information collected by independent researchers to be easily assimilated into the SMR.

5.2.1.3 Workshop 3

This workshop was held in February 2003 and was the first outdoor workshop. After a very brief report on project progress given by Jon Hoyle, attendees split into three groups to examine early Ordnance Survey maps and other documentary sources for the industrial history of the Mosely Green area. Following this the workshop moved to Mosely Green for a conducted tour of its surviving industrial remains given by Ian Pope of the Forest of Dean local History Society, which enabled participants to compare map evidence with the physical remains on the ground.

5.2.1.4 Workshop 4

This workshop was held in July 2003 and run in conjunction with the English Heritage National Mapping Programme team. The purpose of this workshop was primarily to inform attendees about the National Mapping Programme for the Forest of Dean which was underway at that time, and also to update people on the Scowles and Associated Iron Industry Survey which the Forest of Dean project team were undertaking.

After an update on the progress of the Scowles and Associated Iron Industry Survey by Jon Hoyle Simon Crutchley from the NMP, gave a presentation about aerial photographs, and the work of the National Mapping Programme. Following this, attendees split into three groups to discuss the following topics:

- Processes used in aerial photographic interpretation as part of the National Mapping Programme. This involved hands on use of equipment such as stereoscopes.
- The preliminary results of The National Mapping Programme for the Forest of Dean.
- Preliminary results of the Scowles and Associated Iron Industry Survey, including a demonstration of the data capture techniques used in that survey.

5.2.1.5 Workshop 5

This workshop was dedicated to scowles and was held in February 2004 in conjunction with Mark Campbell, a geologist from Gloucestershire Geoconservation Trust. The session began with a detailed presentation by Jon Hoyle on the results of the Scowles and Associated Iron Industry Survey which was nearing completion at that time. This was followed by a field trip to visit some scowles in Lydney Park. The field trip was led by Mark Campbell who explained the geomorphological processes which had formed scowles, whilst Jon Hoyle explained the archaeological background to these features.

5.2.1.6 Workshop 6

This workshop was held in October 2004 and was run in conjunction with Kurt Adams, the Portable Antiquities Officer for Gloucestershire and Avon and Alf Webb, a local independent archaeologist. After a report on the progress of Stage 1 of the Forest of Dean Archaeological Survey by Jon Hoyle, Kurt Adams gave a presentation about the Portable Antiquities Scheme. Following this, attendees divided into three groups, to discuss the following:

- The Forest of Dean Survey team examined why it was important to accurately document where finds were found, and emphasised the importance of reporting finds. The team also showed how to take ten figure grid references.
- Alf Webb discussed local pottery types found in the Forest of Dean and had a number of examples for attendees to study.
- Kurt Adams demonstrated the diversity of finds that people found from all periods, and of all materials, and was also on hand to document any finds reported by attendees.

5.2.1.7 Workshop 7

This was the final workshop for Stages 1 and 2 of the project and was held in May 2005. Jon Hoyle reported on the results of Stage 2 of the Forest of Dean Survey and outlined priorities for further work. This was followed by a presentation by Toby Catchpole of the County Archaeology Service who reported on recent excavation at Dymock which had not been undertake as part of the survey. This was followed by workshop sessions in which finds from the Dymock excavations were examined, including a number of very rare brooch moulds which had been recovered during the excavation.

Figure 48: A participant at the National Mapping Programme workshop views aerial photographs through a stereoscope

Figure 49: Graham Tait and Danielle Wootton help participants at the Portable Antiquities Scheme Workshop to record accurate OS grid references

5.2.2 Discussion of the workshop programme

5.2.2.1 Venue

Workshops were held at the following locations within the Forest of Dean Survey area:

- Forest of Dean District Council Offices in Coleford
- Beechenhurst Lodge, a property managed by the Forestry Commission.
- Bream Community Centre, Bream.

It was found that, for practical reasons, Bream Community Centre, was the best venue for this type of event as it had adequate free car parking, tea making and toilet facilities, as well as an excellent space for talks and workshops which could be blacked out and was reasonably sound proof. This venue also had furniture which could be easily moved around to accommodate both talks and workshop sessions.

5.2.2.2 Timing of workshops

Workshops were always held in the mornings (between *c.* 9.30 – 1.30) although they were organised both at weekends and during the week to monitor differences in attendance. Although there was not a significant difference in the numbers who attended at different times, the weekday workshops attracted a higher proportion of retired people, whilst more people of working age tended to attend those which took place at the weekend.

It was decided that any future programme of workshops should include both weekend and weekday sessions.

5.2.2.3 Numbers of attendees

Workshops were not widely advertised and were aimed at existing members of local archaeology or history societies. Although numbers of attendees varied from between 20 to 40 it was noticed people tended to participate more in discussion groups with smaller numbers. In order to preserve the quality of the workshops, it was decided to limit numbers to 30, and places were booked on a first come first served basis.

5.2.2.4 General comments

Workshops enabled the project team to engage with selected sections of the local community and keep them informed of project progress and a range of wider archaeological issues. Once suitable formats and venues had been determined, the informal nature of the workshops enabled preparation to be kept to a minimum, although each half-day workshop involving four members of staff required at least an equal amount of staff-time for preparation.

One of the possible drawbacks of the workshops undertaken as part of the survey may have been that they tended to attract the same groups of people, i.e. members of local archaeological and historical societies. Targeting these groups was, however, the intention of the workshops, and they proved very popular with their target audience with the project team receiving a considerable amount of positive feedback such as the following comments:

- *'I very much enjoyed the workshop. I think they are a great idea as they get everybody involved'* John Precious, Forest of Dean Local History Society
- '..*Thanks very much for the workshop at Bream. It seems this is a great forum to tap the local knowledge and experiences of those in the audience as well as providing informative briefings on your own work. I look forward to other such events in the future*..' Andrew Charles, GADARG.

In conclusion, the programme of workshops can be regarded as a successful element of the surveys outreach programme similar initiatives should be pursued in future projects of this nature.

5.3 Newsletters

Five project newsletters were produced as part of the outreach programme. The first two of these were aimed primarily at members of local interest groups and were produced in house by the Archaeology service with the consequent constraints on production values.

As part of the expansion of the scope of the outreach programme (see 5.1 above) it was decided that newsletter would be a valuable tool to disseminate information both on the project and wider archaeological or historical issues in the Forest of Dean to members of the general public, with no prior knowledge of archaeology or the survey, and consequently it was thought appropriate to invest more time and effort into the newsletters.

The first challenge in persuading members of the general public to read about archaeology, including those who had never thought about the subject before, is to get them to pick up the newsletter in the first place, and it was necessary to make the newsletter appear interesting by making it bright and colourful, with lots of illustrations and photographs. Consequently completed articles were sent to an external designer, who could then work on the layout of the newsletter, and add illustrations. The new-look newsletter was titled 'Archaeology News' with the intention of allowing for the same format to be extended beyond the limits of the project or the Forest of Dean as opportunity arose.

5.3.1 Articles and features

As Archaeology News was aimed at the general public, articles were written with an average reading age of 12 years old, avoiding complicated language. Each of the three newsletters was produced to the same folded double-sided A3 format (producing four sides of A4) and featured the following articles.

5.3.1.1 Archaeology News 1

The first Archaeology News was produced in the Spring of 2003 and featured short articles on the origin of Field Names; what the Sites and Monuments Record was and how it worked; an introduction to the Forest of Dean Archaeological Survey; and an article on red telephone boxes. This newsletter also included a finds corner, contact details for the Forest of Dean Survey team and a what's on and places to visit section.

5.3.1.2 Archaeology News 2

The second Archaeology News was produced in Summer 2003, and in addition to the shorter articles included a longer 'feature' article about the Dark Hill and Titanic Steelworks sites, which had recently been scheduled by English Heritage. Shorter articles were about scowles and the forthcoming National Archaeology Day at Beechenhurst Lodge, as well as a finds corner, contact details for the Forest of Dean Survey team and a what's on and places to visit section.

5.3.1.3 Archaeology News 3

The third Archaeology News was produced in the Autumn/Winter of 2004, and as the longer double page article in the second Archaeology News received very good feedback, another longer article was included in this newsletter. This was a 'gazetteer' article on the known prehistoric standing stones within the Forest of Dean Survey area covering those which are still visible and those that are documented but are no longer standing. A linked article was featured on the Young Roots Carving History Project, in which a group of young people were carving new standing stones in the Forest (see 5.10 below). Other shorter articles featured an update on the progress of Stage 1 of the Forest of Dean Survey, and the outreach aspect of the project, as well as other Archaeology Service project news from around the county.

5.3.2 Distribution of the Newsletters

The newsletters were distributed throughout the Forest of Dean at libraries, museums, council offices, tourist information centres, as well as shops, pubs, youth centres and schools.

The newsletters proved to be very popular, and requests for more newsletters were received from libraries who had run out of copies, and from individuals who had heard about the Archaeology News. The most popular newsletter proved to be the second with the 'feature' article on industrial archaeology in the Forest, focussing on the Dark Hill and Titanic Steelworks sites. Requests for copies of this newsletter were received from museums and libraries outside the county and from several industrial societies around England and Wales.

5.3.3 Evaluation of the success of the newsletters

The newsletters proved to be very popular with the general public, and the project team received positive feedback such as the following comments:

- *'Congratulations on a first class job, well done! The whole News is professionally done and I know it required a great amount of hard work…Keep up the good work on producing Archaeology News. Its funding is seen to be really worth while on the ground and where it matters.'* Keith Webb, Independent historian.

- *'The Summer edition of the newsletter has proved to contain interesting information and is worthy of commendation.'* Brian Johns, Independent Historian.

Although printing costs limited the newsletter to a thousand copies for each edition, the demand for the newsletters suggested that there were enough interested readers to accommodate considerably more copies.

To allow for this demand, the newsletters are now available in downloadable form on the Archaeology Service's website at http://www.gloscc.gov.uk/archaeology/fod/.

The newsletter proved to be a very successful method of disseminating archaeological information to the wider public, and was a valuable tool in the outreach programme of Stage 1 of the survey. It is hoped that resources will be found to expand Archaeology News into a countywide newsletter, using the format of those produced as part of the Forest of Dean Survey, to disseminate articles about the archaeology and history of Gloucestershire throughout the county.

5.4 Exhibitions

Exhibitions were used to display information about the project at events and in public places.

The first of these was simply produced in-house for display at the 2002 conference for Independent Archaeologists held in Lydney, at which Jon Hoyle gave a presentation on the project. This exhibition consisted of four laminated A3 boards which summarised the reasons for and scope of Stages 1 and 2 of the project.

With the appointment of the assistant project officer with special responsibility for outreach, it was decided that the project required a better quality exhibition, and as with the newsletters, this was deliberately uncomplicated and had bright and colourful illustrations.

The exhibition consisted of four laminated boards which could easily be fixed with Velcro dots to standard felt-faced exhibition stands, or to any other suitable surface with blue-tac.

Each of the four boards was dedicated to one of the following themes:

5.4.1.1 Board 1: The Forest of Dean Archaeological Survey

This board explained what the Survey was and why it was important that it took place.

5.4.1.2 Board 2: Field Survey

This board discussed field survey, focussing on fieldwork which had taken place at Welshbury Hill as part of Stage 2 of the project. It also looked at traditional charcoal burning as part of the Welshbury fieldwork had included the excavation of a charcoal platform. This board also discussed the management of archaeological sites in woodland.

5.4.1.3 Board 3: Working with the Community

This board outlined some of the ways in which the survey team worked with the community to disseminate information about the survey and the archaeology of the Forest of Dean.

5.4.1.4 Board 4: Scowles

This board discussed the work of the project team as part of the Scowles and Associated Iron Industry Survey and explained the origins of scowles, and the ways in which iron ore was processed.

Two versions of the exhibition were produced, one at A1 size and another at A3. One of these exhibitions was displayed at all events attended by the Archaeology Service (not just those of direct relevant to the Forest of Dean) throughout Stages 1 and 2 of the project. The A1 exhibition boards were also on long-term display at the Dean Heritage Centre, Soudley for several months following it re-opening in summer 2003.

5.4.2 Evaluation of the success of the exhibition

It is difficult to quantify the success of exhibition material, although it is clear that, where used, exhibitions are an effective means of raising the profile of organisations or particular projects.

The second exhibition created for the survey was particularly effective as not only did the format of four panels mean that it was very quick to put up, but the fact that it had been professionally designed meant that it was not too "wordy" and its colourful and interesting appearance encouraged people to read it.

5.5 Talks

The presentation of all aspects of the project and also more general issues concerning the archaeology of the Forest of Dean was a core element of the outreach programme, enabling a range of archaeological groups and societies, non-archaeological groups and other professional archaeologists to find out about the survey, and to keep in touch with its developments.

Twenty-three talks or lectures were given to the following groups during Stages 1 and 2 of the project between 2001 and 2005:

- Friends of Dean Heritage Museum.
- Brockweir Local History Society.
- Gloucestershire and District Archaeological Research Group.
- Conference for Independent Archaeologists.
- University of Bristol: Students on the MA course of Archaeology of the Modern World.
- Visually impaired group, organised by Bristol University Access Unit: Two talks given.
- General Public attending National Archaeology Day at Beechenhurst Lodge, 2003.
- General Public attending National Archaeology Day at Symonds Yat, 2004.
- Members of English Heritage's National Mapping Programme team from Swindon and York.
- Friends of Chestnuts Wood.
- University of Third Age, Lydney. Two talks given.
- University of Third Age, Gloucester. Two talks given.
- Forest of Dean Local History Society.
- Carving History at the Wilderness Open Day.
- Gloucestershire Cross Domain Day at Gloucestershire Record Office.
- Aggregates Levy Sustainability Fund outreach day, English Heritage, Saville Row offices, London.
- Heritage Lottery Fund, South Gloucestershire.
- Council for British Archaeology South West conference.
- Association of Local Government Archaeological Officers.
- English Heritage, Colmore Row offices, Birmingham.

5.5.1 Evaluation of the success of talks

The limitations of talks is that they can reach only a relatively small audience at any one time. However, that audience is generally receptive to the message being presented, and a relatively high proportion of these will go away having absorbed the information. There is also the additional benefit that information is transmitted in person, rather than in the form of a leaflet or exhibition, generally elicits an appreciative response from the audience who feel that the speaker has made the effort to speak to them in person.

Despite the small audiences, talks are an effective and flexible method of transmitting information about particular projects to small groups and should remain as part of any future outreach initiatives.

Figure 50: Jon Hoyle addressing the Forest of Dean branch of the University of the Third Age

5.5.1.1 Guided Walks

Like talks, guided walks were seen as a valuable means of communicating information about both the project and aspects of the archaeology of the Forest of Dean to a variety of audiences. The following guided walks were given during Stages 1 and 2 of the project (walks given as part of the workshops have not been not included here):

- National Archaeology Day at Beechenhurst Lodge 2003- the archaeological landscape along the Beechenhurst Sculpture Trail.
- National Archaeology Day at Symonds Yat 2004- the Iron Age Hillfort at Symonds Yat.
- Brockweir Local History Society: Two walks given on Offa's Dyke, and the archaeology of Hewelsfield.
- Members of English Heritage's National Mapping Programme team from Swindon and York were given a tour of selected sites within the survey area.

- University of Bristol: Students on the MA course of Archaeology of the Modern World were given a tour around Moseley Green; Lydney Docks, and Darkhill Ironworks.
- A guided walk of the archaeology of the Steam Mills, Cinderford area was given as part of National Archaeology Week 2005.

5.5.2 Evaluation of the success of guided walks

Like talks (see 5.5 above) guided walks are limited in that they reach only a relatively small audience at any one time, although experience has shown that guided walks tend to be better attended if they are undertaken in conjunction with an existing organisation, such as a local historical society, who take a lead role in advertising the walk locally. Like talks, that audience is generally receptive to the message, and a relatively high proportion will absorb the information, and also feel positively towards the walk leader who has made the effort to guide the walk and speak to them in person.

Despite the small audiences, guided walks are an effective and flexible method of transmitting information about particular projects to small groups and should remain as part of any future outreach initiatives.

5.6 Work with local groups and individuals

Throughout Stages 1 and 2 of the survey, the project team have worked with the following local groups:

5.6.1 Gloucestershire Society for Industrial Archaeology

A reciprocal relationship was developed between the project team and Gloucestershire Society for Industrial Archaeology. GSIA were shown how to undertake a rapid GPS survey of an area of surface coal workings (the Delves) at Brierley. The project team also provided GIS facilities and expertise which enabled the results of their survey to be displayed in relation to the Ordnance Survey map base. In return, GSIA have supplied the Archaeology Service with the results of their survey in a form that can be integrated into the SMR.

5.6.2 Dean Archaeological Group

The Forest of Dean Archaeological Survey team attended the monthly DAG meetings every few months in order to provide regular updates about the Survey, and some DAG members participated in the Woodland Survey of Chestnuts Wood (see 5.6.4 below).

DAG had originally shown a very strong interest to co-ordinating a survey in which their members checked the validity of Sites and Monuments Records in the field.

A programme was devised in which, following the Stage 1 checking of SMR records by the project team, DAG would be sent the following:
- Revised SMR records for that parish.
- Copy of the 3rd Series OS map of the parish (*c.* 1922) annotated with the location of existing SMR records.
- Copies of pro-formas which had been devised to validate these records.
- Copies of pro-formas which had been devised to enable them to record new sites they encountered.

At a meeting with members of DAG, the project team outlined a procedure for undertaking this on a parish-by-parish basis, discussed suitable checking and recording systems and recruited volunteers for specific areas. DAG was also

provided with colour print films to allow them to take photographs of sites if appropriate.

After several months, very few pro-formas had been returned, and it was decided that the scope of this operation was probably over ambitious, and the recording forms, which were simplified versions of existing SMR recording forms, may have been too complicated for non-professionals.

It was decided to simplify the whole process by producing a list of specific questions, generally about particular sites mentioned in the Victoria County History, which could only be resolved by field visits outside the scope of Stage 1 of the project. These questionnaires were simple and specifically targeted information of potential value to the project team.

The surveys were re-launched at a DAG meeting, and volunteers recruited to cover particular areas. Each volunteer was issued with relevant copies of the 1st, 2nd and 3rd series Ordnance Survey maps (*c.* 1880 – *c.* 1922) along with the appropriate questionnaire. The Survey team also offered support anyone who needed help with their questionnaires, and after a few weeks, an e-mail and a follow up telephone call was made to individuals to see how they were progressing.

After several months, however, very few questions had been returned, and this initiative was abandoned.

5.6.3 University of the Third Age

The Forest of Dean branch of the University of the Third Age, based in Lydney, contacted the Survey team as they were interested in getting involved and contributing to the Survey in some way. The U3A had heard about the parish questionnaires, which had been originally set up for Dean Archaeology Group (see 5.6.2 above), and were keen to help out with these.

It was decided to re-focus this outreach initiative towards the U3A and members were sent questionnaires and the relevant supporting data.

All the parish questionnaires issued were completed by the U3A, who worked together on the research, and visited appropriate sites. Completed questionnaires were returned to the project team, and the information provided used to augment the SMR.

5.6.4 The Friends of Chestnuts Wood

The Friends of Chestnuts Woods, a conservation group base in the Littledean area, contacted the project team for assistance in carrying out a survey of Chestnuts Wood, Littledean in advance of thinning and felling operations which had been scheduled by the Forestry Commission.

The Forestry Commission agreed to delay their scheduled operations to allow time for the archaeological survey and to enable the subsequent process of timber extraction to avoid damage to potentially significant features.

Although the survey work itself was essentially undertaken as a Stage 2 exercise, It was seen as an opportunity to involve local groups and individuals, and to teach them some of the research and survey skills needed to carry out archaeological survey work, and to test the viability of woodland survey with an inexperienced community group.

Prior to the field survey the project team guided the Friends of Chestnuts Wood through the necessary desk-based research. Members of the group examined

different documentary sources relating to the history of Chestnuts Wood, and information checked and incorporated into a desk-based survey (Hoyle, 2003b).

The field survey was undertaken over three weekends in January and February 2003 with the assistance of The Friends of Chestnuts Wood, members of Dean Archaeology Group, a number of local individuals not affiliated to either of these societies, and also the Forestry Commission.

The survey had been advertised in advance in both the local newspapers and on the radio and members of the public invited to take part. Although approximately 40 people participated on the first weekend, numbers soon dwindled to between 15 and 20, partly due to the fact that the physical processes involved in woodland survey on difficult terrain are extremely demanding.

5.6.5 St Briavels Common: Dry stone walls project

The project team were involved with the early stages of a community initiative by the residents of St Briavels common to undertake basic recording of the nature of the historically significant stone walls on the common to provide base-line data to enable strategies to be put into place for their preservation, and where appropriate, their repair.

The lead role in this initiative was to be taken by the Wye Valley AONB who had devised similar surveys in other parts of the AONB, and the fieldwork was to be co-ordinated by members of the St Briavels Common conservation group and other interested residents, under their supervision.

The project team were involved in initial discussion of the scope and methodology of the survey and spoke at public meetings to raise awareness of the project. Their main role however was:

- The provision of OS map bases for field survey recording.
- The provision of paper pro forma for field survey recording.
- The provision of GIS facilities to enable the results of the survey to be presented.

Although a number of map bases were provided to participants in this initiative, none have been returned, and at the time of writing, no field survey appears to have taken place.

5.6.6 Local individuals

The publicity generated by the outreach element of the project had a knock-on effect of encouraging members of the public to report to the project team where they had found artefacts or features in the Forest of Dean. In general this took the form of isolated find spots being added to the SMR on an *ad hoc* basis. In one case, however, this led to a more lasting relationship where Peter Bond, a local enthusiast who had accumulated a large collection of flints during his frequent walks in the Brockweir area, contacted the project team. The project team provided Mr Bond with Ordnance Survey base maps to enable him to annotate the location of his finds, and he was regularly visited to discuss the progress of his recording and also to visit and record visible features he had identified. The result of this relationship has vastly expanded knowledge of the prehistoric period in this area.

5.6.7 Evaluation of the success of work with local groups

In many ways the work undertaken with local groups produced the most mixed results both in terms of the success of the projects themselves as outreach initiatives or value of the results of the work, and it is this aspect of the outreach programme which needs to be considered most when determining future outreach initiatives.

Perhaps the greatest disappointments were those areas where the project team adopted a facilitating rather than an organisational approach to an initiative. This was disappointing as these projects were an attempt to work in partnership with local groups by facilitating their own aspirations, rather than by being more directive in setting the archaeological agenda.

It is not easy to work out precisely why some of these initiatives such as the SMR checking with Dean Archaeological Group did not work, whilst other, such as the same project with the University of the Third Age, and the mapping of surface coal workings with the Gloucestershire Society for Industrial Archaeology, were extremely successful, although both of the latter initiatives were much more limited in scope than the proposed DAG project, and clearly had the support of the membership of those organisations before the Archaeology Service became involved.

Another issue to consider is whether field surveys can be both undertaken as community projects and also meet the archaeological requirements of professionally conducted work. In this context it is clear that whilst by and large the Chestnuts Wood survey was a successful community project, the survey itself, which will be discussed in the report on Stage 2 of this survey (Hoyle 2008), was considerably more time-consuming and difficult to undertake because of the community involvement.

5.6.7.1 Recommendations for future joint working projects

It is recommended that in future, outreach projects which involve joint working with non-professional groups should be undertaken in accordance with the following guide lines:

- Projects should have a clear scope and objectives, and all processes undertaken should be within the capabilities of the expected participants and tailored to suit their aspirations
- Projects, either desk-based or fieldwork should include processes which enable participants to “find” new archaeological sites or features so that they can immediately gasp the value of what they are undertaking.
- Any potential conflict of interest between professionals and non-professionals should be identified before any involvement in such projects. Joint projects should not be undertaken with any groups where difficulties of this nature are anticipated.
- The prime objective or outreach projects should be understood as the engagement of the public in projects, which involve their own heritage. This does not mean that outreach projects will not have archaeological value, nor that they may not be completed to a high standard. It does, however, mean that they should not be seen as a substitute for professionally conducted work, and consequently, their results should not be expected to be of a professional standard.

5.7 Large events:

5.7.1 National Archaeology Days

National Archaeology Days are organised at a national level by the Council for British Archaeology to promote archaeology to the general public, and specifically to families with young children. The Forest of Dean Archaeological Survey organised two National Archaeology Days in the course of the project.

5.7.1.1 National Archaeology Day 2003

This was jointly organised with the Forestry Commission and held at one of their facilities at Beechenhurst Lodge to the east of Coleford.

A number of local archaeology and history societies attended and set up displays, along with other organisations such as the Dean Heritage Centre and the Clearwell

Caves mining museum. The project team also had a display on the work of the project and also were able to demonstrate the Sites and Monuments Record. A number of traditional craftsmen, including a free miner and blacksmith also attended and displayed their crafts, members of local re-enactment groups dressed in period costume and the Archaeology Service ran a mock excavation for children.

In addition to the displays the day also involved a number of talks on various aspects of the heritage of the Forest of Dean and also guided walks through an open-air Sculpture Trail at Beechenhurst which linked sculptures to areas of Forest heritage which had either directly inspired the sculptures, or had created the landscape in which they were set and to which they responded. Eight temporary information boards explaining the interaction between selected sculptures and the heritage of the area were erected along the sculpture trail and remained in position for the week following National Archaeology Day.

Figure 51: Aisling Tuohy and other participants at National Archaeology Day 2003

5.7.1.2 Fun at the Hillfort: National Archaeology Day at Symonds Yat, 2004

Following the success of National Archaeology Day 2003, another event, again in partnership with the Forestry Commission, was held at Symonds Yat hillfort a scheduled ancient monument which is owned and managed by the Forestry Commission, to celebrate National Archaeology Day 2004. This event was also partly supported from other funds held by the County Archaeology Service and was considered to be a service-wide outreach initiative rather than simply an outreach event organised by the Forest of Dean Survey.

Symonds Yat was chosen as a venue as it is a popular tourist attraction in the Forest, and attracts *c.* 250000 visitors a year, although few of these visitors are aware of the site's archaeological significance (Hoyle 1997), and the day was partly designed to raise the profile of Symonds Yat as an archaeological site.

This event, billed as "Fun at the Hillfort" was larger than the previous year's event and along with the stalls set up by local archaeological and historical societies, and

displays of traditional crafts such as dry-stone walling, an arena was set up in which Iron Age and Norman re-enactment groups were able to give displays. A number of archaeological and geological guided walks were conducted and the Archaeology Service were able to demonstrate the Sites and Monuments Record and also run a mock excavation for children. It was felt that events such as National Archaeology Day should also celebrate the diverse cultural heritage of the county of Gloucestershire and accordingly displays were also given of African Drumming and Hindu dancing.

Figure 52: Hindu dancing at National Archaeology Day 2004

5.7.1.3 Discussion of the success of National Archaeology Day

Both National Archaeology Days proved to be extremely popular attracting hundreds of visitors each. The project team received a great deal of positive feedback on these events, such as the following:

- *'I just have to email you to say what a wonderful day out I had with my children yesterday (Chelsea is age 12, her friend came too, and Rowan age 9). In fact we all had a wonderful time - the children couldn't stop talking about it when we got home and Chelsea said it was a the best day out she's had in ages! I enjoyed it too and it wasn't just because everything was free and I only spent money on ice creams!*
- *The atmosphere was great with all the smells and the re-enactments, and the exhibits and stalls were fascinating with interested and helpful stallholders/staff. We couldn't fault it. The mock excavation went down particularly well and it was lovely to have such enthusiastic staff take care and time explaining the finds to the children - that was their favourite bit! They also found out they have some fossils from the Jurassic period - how exciting is that?!*
- *I appreciate that organising and putting on this event took a lot of hard work and planning, but it definitely paid off, you gave my children and I the best day out and one we will definitely remember.' L. Hopkins, visitor to Symonds Yat event*
- *'I just wanted to feed back to you how great we thought the Symonds Yat event was. I went with family, friends and picnic. We all had a great day, the kids loved the activities, which was good given the ages ranged from 2 to 9, and all the people we spoke to were really helpful and interested in explaining things and letting the children have a go.' J Walker, visitor to Symonds Yat event*

As a national event, National Archaeology Day is the type of event which future outreach initiatives should partake in if at all possible. There is no doubt that these events were very successful and undoubtedly raised the profile both of the survey and the heritage of the area, both events were, however, both time-consuming and costly to organise.

For future events of this type the following general guidelines should be adhered to:

- The scope and budget of these events should be agreed before any organisation begins.
- Where possible these events should be organised in partnership with other organisations that can either offer financial support or provide services in lieu of this.
- Where possible events such as this should be held at locations which are already visitor attractions, as these locations tend to have ample parking, toilet and other facilities required for large public events.

5.7.2 Heritage Open Days

Heritage Open Day 2004 coincided with Newent Onion Fayre, a very popular local event in the Forest of Dean and, accordingly it was decided to deliberately capitalise on this and hold Heritage Open Day Newent.

The following three buildings were opened:

- St Mary's Church, which hosted an exhibition of wedding dresses.
- The Crown Pub, which hosted a photographic exhibition of the local listed buildings.
- Newent Library which hosted an exhibition about the history of Redmarley.

These buildings were listed in the Heritage Open Day regional booklet and advertised on the Civic Trusts' website.

In addition to the opening of buildings, a colourful leaflet outlining a History Trail of Newent for children was produced in conjunction with Newent Local History Society and English Heritage.

5.7.2.1 Discussion of the success of Heritage Open Day

As Heritage Open Day was held in conjunction with an extremely popular local event, it is difficult to assess its success on the basis of visitor numbers.

As St Mary's church always receives hundreds of visitors during the Onion Fayre, it was not possible to identify visitors who had responded to advertisements in the Heritage Open day booklet.

The Crown pub reported very few visits, although the landlord attributed this to the fact that the pub is sited away from the main street where festivities take place.

The Librarians at Newent, however, reported a large increase of visitors to the library (approximately 100 visitors over the course of the day), and as very few people enter the library during Onion Fayre festivities, this can be attributed to the advertisement in the Heritage Open Days leaflet.

As a national event, Heritage Open Day is the type of event which all future outreach initiatives should be involved with if possible, although it is difficult to assess the outreach success of this particular event for the reasons set out above.

5.8 Other events

5.8.1 BBC Radio Gloucestershire History Day

This event was held on the 17th April 2004 at Gloucester Cathedral and was organised by BBC Radio Gloucestershire to celebrate the history of the county.

This was seen by the Archaeology Service as an opportunity to be involved in a countywide outreach exercise and the Forest of Dean Survey team participated as part of that.

The archaeology service stall included the outreach handling collection, the Forest of Dean Survey exhibition, and the Sites and Monuments Record.

Hundreds of visitors that attended the event and many people displayed interest in the work of the project and asked to be added to the project's mailing list.

5.8.2 Forest of Dean Local History Day

This event was organised by the Forest of Dean Local History Society, and held at the Miner's Hall, Cinderford. The Forest of Dean Archaeological Survey team attended with their exhibition, and discussed the survey with any visitors who attended their stall.

5.8.3 Building on What's Special Open Day

This event was organised by the Countryside Agency, as part of the Building On What's Special (BOWS) project. Local people were invited to an evening forum event to discuss what was special about the Forest of Dean. The Survey team took the survey's exhibition and handling collection and talked about the project, as well as the archaeology of the Forest of Dean in general.

5.8.4 Conference for Independent Archaeologists

The Survey team took the exhibition along to this conference, and Jon Hoyle gave a presentation about the Survey (see 5.5 above).

5.8.5 Celebrating 25 years of Archaeology in Gloucestershire, GADARG conference.

The survey team set up the exhibition at the conference venue and were on hand to discuss the survey with delegates during breaks and at lunchtime. The exhibition generated a considerable amount of interest, and many people signed up to be added to the survey's mailing list.

5.8.6 The Council for British Archaeology South West Conference 2004

Jan Wills, the Gloucestershire County Archaeologist gave an introduction to the outreach being carried out by the Archaeology Service. Danielle Wootton followed with a talk detailing the various aspects of community involvement in the survey.

5.8.7 St Briavels Castle Open Day

This event was organised by English Heritage to celebrate the completion of work carried out at the castle by English Heritage, and also the completion of a watching brief undertaken by the Archaeology Service's projects team. The survey team were invited along to take the Forest of Dean Archaeological Survey exhibition and handling collection.

5.8.8 Evaluation of the success of other events

It is difficult to evaluate the outreach success of events such as those listed above. It is, however, clear that these are the types of events at which archaeological work should be represented, and all future outreach initiatives should include attendance at these as they occur during the course of any future projects.

5.9 The media

Throughout the project, the local media featured regular updates on the progress of the survey, as well as features to highlight archaeology in the Forest of Dean, and articles on the outreach aspects of the project.

5.9.1 BBC Radio Gloucestershire

Jon Hoyle was a regular contributor to BBC Radio Gloucestershire Sunday morning Country Matters programme, a magazine programme about the Gloucestershire Countryside.

Brian Bailey, one of the programme's presenters, interviewed Jon Hoyle at an archaeological site, and they discussed the archaeological background to the site and its significance. Each broadcast interview lasted about five minutes, and this regular slot was broadcast as part of the programme approximately once a month.

The featured subjects were:

- Symonds Yat hillfort.
- Offa's Dyke.
- The Dean Road.
- Scowles.
- Lydney docks.
- Lydney Park Roman temple.
- Lydney Park medieval castle.
- Lydney Park hillfort.

- Chestnuts Lodge.
- The mining industry at Bilson Green, Cinderford.
- Darkhill Ironworks and Titanic Steelworks.
- The tram road system in the Forest of Dean.
- The charcoal burning industry in the Forest of Dean.
- The system of post-medieval Forest lodges.
- Welshbury hillfort.
- Soudley Camp.

5.9.2 Forest of Dean Community Radio

For over two years, the Forest of Dean Community Radio broadcast a fortnightly programme called the History Half Hour. This was jointly presented by Averil Kear of the Forest of Dean Local History Society, Jasper Blake of Dean Archaeology Group, and Jon Hoyle of the Forest of Dean Archaeological Survey.

The programme consisted of short presentations and discussion of topics of interest to the archaeology and history of the Forest of Dean, and also included regular updates on the survey and the outreach programme, as well as interviews with notable local archaeologist, or members of the County Archaeology Service. Details of forthcoming events such as workshops, Heritage Open Days and National Archaeology Days were also announced as part of this programme.

Figure 53: Jon Hoyle interviewing Danielle Wootton and members of the Carving History at the Wilderness group as part of the History Half Hour radio programme

5.9.3 'Marking time, the Forest of Dean'

This series of programmes, made by Western television and presented by Lloyd Grossman, examined the history of the Forest of Dean. Jon Hoyle participated in the first programme about prehistory in the Forest of Dean, including Welshbury Hillfort.

Figure 54: Jon Hoyle and Lloyd Grossman during the making of "Marking Time"

5.9.4 Press releases

Regular press releases containing news of project progress and details of outreach initiatives were released throughout Stage 1 and 2 of the survey. These articles have appeared in:

- The Forester.
- The Citizen.
- The Gloucestershire Echo.
- The Wye Valley and Forest Review.

5.9.5 Other articles

Regular articles and updates on project progress have been published in the newsletters of Forest of Dean History Society and Dean Archaeology Group.

In addition to this two articles about the outreach part of the project have appeared in *The Archaeologist*, the quarterly publication of the Institute of Field Archaeologists.

5.9.6 Evaluation of the success of working with the media

Although it is difficult to quantify the success of media exposure, it is clear that in outreach terms, considerably more individuals are exposed to news about an archaeological project or heritage issue through a newspaper article or radio interview than could be reached through outreach initiatives such as talks or participation in pubic events. Consequently dissemination of information about the project through the media was a valuable outreach tool and should be continued in any future projects of this nature.

5.10 The Young Roots Project

5.10.1 Introduction

In addition to outreach initiatives aimed at known interested parties or the general public the Archaeology Service were keen to develop a project which would encourage young adults to developing an interest in archaeology and their heritage. This resulted in the Carving History at the Wilderness project, a daughter project of the outreach element of Stage 1 of the survey which was largely funded through the Heritage Lottery Fund Young Roots initiative.

This project, which was undertaken in partnership with Gloucestershire County Council Youth Service, used archaeology and history to teach new skills to a group of young people with some learning difficulties and communication problems who attended the Wilderness Centre Field Studies Centre under various programmes for the unemployed.

5.10.1.1 The project

The main focus of the project was to use an understanding of the Anglo-Saxon period and other elements of the historic environment, to inspire the group to design and carve seven large standing stones which had been erected at the Wilderness centre specifically for this purpose.

Sculpting skills were taught and supervised by a stone carver employed by the Wilderness Centre, whilst Danielle Wootton of Gloucestershire County Council Archaeology Service undertook a series of activities with the group to develop their knowledge and appreciation of their heritage.

5.10.1.2 Field trips

As many group members had not previously visited any archaeological sites visits were organized to Gloucester Cathedral and town centre; Deerhurst Saxon Church; Sutton Hoo; West Stow and Avebury. In addition to this the group had an over night residential stay at Hengrave Hall, whilst visiting Sutton Hoo and West Stow.

The field trips helped to improve the group's communication and social skills by working and living together as well as learning about archaeological sites.

The group also visited a Time Team excavation, which was taking place in Gloucestershire where they assisted with finds processing and geophysical survey and also interviewed archaeologists and presenters from the programme for the Forest of Dean Community Radio.

Figure 55: The Carving History at the Wilderness group at Sutton Hoo

The group also visited the Albion Stone quarry in Portland where the stones had been quarried.

5.10.1.3 Exploring the past

The group were taught about their heritage through a series of exploring the past' sessions included informal lessons and discussions on the following topics:
Introduction to archaeology

- Overview of British prehistory and history.
- Stratigraphy.
- Archaeology in the Forest of Dean; including scowles and the smelting process.
- The Anglo Saxon world.
- Dating objects; Anglo Saxon pottery stamps.
- Anglo-Saxon food.
- The discoveries at Sutton Hoo.
- Anglo- Saxon sculpture.
- Beowulf.
- Explanation of geophysics and aerial photography.
- Exercise: Making Anglo- Saxon food.
- Exercise: Drawing Anglo-Saxon artifacts.
- Exercise: Making Anglo-Saxon pottery stamps.

A number of practical sessions were also carried out at the Cinderford Local Studies Library. These included:

- How to use a library.
- How to find out about the past using old maps, photographs or newspaper cuttings.
- How to search the internet.

The group then used these skills to research the history of Cinderford Rugby Club using resources at Cinderford Local Studies Library

Figure 56: The Carving History at the Wilderness group at Cinderford library

5.10.1.4 Forest of Dean Community Radio sessions

The group were also take to the Forest of Dean Community Radio where they learnt how to conduct a radio interview, use radio recording equipment and edit their recordings for broadcast. They also took part in a short programme about the Anglo-Saxons which was broadcast as part of the History Half Hour programme, and included the recording they had made whilst visiting the Time Team excavation (see above).

5.10.1.5 Carving

After their broad overview of archaeology and the Anglo-Saxons, the group decided that seven standing stones should be carved in relief with images inspired by their earlier studies. The stones themselves would be laid out to represent the constellation of the Sculptor's Studio. Six large stones were imported from Portland, Dorset, whilst the seventh stone, which represented the sculptor entering his studio was brought from the Wilderness Quarry at Mitcheldean, within sight of the field in which the stones had were erected.

Before the stones were erected, the group assisted with a watching brief on the foundations which had been excavated for the stones. The group then sculpted different carvings on the sides of each stone. These relief carvings included an image of Beowulf fighting Grendel's mother, with a dragon curling around the other side of the stone, a representation of Anglo-Saxon village life, and a deer representing the Forest of Dean. Another stone was sculpted in the image of an Easter Island head to symbolise the profligate use of natural resources.

Figure 57: The standing stones immediately after erection

Figure 58: The Carving History at the Wilderness group carving one of the standing stones

5.10.1.6 Dissemination of information about the project

The group also produced an exhibition, leaflet and webpage about the project, and an open day was held for all those that had been involved with the project, local councillors, and Heritage Lottery Fund staff. Following an introductory talk about the project from Bob Perkins from the Wilderness Centre and Danielle Wootton from the Survey team, and short speeches from members of the group, group members led a tour of the stones and gave a stone carving demonstration to visitors.

Figure 59: The Carving History at the Wilderness open day

5.10.2 Evaluation of the success of the wilderness project

Although the numbers of people involved in the Carving History project were relatively small, it is undoubtedly true that this project has had a huge impact on those who took part, in excess of that which would normally be associated with archaeological outreach. Many members of the group have visibly progressed throughout the course of project, not just through learning archaeological and sculpting skills and by developing a new found interest in and respect for heritage, but also by developing communication, literacy and numeracy skills which will help them in their future lives. The project recently won the Heritage Lottery Fund South West's 'Heritage Heroes' awards in the Young People category, and the group members are also able to feel that they have been involved in something worthwhile which has been acknowledged as such by the wider community. This aspect of the Carving History project has demonstrated that in the right circumstances archeological outreach can fulfill much broader social objectives than simply education and appreciation of the heritage.

Apart from the impact it has had on the group members, however, the Carving History project has generated a considerable amount of publicity which has raised awareness and promoted a positive view of the work of the Archaeology Service and heritage issues in general.

The Carving History project has proved to be an extremely valuable and successful exercise in taking outreach beyond its normal limits to successfully engage with new audiences.

6 Bibliography

6.1 Text-published and unpublished sources accessed as part of the data gathering stage of the project

Adkins L & Adkins RA	1982	*The Handbook of British Archaeology* Bath
Alcock L	1972	*By South Cadbury is that Camelot* London
Anstis R	1998	*The Story of Parkend, a Forest of Dean Village* Lightmoor Press Lydney, 2nd Edition
Armstrong L	1978	*Woodcolliers and Charcoal Burning* Coach Publishing House Ltd & the Weald and Downland Open Air Museum Sussex
Atkyns R	1715	*The Ancient and Present State of Glostershire* Reprinted 1974, Wakefield: EP Publishing
ApSimon AM, Smart PL, MacPhail R, Scott K and Taylor H	1992	A reassessment of a Middle and Upper Palaeolithic, Mesolithic and Beaker Site. *Proceedings of the University of Bristol Spelaeological Society* 19 (2), 183-239
Bagnall-Oakley ME	1881-2	On Roman coins found in the Forest of Dean *Transactions of the Bristol and Gloucestershire Archaeological Society* 6, 107-122
Barker PP, Mercer EJF & Brookes CF	2000	A report for Paramount Pictures on a geophysical survey carried out at Lancaut, Gloucestershire Unpublished report for Paramount Pictures Ltd.
Barton RNE	1993	An interim report on the survey and excavations in the Wye Valley, 1993 *Proceedings of the University of Bristol Spelaeological Society* 19 (3), 337-346
Barton RNE	1994	Second interim report on the survey and excavations in the Wye Valley, 1994 *Proceedings of the University of Bristol Spelaeological Society* 20 (1), 63-73

Barton RNE	1995	Third interim report on the survey and excavations in the Wye Valley, 1995 *Proceedings of the University of Bristol Spelaeological Society* 20 (2), 153-159
Bellows J	1877	Brief Notes on Offa's Dyke *Proceedings of the Cotteswold Naturalists' Field Club* 6, 257-260
Bowden M	1999	*Unravelling the Landscape* *An Inquisitive Approach to Archaeology* Stroud
Breeze DJ	1982	*The Northern Frontiers of Roman Britain* London
Bridgewater N	1959	Ancient Buried Roads in south Herefordshire *Transactions of the Woolhope Naturalists Field Club* 36, 218-227 & 263-267
Bridgewater N	1968	The Dean Road *Bulletin of the Historical Metallurgist Group* Vol 2, No1, 3
Bristol and Gloucestershire Archaeological Society	1876-2002	*Transactions of the Bristol and Gloucestershire* Gloucestershire *Archaeological Society*
Cleere H & Crossley D	1985	*The Iron Industry of the Weald* Leicester University Press
Codrington T	1905	Roman Roads in Britain 2nd Edition London
Cooke A.O	1913	*The Forest of Dean* London
Crawford OGS	1925	*The Long Barrows of the Cotswolds* Gloucester
Cross AGR	1982	*Old industrial sites in Wyedean* *A Gazetteer* Wyedean
Cunliffe B	1978	*Iron Age Communities in Britain* *An Account of England, Scotland and Wales from the Seventh Century BC until the Roman Conquest* Revised Edition Bradford on Avon

Cunliffe B	1984	*Danebury: An Iron Age hillfort in Hampshire Volume 1: The excavations, 1969-1978:* Council for British Archaeology Research report 52
Cunliffe B	1995	*English Heritage Book of Iron Age Britain* London
Darvill T	1984	Neolithic Gloucestershire In A Saville (ed) *Archaeology in Gloucestershire* From the earliest hunters to the industrial age Essays dedicated to Helen O'Neil and the late Elsie Clifford Cheltenham, 80-112
Darvill T	1987	*Prehistoric Gloucestershire* Gloucester
Darvill T	2004	*Long Barrows of the Cotswolds and Surroundings Areas* Stroud
Darvill T & Fulton A	1998	*The Monuments at Risk Survey of England 1995* Main Report Bournemouth University and English Heritage
Dreghorn W	1968	*Geology Explained in the Forest of Dean and the Wye Valley* Newton Abbot
Ekwall E	1960	*The concise Oxford dictionary of English placenames* 4th Edition Oxford
FISH	2001	The Forum on Information Standards in Heritage Landuse Wordlist Website: http://www.mda.org.uk/fish/i_lu_e.htm
Fosbroke TD	1831	Offa's Dyke, near St Briavels, Gloucester *The Gentleman's Magazine* 101 (part 2), 583
Fulford MG & Allen JRL	1992	Iron-making at the Chesters Villa, Woolaston, Gloucestershire Survey and Excavation 1987-91 *Britannia*, XXIII, 159-215
GCCAS	Undated	Gloucestershire County Council, Archaeology Service Gloucestershire Historic Environment Record Manual (1st Draft)

Grant R	1991	*The Royal Forests of England* Stroud
Grundy GB	1936	The Ancient Woodland of Gloucestershire in *Transactions of the Bristol and Gloucestershire Archaeological Society* 58, 65-155
Hart CE	1945	Metes and Bounds of the Forest of Dean *Transactions of the Bristol and Gloucestershire* *Archaeological Society* 66, 166-207
Hart CE	1967	*Archaeology in Dean* Gloucester
Hart CE	1971	*The Industrial History of Dean* Newton Abbot
Heighway C	1987	*Anglo-Saxon Gloucestershire* Gloucester
Herbert NM	1996a	The Forest of Dean in N M Herbert (ed) *The Victoria History of the County of Gloucestershire* V, 285-294
Herbert NM	1996b	Flaxley in N M Herbert (ed) *The Victoria History of the County of Gloucestershire* V, 138-150
Herbert NM	1996c	Hewelsfield and Brockweir in N M Herbert (ed) *The Victoria History of the County of Gloucestershire* V, 150-159
Herbert NM	1996d	Newland in N M Herbert (ed) *The Victoria History of the County of Gloucestershire* V, 195-231
Herbert NM	1996e	St Briavels in N M Herbert (ed) *The Victoria History of the County of Gloucestershire* V, 247-272
Herbert NM	1996f	Lydney in N M Herbert (ed) *The Victoria History of the County of Gloucestershire* V, 46-85
Hey D (ed)	1996	*The Oxford companion to local and family history* Oxford
Hill D and Worthington M	2003	*Offa's Dyke: History and Guide* Stroud

Hoyle JP	1992	Western Stowfield Quarry, Staunton, Gloucestershire A preliminary archaeological assessment GCCAS unpublished report
Hoyle JP	1996	Offa's Dyke Management Survey 1995-6 *Glevensis,* 29, 29-31
Hoyle JP	1997	Symonds Yat Promontory Fort, English Bicknor, Gloucestershire: Management Plan GCCAS unpublished management plan for Forest Enterprise
Hoyle JP	1999	Historic Landscape Characterisation Cotswolds Area of Outstanding Natural Beauty GCCAS unpublished report of English Heritage
Hoyle JP	2000a	Soudley Camp, Soudley, Gloucestershire: Management Plan GCCAS unpublished management plan for Forest Enterprise
Hoyle JP	2000b	The Forest of Dean, Gloucestershire National Mapping Programme Project Design Unpublished project design for English Heritage May 2001
Hoyle JP	2001	The Forest of Dean, Gloucestershire: Archaeological Survey Project design for Stage 1 and 2 and outline proposal for Stages 3-4 Unpublished project design for English Heritage August 2001
Hoyle JP	2002a	The Forest of Dean, Gloucestershire The Scowles and Associated Iron Industry Survey Project Design Un-published project design for English Heritage November 2002
Hoyle JP	2002b	Forest of Dean Archaeological Survey (Project Number 2727) Project outline for variation of the existing project to expand the outreach programme Un-published project outline for English Heritage September 2002

Hoyle JP	2003a	Welshbury Woods, Blaisdon Gloucestershire A report on a rapid walk-over field survey Draft GCCAS unpublished report for the Forestry Commission May 2003
Hoyle JP	2003b	Chestnuts Wood, Littledean, Gloucestershire A report on archaeological desk-based data Collection and field survey GCCAS unpublished report May 2003
Hoyle JP	2001 draft	The Forest of Dean, Gloucestershire: Archaeological Survey Project Design for Stage 1 and outline proposal for stages 2-4 GCCAS unpublished draft for English Heritage
Hoyle JP	2005	Report on a watching brief at Symonds Yat Hillfort January 2005 Unpublished report for the Forestry Commission
Hoyle JP	2006	Cotswolds AONB, Wye Valley AONB and Gloucestershire Historic Landscape Characterisations Unpublished GCCAS report for English Heritage and digital layers on the Gloucestershire County Council GIS
Hoyle JP	2008	The Forest of Dean Archaeological Survey. Report on Stage 2 of the survey: Pilot fieldwork. Unpublished GCCAS report for English Heritage
Hoyle JP, Butler L, Tait G & Wootton D	2004	The Forest of Dean, Gloucestershire, The Scowles and Associated Iron Industry Survey, Project Number 3342 Gloucestershire County Council, Archaeology Service, Unpublished circulation draft report for English Heritage. March 2004 Web version available at http://ads.ahds.ac.uk/catalogue/archive/scowles_eh_2007/
Hoyle JP & Vallender J	1997	Offa's Dyke in Gloucestershire. Management Survey Unpublished report for English Heritage by GCCAS

Isaac J	1990	Hut circles in East Vaga Woods: Glos 5041 ,5042 Unpublished site visit report in GCCAS SMR file 5041/5042 Jane Isaac, GCCAS SMR Officer 26/02/1990
Johns B	1990	Cup stones and Arrow Stones *The New Regard of the Forest of Dean,* 6, 19-25
Johns B	1991	Attempts to Date a Hearth Site Charcoal Hearth Survey, Blakeney Hill Woodland *The New Regard of the Forest of Dean,* 7, 8-10
Jurica ARJ	1996a	Industry in *The Victoria County History of Gloucestershire* Volume 5: The Forest of Dean 326-354
Jurica ARJ	1996b	Settlement in *The Victoria County History of Gloucestershire* Volume 5: The Forest of Dean 300-326
Jurica ARJ	1996c	Forest Administration in *The Victoria County History of Gloucestershire* Volume 5: The Forest of Dean 354-360
Jurica ARJ	1996d	Mitcheldean in *The Victoria County History of Gloucestershire* Volume 5: The Forest of Dean 173-195
Jurica ARJ	1996e	Ruardean in *The Victoria County History of Gloucestershire* Volume 5: The Forest of Dean 231-247
Jurica ARJ	1996f	English Bicknor in *The Victoria County History of Gloucestershire* Volume 5: The Forest of Dean 101-117
Kelly DW	1996	*Charcoal and charcoal burning* Shire Publications 159
MaClean JM	1893-4	The Course of Offa's Dyke in Gloucestershire *Transactions of the Bristol and Gloucestershire Archaeological Society* 18, 3-31

Margary ID	1957	*Roman Roads in Britain* *Volume II, North of the Foss Way – Bristol Channel* London
McWhirr A	1981	*Roman Gloucestershire* Gloucester
McOmish DS & Smith NA	1996	Welshbury Hillfort: A new survey by the Royal Commission on the Historical Monuments of England *Transactions of the Bristol and Gloucestershire Archaeological Society 94, 55-64*
M'Kenny Hughes T	1893	On Offa's Dyke *Archaeologia* 53 Part 2 - 2nd Series Vol. 3 Part 2, 465-484
MIDAS	2002	The Monument Inventory Data Standard website: http://www.jiscmail.ac.uk/filed/FISH/web_midasintro.htm
Moore JS	1982	*Domesday Book:15 – Gloucestershire* History from the Sources (ed J Morris) Chichester
Nicholls HG	1860	The Ancient Iron Trade of the Forest of Dean, Gloucestershire *Archaeology Journal* 17, 227-239
Nicholls HG	1866	*Iron making in Olden Times* London
Nicholls HG	1966	*Nicholls' Forest of Dean* – single volume compilation of: Nicholls HG, 1858. *The Forest of Dean: an historical and descriptive account*. Nicholls HG, 1866. *Iron making in olden times*.
Ormerod G	1841	*Stigulensia-notes on remains between Severn and Wye* Gloucestershire County Record Office GRO R.O.L G5
Overy CGD (ed)	1989	Monuments Protection Programme: Single Monument Class Description, Standing Stones English Heritage
Parker Pearson M	1993	*English Heritage book of Bronze Age Britain* London 1996 Edition

Parry CJ	1994	Symonds Yat Promontory Fort *Transactions of the Bristol and Gloucestershire Archaeological Society* 112, 59-72
Pettitt P	2003	Discovery, nature and preliminary thoughts about Britain's first cave art, *Capra* **5** available at - http://www.shef.ac.uk/~capra/5/pettitt.html
RCHME	1994	*Guidelines and Specification Manual for the National Mapping Programme (NMP)*
RCHME	1998	A Manual and Data Standard for Monument Inventories Royal Commission on the Historical Monuments of England
Reece R	1987	*Coinage in Roman Britain* London
Salway P	1981	*The Oxford History of Roman Britain* 1998 reissue Reading
Salway P	1993	*The Oxford Illustrated History of Roman Britain* Quality Paperback Direct edition Frome
Saville A	1984a	Palaeolithic and Mesolithic Evidence from Gloucestershire In A Saville (Ed) *Archaeology in Gloucestershire* From the earliest hunters to the industrial age Essays dedicated to Helen O'Neil and the late Elsie Clifford Cheltenham 59-79
Saville A	1984b	The Iron Age in Gloucestershire: A review of the evidence In A Saville (Ed) *Archaeology in Gloucestershire* From the earliest hunters to the industrial age Essays dedicated to Helen O'Neil and the late Elsie Clifford Cheltenham 140-178
Saville A	1986	Mesolithic finds from west Gloucestershire *Transactions of the Bristol and Gloucestershire* *Archaeological Society* 104, 228-230

Savory HN	1976	Welsh hillforts: A reappraisal of recent research in DW Harding (ed) *Hillforts: Later Prehistoric Earthworks in Britain and Ireland* 237-291 London
Scott-Garrett C	1918-1958	Ramblings of a Dean Archaeologist Notebooks of Scott-Garrett Gloucestershire County Record Office GRO D3921/II/41
Scott-Garrett C & Harris FH	1932	Field Observations between Severn and Wye Gloucestershire County Record Office AR21
Sindrey G	1990	*Roman Dean* *The Forest of Dean in the Roman period* Dean Archaeological Group Occasional Paper No. 1
Smith AH	1965	*The Place-names of Gloucestershire* English Place-name Society Vol XL Cambridge
Standing IJS	1988	Dating the Dean Road *The New Regard* 4, 35-43
Standing IJS	1997	The landscape of the Forest of Dean in the 17th Century A study based on contemporary maps Bristol University Dissertation for an MA in Local History – submitted June 1997
Sullivan DP	1991	*The Old Stones of Gloucestershire* A survey of megaliths and mark stones past and present Cheltenham
Trotter AW	1936	*The Dean Road* Gloucester
Verey D	1970	N Pevsner (ed) *The Buildings of England, Gloucestershire: The Vale and the Forest of Dean* Harmondsworth, 1979 edition
Walters B	1985	Dean Road excavation near Soudley *The New Regard* 1, 5-9
Walters B (ed)	1991	Summary observations and additions to the archaeological record. *Dean Archaeology,* 4, 38-47

Walters B	1992a	*The Archaeology and History of Ancient Dean and the Wye Valley* Cheltenham
Walters B	1992b	*The Forest of Dean Iron Industry* Dean Archaeological Group Occasional Publication No.4
Waygood G	2003	The Dean Forest Lodges, Part I *The New Regard 18*, 5-17
Waygood G	2004	The Dean Forest Lodges, Part II *The New Regard 19*, 5-26
Webb A	2000	*Early medieval Dean* *The Forest of Dean and West Gloucestershire* *409 to 1272 AD* Dean Archaeological Group Occasional Publication No. 6 Lydney
Webb A	2002	Lithic Finds In *Dean Archaeology 15*
Wheeler REM & Wheeler TV	1932	*Report on the Excavation of the Prehistoric, Roman*, *and post-Roman Site in Lydney Park, Gloucestershire*. Reports of the Research Committee of the Society of Antiquities in London IX Oxford

6.2 Map sources

BGS	1954	Geological Survey of Great Britain (England & Wales) SO61SE scale 6” to 1 mile
BGS	1974	Geological Survey of Great Britain (England & Wales) Solid and Drift Sheet 233: Monmouth scale 1:50,000
BGS	1975	Geological Survey of Great Britain (England & Wales) Solid and Drift Sheet 234: Gloucester scale 1:50,000
BGS	1981	Geological Survey of Great Britain (England & Wales) Solid and Drift Sheet 250, Chepstow scale 1:50,000

BGS	2004	Digital geological data (both Solid and Drift) supplied by the British Geological Survey and incorporated as layers on the Gloucestershire County Council GIS
Blunt T	1782	Plan of the Forest of Dean. Bromide copy of map kept at PRO, Kew. Reference number; F17/4 BP150. Inscribed 'To John Pitt Esq. Surveyor General of his Majesty's Woods'.
GCRO	1675	Map of Alvington and Alyburton Gloucestershire County Record Office Document GRO D.421 14
GCRO	1792	Map of Estates of Lord Gage Gloucestershire County Record Office Document GRO PC23
GCRO	17th century	17th century map bearing the coat of arms of the Gonning family. GRO photocopy 501 Original in Ipswich and East Suffolk Record Office
GCRO	17th century	Map of parts of Newland, St Briavels, Hewlesfield and Woolaston Parishes Gloucestershire County Record Office Document GRO 501
GCRO	1804	Map of Whitemead Park Gloucestershire County Record Office Document GRO 412.5
GCRO	1810	Map of Newland Gloucestershire County Record Office Document GRO D637 II/1/T1
GCCAS	2004	Mapped Information forming a layer within the Gloucestershire County corporate GIS and Supporting database.
GCC	2004a	Scanned raster images of the 1st, 2nd and 3rd edition 1:2500 OS maps dating from *c.*1880, *c.*1901 and *c.*1923 respectively and held as part of the Gloucestershire County Council corporate GIS.

GCC	2004b	Sites of Special Scientific Interest and other statutory sites in Gloucestershire Digital information held as part of the Gloucestershire County Council corporate GIS
Gwatkin G	1992	Rectified copy of Littledean and Newnham Tithe Map (1839) at scale 1:10,560 (Map no: 8)
Gwatkin G	1992	Rectified copy of Blaisdon and Huntley Tithe Map (1839) and Flaxely from Map of Boevey Estate (1862) at scale 1:10,56 (Map no: 6)
Gwatkin G	1992	Rectified copy of Ruardean Tithe Map (1840) at scale 1:10,560 (Map no: 13b)
Gwatkin G	1992	Rectified copy of Mitcheldean Tithe Map (1840), Abinghall Tithe Map (1838) and Longhope Tithe Map (1841) at scale 1:10,560 (Map no: 11)
Gwatkin G	1993	Rectified copy of English Bicknor Tithe Map (1838) and Staunton (1845) at scale 1:10,560 (Map no: 20)
Gwatkin G	1993	Rectified copy of Alvington Enclosure Map (1813) and Woolaston Tithe Map (1841) at scale 1:10,560 (Map no: 25)
Gwatkin G	1993	Rectified copy of St Briavels (1842) and Hewelsfield (1841) Tithe Map including Brockweir at scale 1:10,560 (Map no: 22)
Gwatkin G	1994	Rectified copy of Newland Tithe Map including Coleford (1840) at scale 1:10,560 (Map no: 47)
Gwatkin G	1994	Rectified copy of Aylburton and Bream Tithe Map (1840) at scale 1:10,560 (Map no: 49)
Gwatkin G	1995	Rectified copy of Awre Tithe Map (1840) at scale 1:10,560 (Map no: 54)
Gwatkin G	1995	Rectified copy of Lydney Tithe Map including Newerne (1839) at scale 1:10,560 (Map no: 63)
Gwatkin G	1995	Rectified copy of Tidenham Tithe Map (1845) including Lancaut (1939) at scale 1:10,560 (Map no: 82)
Gwatkin G	1996	Rectified copy of West Dean (North) Tithe Map including Lidbrook and Lydbrook (1959) at scale 1:10,560 (Map no: 104)

Gwatkin G	1997	Rectified copy of East Dean Tithe Map including Ruardean and Drybrook (1856) at scale 1:10, 560 (Map no: 106)
Gwatkin G	1997	Rectified copy of East Dean: Cinderford Tithe Map (1856) at scale 1:10,560 (Map 107)
Gwatkin G	1997	Rectified copy of East Dean Tithe Map including Cinderford, Ruspidge, Soudley and Shakemantle (1856) at scale 1:10,560 (Map no: 108)
Gwatkin G	1997	Rectified copy of West Dean (South): Parkend (1834-35/1840) at scale 1:10,560 (Map no 116)
IGS	1979	Geological Map of the United Kingdom (south) Institute of Geological Sciences 3rd Edition Solid scale 1:625000
Landsat	2000	Landsat satellite imaging of current landuse at a resolution of *c.* 20m^2 stored as a layer on the Gloucestershire County Council corporate GIS
OS	1880	Digital facsimile of Ordnance Survey 1st Series 25" map dated to *c.* 1880 and forming a layer within the Gloucestershire County Council Geographic Information System
OS	1900	Digital facsimile of Ordnance Survey 1st Series 25" map dated to *c.* 1900 and forming a layer within the Gloucestershire County Council Geographic Information System
OS	1925	Digital facsimile of Ordnance Survey 1st Series 25" map dated to *c.* 1925 and forming a layer within the Gloucestershire County Council Geographic Information System
PRO	1608	The West Part of the Plott of the Forest of Deane in The County of Glos. Taken Anno Dni 1608 and Anno Regni Jacobi Saxtoy. Bromide copy of Public Record Document held at The Wilderness Field Studies Centre, Mitcheldean (MR 879)

Stratford F	1758	Map of part of the Forest made by order of the Lords Commissioners of the Treasury showing enclosures. Photocopy of map held by the Public Record Office, Kew. Reference number; F17/2 C5809. Inscribed 'Ferdinando Stratford, Engineer' and 'David Morns.
Taylor I	1777	Facsimile of Isaac Taylor's 1" to 1 mile map of Gloucestershire in *A Bristol and Gloucestershire Atlas* Bristol and Gloucestershire Archaeological Society 1961
Unknown	17th/18th century	Late17th/early 18th century map of the Forest of Dean titled Description of the Forest of DEANE as it lyes in several Parcels with the Inclosures. Bromide copy of Public Record Document held by the Wilderness Field Studies Centre, Mitcheldean.
Unknown	19th century	A 19th century map of Blakeney Walk Bromide copy of Public Record Document held at the Wilderness Field Studies Centre, Mitcheldean.
Unknown	1787	Geometrical plan of the Forest of Dean-By order of the Commissioners of the Land Registry dated 1787 Bromide copy of Public Record Document held by the Wilderness Field Studies Centre, Mitcheldean.
Unknown	1848	Map of the Forest of Dean Scale: 1:25000 titled Plan of Her Majesty's Forest of Dean in the county of Gloucester with High Meadow and Great Doward Woods. Bromide copy of Public Record Document held by the Wilderness Field Studies Centre, Mitcheldean.

6.3 Aerial photographic sources

Getmapping.Com	unknown	Colour vertical prints held as a layer in the Gloucestershire County Council corporate GIS. Although the exact date of these photographs is not known, they were taken in the 1990s

7 Acknowledgements

The following staff members of Gloucestershire County Environment Department, Archaeology Service were involved with Stage 1 of the project and the production of this report.

The project was managed by, Jon Hoyle, Senior Project Officer, who supervised the project team made up of:
Laura Butler Assistant Project Officer.
Graham Tait: Assistant Project Officer.
Aisling Tuohy: Assistant Project Officer.
Danielle Wootton: Assistant Project Officer (Outreach).

The report was prepared by Jon Hoyle with the assistance of:.

- Aisling Tuohy, who took particular responsibility for the figures and undertook the initial analysis of the Iron Age data.
- Danielle Wootton who prepared the first draft of the section on the outreach element of the project

The project team would like to acknowledge the following for their assistance throughout Stage 2 of the project.

- Nicola Hembrey of English Heritage who acted as English Heritage project monitor during the production of the project design.
- Kathy Perrin of English Heritage who acted as English Heritage project monitor during the early parts of Stage 1 of the project.
- Buzz Busby of English Heritage who acted as English Heritage project monitor for the remainder of Stages 1 and 2 of the project.
- Jerry Gissop and Ben Lennon of the Forestry Commission who commented on the Forest Enterprise management categories.
- The following people served on the project steering group at various stages of the survey:
    - Kate Biggs, Dean Heritage Centre.
    - Bill Cronin, Forest of Dean District Council.
    - Simon Crutchley, English Heritage.
    - Rob Guest, Forestry Commission.
    - Jerry Gissop, Forestry Commission.
    - Susan Smith, English Heritage.
    - Phil McMahon, English Heritage.
    - Colin Studhome, Gloucestershire Wildlife Trust.
    - Mark Campbell, Gloucestershire Geoconservation Trust.
    - Paul Pennycook, Countyside Agency.
    - Kathy Perrin, English Heritage.
    - Gordon McGlone, Gloucestershire Wildlife Trust.
    - Charlotte Pagendam, English Nature.
    - Buzz Busby, English Heritage.
    - Ben Ward, Countryside Commission, Building on what's Special project.
    - Jan Wills Gloucestershire, County Archaeology Service.
- Marian Hoyle of Bristol University who commented on the use of statistics .

Overall supervision of the project was undertaken by Jan Wills, the Gloucestershire County Archaeologist, who also commented on the draft of this report.

8 Abbreviations used in the text

OD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
AP	Aerial Photograph
BGS	British Geological Survey
C14	Carbon 14
cm	Centimetre
DAG	Dean Archaeology Group
EH	English Heritage
EDM	Electronic Distance Measurer
EN	English Nature
GCC	Gloucestershire County Council
GCCAS	Gloucestershire County Council, Archaeology Service
GCRO	Gloucestershire County Records Office
GIS	Geographic Information System
Glos SMR	Gloucestershire County Council, Sites and Monuments Record
GSIA	Gloucestershire Society for Industrial Archaeology
GPS	Global Positioning System
GWT	Gloucestershire Wildlife Trust
Ha	Hectare
km	Kilometre
LiDAR	Light Detection and Ranging
m	Metre
NMP	National Mapping Programme
OS	Ordnance Survey
PRO	Public Record Office
SAM	Scheduled Ancient Monument
SMC	Scheduled Monument Consent
SMR	Sites and Monuments Record (Gloucestershire)
SSSI	Site of Special; Scientific Interest
TBGAS	Transactions of the Bristol and Gloucestershire Archaeological Society
U3A	University of the Third Age