Ongoing work

A detailed 40,000-word analysis of the individual site reports was produced, examining factors such as those given in the above examples.

The project is still active, and ongoing work continues on several aspects, such as:

- Consideration of further potential sites (e.g. Gretton, Long Buckby), and the rationale for suggesting these locations;
- Further examination of a few sites that appear to depend on multiple viewshed/lookout points (eg Arbury Banks, Whittlebury, Borough Hill);
- Comparison with results from other counties, and with other reports (e.g. Wessex Hill-forts, and the Northamptonshire Mapping Project);
- Ongoing discussions with similar research groups in other counties; and
- Profiting from the results of ongoing archaeological excavations within the hinterland between the hill-fort sites (notably, the ongoing commercial developments at the DIRFT logistics parks, and in the outskirts of Rugby and Daventry), to attempt a detailed characterisation of the pre-Roman Celtic landscape of west Northamptonshire and east Warwickshire.

It is now apparent that the pre-Roman landscape of west Northants and east Warks was a complex densely-populated area, with farming communities of typically 80-120 individuals located at regular intervals. The study will continue to consider how the role of the Early Iron Age hillforts was modified by this ever-increasing utilisation of the landscape during the later phases of the Iron Age.

Links with other projects

CLASP is involved in several other long-term projects focused on Iron Age and Roman-period sites in west Northamptonshire.

- At Whitehall Farm, a Roman villa site close to Watling Street (in Nether Heyford parish), CLASP spent 13 years excavating the villa site. Excavation is now largely finished, and the focus is now on preparing for publication what has been learned;
- In the 'Local People - Local Past' project, CLASP is aiming to study social evolution and characterise settlement over the wider area, bringing together data from many sites and using map-based analysis, to piece together an overall picture of the locality from late Iron Age to early post-Roman times;
- A similar survey is also underway on the hinterland around Lactodorum (Towcester) to identify similarities to and differences from the localities that surround both settlements;
- At Barby Hill, near Rugby, a CLASP team spent 4 years surveying a large Iron Age hilltop settlement, mapping its extent, excavating test-trenches in selected locations, and collaborating with Cotswold Archaeology who were also involved in excvating part of the site.

These projects, and others currently under consideration, all form a part of CLASP's stated aim — "to research, interpret and document the early historical landscape of west Northamptonshire, working closely with the local Historic Environmental Record, English Heritage and other regional and national bodies to carry out archaeological research to professional standards by involving the local community".

Find out about CLASP

If you found this leaflet interesting, and think that you might like the idea of working with a friendly group, and getting some fresh air and healthy exercise whilst making a serious contribution to professional archaeology, maybe you should consider joining CLASP!

CLASP is always keen to welcome new volunteers. New projects are regularly planned and executed, knowledge is shared and training in both fieldwork and archaeological computing skills is given in a friendly environment.

For more details, contact CLASP at http://www.claspweb.org.uk.

This leaflet was printed with the aid of generous financial support from a diverse range of charitable and public bodies and private individuals. A full list of CLASP's charitable donors may be found on our website.

Interpreting Northamptonshire's Prehistoric Hill-forts:

A multi-site research project by CLASP

Surveying the ditched ramparts at Hunsbury Hill (in Northampton town), one of the county's best-preserved hill-fort sites

Isolated hill-forts began to appear in the British landscape during the Bronze Age, before 1000BC.

A new phase of hill-fort construction commenced in the Iron Age during the 5C/6C BC — and defended hilltop enclosures were still being created in the Late Iron Age, during the 70-80 years prior to the main Roman invasion in AD43.

About 25 defended hill-fort sites have so far been recorded in Northamptonshire — some were only recognised in the last 15 years).

Hill-forts undoubtedly served a variety of different purposes, and some of these will certainly have changed over the centuries during which they were in use. Only so much can be learned from physical investigation within a specific hill-fort — an understanding of its intended function(s) also requires close study of 'external' factors, such as the hill-fort's relationship with its surrounding landscape (especially its range of view across the landscape), the surface geology on which it sits, and the overall distribution of hill-fort sites across the wider landscape.

The National Atlas of Hill-forts project was set up, with government funding, to create a comprehensive map of all such historic sites, along with accurate up to date surveys of each site. The project is led by Oxford and Edinburgh Universities — and CLASP acted as the focus for work on the project within Northamptonshire. A small team of CLASP members surveyed all the known hill-forts within the county, plus some additional 'potential hill-fort' sites, feeding the resulting detailed reports back to Oxford University.

Preparatory Studies

Preparatory desk-based studies involved a wide range of research tasks, including collecting and reading a library of relevant research material.

CLASP uses modern archaeological software tools, allowing detailed desktop surveys to be carried out:

- GPS-based mapping tools (MapInfo, Google Earth, and OS mapping software);
- Digitised geological survey data;
- LiDAR data and viewing software for landscape analysis; and
- Online tools to measure distances and areas, e.g. in Google Earth maps.

Data for all known hill-fort sites was collected from the county HER archive (in MapInfo digital format).

Data was also collected for hill-forts in neighbouring counties, for comparative purposes.

Finally, before field surveys were commenced, training sessions with the basic data were held in order to familiarise CLASP's team members.

Survey work

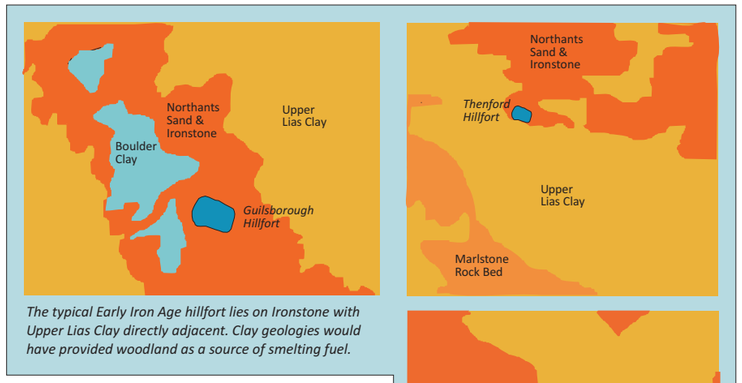
The individual surveys followed a consistent pattern, involving:

- Obtaining permission from the landowner(s) to visit each site;
- Mostly 2-man survey teams (except Borough Hill Daventry, which involved the whole team);
- Taking measurements and photographs, and recording all significant details (aided by historical maps, historical aerial photographs, LiDAR surveys, etc.);
- In some cases, analysis of results from an initial survey of a site, combined with data from earlier surveys, prompted a further visit to check specific details;
- Preparing the individual reports;
- Liaison with Oxford University, county HER archives, MOLA(N) and other interested parties.

Although a few sites are still relatively well preserved (e.g. Hunsbury Hill and Rainsborough Camp), many are now so degraded that their outlines can barely be traced (e.g. Castle Yard and Thenford).

Other sites (such as Guilsborough and Spratton) were encroached upon by construction work, quarrying etc. during the 1800s and 1900s, so that little of the original site is now visible.

There may also have been one or two other original sites that were built over by medieval settlements and are now lost to us.



The typical Early Iron Age hillfort lies on Ironstone with Upper Lias Clay directly adjacent. Clay geologies would have provided woodland as a source of smelting fuel.

Ironstone/clay geologies around typical Early Iron Age hillfort sites.

Analysing the results

Each survey visits was summarised in a detailed report, following a consistent format requested by Oxford University.

The CLASP team then analysed the data thus collected, when it became evident that the sites fall into three distinct sub-groups:

- A few relatively large sites with Bronze Age origins, mainly on non-ferrous geology;
- A majority of medium-sized Early Iron Age sites, mainly on iron-bearing sandstone with directly adjacent clay soils — and previous archaeological excavation has shown that at least some of these were major iron-production sites as early as 500-600BC; and
- A group of small Late Iron Age sites in the north-east of the county, perhaps created in response to a perceived threat (apparently from the south-east).

Tribal factors

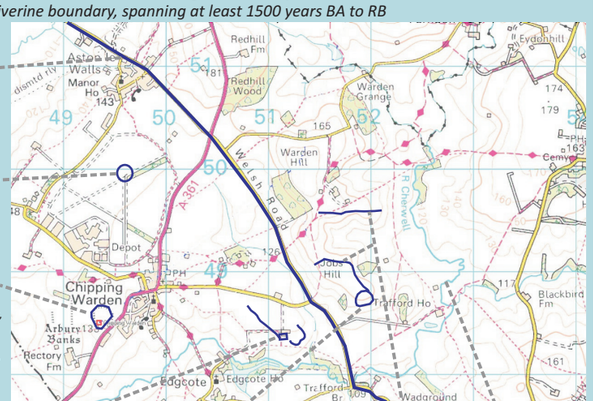
The emergence in Britain of distinct Celtic tribal groupings, around 500-600BC (as suggested by the sudden divergence of pottery types at this period), may have provided the rationale for the main phase of construction of these Iron Age hillforts.

Tribal borders (especially rivers and streams) appear to play a significant role in the location of hilltop sites, as may be seen for example at:

- Arbury Hill near Badby. Although probably not a hill-fort itself, this prominent hill may have been a site of mystic significance — the sources of the rivers Nene, Leam and Cherwell all lie within 1km;
- Three forts along the Nene, at Hunsbury Hill, Thrapston and Irthlingborough, together monitoring 40km of the river;
- Arbury Banks at Chipping Warden is strategically located close to the prehistoric Welsh Road, and also formed the point from which the Cherwell acted as the river boundary between Dobunni and Catuvellauni in the 1st century BC.

Chipping Warden: a trading area for more than 3000 years?

Map of the Arbury Banks hinterland, indicating other nearby sites, ancient trackways and a riverine boundary, spanning at least 1500 years BA to RB



Trading routes

Northamptonshire's hill-forts have a wider regional impact, as major exporters of iron and iron products (cf. Leicestershire, Warwickshire, Oxfordshire, Cambridgeshire etc., none of which have the benefit of Northamptonshire's extensive surface strata of iron-bearing rocks).

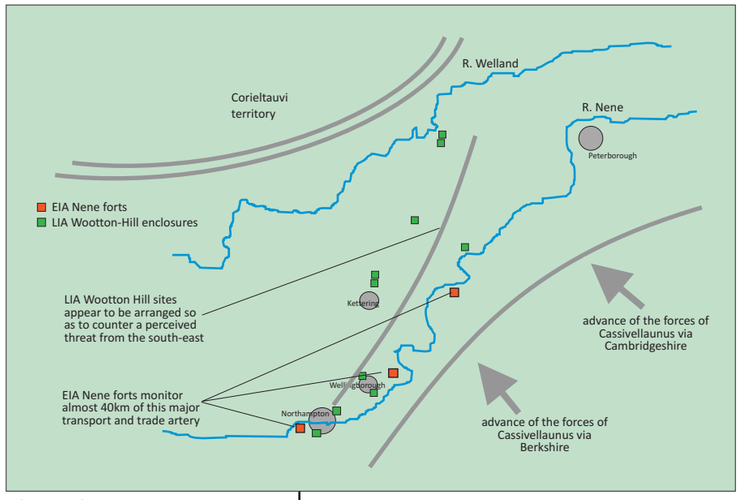
Water routes would have been critically important to the transport of these heavy loads.

Such considerations lead to the Identification of possible trade routes, logical links between sites, etc. It seems unlikely that these sites operated in competitive isolation, but that they were allied in a trading network — and elements of possible long-distance trading routes, both overland and utilising rivers, were identified in the study.

The Late Iron Age

The century prior to the arrival of the Roman legions in 43AD was a time of rapid expansion by the warlike Catuvellauni tribe. Starting in 54BC they advanced into Berkshire, Oxfordshire, Cambridgeshire and Northamptonshire. There are signs that the rivers Nene and Cherwell formed natural barriers to this advance, and that the Cherwell

Some hill-forts show evidence of using multiple nearby sites to obtain optimum viewshed over the landscape.



The Early Iron Age River Nene forts, also showing the cluster of Late Iron Age Wootton-Hill type defended enclosures.

south of Chipping Warden formed a territorial boundary with the Dobunni to the west, as mentioned above.

The group of Late Iron Age hilltop features known as Wootton-Hill type enclosures are of particular interest in this context. They appear to be arranged so as to counter a perceived threat from the south-east — and their construction dates (50BC-25AD) suggest that this threat must have been from the advancing Catuvellauni under their leader, the high king Cassivellaunus. Does this perhaps indicate that the earlier Nene forts were sacrificed in order to protect the remaining important sources of iron ore in the land between the rivers Nene and Welland, along with the Welland as a source of transport for the iron products?

Observations on viewshed

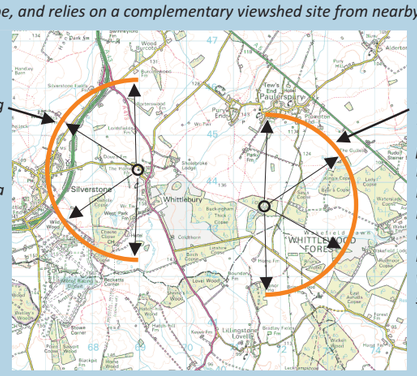
As might be expected, hilltop forts generally have excellent views over the surrounding countryside — but much can be learned from detailed study of the lines of sight and of any 'blind' spots in the coverage. This is technically termed 'viewshed'.

The three main Nene forts have already been mentioned. Their views along the river are excellent, but they have surprisingly short sight-lines across country — suggesting that when they were constructed the land on either side of the Nene was perhaps inhabited by a single tribe — their limited viewshed is perhaps another reason why these forts may have been sacrificed to the Catuvellauni in the Late Iron Age?

Some sites are more complex, with viewsheds covering only part of the landscape, raising the question 'how could they function with such blind spots?' One such case occurs at Whittlebury (illustrated in the graphic on left); another, already mentioned above, occurs at Arbury Banks (Chipping Warden), which may have functioned as a peaceful trading centre. At both sites, full coverage of the landscape is gained via a supplementary viewpoint.

Map of the Whittlebury hinterland, illustrating how the viewshed from Whittlebury hill-fort covers only half the landscape, and relies on a complementary viewshed site from nearby Old Tun Copse

Whittlebury has long distance views over half the compass, but its view to the east is restricted by a high-lying plain.



The view from Old Tun Copse (where prehistoric and Roman period finds have also been made) covers the eastern compass but is restricted to westward by the same high plain.

It seems likely that these two sites were active at the same period in time — and their close proximity suggests that they functioned together to provide all-round sight-lines over the surrounding landscape.