

# I: The Late Prehistoric and Romano-British Settlement of the Mersey Basin

A Study in Marginality

---

by M. Nevell PhD MIFA

This paper presents an overview of some recent attempts to provide a theoretical framework for both the location and interpretation of the growing number of late prehistoric and Romano-British rural sites within the region centred around the theme of marginality. It uses the growing body of archaeological evidence for the period, particularly research undertaken over the last 15 years, to look at the issues of climatic and social marginality. The emerging debate on the rural settlement of these periods is focussed on the social hierarchy and material culture of the area and whether this was distinctive both before and after the Roman conquest.

## Introduction

The 1990s witnessed a quiet revolution in Romano-British studies in North West England, at least that part south of the Cumbrian massif the ramifications of which have yet to be fully assimilated (Wild 2002). The new forts, fortlets and marching camps found during this period have been published in a variety of books and journals and are gradually leading towards a revision in our understanding of the Roman conquest of this region during the 70s AD and the way in which the land was subsequently garrisoned (Matthews 1994; Philpott 1994; Philpott & Adams 1999; Rogers 1995 & 1996). Less well known are the developments in our knowledge and interpretation of the Romano-British rural landscape of the southern part of North West England, which during the 1990s underwent a transformation of the archaeological data base in a way similar to that seen in Cumbria in the 1970s and 1980s (Jones 1999), which is still continuing (Fairburn 2002a & b; Nevell 2002; Redhead & Roberts 2003). As recently as 1979 the late Prof Barri Jones drew attention to the fact that the Romano-British rural settlement of North West England (however that is defined), essentially the non-military sites, remained a largely unknown quantity in this region (Jones 1979). In part this was due to the concentration of over two centuries of scholarly study on the most visible Roman period sites, the Roman forts, and in part the difficulties of applying 20th century rapid site location techniques such as aerial photography and field walking in a region dominated by mosslands, grasslands on the extensive clay terraces and widespread urban sprawl south of the River Ribble. Since that observation, and despite two decades of research (Collens 1994; Higham 1980; Higham & Jones 1985; Jones 1979; Matthews 1999 & 2001; Philpott 1994), we are only just beginning to investigate the impact of the

Roman military presence on the indigenous late prehistoric (Iron Age) population who made their living from subsistence farming, in what has been characterised as a climatically and agriculturally marginal area (Nevell 1999a & 1999b; Philpott & Adams 1999). What has emerged from the wider landscape research of the 1990s is an increasing need to understand the origins and ultimate destination of Romanisation in North West England because this era of transition, with its interplay between subsistence farming, the landscape and the climate, may provide models and parallels applicable to other episodes of transition in the region, such as the shift from hunter-gathering to farming, or more particularly the change from a rural to an industrial society.

This paper presents an overview of some recent attempts to provide a theoretical framework for both the location and interpretation of the growing number of late prehistoric and Romano-British rural sites within the region centred around the theme of marginality. Professor Sydney Pollard has demonstrated the impact of two main types of marginality; economic and social/political (Pollard 1997, 10–17) and in North West terms we might be able to see the impact of each during the late prehistoric and Romano-British era. First, economic marginality, which is more about the natural features of a region rather than its political make-up. In pre-industrial, non-urbanised, societies this economic marginality was expressed in how good the land was for cultivation. Typically there were three types of landscape which made regions marginal in Europe; mountains, forests, and fen or marshland; North West England has all three in some abundance. However, some of these marginal regions became highly productive economically once industrialisation took hold. Therefore, we should be wary of dismissing such areas as always being economically marginal just because they were marginal for subsistence agriculture (Dark & Dark 1997; Matthews 2000–1). Secondly, in the social/political tensions between the centre and the periphery, where the issue appears to be the pull between the centre as an overriding significance which seeks to open up, subject, and colonise the fringe, and the fringe which might come to dominate the centre (Millett 1990). These stresses could be expressed physically as much as intellectually and in the North West, which lay at the extreme north-western edge of the Roman Empire, might be recoverable from the archaeological data.

Before we can assess how climatic and social marginality might have affected the archaeology of the late prehistoric and Romano-British period in North West England we have to arrive at a consistent geographical definition of the area under discussion. The focus of this paper is the landscape to the south of the Cumbrian massif and to the west of the Pennines. Yet even this zone is topographically fragmented, being dominated by a series of river valleys running east to west into the Irish Sea; the Dee, Gowy, Weaver, Mersey, Alt, Douglas, Ribble, Wyre and Lune. These rivers are separated by prominent ridges and hills, especially north of the Ribble where the Lancashire plain is reduced to a narrow strip a few kilometres wide. However, some coherence can be seen in the catchment area of the River Mersey and its estuary. This catchment area runs westwards from the Pennines as far as Liverpool, Chester and the Wirral defining an area that is roughly bowl shaped. The Mersey Basin, as geographers have long called this area, encompasses most of the land south of Wigan and north of Nantwich and includes the Gowy, Weaver, Sankey and Mersey rivers; an area roughly 80km by 70km. It is surrounded on three sides by hills; the Rossendale uplands and its outliers around Wigan to the north

and north-west, and the Pennines to the east and south-east as far as Congleton. It is this area that is the primary focus of the rest of this note.

### **Climatic Marginality**

#### *A Model for Climatic Marginality*

I have already discussed elsewhere, at some length and detail, the theoretical background for the influence of climatic marginality upon settlement during the first millennium BC and early first millennium AD within North West England (Nevell 1992, 1999a, 2001). Using the models pioneered by Parry it is possible to argue that within the Mersey Basin, and elsewhere west of the Pennines, climatic instability, and in particular fluctuations in annual mean summer temperatures, affected the altitudinal limit on cereal cultivation and thus permanent settlement (Parry 1975), particularly during the first millennium BC, but less so during the early centuries of the first millennium AD.

For instance, within North West England the mid-twentieth century marginal limit for cereal cultivation lay between 200m and 250m AOD (Crowe 1962, 44). Around 1200 BC the altitudinal limit for cereal cultivation could have been, theoretically, as high as 460m AOD, but by *c* 150 BC the fall in the annual mean summer temperature, which may have been as great as *c* 2.5 degrees centigrade, could have reduced this limit to as low as 110m AOD (Lamb 1982; Nevell 1999a). Certainly land above this level would have been highly marginal for cereal cultivation. The recovery in temperatures after *c* 150 BC would have restored the limits for cereal cultivation to their mid-twentieth century levels, between 200m and 250m AOD, by the time of the Roman conquest of the region in the 70s AD, and there was continued improvement into the third century AD. Therefore, for most of the first millennium BC all year round settlement above *c* 110m AOD within the region would appear to have been filled with risk. Such figures are undoubtedly crude but it is not so much the absolute temperatures that are important in the assessment of the impact of climatic change on the local environment, but rather the pattern of fluctuation.

#### *An Eco-deterministic Model for Settlement: the Late Prehistoric Period*

Whilst I and others have demonstrated (Brayshay 1999; Cowell & Innes 1994; Hall *et al* 1995; Nevell 1999a) that the palaeo-environmental deposits from the Mersey Basin preserve evidence for climatic change during this period, they also show something else; evidence of anthropogenic changes to the vegetation in the form of woodland clearance episodes and the occurrence of cereal pollen. This evidence allows us to suggest a reconstruction of the impact of changing settlement trends on the landscape of the area and this can be used to construct an eco-deterministic model of settlement trends within the region for the centuries before and after the Roman conquest.

Seven lowland diagrams available from this period show broadly similar developments in the regional vegetation of the lowlands of the Mersey Basin, with the two earliest episodes of woodland clearance assignable to the mid to late first millennium BC, separated by a short phase of woodland regeneration. The first of these episodes, which is broadly dateable to immediately after the early first millennium BC recurrence surface dated to the period 795–595 BC, was characterised by sustained woodland clearance and an absence of cereal pollen suggesting pastoral farming (Nevell 1999a; Cowell & Innes 1994; Hall *et al*

1995; Leah et al 1997; Ogle et al 1997; palaeo-environmental sample sites are from Chat Moss, Holcroft Moss, Knowsley Moss, Godley Brook, Lindow Moss, Risley Moss, Simmonswood Moss).

A brief period of forest regeneration was followed by a second phase of woodland clearance within the Mersey Basin during the late first millennium BC. This was characterised by a period of highly intensive agricultural activity, involving major deforestation, high levels of weed pollen and, for the first time, the introduction of cereals (and possibly hem/hops) in high quantity. This period of intense land use has been dated at Lindow Moss in eastern Cheshire (SJ 8200 8050), to the period after 430–250 BC (340 +/- 90 BC; BM 2401). Samples from Simmonswood Moss on Merseyside show a similar pattern of clearance dated to after the period 790–257 BC (2380 +/- 80 BO; Birm-1221; Cowell & Innes 1994) and the same pattern is apparent in Chat Moss and Holcroft Moss in northern Cheshire and western Greater Manchester (Nevell 1999a; Birks 1964 & 1965; Hall et al 1995; Leah et al 1997).

In contrast to these lowland pollen samples, which each indicate a two phase development of agriculture in the Mersey Basin during the mid to late first millennium BC, three diagrams from the uplands of the region indicate sustained forest clearance from the mid-first millennium BC in the Rossendale area, but only from the late first millennium BC elsewhere in the southern Pennines (Bartley 1975, 378; Tallis & McGuire 1972; Tallis & Switsur 1973; palaeo-environmental samples from Deep Clough, in the upper Irwell valley, Rishworth Moor and Featherbed Moss).

#### *An Eco-deterministic Model for Settlement: the Romano-British Period*

Seven dated pollen diagrams are available from the Mersey Basin for this period and all record major and sustained woodland clearance over many centuries at the end of the first millennium BC and during the first centuries of the first millennium AD. These clearances appear to be broadly chronologically coincident across the Basin, and form the third significant period of palaeo-environmental disturbance after the recurrence surface of 795–595 BC. The end of this third phase of clearance activity is marked by a second recurrence surface which is radio-carbon dated to the years 326–526 AD (Godwin & Willis 1960, 62–72).

Five pollen diagrams indicate a major and sustained upsurge in agricultural activity, associated with significant amounts of cereal pollen and widespread tree clearance, in the centuries immediately before the *c* 326–526 AD recurrence surface, at Chat Moss A & B, Holcroft Moss, Knowsley Park Moss and Lindow Moss I (Nevell 1999a; Cowell & Innes 1994; Hall et al 1995). This evidence is supported by two palaeolimnological studies showing increased soil erosion in this period in Cheshire at Peckforton Mere, near the central Cheshire Ridge, and at Rostherne Mere in northern Cheshire where this episode began sometime between 366 BC and AD 60 (Leah et al 1997; Schoenwetter 1982).

The upland pollen diagrams from the fringes of the Mersey Basin also indicate an upsurge in activity during this period, but of a different nature. The pollen diagrams from Deep Clough, at 340m AOD and Rishworth Moor at 410m AOD, both indicate the continuance of

the substantial woodland clearance seen towards the end of the first millennium BC, and the dominance of grass pollens indicative of an open landscape perhaps used for pastoral farming (Bartley 1975, 378; Tallis & McGuire 1972, 723). The extent of upland woodland clearance in this area by the beginning of the Roman period is indicated by a pollen sample carbon dated to the years 50 BC to AD 110 (30 +/- 80 AD) GaK 2025) which shows that tree pollen accounted for only 15% of the total dry land pollen, shrub pollen 10% but grass pollen 75%. Extensive upland woodland clearance is also indicated in this period from Featherbed Moss, although the evidence from here suggests a decline in upland activity above *c* 300m AOD after the mid-third century AD with regeneration of the woodland beginning around AD 280 (Tallis & Switsur 1973, 744), whilst similar regeneration of woodland began around AD 290 at Deep Clough in central Rossendale (Tallis & McGuire 1972, 727).

### *Climate and Settlement Trends*

The palaeo-environmental evidence for the period *c* 795 BC to AD 526 reflects the climatic decline of the early to mid first millennium BC and the subsequent recovery of the late first millennium BC and the first few centuries of the first millennium AD. Furthermore, this evidence can be used to model rises and falls in human activity, indicated by three phases of clearance episodes which culminated at the end of the first millennium BC and beginning of the first millennium AD in the first occurrence of large quantities of cereal pollen coincident with sustained forest clearance. This pattern of human activity would appear to match the climatic cycle of this period, although whether the two are directly related is difficult to prove but superficially the link seems strong. Within this context it may be significant that the few upland univallate hillforts or palisaded enclosures of the southern Pennine uplands, Almondbury, Castercliffe, Mam Tor and perhaps Portfield, (Coombs 1982; Coombs & Thompson 1979; Cunliffe 1991 344–52; Varley 1976) appear to have been abandoned by the middle centuries of the first millennium BC (Kenyon 1991, 28; Hart 1984, 73–5) and that by the last quarter of the first millennium BC none of the largest hillfort sites in the North West were occupied. Thus, at the hillfort of Portfield, in the Ribble Valley to the north of the Mersey Basin, the main period of use for the defences belonged to the years 750–500 BC (Beswick & Coombs 1986, 175–6). Similarly, at Castercliffe (also in the Ribble Valley) radio-carbon dates for the ramparts centred on 510 +/- 70 BC (S 286; Coombs 1982, 127–8), whilst in Cheshire the ramparts at Maiden Castle were dated to *c* 390 BC (British Archaeological Abstracts 88/510) and the main occupation of the hillfort at Beeston Castle spanned the years 765 to 257 BC (Ellis 1993, 85–6).

The palaeo-environmental and archaeological evidence would seem, thus, to provide some support for the theory that the 110–250m zone in the southern Pennines and its foothills was the most agriculturally marginal area, but the lack of a comprehensive network of dated palaeo-environmental samples from across North West England means that other marginal areas may not be represented in this data. The highly localised palaeoenvironmental evidence from Tatton Park, for instance, which lies on claylands at *c* 60m AOD, shows late prehistoric clearance activity but regeneration in the Roman period, hinting that it may be possible to recover smaller niche environments with finer data (Higham & Cane 1996–7). One further zone of agricultural marginality highlighted by the North West Wetlands Survey is the large basin mosslands of the region, which were not conducive to early settlement in the same way as the Somerset Levels and the Fens,

whilst coastal change in this period, particularly around the Wirral peninsular, the Mersey Estuary and along the western Lancashire coast line, would also have affected settlement potential, particularly below the 5m contour line.

## **Social Marginality: The Archaeological Evidence For Settlement**

### *The Nature of the Evidence*

The archaeological evidence for settlement during the first millennium BC and early first millennium AD is dominated by two monument types; small enclosed sites, usually less than 2ha in area and larger, usually unenclosed, sites above 3ha in area. The best known of these settlement sites are the enclosures, which can be divided into those surviving as upstanding earthworks and those that have been ploughed-out but which are recovered as cropmarks. Most of the earthworks were first identified and catalogued by Forde-Johnston (Forde-Johnston 1962). He used the hillfort model in his interpretation of these earthworks, comparing them with the better known sites of the Welsh Marches and South-West of England. Using his criteria there are thirteen hillfort type sites that lie in the modern counties of Cheshire, Greater Manchester, Lancashire and Merseyside, of which eleven are situated within the Mersey Basin (Beeston Castle, Bradley, Burton Point, Castlesteads, Eddisbury, Helsby, Kelsborrow, Maiden Castle, Oakmere, Rainsough, and Woodhouses). These sites ranged in size from 0.1ha (Burton Point) to 4ha (Beeston Castle), and had a mixture of single and multiple ditches and banks as defences.

The ploughed-out cropmark enclosures were identified through survey work during the 1980s and 1990s by archaeologists from Chester, Liverpool and Manchester (Collens 1994 & 1999; Jones 1999). Within the Mersey Basin these number over 50 and more can be expected. These sites are characterised by small single and double ditched enclosures, usually less than 2ha in area, of a type familiar in southern Britain from the late first millennium BC (Neve11 1999a; Collens 1994 & 1999). The cropmarks range in size from 0.1ha to 2.8ha. Stylistically there is no difference between the cropmark sites and the earthwork sites traditionally identified at hillforts, other than topographical location (the earthworks usually lie in the 110–250m AOD zone) and the presence of earthwork banks and ditches in the latter. Within Forde-Johnston's own work he made a distinction between true hillforts above roughly 2.5ha in area which acted as central places and the home of a local chieftain, and smaller sites which he regarded as farmsteads. If we apply this criterion to the Mersey Basin, then of the earthwork enclosures only Kelsborrow (3.3ha), Eddisbury (3.5ha) and Beeston (4ha) can be viewed as true hillforts. How accurate such an assumption might be is open to question, although anthropological parallels (Matthews 2000–1) would suggest that such a settlement hierarchy may be recoverable from size alone. The point here is that the earthwork and cropmark enclosures from the Mersey Basin can be treated as broadly one category of sites.

This gives us over 60 sites in the Mersey Basin which morphologically may belong to the late prehistoric and Romano-British periods, although only 22 have produced excavation evidence from this period (Table 1). Of these, 13 can be shown to be late prehistoric in origin; 16 enclosures can be shown by excavation to have Romano-British phases; and six have both late prehistoric and Romano-British phases (Duttons Farm, Lathom [pers comm Dr R. Philpott], Brookhouse, Great Woolden Hall, Irby, Mellor and Rainsough). There are a further

Table I.1 Late Prehistoric and Romano-British sites in the Mersey Basin.

Name of Site	NGR	Area in Hectares	Period of Activity	Height above Sea Level	Drift Geology	No of ditches
Beeston Castle	SJ 5380 5920	4ha	LBA-Mid-Ironage	100m	Solid	2
Birch Heath	SJ 5337 6218	?	RB	20m	Boulder Clay	1
Brookhouse Farm, Halewood	SJ 4730 8500	?	Iron Age-RB	20m	Glacial Sands & Gravels	2
Brook House Farm, Bruen Stapleford	SJ 4975 6385	?	LBA-Iron Age	41m	Boulder Clay	open?
Castlesteads	SD 7969 1298	1.1ha	Late Iron Age	110m	Boulder Clay	1
Court Farm	SJ 451 865	?	RB	20m	Glacial Sands	1
Dutton's Farm, Lathom	SD40471067	?	Iron Age - RB	15m	Glacial Sands	open?
Eddisbury	SJ 5530 6930	3.5ha	Iron Age	150m	Glacial Sands	3
Great Woolden	SJ 6910 9355	1.1ha	Late Iron Age- R-B	20m	Glacial Sands	2
Haiton Brow	SJ 534 8260	1.68ha	RB	70m	Solid	1
Hanginbank	SJ 9650 9350	1.23ha	RB	230m	Glacial Sands & Gravels	2
High Legh	SJ 6900 8320	0.6ha	RB	60m	Glacial Sands & Gravels	1
Irby	SJ 2520 8520	0.88ha	Iron Age - RB	60m	Glacial Sands & Gravels	1
Kelisborrow	SJ 5316 6752	3.3ha	Iron Age	170m	Glacial Sands & Clays	2
Legh Oaks I	SJ 6902 8318	0.1ha	Iron Age	60m	Boulder Clay	1
Legh Oaks II	SJ 6892 8325	0.31ha	RB	60m	Boulder Clay	1
Maiden Castle	SJ 4977 5289	0.7ha	Iron Age	211m	Solid	2
Mellor	SJ 9820 8880	3ha	Iron Age-RB	220m	Glacial Sands & Clays	2
Rainsough	SD 8105 0213	0.96ha	Late Iron Age-RB	65m	Glacial Sands & Gravels	1
Saltney I	SJ 373 647	?	RB	10m	Glacial Sands & Gravels	1
Saltney II	SJ 381 650	?	RB	10m	Glacial Sands & Gravels	1
Tatton Park	SJ 7578 8150	0.25ha	Late RB/Dark Age	50m	Glacial Sands & Gravels	1
Ochre Brook, Tarbrook	SJ 464 887	?	RB	20m	Boulder Clay	palisade
Winwick	SJ 6120 9260	1.27ha	RB	25m	Glacial Sands & Gravels	1

eight enclosures where various types of fieldwork have failed to provide a positive date, although a late prehistoric or Romano-British origin is strongly suspected (Arthill, Bradley, Burton Point, Giant's Seat, Helsby, Little Lever, Oakmere, Rhodes Green, and Woodhouses).

Three topographical sub-groups can be tentatively identified within this group of 30 enclosures. Firstly, promontory settlements, examples of which are beginning to be found along the escarpment edges of the river valleys of the Mersey Basin. Dated examples are known from Castlesteads, Great Woollen and Rainsough, but other potential examples include a double-ditched cropmark site at Giants Seat in the Irwell Valley, and the cropmark ditched enclosure at Rhodes Green in the Irk valley. Secondly, hilltop sites along the western Pennine fringes and along the Central Cheshire Ridge (Beeston Castle, Eddisbury, Kelsborrow, Maiden Castle, Mellor and Hangingbank). Thirdly, niche sites on or near to the boundary between two different soils types (Duttons Farm, Irby, Halton Brow, High Legh, Legh Oaks I & II, Tatton Park and Winwick).

The second category of sites comprises 11 settlements all bar one of which appear in the last quarter of the first century AD and are associated with the Roman conquest and occupation of the Mersey Basin; Castleshaw, Chester, Heronbridge, Manchester, Melandra, Meols, Middlewich, Nantwich, Northwich, Tilston and Wilderspool.

These Romano-British civilian settlements are characterised in a number of ways. First, their large size compared to the late prehistoric sites, ranging from roughly 3ha (Melandra and Northwich) to over 50 ha (Chester), although the area of a number of sites remains unclear (Castleshaw, Meols and Nantwich) and even for the other sites the figures quoted in this paper are only estimates. This great variability in size reflects the individual development of these sites during more than three centuries of Roman occupation. Secondly, they have some internal order through the presence of streets. Thirdly, they have Romanised buildings in the form of rectangular or winged timber-framed, half-timbered or stone buildings. Finally, these sites produce vast quantities of Roman material, typically pottery but also brick, glass, masonry and tile, the latter four materials occurring for the first time in the Mersey Basin.

Within this group of Romano-British settlements we can distinguish between those associated, at least initially, with a Roman fort (Castleshaw, Chester, Manchester, Melandra, Middlewich and Northwich) and those without an obviously direct military origin (Heronbridge, Meols, Nantwich, Tilston and Wilderspool). Most of those settlements attached to the Roman forts of the region, which traditionally have been identified as *vici*, began in the AD 70s and AD 80s and ranged in size from *c* 3ha to *c* 7.5ha. Dominated by industrial activities linked to the Roman forts (usually metal working and pottery manufacture) the buildings within these settlements were arranged along one or two roads leading from the fort gateways, producing a characteristic ribbon pattern of development. Three of these sites were abandoned in the mid-second century AD when their forts were dismantled (Castleshaw, Melandra and Northwich; Redhead 1999; Webster 1971; Petch 1987). The other three sites appear to have continued in occupation throughout the Roman period. However, whilst Manchester, along with the more northerly *vici* at Burrow-in-Lonsdale, Lancaster and Ribchester, grew to only *c* 7.5ha (Walker 1986), those at Chester



and Middlewich became much larger settlements. The settlement that grew outside the walls of the legionary fortress at Chester, usually referred to as a *canabae*, grew to over 50ha in area, the largest such site in the region and had a complex grid of streets to the east, south and west of the legionary fortress and imposing structures such as the amphitheatre and bath complex (Mason 2001, 101–18). At Middlewich the settlement may have extended across as much as 30ha. It was dominated by salt processing and had streets running from the south-eastern and north-eastern gateways of the old fort site and side streets off those (Petch 1987; Higham 1993; Matthews 2000–1; Shotter 1998–99a & b).

The purely civilian settlements, with the exception of Meols, appear to have developed after the Roman conquest, from the AD 70s onwards, and they continued in occupation until the fourth century. They appear to have had a wider economic base than most of the *vici*, with crop processing, metalworking, leather processing, pottery manufacture and salt production attested at these sites. Whilst the size of Meols and Nantwich is unclear Heronbridge and Tilston became substantial settlements of *c* 13ha and *c* 8.5ha respectively. Wilderspool grew into a large settlement perhaps covering as much as 30ha, comprising stone buildings, quayside buildings and an industrial zone to the south at Stockton Heath. Although all three sites had a primarily linear pattern of development, the largest, Wilderspool, appears to have had a more developed street pattern. The lack of a confirmed military presence at these sites, combined with a certain regularity of street pattern and Romanised buildings (particularly at Wilderspool from where large stone architectural fragments have been recovered) has led to their identification as ‘small’ Roman towns (Petch 1987).

Meols is the most unusual of these purely civilian settlements, since its origins lie in the late prehistoric period. Lying on the northern coast of the Wirral peninsula, the site has been largely washed away by coastal erosion and survives mostly as a large collection of finds, spread along nearly 1km of coastline west of Dove Point. These have recently been reviewed by Matthews (Matthews 1996) who proposed a long period of occupation from the middle of the first millennium BC to the late medieval period. The finds assemblage from the site is the most exotic from any of the late prehistoric settlements of the region, consisting almost entirely of coins, which elsewhere only occur as stray finds. These include two silver coins of the Coriosolites, a tribe based in northern Brittany, three Carthaginian drachmas of the third and second centuries BC and a very worn gold coin of uncertain Celtic origin. In addition there are two swan-neck pins of typical Iron Age form (Longley 1987, 104). The Roman material is less exotic, but far more extensive, including over 63 coins, metalwork and quantities of pottery including amphora fragments.

### *Late Prehistoric Settlement Trends*

What does this growing body of late prehistoric and Romano-British settlement data reveal about the social structures of this era? In particular is it possible to see any evidence for social marginality by contrasting the evidence for the two periods? Two of the best known of the late Prehistoric enclosed sites are Great Woollen Hall (SJ 691 936), a lowland promontory double-ditched enclosure in the Glazebrook valley between Salford and Warrington excavated by GMAU in 1986–8 (Neveill 1987–8 & 1999b), and Mellor (SJ 981 889) a recently identified hillfort in the western Pennine foothills near Stockport, and the subject of excavation by UMAU since 1997 (Redhead & Roberts 2003). Until the results

from Irby are published and more sites are extensively excavated the finds and overall phasing of these two sites are our best guide as to the trends likely to be visible on the other lowland and upland enclosure sites of the Mersey Basin (Nevell 1987–8; 1992 & 1999b).

The earliest activity at Great Woolden was represented by a small assemblage of flint recovered from fieldwalking activities over the enclosure and from the excavations themselves. This material would seem to fit a date sometime in the late Neolithic or early Bronze Age, although it is not clear whether this activity was little more than ephemeral.

The major period of activity (Phases II to IV) were associated with the ditches of the enclosure, which appears to have begun in the latter part of the first millennium BC. This took the form of four structural episodes spanning the first century BC to the late second/early third century AD, starting with a series of rectangular pits in Phase I; moving to a ditched compound containing a hut circle in Phase II; being succeeded by an oval palisaded compound, with a hut, in Phase III (two circular features were located elsewhere within the enclosure by geophysical survey and it is possible that these may represent other structures from Phases II and III); and finally being replaced by a further series of pits in Phase IV. Phases II and III were dated, by radio-carbon samples, to 120 BC–AD 80 (95% certainty; GrN 16849) and 65–15 BC (95% certainty; GrN 16850).

The acidic conditions of the site meant that very little palaeo-environmental material survived. However, the presence of burnt sheep bones in Phases II and III, burnt pig bones in Phases II and IV, and rotary quern fragments from Phase III hint at a mixed farming economy.

The final phase of activity at Great Woolden Hall (Phase IV) was represented by second century AD, local, Romano-British wares from the plough soil and from the final fill of the inner ditch; this latter context also produced a radio-carbon date of AD 100–320 (95% certainty, GrN 16851). The gap between Phases III and IV may suggest a hiatus in occupation, at least in this part of the enclosure.

The earliest activity from Mellor was represented by nearly 200 flints, mostly flakes, of Mesolithic date excavated from the central crest of the later enclosed promontory. However, for the purposes of this study it is the development of the enclosure that is important.

The enclosure appears to have had two ditches, with a substantial rock-cut inner ditch up to 1.4m deep and 4m wide, and a less substantial, but still in places rock-cut, outer ditch, 2.1m deep and 1.8m wide. The date of the inner ditch is provided by a radio-carbon date of 830–190 BC (95% certainty; Beta — 146416), whilst the outer ditch produced more than 125 sherds of pottery from a single Iron Age vessel. However, there is no evidence at the moment to say whether both two ditches were dug at the same time and it seems more likely that one ditch was added to strengthen the other, although in what order is unclear.

Inner prehistoric activity took the form of a drainage gully (recut several times) and foundation trench for a round house *c.* 10m in diameter with a radio-carbon date of 520–380 BC (95% certainty; Beta -173892). The gullies for the round-house were cut by a stone-lined linear gully which produced a radio-carbon date of 410–240 BC (95%

certainty; Beta — 173893). This suggests a focus of activity on the site during the fifth and fourth centuries BC.

In terms of material culture the Iron Age pot from the outer ditch has already been mentioned. In addition, sherds of Cheshire VCP, an Iron Age briquetage fabric, were also excavated from this part of the site, as were two crucible/mould fragments associated with bronze working.

There is an apparent gap in the occupation evidence until the site was re-used during the Roman period, from the 1st to the early 4th centuries AD. This took the form of a substantial number of sherds, 221 from the 2003 season alone, as well as a small amount of metal work such as two fragments of fibula from the inner ditch fill. Some pottery came from a shallow, flat-bottomed, ditch that cut across the gullies of the round house. However, the majority of the Roman pottery has come from the inner ditch, and seems to represent a rubbish deposit which has accumulated elsewhere over several centuries before being cleared into the ditch and ranges from early 2nd century Black Burnished, Samian, and Cheshire Plain Wares to Dales, Derbyshire, Grey, and Severn Valley Wares. The vessel types may indicate a high status Roman site on the basis of its jar to bowl ratio, more akin to urban and villa sites rather than subsistence rural sites.

Palaeo-environmental evidence from Mellor has been scarce, but where samples have been analysed from the northern run of the outer ditch there were no evidence for cereal pollen, although the presence of charcoal and coal may indicate the disposal of industrial or domestic fuel waste into the ditch.

How far Great Woolden Hall, Mellor and the other extensively investigated enclosures in the Mersey Basin (Brookhouse, Court Farm, Irby, Legh Oaks II and Mellor) genuinely reflect the late prehistoric and Romano-British rural settlement pattern is unclear. The double or single ditched compound of less than 2ha in area, often curvilinear in plan form and containing one or more circular buildings, appears to have been the most common form of settlement type in the centuries immediately preceding the Roman conquest. However, larger true hillfort type settlements were known (although all appear to have been abandoned by the first century BC) and unenclosed sites may also have existed. Therefore, it seems probable that during the late prehistoric period the Mersey Basin lay on the interface between the main settlement types of the Iron Age: the hillfort dominated zone to the west and south, the villages and open settlements to the south-east, and the enclosed homesteads of the north and north-east. Although the number of sites so far recovered is too low to give anything other than an indication of potential settlement densities, a concentration of 12 cropmark and excavated enclosure sites around Warrington in the lower Mersey Valley (Collens 1999; Nevell 1999a) suggests that we may be dealing with intensive valley occupation in localised areas.

The issue of the nature of this late prehistoric society has begun to be addressed over the last decade (Higham 1993; Matthews 2000–1; Nevell 1999b). In particular Keith Matthews has proposed an anthropologically based model of settlement hierarchy, where the size of the social grouping is directly reflected in the size of settlements in the landscape (Matthews 2000–1). Thus, the 60 plus enclosures of the late prehistoric and Romano-

British period confirmed and suspected within the Mersey Basin, fall into four broad size groupings which can be fitted into Matthews' model. These bands are sites between 0.1 and 0.4ha, sites between 0.4ha and 0.9ha, 0.9ha to 2ha and sites larger than 2ha, perhaps corresponding to Matthews' seventh to fourth levels of settlement; that is small and large family farmsteads, hamlets and villages. Intriguingly, by the late Iron Age all the traditional style hillfort settlements, those to be associated with Matthews' fourth level of settlement which performed as central places, had all been abandoned, leaving the landscape dominated by sites such as Great Woolden Hall and Irby, large family farmsteads. Such a shallow hierarchy, with only two or three levels of settlement in the late Iron Age would appear to fit Kosse's definition of a simple chiefdom (Kosse 1990) and may even suggest that the Mersey Basin, if not the whole of the North West had been taken over by an external force in this period (Higham 1987). Therefore immediately prior to the Roman conquest North West England, and the Mersey Basin in particular, was characterised by a shallow settlement hierarchy comprising ditched, often oval, enclosed farmsteads, with concentrations of such sites along several of major river valleys of the area (the Irwell, Mersey and Sankey). This gave the region its own unique late prehistoric character.

### *Romano-British Settlement Trends*

The settlement pattern of the Romano-British period is far more complicated than the shallow hierarchy of the late prehistoric era. However, the dominant form of settlement type in the region during the Roman era remained the defended enclosure. By the end of the 1990s 19 ditched enclosures of less than 2ha in area, interpreted as farmsteads, had been positively identified as Romano-British through excavation, of which eight had late prehistoric origins (Table 1). These 19 enclosures had a single ditch usually enclosing a rectangular compound which contained one or more buildings. On some of those sites which had a late prehistoric origin (Great Woolden, Irby and Mellor) a transition from the Iron Age tradition of circular building to Roman-influenced rectangular building could be seen and follows a pattern already visible on many native sites in Cumbria and Northumberland (Higham 1986). Few palaeo-environmental remains have been excavated on these sites so it is still not possible to say with certainty what their economic base was, although mixed farming is indicated at Court Farm, Irby and Great Woolden. There is a particular lack of such remains from upland sites in the Mersey Basin, so as yet there is no evidence to support the other palaeo-environmental material which suggests an expansion of cereal agriculture in the 100m to 250m AOD zone (see above), although the recently discovered site at Mellor, which lies at *c* 220m AOD, may start to fill this gap.

Even though the number of confirmed Romano-British rural farmsteads, and the extent of the excavation within these sites, remains low the archaeological evidence hints at an expansion in settlement sites, and thus population, in the first two centuries of the Roman occupation, with seven sites appearing to have only Roman activity. So far only Irby has produced evidence for occupation throughout the Roman period, the other five exclusively Roman sites appearing to fall out of use by the early third century AD. This expansion probably took place on the lighter soils of the region, with the known and possible enclosures of the region concentrating along the major river valleys of the Mersey Basin (the Bollin, Dee, Gowy, Irwell, Mersey, Sankey and Weaver) and along the sandstone ridges of the central Cheshire ridge and to the north of Warrington. Both Higham and

Matthews have stressed the impact of the supply needs of the Roman army on the native population from the AD 70s to the AD 150s, the peak in military numbers, and this may be reflected in the upsurge in clearance activity noted in the palaeo-environmental evidence and in the increase in absolute farm numbers suggested by the archaeological material (Higham 1993; Mathews 1999). A similar impact on the numbers of native farmsteads has been observed in Cumbria (Higham & Jones 1985 & Jones 1999).

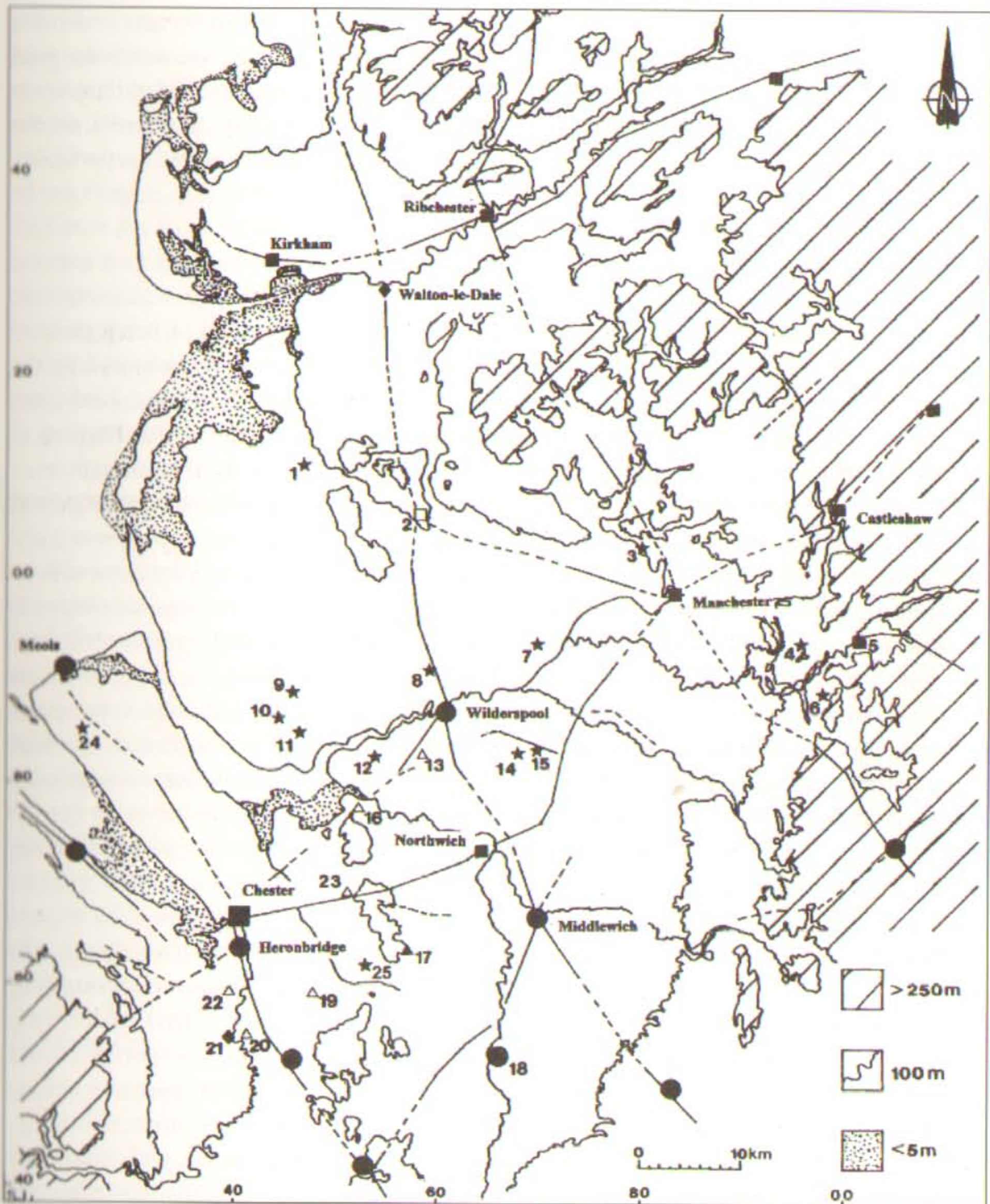
A new element to emerge in the rural settlement pattern during this period was the villa, or Romanised farmstead. Whilst the winged building at Eaton-by-Tarporley remains the only fully excavated example in the region the remains of stone structures associated with plaster, tile and hypocaust fragments at Crewe Hall and Tattenhall strongly suggest these were also villa sites, whilst the fragmentary remains of Roman period stone buildings are known from Daresbury, Frodsham and Kelsall, and such structures strongly suspected at Ashton and Poulton. Higham is surely right in suggesting that the Eaton-by-Tarporley villa represents the home of a member of the local indigenous elite who adopted the Roman life-style (Higham 1993). Eaton does not appear to have had any Iron Age antecedents but we should perhaps expect to discover these on the other probable villa sites in central and western Cheshire. Their existence may be linked to influence of the Chester legionary fortress and its *canabae*. Doubt remains about the extent of its *prata legionis*, although a boundary in the east along the River Gowy seems highly likely and the settlement at Heronbridge may well have lain outside (Higham 1993, Mason 1988, Matthews 1994, Petch 1987). How much of the Wirral peninsula lay within its bounds is unknown. The impact of *c* 6000 legionaries and the population of the *canabae* might be expected to be visible in an increase in the numbers of farms around the legionary fortress; Mathews has argued strongly that the *prata legionis* alone would have been capable of feeding the garrison (Matthews 1999). Ironically, none of the newly identified enclosures and villa/potential villa sites lie within 10km of the fortress, although the villa/potential villa sites do form a ring beyond this limit to the south and east which might be significant in defining Chester's *prata legionis*.

Whilst the ditched farmsteads and potentially some of the villa-style farmsteads can be seen as having clear linkages with the late prehistoric settlement pattern, the large nucleated sites that emerged in the late first century AD in the Mersey Basin, and elsewhere in North West England, were new features of the landscape. These sites can be fitted into the settlement hierarchy seen elsewhere in the province of Britannia during the Roman period (Hingley 1989). The *vici* attached to the Roman forts of the Mersey Basin were, like their counterparts elsewhere in northern Britain, dependant on the military presence for their existence; those at Castleshaw, Melandra and probably Northwich, for instance were dismantled when their parent forts were abandoned. Others such as Manchester and further north in the region Ribchester and Lancaster remained occupied throughout the life of their forts, although in all three *vici* there was a decline in activity from the early third century onwards (Walker 1986). The relationship of these extra-mural settlements to the native rural population is unclear in the region, but elsewhere some *vici* appear to have acted as a focus for the local population. Hints of such a relationship can be seen in the palaeo-environmental material from the Castleshaw valley, which indicates substantial improvement in the local upland pasture around the fort during the Roman occupation (Brayshay 1999; Redhead 1999).

Matthews have stressed the impact of the supply needs of the Roman army on the native population from the AD 70s to the AD 150s, the peak in military numbers, and this may be reflected in the upsurge in clearance activity noted in the palaeo-environmental evidence and in the increase in absolute farm numbers suggested by the archaeological material (Higham 1993; Mathews 1999). A similar impact on the numbers of native farmsteads has been observed in Cumbria (Higham & Jones 1985 & Jones 1999).

A new element to emerge in the rural settlement pattern during this period was the villa, or Romanised farmstead. Whilst the winged building at Eaton-by-Tarporley remains the only fully excavated example in the region the remains of stone structures associated with plaster, tile and hypocaust fragments at Crewe Hall and Tattenhall strongly suggest these were also villa sites, whilst the fragmentary remains of Roman period stone buildings are known from Daresbury, Frodsham and Kelsall, and such structures strongly suspected at Ashton and Poulton. Higham is surely right in suggesting that the Eaton-by-Tarporley villa represents the home of a member of the local indigenous elite who adopted the Roman life-style (Higham 1993). Eaton does not appear to have had any Iron Age antecedents but we should perhaps expect to discover these on the other probable villa sites in central and western Cheshire. Their existence may be linked to influence of the Chester legionary fortress and its *canabae*. Doubt remains about the extent of its *prata legionis*, although a boundary in the east along the River Gowy seems highly likely and the settlement at Heronbridge may well have lain outside (Higham 1993, Mason 1988, Matthews 1994, Petch 1987). How much of the Wirral peninsula lay within its bounds is unknown. The impact of *c* 6000 legionaries and the population of the *canabae* might be expected to be visible in an increase in the numbers of farms around the legionary fortress; Mathews has argued strongly that the *prata legionis* alone would have been capable of feeding the garrison (Matthews 1999). Ironically, none of the newly identified enclosures and villa/potential villa sites lie within 10km of the fortress, although the villa/potential villa sites do form a ring beyond this limit to the south and east which might be significant in defining Chester's *prata legionis*.

Whilst the ditched farmsteads and potentially some of the villa-style farmsteads can be seen as having clear linkages with the late prehistoric settlement pattern, the large nucleated sites that emerged in the late first century AD in the Mersey Basin, and elsewhere in North West England, were new features of the landscape. These sites can be fitted into the settlement hierarchy seen elsewhere in the province of Britannia during the Roman period (Hingley 1989). The *vici* attached to the Roman forts of the Mersey Basin were, like their counterparts elsewhere in northern Britain, dependant on the military presence for their existence; those at Castleshaw, Melandra and probably Northwich, for instance were dismantled when their parent forts were abandoned. Others such as Manchester and further north in the region Ribchester and Lancaster remained occupied throughout the life of their forts, although in all three *vici* there was a decline in activity from the early third century onwards (Walker 1986). The relationship of these extra-mural settlements to the native rural population is unclear in the region, but elsewhere some *vici* appear to have acted as a focus for the local population. Hints of such a relationship can be seen in the palaeo-environmental material from the Castleshaw valley, which indicates substantial improvement in the local upland pasture around the fort during the Roman occupation (Brayshay 1999; Redhead 1999).



III. I.1 Romano-British Settlement sites in the southern half of North West England, 1st to 3rd century AD

### Key

Circles = towns (large nucleated sites above 7ha in area)

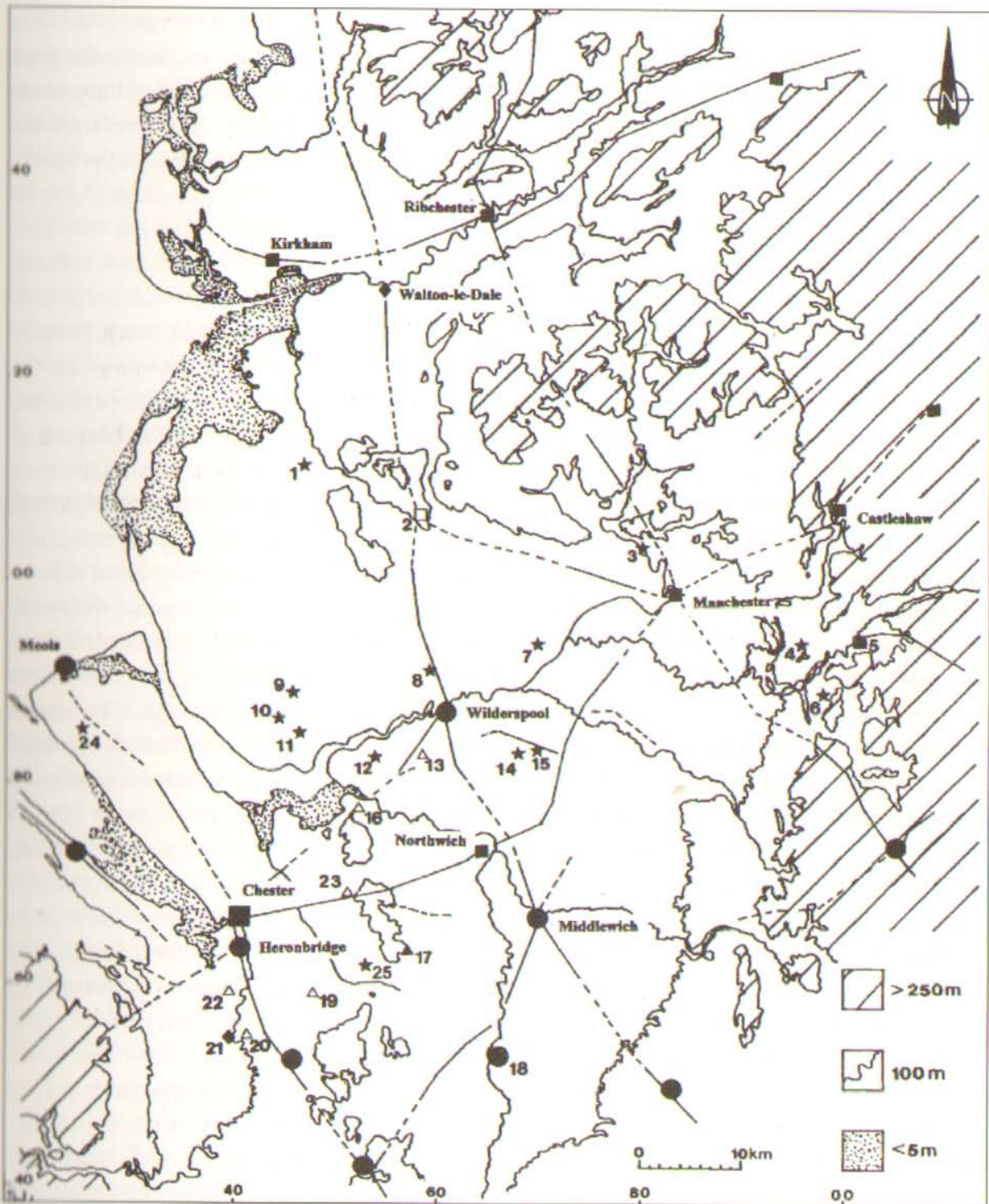
Squares = Roman forts with vici

Stars = farmsteads (enclosures of less than 2.5ha in area)

Triangles = villas (Romanised farmsteads)

Open symbols = possible sites

- (1) Dutton's Farm; (2) Wigan; (3) Rainsough; (4) Hangingbank; (5) Melandra Castle; (6) Mellor; (7) Great Woollen; (8) Winwick; (9) Ochre Brook; (10) Court Farm; (11) Brook House; (12) Halton Brow; (13) Daresbury; (14) Legh Oaks II; (15) High Legh; (16) Frodsham; (17) Eaton-by-Tarporley; (18) Nantwich; (19) Tattenhall; (20) Crewe Hall; (21) Kelsall; (24) Irby; (25) Birch Heath



III. I.1 Romano-British Settlement sites in the southern half of North West England, 1st to 3rd century AD

### Key

Circles = towns (large nucleated sites above 7ha in area)

Squares = Roman forts with vici

Stars = farmsteads (enclosures of less than 2.5ha in area)

Triangles = villas (Romanised farmsteads)

Open symbols = possible sites

- (1) Dutton's Farm; (2) Wigan; (3) Rainsough; (4) Hangingbank; (5) Melandra Castle; (6) Mellor; (7) Great Woolden; (8) Winwick; (9) Ochre Brook; (10) Court Farm; (11) Brook House; (12) Halton Brow; (13) Daresbury; (14) Legh Oaks II; (15) High Legh; (16) Frodsham; (17) Eaton-by-Tarporley; (18) Nantwich; (19) Tattenhall; (20) Crewe Hall; (21) Kelsall; (24) Irby; (25) Birch Heath



prehistoric period the area was marginal in as much as it lay on the boundary between at least three tribal groupings; the Brigantes, Deceangli and Cornovii. This perhaps explains an emerging settlement hierarchy that lacks large central places as foci of power and status. In the Roman period the Mersey Basin and North West England remained politically marginal, with power concentrated in the south-eastern part of the province and in the heart of the Empire, Rome. Economically, however, it was not marginal, since there is growing evidence for an expansion in agriculture during this era in both the lowland and upland areas of the region. North West England is thus an area that historically has been a marginal or transitional region. Therefore, an understanding of the interplay between the political, economic and geographical forces in this area during the Roman era has much to contribute to our understanding of such zones elsewhere in the Roman Empire, as well as during other periods of cultural transition within the region itself, in particular the shift from an agrarian to an industrial society when the region became internationally important.

### Acknowledgements

This note has arisen out of discussions with many of the individuals who took part in a conference organised by the writer in 1995 entitled 'Living on the Edge; Romano-British Rural Settlement in North West England'. This subject was first brought to my attention by the late Prof Barri Jones of Manchester University whilst I was a post-graduate student in the mid-1980s, and throughout the 1990s he was very supportive of both my work and the wider Roman research being undertaken by the University of Manchester Archaeological Unit. The 1995 conference was the basis for a collection of papers in 1999 which sought to publish for the first time the new research of the 1990s and since then both new military and rural Roman sites have continued to be found and excavated in the North West. I would particularly like to thank Dr Peter Carrington, Dr Nick Higham, Keith Matthews, Dr Rob Philpott, Norman Redhead, Prof David Shotter, John Roberts, and John Walker for the chance to discuss many of the points raised by the conference since 1995 and discussed in this paper.

### Bibliography

- Bartley, B B 1975 Pollen analytical evidence for prehistoric forest clearance in the upland area west of Rishworth, West Yorkshire, *New Phytologist* 74, 375-81
- Beswick, P & Coombs, D G 1986 Excavations at Portfield, hillfort, 1960, 1970 and 1972. In: Manby, G & Turnbull, P eds. *Archaeology of the Pennines, studies in honour of Arthur Rainwick*. Oxford, Archaeopress. (BAR Brit Ser 158), 137-80
- Birks, H J B 1964 Chat Moss, Lancashire. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society* 106, 1-24
- Birks, H J B 1965 Pollen analytical investigations at Holcroft Moss, Lancs, and Lindow Moss, Cheshire. *Journal of Ecology* 53, 299-314
- Brayshay, B 1999 Palaeoenvironmental evidence for marginality in the upper Mersey Basin. In: Nevell ed, 82-89
- Carrington, P ed 1994 From flints to flower pots. Current research in the Dee-Mersey region. Cheshire City Council (Archaeol Serv Occas Pap 2)

prehistoric period the area was marginal in as much as it lay on the boundary between at least three tribal groupings; the Brigantes, Deceangli and Cornovii. This perhaps explains an emerging settlement hierarchy that lacks large central places as foci of power and status. In the Roman period the Mersey Basin and North West England remained politically marginal, with power concentrated in the south-eastern part of the province and in the heart of the Empire, Rome. Economically, however, it was not marginal, since there is growing evidence for an expansion in agriculture during this era in both the lowland and upland areas of the region. North West England is thus an area that historically has been a marginal or transitional region. Therefore, an understanding of the interplay between the political, economic and geographical forces in this area during the Roman era has much to contribute to our understanding of such zones elsewhere in the Roman Empire, as well as during other periods of cultural transition within the region itself, in particular the shift from an agrarian to an industrial society when the region became internationally important.

### Acknowledgements

This note has arisen out of discussions with many of the individuals who took part in a conference organised by the writer in 1995 entitled 'Living on the Edge; Romano-British Rural Settlement in North West England'. This subject was first brought to my attention by the late Prof Barri Jones of Manchester University whilst I was a post-graduate student in the mid-1980s, and throughout the 1990s he was very supportive of both my work and the wider Roman research being undertaken by the University of Manchester Archaeological Unit. The 1995 conference was the basis for a collection of papers in 1999 which sought to publish for the first time the new research of the 1990s and since then both new military and rural Roman sites have continued to be found and excavated in the North West. I would particularly like to thank Dr Peter Carrington, Dr Nick Higham, Keith Matthews, Dr Rob Philpott, Norman Redhead, Prof David Shotter, John Roberts, and John Walker for the chance to discuss many of the points raised by the conference since 1995 and discussed in this paper.

### Bibliography

- Bartley, B B 1975 Pollen analytical evidence for prehistoric forest clearance in the upland area west of Rishworth, West Yorkshire, *New Phytologist* 74, 375-81
- Beswick, P & Coombs, D G 1986 Excavations at Portfield, hillfort, 1960, 1970 and 1972. In: Manby, G & Turnbull, P eds. *Archaeology of the Pennines*, studies in honour of Arthur Rainwick. Oxford, Archaeopress. (BAR Brit Ser 158), 137-80
- Birks, H J B 1964 Chat Moss, Lancashire. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society* 106, 1-24
- Birks, H J B 1965 Pollen analytical investigations at Holcroft Moss, Lancs, and Lindow Moss, Cheshire. *Journal of Ecology* 53, 299-314
- Brayshay, B 1999 Palaeoenvironmental evidence for marginality in the upper Mersey Basin. In: Nevell ed, 82-89
- Carrington, P ed 1994 From flints to flower pots. Current research in the Dee-Mersey region. Cheshire City Council (Archaeol Serv Occas Pap 2)

- Hingley, R 1989 Rural settlement in Roman Britain. London: B A Seaby
- Hodder, I R 1992 Theory and practice in archaeology. London: Routledge
- Jones, G D B 1979 The future of aerial photography in the North. *In*: Higham N J ed. *The Changing Past*. Manchester: Manchester University Extra-Mural Department, 75–87
- Jones, G D B 1999 Conclusion: marginality, their fault or ours? A warning from the Cumbrian evidence. *In*: Nevell ed, 90–6
- Kenyon, D 1991 The origins of Lancashire. Manchester: Manchester University Press
- Kosse, K, 1990 Group size and societal complexity: thresholds in the long-term memory. *J Anthropol Archaeol* 9, 275–303
- Lamb, H H 1982 Climate, history and the modern world. London: Methuen
- Leah, M Wells, C E Appleby C. & Huckerby E 1997 The wetlands of Cheshire. Lancaster University Archaeology Unit, Lancaster: Lancaster Imprints 5
- Longley, D. M. T., 1987 Prehistory. *In*: Harris, B E & Thacker, AT eds. *A history of the county of Cheshire 1*. Oxford U P for London Institute of Historical Research (Victoria History of the Counties of England), 36–114
- Mason, D J P 1988 The prata legionis at Chester. *J Chester Archaeol Soc new ser* 69, 19–43
- Mason, D J P 2001 Roman Chester: city of the eagles. Stroud: Tempus
- Matthews, K J 1994 Archaeology without artefacts: the Iron Age and sub-Roman period in Cheshire. *In*: Carrington ed, 51–62
- Matthews, K J 1996 Iron Age sea-borne trade in Liverpool Bay. *In*: Carrington, P ed. *Where Deva spreads her wizard stream. Trade and the port of Chester. Papers from a seminar held at Chester, November 1995*. Cheshire City Council. (Archaeol Serv Occas Pap 3), 12–23
- Matthews K J 1999 Rural settlement in Roman Cheshire: a theoretical View. *In*: Nevell ed, 27–34
- Matthews K J, 2000–01 The Iron Age of North-West England. A socio-economic model. *J Chester Archaeol Soc new ser* 76, 1–51
- Millett, M 1990 The Romanization of Britain: an essay in archaeological interpretation. Cambridge: Cambridge University Press
- Nevell, M D 1987–8 Great Woolden Hall: Excavations on a Late Prehistoric/Romano-British native site. *Greater Manchester Archaeol J* 3, 35–44
- Nevell, M D 1992 Settlement and society in the Mersey Basin c. 2,000 B.C. to c. A.D. 400. A landscape study. Unpublished PhD thesis, Univ Manchester
- Nevell, M D 1994 Late prehistoric pottery types from the Mersey Basin. *In*: Carrington ed, 33–41
- Nevell, M D 1999a Iron Age and Romano-British rural settlement in North West England: marginality, theory and settlement. *In*: Nevell ed, 14–26
- Nevell, M D 1999b Great Woolden Hall: a model for the material culture of Iron Age and Romano-British rural settlement in North West England? *In*: Nevell ed, 48–63

- Hingley, R 1989 Rural settlement in Roman Britain. London: B A Seaby
- Hodder, I R 1992 Theory and practice in archaeology. London: Routledge
- Jones, G D B 1979 The future of aerial photography in the North. *In*: Higham N J ed. *The Changing Past*. Manchester: Manchester University Extra-Mural Department, 75–87
- Jones, G D B 1999 Conclusion: marginality, their fault or ours? A warning from the Cumbrian evidence. *In*: Nevell ed, 90–6
- Kenyon, D 1991 The origins of Lancashire. Manchester: Manchester University Press
- Kosse, K, 1990 Group size and societal complexity: thresholds in the long-term memory. *J Anthropol Archaeol* 9, 275–303
- Lamb, H H 1982 Climate, history and the modern world. London: Methuen
- Leah, M Wells, C E Appleby C. & Huckerby E 1997 The wetlands of Cheshire. Lancaster University Archaeology Unit, Lancaster: Lancaster Imprints 5
- Longley, D. M. T., 1987 Prehistory. *In*: Harris, B E & Thacker, AT eds. *A history of the county of Cheshire 1*. Oxford U P for London Institute of Historical Research (Victoria History of the Counties of England), 36–114
- Mason, D J P 1988 The prata legionis at Chester. *J Chester Archaeol Soc new ser* 69, 19–43
- Mason, D J P 2001 Roman Chester: city of the eagles. Stroud: Tempus
- Matthews, K J 1994 Archaeology without artefacts: the Iron Age and sub-Roman period in Cheshire. *In*: Carrington ed, 51–62
- Matthews, K J 1996 Iron Age sea-borne trade in Liverpool Bay. *In*: Carrington, P ed. *Where Deva spreads her wizard stream. Trade and the port of Chester. Papers from a seminar held at Chester, November 1995*. Cheshire City Council. (Archaeol Serv Occas Pap 3), 12–23
- Matthews K J 1999 Rural settlement in Roman Cheshire: a theoretical View. *In*: Nevell ed, 27–34
- Matthews K J, 2000–01 The Iron Age of North-West England. A socio-economic model. *J Chester Archaeol Soc new ser* 76, 1–51
- Millett, M 1990 The Romanization of Britain: an essay in archaeological interpretation. Cambridge: Cambridge University Press
- Nevell, M D 1987–8 Great Woolden Hall: Excavations on a Late Prehistoric/Romano-British native site. *Greater Manchester Archaeol J* 3, 35–44
- Nevell, M D 1992 Settlement and society in the Mersey Basin c. 2,000 B.C. to c. A.D. 400. A landscape study. Unpublished PhD thesis, Univ Manchester
- Nevell, M D 1994 Late prehistoric pottery types from the Mersey Basin. *In*: Carrington ed, 33–41
- Nevell, M D 1999a Iron Age and Romano-British rural settlement in North West England: marginality, theory and settlement. *In*: Nevell ed, 14–26
- Nevell, M D 1999b Great Woolden Hall: a model for the material culture of Iron Age and Romano-British rural settlement in North West England? *In*: Nevell ed, 48–63

- Varley, W J 1976 A summary of the excavations at Castle Hill, Almondbury, 1939–72. *In: Harding DW ed. Hillforts; later prehistoric earthworks in Britain and Ireland. London: Academic Press, 119–292*
- Walker, J S F ed. 1986 Roman Manchester — a frontier settlement. Manchester: Greater Manchester Archaeological Unit.
- Webster, P V 1971 Melandra Castle Roman Fort: excavations in the civil settlement, 1966–69. *Derbyshire Archaeol J* 91, 58–118
- Weissner, P 1984 Reconsidering the behavioural basis for style: a case study among the Kalahari San. *J Anthropol Archaeol* 3, 190–234
- Wild, F 2002 The Development of the Roman road system in the North West: the evidence of the Samian ware, *Britannia* 33, 268–74