HILLFORTS of the Cheshire Sandstone Ridge







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Dedication

"We dedicate this book to our late Chairman, Dr Andrew Deadman, an avid supporter of the project, who loved this landscape and all the secrets it held" Ellie Morris, October 2012.

Acknowledgements

I would like to thank my colleagues Dr Jill Collens, Ellie Morris and Steve Clarke for all their support in proof reading the text, producing maps and illustrations, and offering guidance and support regarding the content. I would also like to thank all of the respective landowners who have helped to make the archaeological work on this project possible.

Last, but by no means least, I would like to thank all of the people who have volunteered to help with the archaeological field work over the four years of the Habitats and Hillforts Project. Without your support and hard work in fair weather and foul a lot of this book could not have been written.

Dan Garner, October 2012

Contents

Chapter 1 Introduction	5
Chapter 2 Early Prehistory The Palaeolithic, Mesolithic & Neolithic	11
Chapter 3 The Bronze Age	21
Chapter 4 Hillforts (1) Late Bronze Age (1140-650 BC)	33
Chapter 5 Hillforts (2) The Iron Age (650 BC – AD43)	47
Chapter 6 Hillforts (3) Continuity and re-use (AD 43 – AD 1100)	61
Chapter 7 Postscript	70



Chapter One

Introduction

About the Habitats & Hillforts Project

The Countryside Character volume for the North West of England identified the Cheshire Sandstone Ridge as a distinct character area. This area formed the limits for a Life ECOnet network which was given the title of the Sandstone Ridge ECOnet Partnership (SREP) formed as part of an initiative by the former Cheshire County Council in 2005.

The SREP area was used as the basis for a bid by Cheshire County Council to the Heritage Lottery Fund (HLF) for a Landscape Partnership Scheme called 'Habitats and Hillforts'.

The project did not cover the entire SREP area but instead focused on six Iron Age hillforts on the Ridge; each of which was allocated a management zone within which additional work would be focused. Stage 1 funding was granted by the Heritage Lottery Fund for the Project Development Phase in 2007, from which both an Archaeological Desk Based Assessment and an Archaeological Condition Assessment were commissioned from and delivered by Oxford Archaeology (North).

(Left) Map showing the Habitats and Hillforts management zones and the larger area of the Sandstone Ridge Econet Partnership (SREP) The hillforts were chosen as the focus of the project because they were the most prominent ancient monuments on the Ridge and represented a type of monument that is not found elsewhere in west Cheshire.

Subsequently, the HLF awarded a full stage 2 grant to the Habitats and Hillforts Project and it was launched as a 3 year project in October 2008.

The project was adopted by Cheshire West and Chester Council, the successor authority to Cheshire County Council, in April 2009.

The Habitats and Hillforts Project is divided in to four programmes of work:

- Programme 1: Habitats of the Ridge
- Programme 2: Hillforts of the Ridge
- Programme 3: Access and interpretation
- Programme 4: Training and volunteering

Within Programme 2 (Hillforts of the Ridge) there are two main threads of work which are divided between Understanding hillforts and Restoring hillfort heritage.

Prior to the Project, archaeological information on the hillforts of the Ridge was confined to excavations carried out between the 1930s and the 1980s, with those conducted at Beeston Castle providing the most significant results.

However there were still major gaps in our understanding of the chronology, structure, function, economy and status of these sites.

The work undertaken as part of the Understanding hillforts thread within Programme 2 has involved archaeological fieldwork in the form of both non-invasive surveys and trial excavation in an attempt to address some of these gaps in our knowledge.

Local volunteers as well as students from both Chester and Liverpool Universities have been heavily involved in the delivery of much of the archaeological fieldwork within the Project.

It is hoped that the results of this work will lead to a greater understanding of the role of these sites in the Cheshire landscape and will also result in an enhanced appreciation of the physical nature and survival of these sites thereby feeding into their long term management.

The part of the programme dedicated to restoring hillfort heritage was prompted by the fact that all six hillforts had been placed on English Heritage's 'At Risk Register' for various reasons. The restoration work involved a range of measures aimed at stopping the active erosion of the monuments and putting in place better management agreements with the various landowners.

The work included the removal of invasive plant species such as Rhododendron, bracken and birch; the management of burrowing animals; and the repair and improvement of fences, hedges and footpaths.

About this book

This book was written as a consequence of a discussion with the late Habitats and Hillforts steering group chairman, Dr Andrew Deadman shortly before his intimely death in April 2012.

Andrew felt that so much had been achieved from the archaeological survey and excavation work carried out as part of the project that there needed to be some medium for disseminating the results in a digestible format.

This is a difficult task when the nature of the information is already somewhat specialist and the methods used to acquire it were rather technical as well as scientific.

For this reason this book is aimed at all of the amateur and budding archaeologists out there, including all of those who were directly involved in the Habitats and Hillforts Project, and assumes a basic understanding of British archaeology. The decision was taken early on in the process that the book would follow a chronological approach and that this would cover the period from the end of the last Ice Age through to just after the Norman Conquest and the compilation of the Domesday Book in 1086.

The reason for this was mainly due to the fact that the bulk of the archaeological information recovered from the field work covered this earlier time span.

It was also acknowledged that the later history of the Habitats and Hillforts Project area is covered by one of our other publications; a local history book compiled by David Joyce and Barbara Foxwell entitled 'Captured Memories Across the Hillforts of Cheshire'. Unfortunately, this has meant that there is an inevitable gap between the two publications covering the medieval and early post-medieval periods.

A problem in producing a book like this was in deciding how to refer to the geographical area covered by the Habitats and Hillforts area. Various labels have been used in the past including 'The Sandstone Ridge', 'Cheshire's Sandstone Ridge and 'The Mid Cheshire Ridge', in the end I have chosen to refer to it as the 'Ridge' for the purposes of this book.

The second problem is in explaining the myriad scientific techniques deployed during the archaeological study of the hillforts; for this reason there is a short glossary below that will hopefully help to enlighten the reader.

Scientific techniques referred to in this book:

Geophysics: Geophysical survey is used to create maps of subsurface archaeological features. It uses non-intrusive and nondestructive techniques to determine the presence or absence of buried archaeological features such as pits, ditches and walls.

Geophysical instruments can detect buried features when their physical properties contrast measurably with their surroundings. In some cases individual artifacts, especially metal, may be detected as well. Readings taken in a systematic pattern form a data set that can be rendered as image maps. Survey results can be used to guide excavation and to give archaeologists insight into the patterning of buried archaeology in the non-excavated parts of a site.

Magnetometry: A magnetometer is a measuring instrument used to measure the strength or direction of magnetic fields. Magnetometers are also used to detect buried archaeological features.

There are many types of magnetometer in use but during the Habitats and Hillforts Project Fluxgate gradiometers were favoured due to their compact configuration and relatively easy use; a Caesium magnetometer was also used during commercial surveys of larger hillfort areas.

Magnetometers can be used to detect buried fireplaces, hearths, walls of baked bricks and magnetic stones such as basalt and granite; tracks and roadways can sometimes be mapped with differential compaction or disturbance of the soils. **Resistivity:** Electrical resistance meters can be thought of as similar to the Ohmmeters used to test electrical circuits. Archaeological features can be mapped when they are of higher or lower resistivity than the surrounding subsoil. For example, a stone foundation might impede the flow of electricity, while the organic deposits within a buried ditch might conduct electricity more easily than surrounding soils.

LIDAR (Light Detection And Ranging) is an optical remote sensing technology that can measure the distance to, a target with light, often using pulses from a laser.

LIDAR has many applications in the field of archaeology including aiding in the planning of field work, mapping features beneath a forest canopy, and providing an overview of broad, continuous features that may be indistinguishable on the ground. LIDAR can also provide archaeologists with the ability to create high-resolution digital terrain models (DTMs) of archaeological sites that can reveal micro-topography that are otherwise hidden by vegetation.

Scientific dating techniques:

Optically Stimulated Luminesence (OSL) is a technique which measures when buried deposits were last exposed to light (OSL). OSL is known as an 'electron trap' technique. Some natural materials such as various stones and soils absorb or 'trap' naturally occurring electrons from their surroundings.

This happens at a known and regular rate until the material becomes saturated with electrons after about 50,000 years. Since the world is much older than this, most objects are already saturated. Some soils can have their electron 'clocks' reset simply by being exposed to sunlight. If they are then buried beneath later deposits, they begin to 'trap' electrons again.

These electrons can be released and counted in a laboratory to calculate a date since the soil was last exposed to sunlight and by inference a date for the burial of the soil. This technique can date soils up to 50,000 years old, although it is more accurate within the past 10,000 years. Even so, for the past 5000 years it is less accurate than other dating methods like radiocarbon. OSL can be useful for dating early sites and those that don't contain material suitable for radiocarbon or other dating methods.

Archaeomagnetic dating is a method of assigning a date to a fireplace or burned earth area using the earth's magnetic field. Superheating rock or clay aligns the iron mineral within the material to the current magnetic north pole. Since the pole has wandered over time, comparing the alignment of the iron mineral particles to the master curve of the North Pole provides a usable date for reference.

The archaeological dating technique of archaeomagnetic dating was introduced to the field of archaeology in the 1960s by researcher Robert Dubois.

Radiocarbon dating is one of the most widely used scientific dating methods in archaeology and environmental science. It can be applied to most organic materials and spans dates from a few hundred years ago right back to about 50,000 years ago - about when modern humans were first entering Europe.

For radiocarbon dating to be possible, the material must once have been part of a living organism. This means that things like stone, metal and pottery cannot usually be directly dated by this means unless there is some organic material embedded or left as a residue.

The radiocarbon date tells us when the organism was alive (not when the material was used). This fact should always be remembered when using radiocarbon dates.

The dating process relies on the use of a calibration curve and thus a date range is usually quoted rather than a specific date; the date range is often shown as cal AD or cal BC in order to acknowledge that it is a calibrated rather than absolute date.

Time line for the periods covered by this book

Late Upper Palaeolithic	12000 to 9000 BC
Mesolithic	9000 to 4000 BC
Neolithic	4000 to 2500 BC
Early Bronze Age	2500 to 1500 BC
Middle Bronze Age	1500 to 1140 BC
Late Bronze Age	1140 to 650 BC
Early Iron Age	650 to 400 BC
Middle Iron Age	400 to 150 BC
Late Iron Age	150 BC to AD 43
Roman	AD 43 to 410
Early Medieval	AD 410 to 1066



Chapter Two

Early Prehistory: The Palaeolithic, Mesolithic & Neolithic

The mid-Cheshire Ridge forms the backbone of the project area. This outcrop of Keuper Sandstone and Waterstones runs in a north-south alignment from Runcorn and Frodsham in the north through Delamere to Malpas in the south. It varies in height from 76 to 228 metres above sea level and in relief from gently undulating slopes, barely discernible from the surrounding plain, to steep wooded and often rocky slopes that dominate the surrounding landscape.

The Palaeolithic

The last Ice Age in Britain (the Devensian cold stage) reached its maximum in terms of ice cover around 16-18,000 BC. The southern limit of this ice sheet did not have a clearly defined boundary but a dotted line can be roughly drawn between the Severn Estuary in the South West and the Humber in the North East.

Northwest of this line lay ice sheets with just the frost shattered tops of the highest mountains protruding whilst to the south and east lay a barren land of meltwater streams and lakes, seasonally frozen and swept by cold winds.

The eventual wasting of the British ice sheet appears to have been a complex affair. Between 13,000 and 12,000 BC temperatures in northwest Europe rose quite sharply leading to a short lived warm spell (the Late Glacial Interstadial). This allowed for some recolonisation of Britain by temperate flora and fauna which in turn would have attracted people.

(Left) Map showing places mentioned in the section on the Mesolithic

Temperatures then fell again sharply around 10,500 BC leading to an acutely cold but dry environment (the Late Glacial Stadial or Young Dryas) bringing permafrost conditions though relatively little ice cover to most of Britain.

Finally, around 9000 BC, a sudden climate warming ushered in the present post-glacial period, bringing fully temperate conditions in less than a century.

During the climate swings of the Late Glacial period the flora and fauna of Britain must have been repeatedly disrupted with animal communities constantly adapting to change in vegetation, temperature and seasonality.

To this must be added a landscape that was adjusting to the removal of the ice, exposing new terrain and drowning large areas under meltwater lakes, with meltwater channels producing new patterns of ridges and valleys to confront migratory animals.



Carden Park rock shelter © Chester Archaeology

The late Upper Palaeolithic (Old Stone Age) is a period of Cheshire's history for which there is scant archaeological evidence; however, the Ridge has potentially produced the earliest stone tools so far recorded in West Cheshire.

The objects were recovered from Liverpool University's excavations at a rock shelter at Carden Park, Broxton on the southern end of the Ridge during 1996-2000. They are diagnostically Late Upper Palaeolithic flints (which include a Creswell point) that were found in contexts stratified beneath Mesolithic activity. Whether the shelter was used regularly or on only one occasion cannot be determined from the evidence so far recovered.

The Creswell Point in particular is a type of stone tool first identified at Creswell Crags in Derbyshire and ascribed a date range of 11,000 to 9500 BC and it is thought to be a variant of the Cheddar Point which takes the form of a trapezoidal backed blade (it is likely to have been used as a knife blade set in a handle).



The Creswell Point from Carden Park © Chester Archaeology

The evidence may suggest that some of the other rock shelters (such as Mad Allen's Hole and Musket's Hole) occurring along the Ridge were being used as temporary camp sites for bands of Creswellian hunters visiting Cheshire during the Late Glacial Interstadial.

Contemporary evidence from cave sites in Devon and Somerset suggest that the food species eaten by Creswellian hunters focused on the wild horse or the red deer, probably depending on the season, although arctic hare, reindeer, mammoth, giant elk, wild cattle (aurochs), brown bear, lynx, arctic fox and wolf were also exploited.

The period is probably most popularly known for the find of the 'Ochre Horse' (a fragment of rib bone on which is carved a horse's head, neck and mane) from Robin Hood's Cave at Creswell Crags which has now been dated to about 10,500 BC.

The Mesolithic

The Mesolithic (Middle Stone Age) occupies half of the Post-glacial period from 9000 to 4000 BC, thus about the same time as everything from the Neolithic to the present day.

The archaeology of the Mesolithic is overwhelmingly dominated by lithic scatters recovered from field walking. Typically this means that sites are numerous, almost all are unstratified, only a tiny number have been excavated and almost none have produced any organic evidence or bone.

The Early Mesolithic (9000 to 6800 BC)

At the beginning of the Mesolithic (9000 BC) mainland Britain was still attached to the continent by a land bridge in the area now occupied by the English Channel.

On a regional level the north-western coast of England and Wales was much further to the west than the modern coast line and it has been estimated that the edge of the Irish Sea was lying at about the 20 fathom (-37m) contour.

The whole of the Liverpool Bay area remained largely dry land and the Dee and Mersey estuaries were probably inland river valleys with wooded slopes.

Pollen analysis and plant macrofossil evidence gives us an indication of the broad pattern of events by which post-glacial tundra became temperate woodland, though the detail clearly varies considerably from area to area. A common sequence in many pollen diagrams shows the early dominance of birch pollen with a secondary component of pine possibly indicating a stage of rather sparse birch woodland (birch being well adapted to the colonisation of thin, young soils). This is followed by a phase of abundant hazel which is itself superseded by a more familiar mix of deciduous woodland including oak, elm and alder.

The first couple of millennia of the post-glacial show a mix of temperate large animals such as red deer and wild cattle (or aurochs) alongside those that may be thought of as Late Glacial relict species such as elk and reindeer.

This diverse range of large grazers and browsers inhabited the early post-glacial temperate woodland environment and probably contributed to the patchiness of woodland colonisation and had a local effect on tree and scrub communities (i.e. establishing trails and clearings through grazing and browsing).

The three big predators of Late Glacial Britain were the brown bear, wolf and lynx; current evidence suggests that all three predators persisted in to the post-Roman period in Britain.

By about 7500 BC the sea level had risen significantly and it has been estimated that the edge of the Irish Sea was lying at about the 10 fathom (-18m) contour.

Even so, approximately one third of the Liverpool Bay remained largely dry land with a coastline roughly following a line from just west of Anglesey to just west of Walney Island in Morecombe Bay; forming a band of now submerged land more than 20 km wide. Mesolithic communities were not sedentary and moved around seasonally within a large territory exploiting a wide range of resources at different times of the year.

The range of a territory on the western coast of Britain has been estimated to be between 30 and 50 km; with the axis of movement being up river from coast to upland.

A model for seasonal movement might suppose that a main winter camp (November to March) might be located near the head of an estuary or in a river valley where full advantage could be taken of the large spring salmon making their way upstream.

At the onset of spring the camp would have moved to the coast where a milder frost free climate would have promoted early plant growth.

Movement to upland areas would have been at the mildest time of the year (June to August) and was probably followed by a return to the coast in late August; during which autumn fruit gathering would have begun.

The autumn (September to November) coastal camp would have been occupied with fishing and sealing (as this fits with the timing of the grey seal breeding season).

Early Mesolithic microliths have been recovered from two sites in the Frodsham area at Harrol Edge and Riley Bank Farm which may indicate temporary or seasonal camps in the area; early Mesolithic flint tools may also have been recovered from the Carden Park rock shelter (Broxton).

The Late Mesolithic (6800 to 4000 BC)

Relative levels of land and sea were under going diverse adjustments, one of which eventually allowed the sea to transgress through the wide river valley that we know as the English Channel to meet up with the flooded lowlands that became the North Sea. By about 6000 BC Britain had become an island and patterns of seasonal migration and of recolonisation were radically altered.

Remains of Late Mesolithic woodland have been observed as what is referred to as submerged forest at various points along the Mersey (Speke), Wirral (Meols) and North Wales (Prestatyn) coastlines. This submerged forest is preserved from a point at which sea-level rise crossed roughly the position of the present coast; roughly about 6000 BC.

Thereafter during the Late Mesolithic marine influence would have extended in land over what are now reclaimed coastal wetlands and up river valleys covering most of the areas of peat and estuarine sediments shown on modern geological drift maps. Recent work done on coastal modelling suggests that this marine inundation would have been associated with a temporary sea level rise to about 8m above sea level.

The flanking valleys of the Weaver and Gowy would have effectively turned the northern end of the Ridge (Helsby and Frodsham) into a coastal peninsula and late Mesolithic sites such as Harrol Edge (Frodsham) would have been closer to the coast than is now the case.



Late Mesolithic worked flint and chert from Harrol Edge (Frodsham)

Once the colonisation and environmental turnover of the early post-glacial stabilises in the pollen record it would be tempting to suggest that not much changed in environmental terms for much of the Mesolithic.

However, it must be acknowledged that the pollen record is generally useful for large-scale, medium-term environmental change but usually less useful for spatially limited shortterm impacts.

The period between 6800 and 4000 BC may have seen frequent local clearances of woodland by people but only rarely will the pollen data be able to pick up any such local events.

The post-glacial wild wood must have undergone patchy clearance through many different agencies, and the impression of stasis that we often get from the palaeoenvironmental record is probably misleading.

It would appear that once established the patterns of movement proposed in the Early Mesolithic (see above) changed little and this is supported by the finding of both Early and Late Mesolithic artefacts on the same camp sites such as Carden Park (Broxton) and Harrol Edge (Frodsham). At the site at Harrol Edge over 1,500 pieces of worked flint and chert were recovered during field walking in the 1950s.

The assemblage was re-assessed by the Habitats and Hillforts Project and it was noted that the bulk of the material was from knapping waste with a range of flakes, blades and cores. A total of 232 blades/blade fragments and 34 scrapers were identified which on the basis of size were attributed to the Late Mesolithic period.

The raw materials being exploited included a type of banded flint that was probably from the Irish Sea till or its derived gravels and carboniferous chert which would have been imported from either the Peak District or North Wales.

Another Mesolithic site may have been located 2½ km to the south of Harrol Edge at Castle Cob during field walking in 1990. To this can be added approximately 100 pieces of Mesolithic worked flint that were recently recovered from the Habitats and Hillforts training excavation at the Seven Lows barrow cemetery (Delamere).



Sieving for Mesolithic flint artefacts at the Seven Lows in August 2012



The Neolithic (4000 to 2500 BC)

The Neolithic (or New Stone Age) is distinguished from the Mesolithic by the transition from a hunter gatherer society to an agricultural (food producing) society, involving the cultivation of plants and the domestication of animals. This transition began in Britain between about 4000-3800 BC. The Neolithic saw the development of new stone tool types, the use of pottery, and the construction of large ritual and ceremonial monuments.

Palaeo-environmental evidence from Cheshire would appear to mirror national trends. Pollen evidence shows a local decline in tree cover and an increase in the incidence of open ground species, followed by natural regeneration of the woodland. This is associated with an overall national decline in elm.

This may be due to a form of slash and burn agriculture, where woodland clearance is followed by a period of farming until the soil is exhausted, at which point the farmers move on and the woodland regenerates. However, with the absence of cereal pollen this cannot be conclusively related to agriculture. The decline in elm may be caused by disease of the species and the activity could be similar to that taking place in the later Mesolithic.

Neolithic settlements revealed by archaeological excavation in Cheshire include: unenclosed postbuilt structures at Tatton Park (Knutsford); occupation remains on one of the sand 'islands' at Lindow Moss (Wilmslow); and Oversley Farm (Manchester Airport Runway 2) where a rectangular building comprising beam slots and post holes, with a central hearth, was discovered. It was later replaced by a building of similar construction.

From the earlier structure at Oversley Farm a large pottery assemblage of Grimston-style carinated bowls was recovered, together with charred remains of barley and arable crop weeds. Lipid analysis of the pottery revealed the presence of sheep or goat fats, implying that they had been used for cooking (perhaps an early example of Scouse stew!). When considering the Neolithic landscape of the Mid Cheshire Ridge it becomes immediately apparent that there are no known monuments of the Neolithic period to describe or discuss. This is not to say that there is no evidence for a presence on the Ridge during the Neolithic; the evidence largely consists of stray finds which are diagnostically dateable to the period.

Artefacts of the Early Neolithic period include ground or polished stone axes and worked flint tools such as leaf-shaped arrowheads. In particular, the distribution of leaf-shaped arrowheads is of interest because of the regularity in which they are found on or close to the hillfort sites.

Previous finds of these arrowheads have included one from the foot of Helsby Hill; three from the Harrol Edge area adjacent to Woodhouse Hill; and five from excavations at Beeston Castle.

During the course of the Habitats and Hillforts Project two additional leaf-shaped arrowheads were found on excavations at Kelsborrow Castle and during field walking at Peckforton Mere. Two polished stone axes have been found at Kelsborrow Castle and another is recorded from Helsby; whilst a ground stone axe was found near to Eddisbury hillfort in 2001.

Neolithic flint work from the Frodsham area. From left to right: scraper; leaf-shaped arrowhead (Harrol Edge); plano-convexed knife (Alvanly Cliff)



Map showing places mentioned in the section on the Neolithic



(Above) Neolithic ground stone axe found at Organsdale Farm (Delamere) in 2001

Neolithic leaf-shaped arrowheads from Kelsborrow Castle (bottom) and Peckforton Mere (top)





Excavations at Beeston Castle near to the gateway of the outer medieval castle wall located a series of terraces, hollows and postholes which produced Grimston-style pottery of Early Neolithic date.

The evidence has been used to argue for the presence of a gateway associated with an earlier hilltop enclosure, but this is very tentative; at the very least it represents the only Neolithic structural evidence so far recorded on the Ridge.

Excavations at Helsby undertaken during May 2010 by the Habitats and Hillforts Project targeted the re-excavation of a trench (excavated by J D Bu'Lock in 1955) across what was considered to be a subsidiary part of the hillfort rampart; the stretch cutting off the eastern end of a ledge beyond the northern end of the hilltop.

The re-excavated section demonstrated that the rampart had been constructed upon a series of sand layers containing burnt clay and burnt sandstone which overlay the burnt and discoloured surface of the sandstone bedrock. A piece of wood charcoal recovered from these layers of burnt material produced a radiocarbon date of 3950-3780 BC.

At the lower end of the trench and sandwiched between the base of the burnt layers and the top of the bedrock was a buried soil from which fossilised pollen was recovered.

The pollen analysis suggested the hilltop had been covered in forest dominated by lime prior to the beginning of the deposition of the burnt layers.



The re-excavated trench at Helsby showing the surface of the sandstone bedrock discoloured to a bright yellow/orange by exposure to intense heat during the Early Neolithic

This evidence suggests activity on the hilltop during the Early Neolithic which is perhaps associated with the finds (the arrowhead and polished axe listed above) recovered from the lower slopes of the hill. What the burnt material relates to is unclear with possibilities ranging from domestic occupation to ceremonial activities.

Funerary and ceremonial monuments are considered another feature of the Neolithic landscape and usually take the form of causewayed enclosures, cursus monuments and long mounds/chambered tombs. No examples of these types of monument are known from the Ridge.

This raises questions about regional practices and whether natural landscape features were being exploited more fully in our area, negating the need for man-made ones.

(Right) Late Neolithic Grooved Ware pottery from Eddisbury

Perhaps prominent hills and scarps (such as Helsby and Beeston) were treated as monuments in their own right; this is possibly supported by the finding of a group of cremation urns on the side of Eddisbury Hill during the mid-nineteenth century.

The urns were originally identified as being Bronze Age in date but recent re-analysis of surviving sherds at Warrington Museum have indicated that at least one of the urns was of Late Neolithic Grooved Ware; making this the oldest burial so far identified on the Ridge.





(Left) Map showing places mentioned in Chapter 3

The Bronze Age

The chronology of the Bronze Age in Britain is complex and is heavily based on detailed artefact studies and typologies with a heavy leaning towards metalwork. The dates apportioned to the three main Bronze Age periods discussed in this book are based on radiocarbon dating of organic material associated with metalwork. The Early and Middle Bronze Age periods are discussed in this chapter whilst the Late Bronze Age is dealt with in the following chapter along with the origins of hillforts on the Ridge.

Early Bronze Age (2500-1500 BC)

The transition from the end of the Neolithic to the beginning of the Early Bronze Age is marked by the introduction of first copper and then bronze metalwork along with the adoption of new pottery styles and the establishment of new types of burial monument.

The earliest phase of this process is generally associated with 'Beaker' pottery which is often (but not exclusively) found in a funerary context. The most famous site in Britain of this period is Stonehenge.

Beaker burials are rare in the northwest of England and only one intact Beaker burial is recorded from Cheshire (at Gawsworth); consisting of a long-necked Beaker and a flint knife buried in a pit which was covered first by a stone cairn and then a sand mound about 13 meters in diameter. Fragments of Beaker pottery have been identified at two excavation sites on the southern end of the Ridge at Carden Park rock shelter (Broxton) and Beeston Castle; in both cases the excavators have argued that the fragments probably represented the remains of disturbed burials, but domestic occupation cannot be ruled out. The Beaker burial at Gawsworth possibly represents the earliest example of a round burial mound or barrow in Cheshire; where the upstanding earthwork remains of around 120 round barrows are known.

Chapter Three

The round barrow represents the earliest evidence for monument building so far identified on the Ridge and indeed they are the only visible surviving archaeological feature of the Early Bronze Age landscape.

Round barrows generally occur in ones or twos and on the Ridge examples are known at Castle Cob and Glead Hill Cob/Houndslow (Manley), Gallowsclough Cob (Oakmere), Peckforton, Rushton and High Billinge (Utkinton); there is also one example of a multiple barrow cemetery in Delamere known as the Seven Lows. Some of the barrows on the Ridge have previously been investigated but few have been excavated under modern archaeological conditions and fewer still have been fully published. Cremation seems to have been the dominant burial rite with only one inhumation reported from Delamere and in some cases (such as Gallowsclough Cob) the cremation was described as unurned and had probably originally been within an organic container made of fabric, leather or wood.

Only one of the mounds (Glead Hill Cob) has produced metal grave goods in the form of a bronze pin; this mound also produced three collared urns, an accessory/pygmy cup and two barbed and tanged flint arrowheads.

From about 2200 - 1800 BC Beaker pottery began to be superseded by new forms of funerary pottery including types referred to as food vessel, cordoned urn, collared urn and accessory (pygmy) cups.

Fragments of collared urns and accessory (pygmy) cups have been identified at the excavation site of Beeston Castle on the southern end of the Ridge.

As with the Beaker pottery the excavators have argued that the fragments probably represented the remains of disturbed burials (and possibly indicate a now destroyed burial mound somewhere on the hilltop); however, domestic occupation cannot be ruled out.

From the round barrows so far excavated in Cheshire it appears that the majority of the dated examples were constructed and used between 2000-1500 BC, and a few common features can be suggested:



(Right) A cut-a-way through a Bronze Age barrow © Dai Owen

- The area on which the barrow was to be constructed was usually cleared and deturfed;
- A primary burial of a single, usually cremated, individual was placed in a pit cutting the old ground surface;
- A mound was constructed over the primary burial and in to this was inserted secondary cremation burials over a lengthy period – possibly associated with funeral pyres;
- A final phase of mound enlargement ends the active use of the barrow – the material used to enlarge the mound can contain domestic material such as pottery, flint and charcoal;
- Secondary cremation burials take place around the mound or ditch.

The Seven Lows Barrow Cemetery

The Seven Lows barrow cemetery lies at the head of the valley of the Sandyford Brook and is first referred to by John Leland in 1540 as "... the VII Loos wher be seen VII Caste Dikes" A later account by Sir Philip de Malpas Grey Egerton was included in George Ormerod's 19th century work on the history of Cheshire.

This describes the Seven Lows as being arranged in a semi-circle and goes on to list the diameter of each mound "... beginning with the highest tumulus"; Egerton describes the discovery of a collared urn on the edge of mound 6 during excavation work by his tenant in 1845 (now held in the British Museum).

Only four of the mounds are now still visible with mounds 2 and 7 having been descheduled as ancient monuments in 1994 on the presumption that they had been destroyed through repeated ploughing. It has been suggested that the layout of the Seven Lows barrow cemetery (along with an eighth outlying barrow) bears a resemblance to the star cluster of the Pleiades but this remains a matter of conjecture.

(Top right) LIDAR imagery for the Seven Lows area

Resistivity surveying at Seven Lows in April 2012



Data collected by the Habitats and Hillforts Project LIDAR survey in 2010 suggested that the site of Ormerod's 'mound 7' was still exhibiting the remains of a very slight earthwork in the form of a ring encompassing the top of a low hill.



Re-visiting the aerial photographic footage for the area confirmed that this ring had appeared as a parch mark on a vertical photograph from the early 1990s.

As a result of this, the site was subject to geophysical survey in April 2012 using volunteers under the supervision of Dr Ian Brooks (of Engineering Archaeological Services); the results of the resistivity survey confirmed a ring of high resistance which corresponded to that observed on the LIDAR and aerial photographic imagery.

Results of the resistivity survey (the dark ring shows an area of high resistance)



George Ormerod's published plan of the Seven Lows barrow cemetery



The excavation trench at the Seven Lows 'barrow 7' in August 2012 @ SUAVE





The worked bone toggle/bead/whistle made from a sheep or goat toe bone and recovered from one of the primary pits A complete worked flint knife blade recovered from the fill of the shallow quarry ditch. The blade is 80mm long and would have been hafted in a wooden or bone handle for use.



The four cremation urns during excavation in August 2012. All four vessels are of the collared urn type and two of them exhibited 'whipped-cord' decoration.

A training excavation undertaken by the Habitats and Hillforts Project during August 2012 placed a 2m wide and 50m long section across the centre of the ring detected using the non-invasive survey techniques. It was quickly established that this ring represented a ridge of natural subsoil which in effect formed a low bank around the outside of a broad shallow quarry ditch.

The circular quarry ditch had been excavated to create a central platform about 10m in diameter; this form of barrow is often referred to as a 'saucer barrow'. Initial investigations on the central platform recovered fragments of worked flint, burnt bone, prehistoric pottery and part of a large pit.

On this basis the centre of the trench was widened to expose the full extent of the pit and in doing so two intact cremation urns were exposed. The trench was subsequently widened further to an area of about 10 x 10m and another two urned cremations were found; all four cremation urns appeared to have been deposited during a secondary use of the central platform.

The primary use of the platform appeared to have involved the excavation of four large pits; none of which contained an intact burial although they all produced small sherds of collared urn vessels and fragments of cremated bone.

One of the pits had a complete saddle quern stone buried adjacent to it in an inverted position. Perhaps the most unique find was a small piece of worked bone (a toe bone from sheep/goat) which had been made in to an object with a perforation which resembled a toggle or bead; although other suggestions have included a shepherd's whistle. Additional elements of the Early Bronze Age landscape may still exist beneath the surface of the Ridge but are not easily located using modern prospecting techniques. Aerial photography has been a very successful tool in some parts of the UK for identifying crop mark sites but this meets with the greatest success in areas where arable cultivation is the dominant form of agriculture.

On the Ridge and more widely in Cheshire the high occurrence of permanent pasture associated with the dairy industry has limited the successful application of this technique. Nevertheless, a number of crop mark sites have been identified as ring-ditches (probable ploughed-out round barrows) in an area towards the centre of the Ridge around Little Budworth.

Below surface remains are also sometimes revealed through the less predictable agent of the chance discovery. One such example of this on the Ridge is the stone circle or kerb cairn found at the Morrey's Nurseries site (near Kelsall) in 1947; this was discovered when Mr Morrey ploughed up some large stones which were later thought to have been the remains of a burial cist associated with a barrow.

There was no mound on the site, which had been cultivated for a long time. Subsequent excavation on the site by Graham Webster in 1951 uncovered a circle of stones 10 feet in diameter surviving at a depth of 14 inches. Outside this stone circle was a ditch.

The cremated bones of a child were found as a secondary burial within an inverted collared urn, at a depth of 4 feet at the side of the stone circle.

Chance discoveries can also take the form of stray finds which are recovered either through metal detecting, field walking of cultivated fields or co-incidental ground disturbance such as the digging of building foundations, drains and other services.



Volunteers field walking at Eddisbury in 2009

These stray finds can be used to suggest models of landscape use although it must be accepted that many factors may bias distribution patterns of artefact types and even the simple presence / absence of evidence can be misleading.

Metal work of Early Bronze Age type is generally rare in the region and the most dominant find is that of the flat axe of which nine examples are known from Cheshire.

Four of these flat axes cover a fairly tight distribution area within a 4km radius of a barrow group to the south of Beeston and Peckforton whilst a possible fifth member of this group is an unprovenanced example from Tattenhall.

Flat axes in Britain are usually found as single finds and separate from settlement and burials of this time but they may have been deposited as part of an extended burial rite. The finds from the Ridge may have been manufactured relatively locally and a mould for making flat axes has been found at Betwsy-Coed, Conwy, showing the technology did exist for flat axe production and casting in North Wales; whilst copper exploitation at Alderley Edge has been demonstrated in this period.

Examples of the slightly later form of flanged axe have also been found close to the Ridge at Spurstow and Iddinshall.

Flint scatters are another form of artefact type of which the most diagnostic form from the Early Bronze Age is the barbed and tanged arrowhead. Single finds of these arrowheads have been recorded from locations on the Ridge including Bickerton, Beeston and Cotebrook.

A scatter of 15 flint objects including a barbed and tanged arrowhead and 4 scrapers were recovered at Ashton in 1942; whilst at least one arrowhead has been identified amongst the finds collected during field walking around Harrol Edge (Frodsham) during the 1950s.

With specific reference to our hillfort sites the residual finds of Early Bronze Age pottery from the Beeston Castle excavations have already been described above. The excavations here also recovered a number of worked flint artefacts which can be stylistically attributed to the Early Bronze Age including a barbed and tanged arrowhead and four knife blades.

Perforated stone implements fall in to five types: battle axes, axe hammers, mace heads, shafthole adzes and pebble hammers. The type referred to as 'battle axes' are thought to date to the Early Bronze Age and are contemporary with Beaker burials; battle axes are known from Peckforton Farm (Tarporley) and Norbury / Bickley. Axe hammers are thought to be a slightly later form and have been found in Beeston, Frodsham, Malpas, and Runcorn. Excavations by the Habitats and Hillforts team at Eddisbury hillfort in 2010 have also significantly added to our knowledge for this period. Towards the northern end of the hill and buried beneath the hillfort's inner rampart was a shallow pit which may have been used as a hearth associated with domestic occupation.

The pit contained wood charcoal from hazel, alder and birch which probably represented wood gathered from scrub/light woodland for use as fuel.

The pit also contained fragments of heather twigs and hazelnut shell (which was radio carbon dated to 1870-1640 BC); these remains suggested the exploitation of heath/moorland in the area and perhaps this was the prevailing vegetation on the hill at this time. The suggestion of heath/moorland in the environs of Eddisbury is significant because this habitat is only maintained by human intervention and is usually associated with livestock grazing.



The Early Bronze Age pit or hearth found beneath the inner rampart at Eddisbury hillfort in 2010



The barbed and tanged arrowhead found during field walking of the hillfort interior at Eddisbury in 2010

Field walking in a ploughed field on the interior of Eddibsury hillfort in 2009 and 2010 has recovered an almost complete barbed and tanged arrowhead along with one tang to a second similar object.

A single decorated sandstone boulder was also recovered from the Eddisbury excavations in 2010. The boulder was recovered from the hillfort's eastern entrance and it had been clearly marked with a series of circular depressions of varying size; these depressions are a common form of prehistoric rock art often referred to as 'cup marks'.

The object may have originally been associated with a monument somewhere on the hilltop and perhaps indicates the presence of Bronze Age burials. This boulder represents the first piece of Bronze Age rock art to have so far been found in West Cheshire but it is unlikely to remain an isolated or unique find on the Ridge.

The Middle Bronze Age (1500-1140 BC)

The cup marked sandstone boulder found at Eddisbury

hillfort in 2010

The Middle Bronze Age has been described as one of the least visible of the Bronze Age periods in the archaeological landscape of the Ridge.

Elsewhere in the country this period is characterised by a proliferation in the number of settlement sites and the formal dividing up of areas of the landscape using banks and ditches to define field systems. This appears to be at the expense of monument building such as the henges and round barrows of the Early Bronze Age.

Burial practice appears to be more obscure with a move away from building round barrows to the creation of urn fields or flat cemeteries where cremation urns are buried in groups with no visible marker.

Metal work begins to be buried in isolated hoards or as deposits in rivers or other wet environments. This period also sees the introduction of a new pottery type known as Deverel Rimbury. Earlier distinctive classes of artefact type such as perforated stone implements and worked flint tools tend to tail off about 1400 to 1300 BC

It has been suggested that deterioration in the climate from around 1500 BC and possible failures in the agricultural regime may have led to the abandonment of many marginal settlements and the formation of large areas of heathland and moorland.

Palaeoenvironmental evidence from both Peckforton Mere (near Beeston Castle) and Hatchmere (near Eddisbury), contain deposits which represent major episodes of soil erosion probably related to woodland clearance and subsequent cultivation from c 1500 BC onwards.

Metal work of Middle Bronze Age type is typified by the palstave axe often referred to by earlier antiquarians as a 'celt'. The period appears to be characterised by the deposition of hoards of metalwork often close to water courses: a recent example of which was the Burton hoard found just over the Welsh border in Wrexham during 2004. Along the Ridge the most significant metalwork find of this period was the Broxton Hoard which was found in 1881 during the removal of a large mound from the corner of a field near to the present Broxton roundabout on the A41.

The hoard consisted of two looped palstaves, a spearhead and a lugged chisel (all thought to have been lost); however, one of the palstaves and the spearhead recently came to light in a private collection at Bolesworth Castle and are now on loan to the Grosvenor Museum (Chester).

The re-discovered palstave axe was of looped type with trident decoration which places the hoard in the Taunton phase of the Middle Bronze Age (c.1400-1275 BC).

The Broxton hoard is probably broadly contemporary with a second hoard consisting of a pair of twisted gold armlets discovered at the southern end of the Ridge near Hampton Heath in 1831; the objects are more commonly referred to as the 'Malpas Torcs' and are now in the Manchester Museum.

Single finds of Middle Bronze Age metalwork from elsewhere on the Ridge include two palstave axes from the Beeston area and an unlooped palstave axe of the Acton phase from Delamere. There is also an antiquarian reference to the finding of a bronze 'Celt' on Kelsborrow Castle in 1810.

Less certain in date are a couple of spear heads recorded from Peckforton and Spurstow; as well as socketed and looped examples from Frodsham and Ince marshes (discovered during the construction of the Manchester Ship Canal).



One of the palstave axes and the spearhead from the Broxton Hoard © David Heke

Helsby Promontory Fort

Designation/owner: Scheduled Monument / The National Trust & Private landowner Type: Promontory fort

Form of defences: Single bank

Number of confirmed entrances: One

Height above sea level: 140m

Enclosed area: 2.2 ha

The Middle Bronze Age may mark the beginning of hillfort construction on the Ridge. This is suggested at the Ridge's northern most promontory fort on Helsby Hill.

The results of excavation work carried out here by the Habitats and Hillforts team during 2010 found that the inner face of the earliest fort rampart had been partly covered with charcoal-rich silt that has been radiocarbon dated to 1435-1320 BC.

This is an unexpectedly early date for hillfort building and the results must be treated with caution but potentially this could suggest that Helsby is one of the earliest hillforts so far dated in the country. The primary fort rampart consisted of an outer stone facing wall behind which was banked a stone rubble core, with the internal face being fairly rough and apparently constructed on an angle about 20° from vertical.

The entire structure was 3.3m wide at the base and had a maximum surviving height of 1.15m. The sandstone used in the construction was irregular sized blocks which appeared to be rounded as though they had been naturally weathered and they showed little evidence for being deliberately shaped.

This may suggest that the stone had been gathered as surface boulders rather than being deliberately quarried from the adjacent cliffs. These blocks were bonded in coarse grained light yellow sand which appeared to have been specifically selected for the purpose.

The rampart was used to enclose the cliff edge and this included extending the structure down on to a lower shelf at the north-eastern end of the promontory. There was no accompanying ditch and the only known entrance at the western end of the rampart circuit may belong to a much later phase in the fort's development.

(Below) The remains of the early rampart's outer face at Helsby with stone tumble from the top of the rampart in the foreground.





Helsby Promontory Fort as captured by the 2010 LIDAR survey



Liverpool Students from SACE surveying at Helsby in March 2009



Dr Richard Chiverrell (Liverpool University) recovering samples for pollen analysis from the charcoal-rich silts behind the primary stone rampart during excavation work in 2010.



Helsby Hill looking east (©English Heritage.NMR 20941 032)

Limited investigation of the fort's interior has led to a lack of information in terms of both structural remains and artefact assemblages.

However, fossilised pollen was recovered from the charcoal-rich silt at the rear of the rampart; analysis of this has suggested that the prevailing vegetation around the hillfort during the Middle Bronze Age would have been lowland heath dominated by heather and crowberry with high frequencies of grasses and bracken.

There were also high amounts of tree pollen dominated by alder, oak and hazel which probably represented stands of woodland; small amounts of cereal pollen were also present.

The pollen analysis implies a well managed agricultural landscape in the area around Helsby Hill, the lowland heath being maintained through grazing of livestock, with areas of managed woodland and a small amount of cultivated land associated with cereal production.

Geophysical survey was undertaken at Helsby by undergraduate students from The School of Archaeology, Classics and Egyptology (SACE) at Liverpool University under the supervision of Dr Ben Edwards during the early spring of 2009. The survey deployed magnetometry and resistivity survey techniques; the results were not conclusive, but an area on the hillfort interior appeared to show the presence of several circular features. These circular features might represent prehistoric round houses although the precise nature and date would only be clarified by future excavation.



(Left) Map showing places mentioned in Chapter 4

Chapter Four

Hillforts (1): Late Bronze Age (1140-650 BC)

Generally speaking, the Late Bronze Age marks a continuation of the period of change observed in the Middle Bronze Age. There is a continued emphasis on the deposition of metalwork in watery places but this metalwork becomes more focused on weaponry (swords and spears) which often bears signs of having been deliberately damaged (perhaps ritually 'killed') before being deposited.

This emphasis on weaponry has been thought to indicate the growing importance of conflict towards the end of the Bronze Age period. Much of what we know about the Late Bronze Age on the Cheshire Ridge is based on the casual finds of metalwork.

There is a particular concentration of Late Bronze Age metalwork finds around the Beeston / Peckforton area and in particular a broken Late Bronze Age sword of 'Ewart Park' type was recently found in association with a natural spring near the base of Peckforton Hill.

In terms of the broader landscape, settlement sites were becoming increasingly diverse in the Late Bronze Age and are often associated with co-axial field systems and long linear earthworks which define the limits of territories (usually extending from rivers on to higher ground). These linear earthworks have often been referred to as 'ranch boundaries' on the assumption that they were associated with cattle rearing; but other livestock such as sheep have also been suggested. The territorial boundaries are often associated with a single large 'open settlement' site; however, there have been no Late Bronze Age linear boundaries or 'open settlement' sites so far confidently identified on the Ridge. A possible example of prehistoric co-axial field system survives in Delamere in an area known as The Yeld to the north of Morrey's Nurseries.

The Ewart Park type sword found at the base of Peckforton Hill in 2006

The date of these fields remains debateable but their proximity to Eddisbury Hill and the evidence for a possible 'open settlement' site there in the Late Bronze Age (see below) raises tantalising possibilities.

Another feature of the Late Bronze Age period appears to be the growing number of 'burnt mound' sites appearing in the landscape. These features are characterised by large mounds of burnt (fire cracked) stones often associated with a trough or small building; they are often located near watercourses and seem to result from using heated stones to boil large amounts of water.

The reasons for their creation are many and vary from cooking/feasting or brewing ale to some kind of sweat lodge. Only a single example of a burnt mound is known from the Ridge and this was found during development work in the Peckforton area.

It is now acknowledged that 'fortification' building such as ringworks and hillforts had become an established form of monument construction by the end of the Bronze Age period; however, hillforts with a proven Late Bronze Age origin are still relatively rare in Britain.

It is with this in mind that we must view the recent dating evidence acquired on the hillforts of the Ridge by the Habitats and Hillforts Project.



Beeston Castle

Designation/owner: Scheduled Monument/Tollemache Estate
Type: Promontory fort
Form of defences: Single bank
Number of confirmed entrances: None
Height above sea level: 160 m

Enclosed area: 4 ha

By the beginning of the Habitats and Hillforts Project it had already been established that Beeston Castle was a rare example of a hillfort which had its origins in the Late Bronze Age.

The most significant dating evidence for the early hillfort at Beeston being a foundation deposit of socketed axe heads (dated 900-700 BC) found within the primary earth and stone rampart; and an associated episode of burning which produced a radiocarbon date of 1160-920 cal BC.

It was uncertain whether or not the remains of a line of timber posts which underlay the early rampart were associated with it or represented an earlier pre-rampart timber palisade. Likewise there was no compelling evidence to suggest that the early rampart was accompanied by an outer ditch or anything like a formal entrance.

The line of the rampart served to cut off the most approachable hill slope, whilst much of the hillfort circuit appeared to have taken advantage of the naturally steep slopes and cliff edges (with little evidence for artificial embellishment); for this reason Beeston Castle can be considered as a promontory fort. Debris which had accumulated against the interior of the early rampart included numerous fragments of fired clay representing metal working crucibles, mould fragments and other refractory waste associated with the manufacture of copper-alloy objects. Examination of the mould fragments suggested the predominant item being produced was the short stabbing sword characteristic of the Late Bronze Age.

The excavations at Beeston also recovered an impressive assemblage of Late Bronze Age metal work of the Ewart Park phase; which amounted to a total of five socketed axe heads, a socketed knife, a spear head and a sword fragment.

Chemical analysis of the socketed axe heads indicated that they were made of a bronze alloy with a high lead content which is a characteristic of the final period of Late Bronze Age metal working in Britain.

On the hillfort interior excavations at Beeston located a complex of timber post holes associated with a number of structures which were interpreted as round houses. One of these post holes was radiocarbon dated to 843-777 BC suggesting that some of the round house structures were broadly contemporary with the early rampart construction.

A number of pits associated with the structures produced significant quantities of charred cereal grain and one of the pits also produced a complete saddle quern of local red sandstone.

This suggested crop processing/storage was being undertaken at Beeston; corn drying and grinding of cereal grain could have been associated with either brewing ale or baking bread amongst other things.

A number of fragments from clay loom weights and undecorated pottery vessels were also recovered from the excavations supporting the suggestion that the evidence indicated domestic occupation within the hillfort in the Late Bronze Age. (Right) A Late Bronze Age pottery vessel and saddle quern stone (below) from Beeston Castle © David Heke





(Below) Three of the socketed and looped Late Bronze Age axe heads from Beeston Castle © David Heke



Woodhouse

Designation/owner: Scheduled Monument / The Woodland Trust
Type: Promontory fort
Form of defences: Single bank
Number of confirmed entrances: None
Height above sea level: 137m
Enclosed area: 1.6 ha

The hillfort on Woodhouse Hill had been the subject of a rapid survey assessment by English Heritage in 2006 prior to the start of the Habitats and Hillfort Project and this served to confirm the incomplete nature of the earthwork.

What was known about the archaeology of the site was limited to a small piece of excavation work undertaken by Graham Webster in 1949 and a number of stray finds collected by casual visitors which included a collection of rounded sandstone pebbles that were interpreted as 'sling-stones' (now on display in the Newstead Gallery at the Grosvenor Museum in Chester).

In 2009 the Habitats and Hillforts Project commissioned a detailed topographic survey of the hillfort and this served to identify a number of quarry pits on the hillfort interior which had not been previously recorded; these were thought to be associated with the rampart construction. A correlation between the size of the individual quarry pits and the relative heights of the adjacent sections of surviving rampart was thought to support the notion that Woodhouse was an 'unfinished' monument.

The line of the rampart served to cut off the most approachable hill slopes, whilst the remaining part of the hillfort circuit appeared to have taken advantage of the naturally steep slopes and cliff edge; like Beeston Castle, Woodhouse can be considered as a promontory fort

Subsequent training excavations undertaken during the summer of 2009 by the Habitats and Hillforts Project were assisted by undergraduate students from the School of Archaeology, Classics and Egyptology (SACE) at Liverpool University.

One trench targeted the re-excavation of the 1949 excavation in order to record a full section through the rampart and recover material suitable for scientific dating.



The section revealed that the rampart consisted of a bank composed of sandstone and sand with the basal two courses of a stone retaining wall on the outer face; beneath the bank were the remains of a mineralised soil probably representing the pre-rampart ground surface.

Unfortunately, no buried turf-line was present beneath the rampart and no material suitable for radiocarbon dating was recovered from the bulk samples taken from the bank. An alternative dating technique known as Optically Stimulated Luminescence (OSL) was deployed with samples being taken from the interface between the base of the stone retaining wall and the underlying mineral soil horizon. The resulting date (891 BC +/- 210 years) indicates the time at which the buried ground surface was covered by the rampart's stone retaining wall; it is rather a broad date but it does suggest that rampart construction at Woodhouse began in the Late Bronze Age.

(Above) Woodhouse as it may have looked in the Late Bronze Age © Dai Owen





The re-excavated 1949 trench at Woodhouse during the summer of 2009 showing a full section through the hillfort rampart (the scale is 1m).

A second trench targeted one of the many gaps in the rampart's length to test the evidence for an 'unfinished' structure.

This trench identified the intact base of the rampart and the lower courses to the outer retaining wall which were also seen in the 1949 trench; beyond the retaining wall the trench was extended for 20m down slope to test for the presence of an external quarry or ditch.



Excavation on the hillfort interior at Woodhouse in 2009. Note the stone structure in the bottom left which may be the remains of a trough or cist © Colin Sharratt



The excavation across one of the 'gaps' in the rampart circuit in 2009 as identified by the topographic survey. Note the stone rubble in the foreground representing rampart tumble.

On the exterior of the rampart a spread of stone rubble and tumble was found to be spilling down the slope of the hill and within this was found the bowl from a 19th century clay tobacco pipe. No external quarry or ditch was located and it was concluded that the gap in the rampart had been caused by 19th century stone robbing; probably for the construction of the extant field boundaries bordering the foot of the hill.

A third trench was located on the hillfort interior adjacent to the trench investigating a gap in the ramparts; this trench partly overlay one of the internal quarry pits identified by the 2009 survey.

It was apparent that very little soil cover survived in this area and the surface of the sandstone bedrock was rapidly revealed across the lower half of the trench. No artefacts were recovered from the trench but one possible archaeological feature was identified; this took the form of two parallel lines of orthostats (stone slabs set on edge) which defined a shallow trough or cist 2m long and 1m wide.

The trough/cist was aligned parallel to the hillfort rampart perhaps suggesting that it was contemporary with the use of the monument; nothing was recovered from within the feature but it remains possible that it represented a disturbed inhumation burial.

Kelsborrow Castle

Designation/owner: Scheduled Monument / Private landowner
Type: Promontory fort
Form of defences: Single bank
Number of confirmed entrances: None
Height above sea level: 122m
Enclosed area: 3.3 ha

The hillfort known as Kelsborrow Castle was subject to a small amount of investigation prior to the Habitats and Hillforts project.

This consisted of a single trench excavated across a denuded part of the rampart by D G Coombes from Manchester University in 1973.

Coombes identified the base of the rampart as a distinct zone of pale sand and within this he reported a line of three possible post holes which were thought to indicate a timber box-style rampart construction. The lip of an external ditch was also recorded and it was noted that organic-rich ditch fills were present.

A geophysical (resistivity) survey was undertaken over about two thirds of the hillfort interior in 1996 by A Quarterman and preliminary interpretation of the results suggested the presence of pits and possible circular structures.

The line of the rampart served to cut off the most negotiable approach, whilst the remaining part of the hillfort circuit appeared to have taken advantage of the naturally steep slopes and cliff edge; like Beeston Castle and Woodhouse, Keslborrow Castle can be considered as a promontory fort. In the spring of 2010 the Habitats and Hillforts Project commissioned a new geophysical survey of the entire hillfort by a commercial contractor using both resistivity and a new cutting edge technique known as caesium magnetometry.

The results were effective in identifying the line of the rampart and ditch but much of the interior appeared to be rather featureless other than a wide band of wet ground thought to indicate the line of an underground spring. In tandem with the commercial survey, a geophysical training exercise was undertaken by Dr Meggen Gondek from Chester University using undergraduate archaeology students.

The survey undertaken by the students targeted smaller areas of the hillfort interior but interpretation of the results suggested the possible outlines of a number of circular structures (roundhouses?).

In the autumn of 2011 a Habitats and Hillforts training excavation was undertaken at Kelsborrow with the combined aims of revisiting the 1973 excavation trench across the ramparts and investigating some of the results of the geophysical surveys.

The re-excavation of the 1973 trench proved very insightful and can be dealt with in two parts. Firstly, it became apparent that the organic rich fills of the external ditch were not very ancient with an iron horse shoe and a radiocarbon date indicating a 17th or 18th century date for the filling.

It is possible that the post-medieval ditch had entirely removed any traces of a prehistoric one; but it is just as likely that the prehistoric hillfort was not furnished with an external ditch at all.

The second part of the results regards the remains of the rampart bank which was found to survive as a band of pale yellow/white sand about 4m wide (as Coombes had described it). However, the 2011 excavations could not find any traces of the line of three post holes described in the original excavations and the presence of a timber superstructure remains a tentative suggestion.

The surviving base of the rampart was found to contain flecks of wood charcoal which were radiocarbon dated to 1000-840 BC; this suggests that rampart construction at Kelsborrow began in the Late Bronze Age. The two trenches excavated on the hillfort interior failed to locate any traces of the circular structures indicated by the geophysical survey results or indeed any features of a prehistoric date.



A vertical aerial photograph of Kelsborrow Castle taken by the RAF in 1947 showing the hillfort rampart as a crop mark (compare with the geophysical survey results in 2010)



The remains of the rampart base at Kelsborrow Castle; showing as a band of pale yellow/white sand about 4m wide.





(Middle left) The excavation trenches at Kelsborrow Castle during autumn 2011. The trench in the foreground is the re-excavated 1973 trench © SUAVE. (Middle right) The results of the commercial geophysical survey undertaken at Kelsborrow Castle in the spring of 2010 © Archaeophysica

(Right) Kelsborrow Castle as it might have looked during construction © Dai Owen



Helsby Hill

Designation / owner: Scheduled Monument / The National Trust & Private landowner

Type: Promontory fort
Form of defences: Single bank
Number of confirmed entrances: One
Height above sea level: 140m
Enclosed area: 2.2 ha

The origins of Helsby hillfort were dealt with in the preceding chapter covering the Middle Bronze Age. During the Late Bronze Age it is worth commenting that deposits of sand and silt continued to form against the back of the rampart and wood charcoal recovered from higher up the silting sequence was radiocarbon dated to 1250-1050 BC; suggesting continued activity at Helsby during this period. The pollen record recovered from the Late Bronze Age silts suggested a continuation of a heath-type environment in the locale with small amounts of cereal pollen present. Although no artefacts of Late Bronze Age date have yet been recovered from the hillfort a 3ribbed socketed and looped axe was found somewhere in Helsby in 1935; the socket was found to contain a bronze pin and the find is therefore considered to represent a hoard as opposed to a casual loss.

(Below) The socketed axe of Ewart Park type found somewhere in Helsby in 1935 now in the Grosvenor Museum, Chester.



Eddisbury Hill and Maiden Castle

Excavations undertaken by W J Varley at both Maiden Castle (1934-5) and Eddisbury Hill (1936-8) claimed to have identified the remains of timber palisade slots sealed beneath the mass of the subsequent rampart banks.

These pre-rampart timber slots have often been argued to represent evidence for a Late Bronze Age phase of enclosure prior to the construction of ramparts in the later Iron Age (see the evidence from Beeston Castle described earlier).

There was no opportunity to re-visit the excavations at Maiden Castle as part of the Habitats and Hillfort Project and so the potential for an early origin to this site must remain a tantalising possibility. However, it maybe noteworthy that there have been no recorded finds of Late Bronze Age date from the vicinity of Maiden Castle.

At Eddisbury, W J Varley's evidence for prerampart palisade slots was confined to an area at the southern end of the hillfort known as Merrick's Hill.

Training excavations at Eddisbury by the Habitats and Hillforts Project during the summers of 2010 and 2011 included investigations on Merrick's Hill by Dr Rachel Pope and undergraduate students from the School of Archaeology, Classics and Egyptology (SACE) at Liverpool University. The Merrick's Hill excavations have tentatively located the timber palisade slots described by Varley; furthermore, a small number of pottery sherds of Late Bronze Age type were recovered from soils buried beneath the inner hillfort rampart and a number of associated post holes were also identified.

Elsewhere along the circuit of the inner rampart further sherds of prehistoric pottery of Late Bronze Age type were recovered from a similar pre-rampart soil horizon. It is clear that further work at Eddisbury would be required in order to clarify the nature of the Late Bronze Age activity on the hill top.

The evidence suggests occupation on the hill in the Late Bronze Age which pre-dates the hillfort's construction; perhaps the hill top was an 'open settlement' at this time with any enclosure being confined to the Merrick's Hill area.

The Wider Landscape

Prior to the Habitats and Hillforts Project very little could be confidently said about the Late Bronze Age landscape of the Ridge beyond the site of Beeston Castle and a number of stray finds of metalwork.

It now seems apparent that at least four of our hillforts were in existence during the Late Bronze Age making them the main archaeological feature of the landscape during this period.

It is not clear how the landscape was organised during this early phase of hillfort construction as no territorial boundaries, trackways or field systems on the Ridge (with the possible exception of the Delamere example) can confidently be attributed to the Late Bronze Age.

The four dated hillfort sites (Beeston, Woodhouse, Kelsborrow and Helsby) have a number of commonalities: they are located in cliff edge promontory locations; the form of the defences appears to be a simple stone or earth bank cutting off the promontory; there is no obvious break in the rampart circuit to accommodate a formal entrance; and there is no external ditch to increase the visual impact of the ramparts.

On the basis of these criteria it might be reasonable to predict that the other promontory enclosure sites on the Ridge at Bradley Camp (Frodsham), Oakmere and Peckforton Mere are likely to have origins in the Late Bronze Age as well. An interesting parallel might be found at Brook House Farm (Bruen Stapleford) where a low lying Late Bronze Age settlement was identified during the construction of a pipeline in 1998; the settlement appeared to occupy a slight promontory overlooking a water course with evidence for a substantial ditch radiocarbon dated to 1130-800 cal BC.

This might suggest that these defended promontory sites (irrespective of whether they were located on a hill, on a mere or by a watercourse) are simply the dominant settlement type for the Late Bronze Age in this part of Cheshire.

Analysis of fossilised pollen recovered from the mere sites at Peckforton and Hatchmere during the Habitats and Hillforts Project suggested evidence for periods of partial woodland regeneration during the Late Bronze Age followed by a prolonged period of woodland clearance which continued in to the Iron Age.

(Right page) Students from Liverpool University Geography Department undertaking palaeoenvironmental coring on Peckforton Mere in April 2010.





(Left) Map showing places referred to in Chapter 5

Chapter Five

Hillforts (2): The Iron Age (650 BC - AD43)

The earliest use of iron was not a sudden event and was probably necessitated by a shortage of metals of any kind from around 800 BC. This decline in the supply of metals was also linked to the development of complex societies in the Mediterranean (Italy and Greece) which had an increasing demand for these dwindling resources. Access to foreign metal (copper and tin) had been of fundamental importance in Late Bronze Age society whereas iron ore was abundant everywhere and only the techniques of working the metal were foreign.

The transition from the end of the Bronze Age to the beginning of the Iron Age is characterised in southern Britain by the appearance of large midden sites whose chronology spans the period of transition.

These sites appear not to have been settlements as such but probably served as focal points for a wider population to gather for the purpose of production and exchange.

This is interesting as it is similar to the function ascribed to some of the early hillforts and ringworks of the Late Bronze Age and perhaps suggests that the emphasis had shifted towards the community assuming greater authority at the expense of a weakened elite.

It has been noted that features of the Late Bronze Age landscape such as ringworks and coaxial field systems appear to have been abandoned at the same time as the midden sites are becoming more widespread.

Settlement patterns during the Early Iron Age (650-400 BC) are also thought to have changed with a move towards enclosed settlements; excavated examples of which have provided evidence for stock rearing and cereal growing on a substantial scale. It is also argued that this period sees the development of hillforts. Developed hillforts are fewer in number than earlier examples and may have been more evenly spaced across the landscape; also providing more evidence for occupation.

There is clearly a lot of cross-over between the functions ascribed to hillforts, midden sites and defended settlements during the Early Iron Age and the term 'hillfort' may be a misnomer; control over agriculture and its products seems to have been of central importance.

Later during the Middle Iron Age (400-150 BC) developed hillforts appear to have assumed new roles towards the end of their history and it seems possible that people might have moved in to them for protection.

It has been suggested that this might have been linked to the increasing importance of the horse both as a symbol of power and as an instrument of war. In some parts of Britain these changes are linked with the appearance of formal cemeteries exhibiting distinctly regional characteristics and the adoption of a new suite of fine metalwork of foreign inspiration.

The emphasis seems to have shifted towards personal wealth and adornment, feasting, horse riding and the importance of armed conflict.

Beeston Castle

At the beginning of the Habitats and Hillforts Project the results of the excavations at Beeston Castle between 1968 and 1975 were the main body of evidence for the hillforts on the Ridge and our understanding of the Iron Age period more widely in Cheshire.

At Beeston the evidence suggested that the rampart which had been built during the Late Bronze Age was improved and an outer ditch and bank was added to the defences; a date for this was implied by the finding of part of a La Tene I style iron dagger (450-325 BC) in the new rampart material.

These initial improvements were later added to with an alignment of burnt timber posts which formed an 'L' shaped feature that has been interpreted as evidence for an 'in-turned' entranceway with possible associated guardroom. The location of the entrance was further supported by the terminus of the outer ditch and the remains of a cobbled trackway associated with this.

An archaeomagnetic date recovered from one of the burnt timber postholes has suggested a date of 510-290 cal BC.

As with the Late Bronze Age phases of occupation at Beeston, excavations on the interior located a complex of timber post holes associated with a number of structures which were interpreted as round houses.

One of these post holes was radiocarbon dated to 402-234 BC suggesting that some of the round house structures were broadly contemporary with the rampart improvements.

A replica round house built at Burwardsley outdoor education centre by the Habitats and Hillforts Project in the spring of 2010



A number of finds associated with the structures and the rampart deposits suggested a certain level of personal adornment such as fragments of bronze and shale bracelets as well as jet and glass beads.

Other finds included an iron spear head and a horse harness link, which along with the dagger mentioned earlier, might be regarded as accoutrements of war. To this can be added a rare and unique object made of copper-alloy and leather which has been interpreted as a toasting cup associated with communal feasting.

The Iron Age phase at Beeston produced little in the way of domestic pottery but this is unsurprising as Iron Age pottery is rare in the northwest region as a whole.

However, there was a relative abundance of ceramic referred to as VCP (very coarse pottery) which is thought to have formed ceramic containers used for the transportation of salt from the brine fields of central and south Cheshire.

(Below) Beeston Castle as it might have looked in the Iron Age © Dai Owen.



The presence of this VCP at Beeston

and other commodities.

the hillfort in the Iron Age.

suggests the hillfort was articulated within

the salt trade of the region and may even

A number of fragments from clay loom

whorl were also recovered from the

A replica of the composite metal and

David Heke

leather toasting cup found at Beeston Castle ©

weights, quern stones and a stone spindle

excavations supporting the suggestion that the

evidence indicated domestic occupation within

have served as a distribution centre for this

Maiden Castle

Designation / owner: Scheduled Monument / National Trust

Type: Promontory fort

Form of defences: Double bank and ditch

Number of confirmed entrances: One (inturned)

Height above sea level: 211 m

Enclosed area: 0.7 ha



The Iron Age pottery from Varley's excavations at Maiden Castle 1934-5

LIDAR imagery of Maiden Castle

The hillfort on Bickerton Hill (formerly 'Birds Hill') known as Maiden Castle was extensively excavated by W J Varley between 1934-5.

These excavations confirmed the presence of an inner rampart constructed using stone facing and a timber-laced infill; which was associated with an in-turned entranceway.

Varley suggested that floors on either side of the banks to the in-turned entrance represented the remains of flanking guard chambers and a single piece of Iron Age pottery was recovered from one of these.

The outer rampart was characterised as being a bank of sand and turves in front of which had been constructed a stone retaining wall. The defences were supported by ditches on the exterior of both the inner and outer ramparts.





Aerial view of Maiden Castle looking west (© English Heritage. NMR 20834 022)

Further excavations were undertaken on the hillfort by Dr J Taylor from Liverpool University in 1980-1; these were confined to an area of the ramparts which had been damaged through footpath erosion.

Samples of charred wood were recovered from both the inner and outer ramparts and used for radiocarbon dating purposes. The results of the radiocarbon dating have never been fully published and the techniques used for processing such samples have improved considerably since the early 1980s.

Nevertheless, the results from this work remain all we have to date the construction phases of the hillfort. The radiocarbon dates from the outer rampart included one of 380-10 BC, but Taylor has suggested that precision dating of the outer rampart could tighten the date to 405-390 BC.

Keith Matthews (formerly of Chester Archaeology Service) has suggested that by combining three dates from the inner rampart which span a range of 860-330 BC it is possible to arrive at a central date of 470 BC.



Maiden Castle as it might have looked in the Iron Age © Dai Owen

This appears to place the construction of the entire hillfort within the Early Iron Age and hints at the possibility that the inner rampart is slightly earlier than the outer one.

Work by the Habitats and Hillforts Project was confined to non-invasive survey at Maiden Castle. This involved a geophysical survey using both magnetometry and resistivity surveying techniques which was undertaken by volunteers under the supervision of Dr Ian Brooks.

The results of this survey confirmed the burnt nature of the material in the inner rampart and located a possible circular structure or roundhouse on the interior of the hillfort close to the main entrance. A full topographic survey of the entire hillfort was also produced by West Yorkshire Archaeology Service.



Geophysical surveying at Maiden Castle in 2011: resistivity (left); magnetometry (right)

Eddisbury

Designation / owner: Scheduled Monument / Forestry Commission & several private landowners

Type: Contour fort

Form of defences: Double bank and ditch

Number of confirmed entrances: Two (in-turned)

Height above sea level: 152 m

Enclosed area: 3.5 ha

Eddisbury hillfort is located on the top of Eddisbury Hill and incorporates areas known as Merrick's Hill, Castle Ditch and part of Old Pale Farm. The hillfort was extensively excavated by W J Varley between 1936 and 1938 and whilst this provided a model for the development of the monument (which has stood for over 60 years), the results supplied very little real chronology for the site.

The most controversial part of Varley's model was the suggestion that the hillfort had originally only enclosed part of the hill top with a later extension being added to incorporate the end of the hill belonging to Old Pale Farm.

This theory was challenged when the earthworks were re-surveyed by the Royal Commission of Historic Monuments in England in 1987 but no further investigation was forthcoming to try and test the theory either way.

Varley pointed to a distinctive change in the alignment of the defences on the northern side of the hillfort and concluded that in his experience this was 'usually associated either with entrances, or junctions of two sets of defences built at separate times'.



LIDAR imagery of Eddisbury Hillfort

He ruled out the possibility of an entrance because the outer ditch was continuous in this location and there should have been a gap in it if there had been an entrance here.

Varley's evidence for a junction between two sets of defences was based on a stratigraphic relationship between the 'younger inner rampart' of the 'extended' hillfort and the inner rampart of the 'original' hillfort.



Eddisbury Hillfort from the air during excavations by Habitats and Hillforts in 2010. Old Pale Farm is in the foreground to the right © Earthworks Archaeology. A lot of the evidence for this model was recovered from Varley's large Area 2 excavation which recorded a fully excavated section through the inner rampart, inner ditch, outer rampart and outer ditch of the 'extended hillfort defences.

Selected parts of Varley's Area 2 were reexcavated by the Habitats and Hillforts Project in both 2010 and 2011; in particular sections through the inner and outer ramparts were targeted along with the section of the inner ditch where a gap was recorded in 1935-8.



With regard to the line of the inner ditch, the 5m wide gap recorded by Varley does appear to be genuine; this leaves the Royal Commission's argument for an early entrance in this location as a viable possibility.

However, it should be remembered that elsewhere on the hillfort the inner ditch was found not to be a continuous ditch but rather a series of compartments or quarry pits and this could offer an alternative explanation for the gap.

Excavations by the Habitats and Hillforts Project at the junction between Varley's 'original' and 'extended' hillfort during August 2011 © SUAVE





The trenches at the eastern entrance and the north-eastern end of the ramparts at Eddisbury during the excavations in 2010 © SUAVE

It became apparent that the archaeological evidence for Varley's early construction phases of both the inner and outer ramparts to his 'extended hillfort' had been based on a mis-interpretation of natural geological deposits.

This single clarification brings in to doubt much of the Varley model in both stratigraphic and chronological terms. The entire footprint of the outer rampart sealed a buried soil which Varley described as a layer of 'carbon-flecked' soil (this sat directly above the natural sub-soil); a charred cereal grain recovered from this layer in 2011 was radiocarbon dated to 730-400 BC.

The buried soil layer was identical in character to Varley's 'occupation floor' sealed beneath the inner rampart and it is likely that both deposits represent the same extensive layer which pre-dated the construction of the hillfort; providing a construction date for Varley's extended hillfort in the Early Iron Age.

A small trench was excavated across the north-eastern end of the ramparts of the 'original' hillfort by Varley which he labelled on his published trench plan as 'd'; no further details about this trench were contained in his published report.



The compartmented inner ditch of the northern ramparts at Eddisbury during the excavation in 2010

The trench was re-excavated by the Habitats and Hillforts Project in 2010 and in addition it was extended southwest through the modern field boundary in to the cultivated field beyond.

This provided a continuous section from the hillfort interior through the inner rampart, inner ditch, outer rampart and outer ditch.

In keeping with the ramparts in Varley's 'extended' hillfort, the inner rampart had been constructed on top of a pre-existing layer of soil which produced charred grains of barley that were radiocarbon dated to 770-410 BC.

This provides a construction date for Varley's 'original' hillfort which is statistically identical to that of the date from the 'extended' hillfort (above); this suggests that the whole hill top was enclosed at the same time during the Early Iron Age.

It was also observed that the inner ditch had been initially created as a series of compartments or quarry pits about 5.5m wide and 1.8m deep which perhaps reflected the work of individual work gangs involved in the hillfort's construction. A second phase of bank had later been added to the inner rampart creating a combined basal width of 7m; this secondary bank material contained grains of emmer/spelt wheat which were radiocarbon dated to 400-200 BC.

Beyond the outer rampart bank the outer ditch was excavated deep in to the underlying bedrock and exhibited a truncated 'V' shaped profile 4.5m wide at the top and 2.5m deep; the sides of the ditch still bore the tool marks from the iron picks or chisels originally used in its creation.

The primary silts from this ditch produced fragments of round wood charcoal which were radiocarbon dated to 400-200 BC. This would suggest that the construction of the outer rampart and ditch was broadly contemporary with increasing the size of the inner rampart and that both modifications were undertaken during the Middle Iron Age.

The area of the eastern entrance was first excavated by W J Varley between 1935 and 1938 and was re-excavated by the Habitats and Hillforts Project in 2010.

Varley discovered the east entrance after being drawn to the two curious 'faces of rock which appeared to turn inwards towards the original camp'.

He reported that the entrance comprised two structural phases with the earlier being a passageway defined by seven pairs of post-holes which was 2.4m wide and 17m long; this earlier phase included a southern guardroom defined by four large post-holes.

Varley's second structural phase involved the lining of the passageway and southern guardroom with dry stone walling and the addition of a second guardroom on the northern side. Re-examination of the entrance in 2010 has led to the conclusion that both the post-holes and sections of dry stone walling were contemporary and represented a single construction phase.





(Top) Volunteers from the Habitats and Hillforts Project excavating the eastern entrance in 2010. (Above left) The re-exposed eastern entrance at Eddisbury during the excavations in 2010 © SUAVE. (Above right) The outer ditch of the northern ramparts at Eddisbury during the excavation in 2010.

The east entrance at Eddisbury as it might have looked in the Iron Age © Dai Owen





Pottery sherds recovered from beneath the cobbled surface by the eastern hillfort entrance at Eddisbury

Varley reported that the southern guardroom was rectangular (measuring 4.5m by 3.6m) with a floor carved in to the sandstone rock; a heap of sling stones still lay on the floor in the north-west corner of the room.

The floor of the southern guardroom was subsequently covered by 'a good deal of wattle and daub' which Varley interpreted as being derived from the superstructure.

Re-excavation of the southern guardroom in 2010 established that it was actually more oval in plan and that the layer of 'wattle and daub' was heavily burnt suggesting that it had collapsed on to the floor after the structure had been destroyed by fire.

fragments of hazelnut shell recovered from the

A Middle Iron Age context for this

radiocarbon date of 360-160 BC.

conflagration was indicated by charred

'wattle and daub' layer which produced a

Evidence for Middle Iron Age occupation at the hillfort was also recovered from the excavation at the eastern entrance in 2010; which served to identify a metalled surface to the west of the southern guardroom on the hillfort interior.

Much of this surface was made from fragments of heat-fractured stone which are often referred to as 'pot-boilers' and are thought to be associated with the heating of water for activities such as cooking or brewing.

Beneath this surface was a deposit of charcoalrich silt containing sherds of pottery and charred grains of emmer/spelt wheat which produced a radiocarbon date of 410-385 BC.



The large stone-packed post hole on the hillfort interior at Helsby

Helsby

Besides Beeston Castle, Helsby is the only other hillfort on the Ridge which has produced positive evidence for continued use during the Iron Age.

During the re-excavation of Forde-Johnston's trench through the hillfort rampart at Helsby in 2010 the Habitats and Hillforts team identified the remains of a large stone-packed posthole to the north of the inner stone revetment wall, on the hillfort interior.

The packing stones for this post setting were still in situ and as a result the ghost of the original timber could still be seen; this indicated a substantial vertical timber with a diameter of about 0.4m. It is uncertain whether this timber was evidence for an internal building or was another structural element associated with the main rampart. Samples taken from the base of the post hole produced grains of charred wheat which were radiocarbon dated to 210-90 BC; this demonstrates that the hillfort was being occupied towards the end of the Middle Iron Age. Analysis of the earthworks at Helsby along with the corroborative evidence from the LIDAR survey and aerial photography has indicated that there is an outer 'counterscarp' bank to the hillfort which does not appear to extend on to the lower cliff ledge.

This feature has not been investigated through excavation and is therefore undated; however, it appears to be a secondary addition to the original hillfort rampart and may represent an Iron Age addition to the monument. Furthermore, excavations by Forde-Johnston in 1963-4 identified an in-turned entrance at the south-western end of the main rampart which is also undated.

The in-turned form of this entrance is more in keeping with the hillforts at Maiden Castle, Beeston Castle and Eddisbury (all of which are of Iron Age date); perhaps suggesting that the entrance at Helsby is an Iron Age addition to the hillfort rampart.

The Wider Landscape

Prior to the Habitats and Hillforts Project very little could be confidently said about the Iron Age landscape of the Ridge beyond the site of the six hillforts which formed the focus of the project areas.

It now seems apparent that only two of our hillforts were created during the Early Iron Age with a further two showing a continuity of use from their Late Bronze Age origins.

The four dated hillfort sites (Beeston, Maiden Castle, Eddisbury and Helsby) have a number of commonalities: they are located in cliff edge promontory locations; the construction of the defences appears to incorporate both timber and stone elements; the defensive circuit includes more than one man-made feature, either having the addition of an outer ditch, counterscarp bank or a second line of ramparts; they are all furnished with in-turned entrances (three of which may have had associated 'guardrooms'); and they have all produced some evidence for occupation.

(Right page) Helsby as it might have looked in the Iron Age © Dai Owen

The other two hillforts in our group (Woodhouse and Kelsborrow) have not produced any evidence yet to indicate use during the Iron Age and do not exhibit any of the common features listed above; however, it should be acknowledged that this lack of evidence is not a conclusive argument for disuse.

Along the Ridge the spacing of the four demonstrably Iron Age hillforts in our group seems far more regular than the Late Bronze Age arrangement, with zones of land associated with a single hillfort far more clearly defined.

The northern zone of the Ridge belonging to Helsby has its southern limit defined by the meres and mosses of Delamere; the central zone belonging to Eddisbury may have extended down as far as the source of the Gowy near Beeston; and the southern zone extending from Beeston down to Bickerton and beyond.

The presence of two hillforts in the southern zone needs some explanation but as Helsby, Eddisbury and Beeston sit at the northern end of their hypothetical territories perhaps there is a less visible boundary between Beeston and Bickerton; placing Maiden Castle at the northern end of a fourth, more southerly zone.

A caveat to this observation is that contemporaneous occupation of all four hillforts throughout the Iron Age cannot be established; and in fact only one or two sites may have been occupied at the same time.





(Left) Map showing the known Roman roads crossing the Ridge

Chapter Six

Hillforts (3): Continuity and re-use (AD43 - AD1100)

The story of the Hillforts would in one sense appear to fade away in the Late Iron Age; it is generally thought that they were largely abandoned by around 100 BC. However, archaeological evidence often bucks the trend when it comes to testing generalisations, by investigating individual monuments in more detail. This chapter is largely concerned with the changing landscape of the Ridge between the Roman invasion of Britain and the Norman Conquest. In particular, evidence associated with the hillfort sites suggests a hint of continuity or more specific re-use in some cases.

The Roman Period (AD 43-410)

After the initial invasion of Britain in AD 43 the Emperor Claudius set up a frontier for the new province which would have left Cheshire northwest of the frontier in 'free Britain'.

In AD 49 the second governor of the new province (Ostorius Scapula) mounted a campaign against the tribe of the Deceangli in what is now northeast Wales. This campaign was abandoned after a need arose for Scapula's army to intervene in the tribal politics of the Brigantes who occupied a large area of northern England to the north of the Mersey.

It is assumed that Scapula's forces must have passed through Cheshire during this campaign. The lack of literary and archaeological evidence for resistance has been used to suggest that the native population of Cheshire must have entered in to a deal with Claudius; perhaps becoming part of a client kingdom. A decade later the governor Suetonius Paullinus launched an assault against the Isle of Anglesey and then had to swiftly return to the southeast to deal with the Boudiccan revolt.

Following these events the rest of the 60s appears to have been spent consolidating the province with infrastructure projects such as new roads. During the 70s the legionary fortress was established at Chester by Legio II Adiutrix Pia Fidelis; the official date for this is AD 79 but archaeological evidence suggests that planning and construction may have begun earlier than this around AD 74.

Certainly, there would have been a Roman military presence in Cheshire for roughly 20 years by the time the fortress at Chester was completed. The presence of a Roman legion at Chester would have had a massive impact on the region of both North Wales and western Cheshire. The most obvious physical impact to the landscape of the Ridge would have been the establishment of the Roman road network.

These roads would have been primarily associated with connecting Chester to outlying auxiliary forts at Manchester, Northwich and Middlewich; then later with Roman small towns on these sites and others such as Wilderspool (Warrington) and Nantwich.

In this context the Roman roads seem to have treated the Ridge as an obstacle to overcome. The northern road from Chester to Wilderspool is thought to follow a route along the foot of Helsby and Frodsham hills whilst the road from Chester to Northwich/Middlewich makes use of the relatively low lying gap at Kelsall.

It is perhaps interesting to note that these roads often passed within a slingshot of some of the hillfort sites such as Helsby and Eddisbury; a consideration which could not have been lost on the Roman military. The Roman legion at Chester was changed in about AD 90 to Legio XX *Valeria Victrix* and this legion then retained Chester as a base and supply depot until at least the AD 270s.

The surrounding hinterland would have been heavily taxed to service the presence of such a large military force and it is likely that this taxation would have taken the form of agricultural produce rather than hard cash. It has been suggested that such a burden would have had the effect of leaving the Cheshire countryside rather impoverished in comparison to other parts of Roman Britain.

In this context, it is perhaps not surprising that the only confirmed Roman villa so far found on the Ridge (at Eaton-by-Tarporley) is a relatively small and modest affair.

The process of Romanisation does not appear to have been as effective in the North West as in other parts of England and this is also true of Cheshire.

Many civilian settlements/farmsteads appear to have embraced Roman material culture to some extent (in terms of metalwork, pottery and the use of coinage) but are still very Iron Age in character; continuing to use round houses and dwellings within farm enclosures which probably existed before the Roman invasion.

Beeston Castle

Excavations at Beeston Castle identified a quantity of Romano-British artefacts from various parts of the castle site. This included a couple of brooches of late 1st/early 2nd century date that were recovered close to the gateway of the castle's outer ward.

However, more significantly a cobbled surface was located below the castle in the area adjacent to the modern visitor centre which is often referred to as the Lower Green. A quantity of Romano-British pottery was found in association with the cobbled surface and it has been suggested that a farmstead or villa site must lie close by.

The cobbled surface itself has been used to argue for the course of a Roman road running from Tarvin to Nantwich via the Beeston / Peckforton gap. The Habitats and Hillforts Project undertook a geophysical survey of the Lower Green during 2009 using volunteers under the supervision of Dr Ian Brooks but the results were fairly inconclusive and failed to identify the extent of the cobbled surface or any associated structures.

The fields between Beeston and Peckforton Castles have long been speculated to be the location of a Roman signal fort. Indeed, it has been claimed that a fort site was identified as a crop mark using aerial photography in the 1980s; however, evidence for this has never been published and it remains a matter of contention.

On the other hand a number of Romano-British finds in the form of coins and metalwork have been recovered by metal detecting in the Beeston and Peckforton area.



Geophysical Survey in the Lower Green at Beeston Castle in November 2009

The metalwork finds have included a copperalloy bucket mount in the shape of a bull's head and a number of brooches. The most significant find might be that of a complete Late Roman cross-bow brooch from Castleside Farm, Beeston (now in a private collection), which is almost identical to one found in Boughton (Chester); on display in the Grosvenor Museum's Newstead Gallery.

The brooches are so similar that they could well have been made from the same mould. Cross-bow brooches are generally dated to the 4th century and are thought to have associations with the Roman military or state officials. The find from Beeston may lend support to the notion of a Late Roman military installation in the area and perhaps the hillfort itself was still in use for this purpose.



Sandstone rubble re-excavated in 2010 which Varley interpreted as the deliberate blocking of the eastern entrance during the Roman period

Eddisbury Hillfort

During excavations at Eddisbury by W J Varley in 1935-8 a number of events in the archaeological record were attributed to the Roman period.

In particular, Varley suggested that the eastern hillfort entrance and its associated guardrooms had been entirely blocked up with sandstone boulders; he also noted that at the north-western end of the hillfort ramparts the inner ditch appeared to have been deliberately filled with sandstone boulders.

The dating of these two events was provided by the base sherd of a Roman mortarium from the eastern entrance blocking and a fragment of Roman roof tile from the filling of the inner ditch.

Varley surmised that the two events were linked and indicated that the hillfort defences had been deliberately slighted by the Roman military during the 1st century invasion period.

Recent access to what remains of Varley's archive from Eddisbury has enabled the Habitats and Hillforts Project to confirm that the mortarium base is in an oxidised Cheshire Plains fabric (likely to be of 2nd century date) and the roof tile is part of the flange to a Roman tegula.



Section showing the deliberate backfilling of the inner ditch at Eddisbury during excavation in 2011

A couple of problems arise from this evidence: the first is that the pottery and roof tile imply occupation of the site (the roof tile implies a Romanised building); and secondly, the Roman material could be residual (i.e. old artefacts which have been deposited with the back filling at a much later date) and the events could relate to a later period.

Certainly, late 1st/2nd century pottery would imply a Roman presence after Cheshire had been occupied by the military for several decades.

Excavations by the Habitats and Hillforts Project in 2010 exposed a section through the outer rampart and ditch towards the northeast end of the outer defences.

The section through the outer ditch indicated that it had been re-cut after it had almost completely silted-up. Wood charcoal recovered from the lowest fill of the re-cut ditch produced a radiocarbon date of cal AD 10-130.

This date could be used to support a number of possible models: firstly, that just before or during the Roman invasion period the outer defences at Eddisbury were re-established (i.e. the hillfort was re-fortified); or that re-fortificaction took place in the Romano-British period presumably by the Roman military; or that the wood charcoal from the re-cut ditch was residual and that the re-fortification took place later on. The Habitats and Hillforts Project also undertook a field walking exercise on the hillfort interior at Eddisbury in both 2009 and 2010. Amongst the artefacts recovered during this work were a Roman glass 'melon' bead and a piece of mortarium rim.

The two artefacts lend support to the notion that Eddisbury hillfort was being occupied in the Roman period although it is hard to distinguish if this was a military or civilian presence. The mortarium rim was from a vessel manufactured in the Mancetter-Hartshill production centre in Warickshire; the form was a 'hammer head' rim which is usually dated to the late 3rd/early 4th century.

The dating of this object extends the Roman presence at Eddisbury through to the Late Roman period and this is significant when considering another artefact recovered during the Habitats and Hillforts excavations in 2010.

This artefact was a copper-alloy disc recovered from the re-excavation of Varley's trench through the inner hillfort rampart at the north-western end of the ramparts.

The disc was first thought to be a very worn coin which had been defaced with lines of scoring; however, on closer examination these scored lines resolved themselves in to an 'X' with a 'P' above it.

These two letters found together in this arrangement are often called a 'Chi-Rho' symbol and were commonly used as a symbol of late Roman Christianity. The disc represents the first Roman 'chi-rho' symbol to have been recorded in Cheshire and suggests that the late Roman occupation at Eddisbury had a Christian element to it.

Field walking and metal detecting on several fields adjacent to the Roman road which runs below the hillfort have produced further evidence for Roman occupation in the area. This includes a coin of Hadrian, a 2nd century brooch, a copper-alloy key handle and a glass bead with polychrome decoration. *Copper-alloy disc inscribed with a chi-rho symbol from excavations at Eddisbury in 2010*







Field walking and metal detecting Roman finds from Eddisbury Hill: 'melon' bead (top left); polychrome glass bead (top right); key handle (bottom left); 2nd century coin and brooch (bottom right)

Helsby Hillfort

The most significant Roman find from the Helsby area was a carved stone altar which was unearthed at the foot of Helsby Hill during house building in the 1958. It has been suggested that the object probably belonged to a roadside shrine as it was found very close to the postulated line of the Roman road from Chester to Wilderspool (Warrington).

The only Roman artefact so far recovered from Helsby hillfort itself is a Roman coin (a sestertius of the Emperor Tiberius dated to AD 22) which was found during the construction of the Cold War bunker (located in the interior of the hillfort) in the 1950s.





Early Medieval (1): After the Romans (AD 410-600)

The concept that Roman Britain ended abruptly in AD 410 is now outdated and generally has little support in the few facts that exist for the period. It is more likely that the end of Roman Britain was a slow decline which had begun as early as the late 3rd century and continued in western Britain long after the east had been colonised by Anglo-Saxon settlement. In the west it is becoming more popular to discuss the 5th and 6th centuries as the 'late antique' period rather than using other labels such as the sub-Roman or Dark Ages.

Helsby

Helsby hillfort is unique amongst the Hillforts of the Ridge in producing evidence for activity in this period. The evidence suggests that material was continuing to build up against the back of the prehistoric rampart throughout the Roman period and the uppermost layers of this material produced a radiocarbon date of AD 400-530.

After this date a new stone retaining wall was constructed along the internal edge of the ramparts suggesting that the hillfort was refortified during this period. The Early Medieval stone retaining wall constructed along the inner edge of the rampart at Helsby, as revealed during excavations in 2010 © Colin Sharratt.

Early Medieval (2): Mercia (AD 600-1066)

During the seventh century Cheshire was slowly incorporated in to the Anglo-Saxon kingdom of Mercia. It is debateable whether this was through military expansion or peaceful settlement as Mercia and the Welsh kingdom of Powys were often in alliance with one another when dealing with the threat of expansion of the Anglo-Saxon kingdom of Northumbria.

Historically, a snap shot of the political situation can be seen in the account of the Battle of Chester in AD 616. The battle cemetery from this event was recently excavated at Heronbridge by the Chester Archaeological Society.

Many of the place-names on the Ridge owe their origins to this period of Mercian rule and the early origins of many can be verified by the manors recorded in Domesday Book in 1086.

The later part of the Mercian period was highlighted by the increasing threat of Viking invasion from the Irish Sea where Viking influence extended from Dublin (Ireland) through York to Norway.

The Mercian response to this threat was to build a series of burhs (forts) at strategic points along the kingdom's borders at places like Chester, Runcorn, Thelwall and Manchester; one such burh is recorded as being built at Eddisbury in AD 914 by Aethelflaed 'Lady of the Mercians'.

Map showing the Late Saxon Manors recorded in Domesday

Eddisburv

Varley's excavations at Eddisbury in 1936-8 identified various features which he attributed to the 'Dark Ages' and the later Saxon period. Some of these features have been dealt with in earlier sections of this book as they can now be more confidently ascribed to the prehistoric activity at Eddisbury.

However, there are two features in particular that Varley recorded at the western entrance of the hillfort which are possibly Early Medieval in date.

The first is an oval 'Saxon hut' which was found constructed on the upper fills of the inner hillfort ditch; excavation of the hut produced a clay loom weight of roughly triangular shape.

The clay loom weight is still contained within the Varley archive from Eddisbury and is currently undergoing further analysis.

The second feature was described as a 'Dark Age hut' which Varley explained had been constructed on the top of the inner rampart after it had been slighted in the Roman period.

(Below) Varley's published plan of his excavation at the western entrance of Eddisbury hillfort in 1936

This second hut was only 7 feet in diameter which seems rather small for a dwelling; an alternative interpretation might be that it represents the base of a stone oven.

Excavations by the Habitats and Hillforts Project during 2010 identified the remains of a clay oven base set in to the top of the inner hillfort rampart at the north-eastern end of the defensive circuit.

This oven base was dated using the archaeomagnetic dating technique to AD 750-1000; the dating of this oven base offers the first tangible evidence for occupation of the hillfort during the Mercian period.

The fact that the clay oven was set in to the top of the inner rampart raises similarities with the construction of the stone hut/oven recorded by Varley at the western entrance. It would appear that Saxon structures at Eddisbury are being constructed along the top of the inner rampart and the backfilled inner ditch; this would suggest that the Saxon burh probably only made use of the outer defences of the prehistoric hillfort.

(Below) The clay loom weight recovered from the 'Saxon hut' found above the inner ditch fills by the western hillfort entrance at Eddisbury in 1936







The clav oven base found built in to the top of the inner hillfort rampart at Eddisbury during excavation work in 2010.

Kelsborrow Castle

Prior to the Habitats and Hillforts Project there had been little suggestion that the hillfort at Kelsborrow Castle had any evidence for use in the Early Medieval period.

However, during the re-excavation of the 1973 trench across the hillfort ramparts the truncated remains of an early ditch were identified on the outer lip of a later postmedieval field drain. Wood charcoal recovered from the fill of this truncated early ditch produced a radiocarbon date of AD 1020-1160; suggesting that the hillfort might have been refortified in the late Mercian or early Norman period.

Further evidence of activity around this time was found from two charcoal filled pits located on the hillfort interior during excavation work in 2011. The first pit was originally identified close to the back of the hillfort rampart during the 1973 excavation but wood charcoal recovered from the Habitats and Hillforts work in 2011 produced a date of AD 990-1120.

The second pit was located in a separate trench and produced charred material including a grape pip; the charred material was radiocarbon dated to AD 690-890.



Varley's 'Dark Age hut' during his excavation in 1936

The two pits imply that Kelsborrow Castle was being occupied during the Early Medieval period in much the same way as Eddisbury.



(Above) The traces of the outer lip to an Early Medieval ditch identified during excavation work at Kelsborrow in 2011



(Above) One of the Early Medieval pits during excavation in 2011; this pit produced a charred grape pip amongst other things.

Chapter Seven

Postscript

After about AD 1100 there is a gap in the story of the Cheshire hillforts which marks a hiatus in the archaeological evidence from many of the hillfort sites; the exception to this being Beeston Castle which has been the subject of many guidebooks in its own right.

Much of the Sandstone Ridge between Helsby in the north and Beeston in the south, the River Gowy in the west and the River Weaver in the east, was placed within the Forest of 'Mara et Mondrum' (Delamere Forest) by the Norman Earls of Chester; and this lapsed to the Crown after the death of the last Earl in AD 1237 (the title of the Earl of Chester was from then on allocated to the Prince of Wales).

The term 'forest' did not mean it was necessarily densely wooded, it was essentially a game reserve for use in hunting by the local aristocracy, and it appears that much of the area was managed as open heath. At about the time that the Forest passed to the Crown a deer park enclosure known as The Old Pale was created in the Delamere area.

This deer park enclosure contained Eddisbury hillfort which became the location of a royal hunting lodge known as 'The Chamber in the Forest' during the 14th century; now believed to have been located on Merrick's Hill.

There were many settlements within the forest and piecemeal clearance of land for arable cultivation (known as assarting) was tolerated in some areas from time to time with the right financial persuasion.

Furthermore, the great religious house of Vale Royal Abbey was regularly granted the right to take resources like timber and stone from the forest for various building projects.

During the later medieval period the size of the Forest began to shrink as a result of this steady erosion and certain townships were exempted from forest jurisdiction over time including Frodsham with Overton, Netherton, Bradley, Mukesdale and Woodhouses. The last monarch to hunt in Delamere Forest was James I (AD 1603-25) and about this time a new deer park known as the 'New Pale' was created in the Manley area.

At the southern end of the Ridge beyond the limits of the Royal Forest other deer parks are documented at Peckforton and Harthill. By the end of the English Civil War (AD 1642-6) there were no deer left in the Forest owing to the scarcity of food in the area.

During the 18th century Delamere was a forest in name rather than function. Physically a vast heathland in which non-woodland species were dominant, this heathland would have been used for common grazing by the local population and even as the landscape began to be enclosed for agriculture many of these commons persisted. By the second half of the 18th century the townships abutting upon the heath, which had for centuries enjoyed its common grazing, petitioned Parliament for enclosing acts; it is notable that most of our hillforts were still commons up until this point.

After the passing of the enclosure acts most of the Ridge became enclosed fields given over to mixed agriculture associated with the Cheshire dairy industry.

The more recent history of the hillforts is covered by one of our other publications; a Local History book compiled by David Joyce and Barbara Foxwell entitled 'Captured Memories Across the Hillforts of Cheshire'.

The Habitats and Hillforts project has shown that the Cheshire hillforts have played a part in the story of the Ridge from the earliest times. Their role continues to this day and they are still very much part of our changing landscape.

The Habitats and Hillforts Project is funded by the Heritage Lottery Fund and Cheshire West and Chester Council and is supported by dedicated partners including Cheshire Community Action, English Heritage, Forestry Commission, National Trust, Woodland Trust, Cheshire Landscape Trust and private landowners as well as the Mersey Forest who have all been dedicated to the overall success of the project.

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