

LOCAL PEOPLE: LOCAL PAST PHASE 2

Locality, Romanisation and Landscape

Initial Interim Interpretational Report
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1.1 Background & Rationale

The ideas expressed in this interpretive report are the initial fruit of an ongoing analysis of the evidence produced during the extensive field work undertaken for this project. Those conclusions that have been reached are neither definitive nor necessarily infallible and without doubt will be subject to review through hindsight and in the light of future developments in analysing the evidence more effectively. In fact a significant element of the legacy left by this project can be seen in the continuing evaluation of the data on the dedicated web site and through the willingness of those involved to expand on the original initiative by including more information and findings on other Roman settlements. However the views outlined here do represent the current thinking that has informed the interpretive process that has shaped the vision of settlement characterisation and Romanization espoused here.

Exploring the nature of Romanization within a locality and understanding its physical impact upon the landscape is an intriguing archaeological problem to consider. Interested observers are very much aware that for significant swathes of Roman Britain knowledge of the development and acculturation of rural communities continues to remain shrouded in mystery. Often the published archaeological evidence is disparate, restricted and awkward to interpret in a holistic way for any given locality. This means attempts to reconstruct the historical panorama experienced by our ancestors are fraught with problems concerning the methodological approaches to be employed. These tend to focus on the effective deployment of the broad armoury of techniques available. It is a question of how to maximise their potential to validate the analytical system embraced for deciphering the archaeological evidence whilst in pursuit of a fairly accurate interpretation of events.

It is essential to create a synergy between the rationale underpinning the survey and the process of manipulating substantial amounts of extraneous data that will be recovered as a result. It is imperative to promote an interpretative emphasis that concentrates on the connectivity between the criterion of settlement classification and the verifiable similarities and differences between the sites rather than being prepared to expound too quickly, through generalised observation along well established

avenues of enquiry. However it should be recognised that several of these well worn themes are critical to any examination of settlement and Romanization. The background to the origin, layout and demise of an individual settlement, the site's wider regional context or its ability to facilitate the national overview need to be addressed but at the right stage of the investigation once the specific context is understood and not before.

A coherent empirical approach is best served by strong alignment to detailed studies of interdependent communities within their attendant locality. The rationale behind studies of this kind being they offer the best opportunities to gather the necessary quality and quantity of data to substantiate more meaningful attempts at interpreting the personal and community reality experienced by our ancestors. Obviously in the first instance a wider reliance on the characteristic structural and material cultural profiles derived from the archaeological process would appreciably enhance understanding of the mechanics of Romanisation rather than a less rigorous validation of the cultural remains by interpretation based on broad inference.

Undoubtedly provincial culture in Roman Britain was overtly influenced by imperial fashion and taste; however it should also be noted indigenous and socially mobile elements of society could and did chose to interpret the 'benefits of civilisation' more often than not in their own idiosyncratic way. Therefore opportunities to systematically examine settlement in a locality provide excellent prospects for recognising and archaeologically profiling the range of diagnostic signposts that define the physical character of communities in any given vicinity. These indicative criteria also offer scope for conclusions to be drawn to explain the material manifestation of culture that define the local population. The subsequent individual and collective analysis of such profiles providing an interpretative backbone to explain the nuances of a locality as well as the capacity to account for the more complex ethnic mix and experience of the wider Roman world.

A further core motivation must also be to construct through the meticulous analysis of the archaeological material a model of the landscape environment that is capable of

creating a 'contextual' framework that not only characterises the type of occupation present and provides a chronology for the sites involved but can also account for the current known distribution of Romano-British settlement as well as the nature of the Romanization in the countryside of the locality. The creation of such a responsive model is no mean feat and in the "Local People: Local Past" Project this has been attempted by advocating an intensive and concerted approach to field survey and the regular employment of a battery of mutually inclusive archaeological techniques. All of the fieldwork has concentrated on establishing the nature of focal areas of settlement activity rather than adopting the more prevalent field approach of sampling sites and their wider environs through a system of stint and traverse surveys.

The adopted rationale has enabled a range of archaeological techniques to be used in conjunction with each other which are capable of elucidating in greater detail than previously aspired to the overall character and chronology of the settlements under investigation. These techniques, because they are analogous, permit a broader and more speculative interrogation to be incorporated into the interpretation of the locality. A closer integration of field walking, geophysical and metal detecting survey also provide the ability to cross-examine the veracity of any specific individual data source to discount any bias it might contain. In addition the Local People: Local Past Project has benefited from being able to compare and contrast field data against the findings of a research excavation at Whitehall Farm (Nether Heyford 1) which is one of the surveyed settlement sites. Here during the last decade a large scale open area excavation of the residential and agricultural aspects of an individual villa estate has been undertaken. The findings derived from this work offering insights into the context and meaning of the assemblages recovered from the plough horizon of neighbouring settlements featured in the survey that were part of the wider Romano-British locality.

There are five significant factors in the selection of the 'Local People: Local Past' enclave as a noteworthy locality for research. Initially there was the possibility of engaging with a long held common perception that the local landscape was an unremarkable agricultural backwater in the Roman period in comparison to other

better known examples although the archaeological evidence has never been thoroughly gauged. Secondly the opportunity to investigate a little understood locality offers the chance to assess the methodological potential of concerted studies and their prospective impact upon the process of interpreting Romanization in particular vicinity and the countryside in general.

Thirdly over the years there have been many finds of Roman material and yet there has never been a systematic effort to produce an interpretive synthesis of the available evidence that could sufficiently explain the development of this area of central Northamptonshire in the Roman period. Fourthly it provides a chance to redress the loss of knowledge accruing from the many modern threats and pressures whether agricultural, industrial or social affecting the archaeological remains of the locality that conventional archaeology is unable to pursue in a meaningful manner. Finally it is an opportunity to utilise a much under employed resource for proactive archaeological fieldwork by enabling volunteers in the local community to contribute to the recording of the past in their area.

1.2 Logistics of the Project

An integrated approach to fieldwork although producing excellent results does have the unfortunate side effect of creating a processing nightmare of epic proportions. It also poses challenges in terms of how to choose the most effective analytical approaches for eliciting the desired information required for processing and interpreting the large volumes of data which are recovered. However the range of artefacts retrieved during the field survey open up new opportunities and lines of enquiry which previously could not be countenanced. The findings begin to address aspects of daily life on a communal and personal level which will increasingly inform our understanding and ability to assess the impact of Romanisation and what this process meant in any given locality.

Two aspects of a potential data over load from this project that needed to be thought through very carefully were the nature of the research questions that required

answering and the appropriateness of rationale underpinning the methodological approach adopted. The variety of data retrieved strongly lends itself to characterising the physical and material cultural traits of the local population during the Roman period. These detailed assemblages allow a degree of interpretation of specific areas of daily life that typify the Local People: Local Past study area, forming the foundation of the chronological and development model of settlement for the area which is capable of explaining the distribution, density and character of the individual sites. The sheer amount of data also means the use of computers and GIS software is a pre requisite for undertaking such detailed surveys.

<i>Settlement</i>	<i>Pottery</i>	<i>Weight</i>	<i>Tile</i>	<i>Weight</i>	<i>Box</i>	<i>Weight</i>	<i>Tesserae</i>	<i>Coins</i>	<i>Geophysical</i>	<i>Fieldwalked</i>
	<i>nos</i>	<i>grams</i>	<i>Fragment</i>	<i>kilos</i>	<i>flue</i>	<i>kilos</i>	<i>nos</i>	<i>nos</i>	<i>Area</i>	<i>Area</i>
			<i>nos</i>		<i>Tile</i>				<i>Hectares</i>	<i>Hectares</i>
<i>Bugbrooke</i>										
<i>1</i>	7634	66919	347	5	*	*	24	12	2.4	3.33
<i>Flore 1</i>	4955	34603	435	14.5	2	0.5	201	3	4	3.03
<i>Gayton 1</i>	948	7370	10	0.5	*	*	*	7	1	0.69
<i>Harlestone</i>										
<i>1</i>	1063	11669	*	*	*	*	*	*	1	0.96
<i>Harlestone</i>										
<i>2</i>	1019	6196	*	*	*	*	*	*	1.5	1.66
<i>Harlestone</i>										
<i>3</i>	4400	27073	10719	210213	148	3	7	*	5	3.36
<i>Harpole 1</i>	5027	36501	7406	211	280	11	1647	32	1.6	1.85
<i>Harpole 2</i>	8045	63303	47686	1279	446	20.5	9270	174	5	4.8
<i>Heyford 1</i>	1562	15415	5409	154	151	9	545	175	3.5	2.09
<i>Heyford 2</i>	1169	12964	466	17	4	0.5	2911	50	2.6	1.34
<i>Weedon 1</i>	1135	12547	22	1	*	*	*	4	1.2	0.62
Total	36957	294560	72500	211895	1031	44.5	14605	457	28.8	23.73

Fig. 1 Local People: Local Past: Overall assemblages & areas surveyed

The large number of pottery shards not only provides the basic chronological timeline for each of the sites in the survey area but it also offers a useful archive for studying the distribution of different wares and forms across the locality. These assemblages of roof and floor tile in conjunction with the box flue tile fragments from hypocaust systems are informing our understanding of the civil engineering aspects of settlement and offering new insights into the manufacture of such materials. The creation of coin

lists for individual settlements across the locality provide an alternative chronological resource to supplement the dating provided by the pottery. In its entirety the evidence not only indicates the type of settlement found in the area but it also outlines in more detail the nature of the economy within which they existed. An accessible resource has now been created which others interested in the interpretation of Roman settlement can use to help recognition of the diagnostic criteria that typify Romanization in their locality

1.3 Diagnostic Indicative Criteria & the Investigative Framework

Several analytical avenues exist which can be used to construct diagnostic indicative criteria to profile the character of Roman settlement. However the most important aspect of these approaches is how they can be manipulated and inter linked to create a more perceptive overall interpretation of the archaeological evidence. In the project Local People: Local Past these indicative criteria have been divided into four generic areas of investigation. The chosen definable attributes are connected to facets of the natural environment, the interpretation of the anomalies revealed through geophysical survey, the correlation of the visible vestiges of structural remains and physical attributes of a site and finally the assemblages of material culture present.

Each form of evidence have been frequently embraced in the past but rarely in a orderly and transparent way that allows the corroborative aspect of the data to be fully exploited. A further excellent source of information was unavailable to the survey for helping to identify indicative criteria. Unfortunately where aerial photographic coverage of the locality exists it doesn't coincide with the locations of settlements that have been surveyed. A situation compounded by an inconsistent application of the technique and poor crop and soil mark visibility over surveyed settlements which is partly due to the screening effect of large swathes of the underlying geology.

The relevance of the natural environment to profiling the character of Roman settlement lies in its facility to provide a context within which the archaeological data can be meaningfully interpreted. In general any investigation of the character and

distribution of settlement in a locality has to be cognisant of the probable nature of occupation to be expected across what was a predominately agrarian landscape. Therefore logically it should follow that the geology and relief of any given locality dictated the kind and degree of exploitation operating within that landscape. This should be especially true for earlier societies where there should be an expectation that the natural environment would impact upon and influence not only the type of agriculture practiced in a locality but the disposition and sort of settlement associated with the different definable elements of a landscape and hence the structural options available for identification in the general layout of sites.

The underlying pressures asserted on settlement being particularly prevalent in the distribution density associated with the main geological environments, specific topographic relief and aspect chosen for the location of sites. In addition it should influence and be reflected in the agricultural regimes practised in the locality. Thereby affecting the character of the settlement as well as stimulating the development of any associated features required to service the rural settlement and estates across the different landscape opportunities abounding in the area. The size of the focal scatters identified during the survey coupled with the various environmental niches could also be valuable for interpreting the surviving archaeological evidence and as a demonstrable signpost of the character of settlement.

In a different vein, a capacity to include the findings of geophysical surveys enables 'snapshots' of the hidden archaeological landscape below the plough soil to be revealed and integrated into the evidence recovered from field survey. These ghostly imprints of earlier landscapes affording a tangible backdrop with which to assess the enigmatic meaning of any surface scatter. Obviously the anomalies represent the totality of activity at a site and therefore their evolution through time can present difficulties in their chronological interpretation. However the application of magnetometry is particularly fruitful in highlighting and identifying the wider landscape features such as field systems, trackways, enclosures, stock pens, pit alignments and boundary ditches whilst resistivity can provide lucid outlines of the layout of stone buildings. The implicit presence or absence of all these features being

of diagnostic value in profiling the archaeological character of settlement in the Local People: Local Past locality.

The findings of geophysical survey illustrate the extent of the below ground archaeology in relation to the focal area of a settlement demonstrated through field scatters. Thus enabling an accurate assessment of the core extent of a community's activity to be made which again mitigates any reliance on any one type of evidence with any potential attendant biases. It also highlights the range of features associated with each site and is quite helpful in diagnosing the character of individual settlements. This enables trends to be observed and profiling options based on the layout and features appertaining to sites connected to the different geologies and relief to be given substance. The interpretation of anomalies in conjunction with chronological data obtained from the field walked assemblages allowing sequences of development to be postulated for the palimpsest of features identified during the geophysical survey highlighting potential phases of activity.

A third strand of diagnostic indicators for profiling settlement is associated with the fragmentary structural remains and any corresponding physical attributes of a site. The significance of these elements as part of a settlement profile lies in their ability to precisely locate the exact position and extent of substantial structures or complexes and the spatial relationship between them. The range of evidence available can imply interpretative solutions as to the format and status of individual sites. In the main the Local People: Local Past archaeological evidence takes the form of scatters of building debris, soil marks and earthworks depending on the substantial or ephemeral nature of the settlement being surveyed with the identification emphasis mainly on the initial and final options.

The observable spreads of fragmentary remains found throughout the project survey area are universally made up of the following materials such as stone building debris, roof and floor tile fragments and '*tesserae*' scatters. Sometimes stone scatters display evidence of worked stone, whilst the tile spreads also include highly diagnostic box flue material which is representative of under floor heating systems. The later

assemblages being very symptomatic of the existence of hypocaust elements within buildings as the presence of appearance of 'tesserae' are redolent of mosaic and tessellated pavements. Often such scatters are associated with earthworks which help to define the extent of structural areas of a site besides hinting at the degree of archaeological survival. Soil marks are less easy to interpret but can be particularly helpful on settlements with evidence of more ephemeral structural development. A particular difficulty of identification and characterisation being timber framed buildings the survival of which is virtually impossible to detect in plough soil horizons. Other indicative materials such as window glass and painted plaster might also be noted although these were never obviously apparent or recovered on a large scale.

Finally there are the extensive assemblages of material culture ranging from fragments of pottery and small finds to coins the profiling of which offers opportunities to spot indicative criteria that typify the range of material available on settlements that illustrate community cohesion, echo the status of settlements and are site specific. Every pottery assemblage not only allows the development of a chronological framework for each site and in the wider context the locality but also enables the observation of consumption trends and profiling of the different wares and forms. Analysis of the range of small finds can reveal a lot about the social organisation of the population inhabiting a settlement with the profile reflecting a cultural response as can a coin list. The application of systematic metal detecting survey has improved the number of these finds recovered providing a useful source of comparative data to examine in conjunction with the crucial diagnostic material of the sherd assemblages.

2.0 The Locality & Landscape

The enclave of settlement explored is situated in a triangular shaped area of countryside to the east of Watling Street in central Northamptonshire. This well known route way was part of one of the most important arterial roads in Roman Britain connecting London with the north-west along a busy communication and

commercial highway. The settlements surveyed lie between adjoining Roman Posting Stations of Bannaventa (Whilton Lodge) and Lactodurum (Towcester) situated on Watling Street: a distance of 12 miles. This major road acts as the western boundary of the locality which stretches eastward towards a third Roman 'small town' near the village of Duston, a suburb of Northampton. Apart from some haphazard antiquarian exploration of the locality it has only been spasmodically scrutinized although several sites have been subjected to limited fieldwork and recording. However there has never been any holistic attempt to provide an overview of the finds and sites identified or any explanation of the general development of the vicinity, the nature of the settlement or the type of Romanization that symbolised the occupation of the locality.

2.1 The Natural Environment: Topography & Geology of the Locality

The locality observed in this project covers approximately 148sq.kms of central Northamptonshire. Its roughly triangular shape encompasses the watershed of the River Nene. The enclave is best described as a transitional zone of rising ground between the low lying floodplain of the Lower Nene Valley in the east and the more elevated district of the Northampton Heights in the west. The topography of the landscape itself rises from the 30m OD contour of the Nene floodplain in the east to over 150m OD in the upland plateau in the west. The latter upland feature constitutes part of the massive Jurassic limestone escarpment that constitutes the spine of lowland Roman Britain.

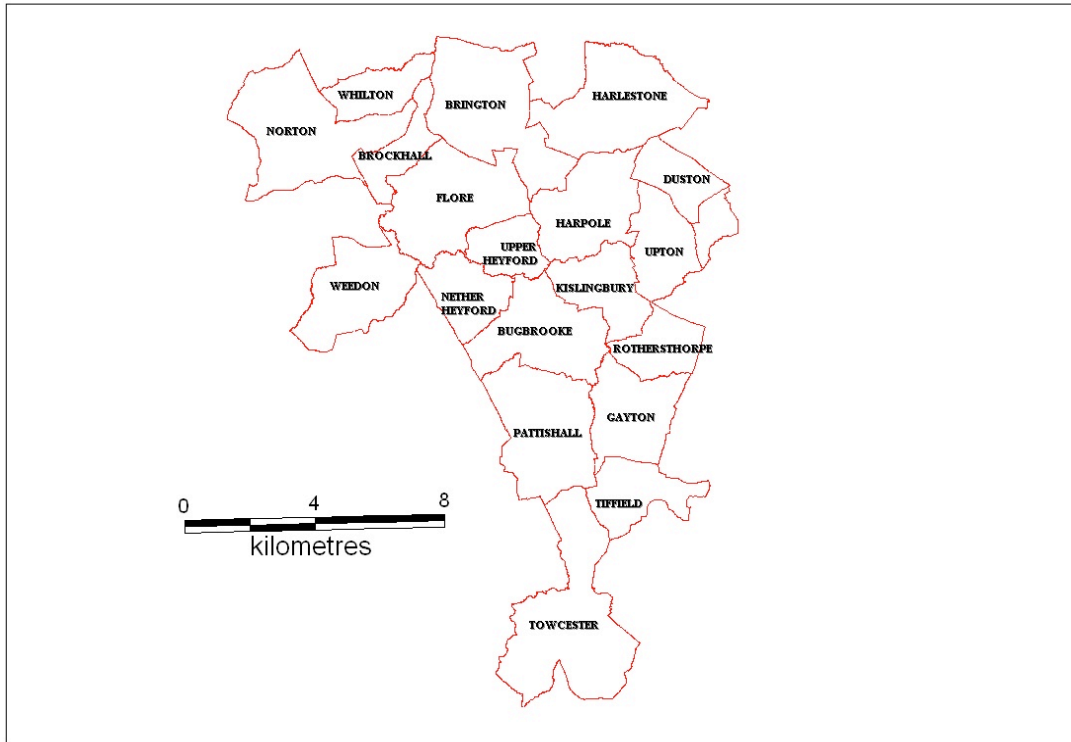


Fig.1 Local People: Local Past- Parish & Landscape Boundary

In outlook the topography of the locality is characterised by the rounded profiles of the elevated slopes. These have been fashioned by glacial activity and the subsequent river based erosion of the area: the River Nene eroding a wide shallow valley through the plateau to form the main natural drainage system in the region. This morphological feature is particularly noticeable in the areas of glacially derived gravels and sands lining the parishes located in the northwest and central vicinity of the locality.

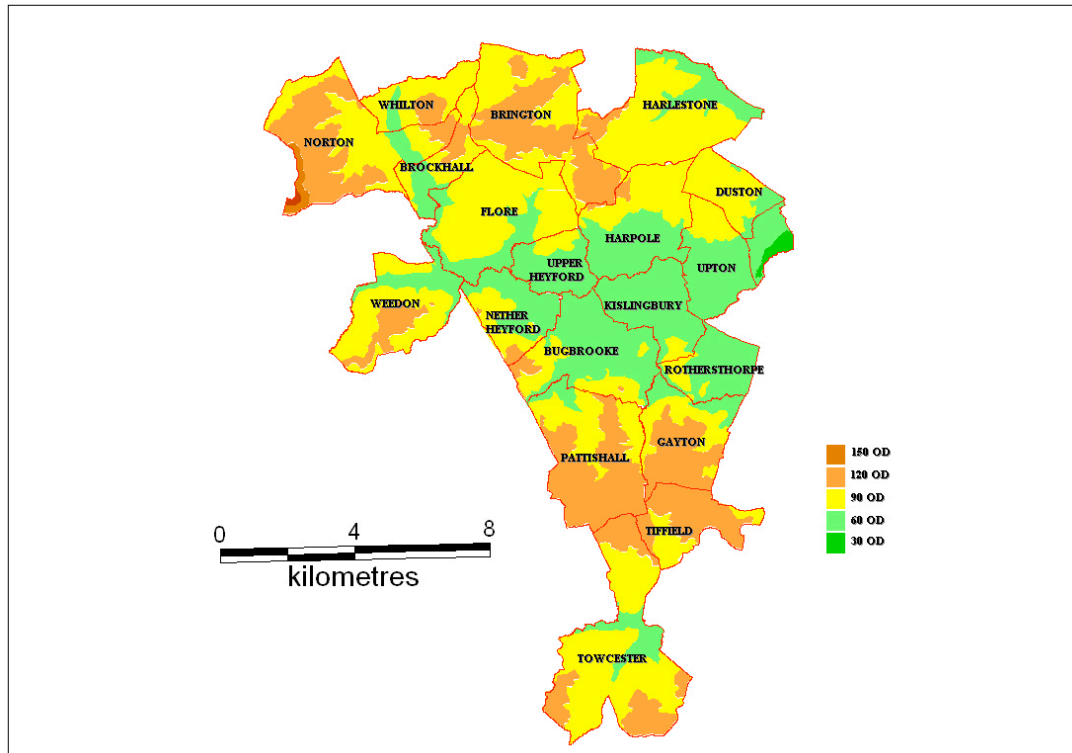


Fig.2 Local People: Local Past - Landscape Relief

The only other substantial landscape feature is the shallow valley that has also been cut into the plateau to the north of Towcester by the River Tove in the south of the locality. The expansion of the area covered by the Phase 2 survey means the landscape of many more modern parishes has also been included in the investigation. This is intentional as surviving archaeological boundaries that could adequately reflect any Roman originals are hard to delineate for the area. Therefore in order to define a more coherent environment through which the locality can be analysed the adoption of modern administrative boundaries helps to define the totality of the landscape. This has involved widening the investigation to include nineteen parishes as against the six originally chosen for fieldwork: the tract of land forming the locality now being three times the size of the wider neighbourhood initially considered in Phase 1.

	CLASP		CLASP		CLASP Site/land Ratio
	Sites per		Land per		
	Topography	%	Sq/kilometres	%	
>60m OD	7	25	44.27	30	1: 6.3
>90M OD	12	43	68.63	46	1: 5.7
>120M OD	9	32	35.33	24	1: 3.9
TOTAL	28	100	148.3	100	1: 5.3

Fig.3. Local People: Local Past - Landscape Elevation

The above chart shows that the majority of the survey area of the Phase 2 project forms part of a plateau that is situated above the 90m contour with less than a third of the total area below this height. A further quarter of the territory is even higher, occupying contours above the 120m level. It also implies that the majority of the known settlements are located on these slopes with a further third of the sites on the higher contours and only a quarter of all settlement on the lower contours above 60m. Here it is also possible to observe a discrepancy in the percentage figures given for the number of settlements on the highest and lowest contours that constitute the relief of the locality. Presumably the statistics are indicative of the degree of occupational land use across the major areas of relief and their associated topographic profiles and to some extent their perceived relative importance to the rural economy.

This locale can also be broadly divided into four main geological land units: the upland heavy clay zones often associated with the highest elevations, the permeable soils on the intermediate slopes between plateau and floodplain, the glacial gravels and sands of the lower slopes and finally the alluvial deposits of the floodplain. These geological distinctions are necessary because the soil horizons associated with each land unit determine the agricultural possibilities of their corresponding environmental niches. Therefore the different soil horizons in turn have the potential to influence the nature and character of any occupation and thereby the distribution pattern of sites influencing to some extent the type of settlement and the related degree of Romanization. The different soil horizons are also allied to the general hydrology of the area with the variable efficiency of the natural drainage helping shape the challenges that impact on the effectiveness and sustainability of the type of

agricultural regime practiced

Undoubtedly the soil and drainage profile across certain geologies determines the prevailing conditions and the suitability of which could favour the production of cereals and promote a tendency to specialise in arable dominated cultivation of the countryside. Elsewhere prevailing conditions would offer opportunities for a mixed farming regime suitable for subsistence and small surplus agrarian economies whose profiles would reflect a mixture of arable and stock rearing approaches to farming. However where arable cultivation was less easily adopted an emphasis on stock rearing and the utilisation of land for pasture and sheep rearing for wool production may well have been of paramount importance in the choice of agricultural management system that was established. This should all be recognisable and have shaped the nature of the archaeological evidence recovered through the application of intensive survey methods.

GEOLOGY	HECTARES	%	SQ KILOMETRES
<i>BOULDER CLAY</i>	2785	18.5	27.85
<i>LIAS CLAY</i>	5162	34.5	51.62
<i>NPTON SAND</i>	1688	11	16.88
<i>MARLESTONE</i>	994	7	9.94
<i>GLACIAL GRAVEL</i>	2087	14	20.87
<i>LIMESTONE</i>	987	7	9.87
<i>ALLUVIUM</i>	1127	8	11.27

Fig.4 Local People: Local Past - Geology

A basic analysis of the geology of the locality reveals several significant potential soil horizons' within the enclave. The heavy clay areas of landscape can be seen to be exclusively comprised of Boulder clay with the alluvium reflecting the floodplain environment niches and the glacial gravels the best drained areas. However on the Permeable Soils of the Intermediate Slopes it is possible to see that the potential for similar agricultural conditions and therefore similarities in farming regimes exist

across four significant, different but generic geologies that include Lias Clay, Northampton sand, Marlstone Rock and limestone outcrops.

	CLASP SURVEYED		CLASP AREA		CLASP SURVEYED
	SETTLEMENT SITES	%	LAND SQ/KMS	%	SITE / LAND RATIO
HEAVY CLAY GRAVELS	6	21.5	28	19	1:4.5
(estuarine & glacial)	8	28.5	21	14	1:2.5
INTERMEDIATE SOILS ALLUVIUM	14	50	88	59	1:6.25
(floodplain)	0	0	11	8	0
TOTAL	28	100	148	100	1:5.25

Fig.5 Local People: Local Past - Generic Soil Horizons

2.2 Heavy Clay Landscape

The poorly draining Boulder clay geology accounts for nearly 18.5% of the countryside within the survey vicinity. A majority of the heavy clay deposits lie in substantial individual outcrops across the eastern and southern half of the locality, positioned between the 60m and 120m OD contours. At nearly a fifth of the total area the heavy clay soil horizons form a significant component of the farming landscape in the locality. This fact alone means it would have been difficult to ignore such a large swathe of countryside in the Roman era, even though it may have been perceived as intractable for intensive cultivation because of the limitations of agricultural technology available in that period with its inability to deal effectively with the important issue of drainage associated with the heavy clay environmental niches.

However the constraints on intensive arable farming would still leave options for agricultural exploitation of a pastoral nature. Undoubtedly then as today the crop influences the number and type of structural components of the individual farm and the potential density of settlement. Stock rearing or sheep farming requires fewer buildings to service the agricultural regime being practised but may cover larger landscape blocks than those associated with arable cultivation to be economically effective. The heavy clay environmental niches being less attractive to the

requirements of the farming classes and their habitation requirements may have had an impact in terms of a lower overall density of occupation thereby creating a comparatively light settlement pattern for these soil horizons than might be expected as well as providing an indicative checkpoint for this sort of settlement pattern.

These archaeologically detectable indicators can then be further profiled by examining the infrastructure and relative density of structures, features and artefacts associated with settlement. Different agricultural regimes require levels of structural complexity consistent with the farming processes involved and the personal preferences of the farmers involved and the market outcomes desired. This should be visible in everything from the existence or otherwise of field systems, their size and layout, to the buildings erected for processing and storage. It could also impacts on the domestic architecture adopted as the success of a regime would dictate the level of financial resources that the estate would be able to generate for domestic considerations. In the case of the Heavy Clay environment with its specific attributes this would probably mean either the existence of relatively small farming establishments characterised by limited structural development or large well resourced specialist estates or '*latifundia*' which had the capacity to service the agricultural requirements of extensive and intensive sheep rearing and wool production.

Potentially, the location of settlement on Boulder clay and its association with the highest topography elevations can be distant from the natural lines of communication and therefore more difficult to access both socially and commercially, although in this vicinity of this locality the alignments of the two major Roman roads laid across through some of the Boulder Clay environmental niches which must have negated these disadvantages. The tendency for such zones to be on higher elevations also result in settlement being more exposed to the elements and to more extreme variations in weather patterns; possibly promoting a widely held perception that these situations are less comfortable and inviting for settlers. In addition the availability of water could present difficulties especially where settlement is situated considerably above or distant from the spring line.

It would be quite possible therefore that settlement remains relating to either type should be characterised as having a less developed distribution pattern, limited communal inter-dependence, restricted or complex hierarchy of settlement than would be apparent in other more advantaged areas. Consequently this would result in more prescribed diagnostic and artefactual residues for those communities which mirror a local social organisation and pattern of landownership within that environment. Perhaps a rural economy with a distinct pastoral bias would be the most apt approach for earlier communities in heavy clay areas. It is interesting to note the percentage of the overall settlement distribution located on heavy clay environments at 21.5% is remarkably close to the 19% accounted for by that soil horizon found in the locality. It certainly clearly demonstrates that the rural population of the overall locality was prepared to exploit these environmental niches although they were not as expected the most favoured locations. The near parity between the percentage ratios of settlement locations and land unit coverage highlights and underpins the link between the character of the site distribution pattern and the agricultural regime connected to that area.

Two settlements (18%) of the survey sample are situated on the heavy clay geology echoing the relative parity between the percentages of the actual total number of sites (21.5%) and the area comprising that particular environmental niche (19%). An important fact to assimilate is that the archaeological features of these two sites cover the largest focal areas of any of the settlements that have been investigated in the Local People: Local Past survey sample. Both sites extend over five hectares and are substantially larger than any other settlement in the locality. Based on the indicative criteria available for profiling the character of these settlements it appears the data supports the hypothesis of a light settlement pattern on the heavy clay soil horizons. However unexpectedly the type of occupation attached to the heavy clay soil horizons is characterised by large well appointed estates centres at least based on these examples in the north of the locality. This implies specialist exploitation of the countryside rather than a small scale pastoral or subsistence farming regime. The general aspect of both sites is best describe as a very gentle south east facing slope

with the residential focal point situated towards the western end of the archaeological features in the landscape.

2.3 *The Permeable Soils of the Intermediate Slopes*

The permeable intermediate slopes provide the most common soil horizons available in the survey locale. These horizons are characterised by their location on lower elevations and the fact that the soils are more responsive to a broader format of farming regimes. Generally the soils horizons are lighter, being predominantly sand, limestone or Lias clay based. The geology of the intermediate slopes is better suited to the draining of surface water, which is a desirable attribute for the development of a more complex mixed or arable based farming regime. **Undoubtedly** these areas present more advantageous conditions in the locality for Roman farmers, providing favourable locations which are often less exposed and able to support the more intensive scale of infra structure settlement required to meet the associated greater range of agricultural possibilities available to the mixed agricultural regime.

In most cases the close availability of water on the intermediate slopes, often associated with a spring line, is commonly situated on these geologies for both domestic and agricultural needs. It is also possible to make a strong case that the permeable soils of the intermediate slopes also provide a landscape more easily travelled and suited to the transport needs of communication, travel and trade between immediate neighbours or communities further afield. Mainly because of the gentler slopes and more efficient natural drainage that makes the area less susceptible to flooding and more accessible to early farming techniques. Therefore as a result these environmental niches could be more suited to supporting a wider range of settlement types depending on the agricultural regime employed.

The range of positive diagnostic criteria associated with the intermediate permeable soils and slopes could well appear attractive to earlier cultures and exert a considerable influence on the preferences of the Romano-British populations for

settlement sites. The sheer dominance of the intermediate permeable slopes and soils as an element of the landscape resource would also increase their chance of attracting significant occupation as the evidence for settlement distribution currently suggests. In fact it would be reasonable to expect quite substantial settlement development and therefore structural diversity and complexity in form and function as well as relatively richer and more varied artifactual assemblages because of the wide-ranging agricultural and economic opportunities available on these slopes as opposed to those situated on the heavy clay soils, promoting the deployment of mixed farming methodologies.

Intermediate slope permeable soil types account for just under half of all the available land, occupying 49.5% of the total countryside. Chief amongst the soil types are the Lias clays (34.5%) which account for over a third of all the soil types to be found in the locality. Upper Lias clay soils horizons accounting for two thirds of all Lias based soils, dominating the elevations up to the 90m contour line. The Middle Lias clay deposits are found predominately at lower levels around the 60m contour lining the edges of the stream and tributaries feeding the River Nene. Lower Lias Clay constitutes only a small fraction of these deposits and is only found at altitudes in excess of 120m OD in the proximity of Borough Hill in the north west of Norton parish. The lighter friable Lias clay is more easily worked with primitive ploughing techniques which would allow the use of the simple 'ard' more easily than the heavy boulder clay, as drainage is far less of a problem. Lighter less dense soils like these would also be easier to cultivate with large scale use of the spade: the basic implement of much prehistoric agricultural cultivation.

The lightest of the intermediate permeable soils are associated with the areas of Northampton Sand which accounts for a further 11% of the landscape. These soils are predominately located in two clusters or concentrations in the parishes of Harlestone, Duston and Brington in the north east and Pattishall and Gayton in the south with the geology mostly located between 60m and 90m contours. The remaining 14% of the intermediate permeable soils is composed of Marlstone Rock and Limestone derived soils horizons all of which offer extensive opportunities for arable and mixed farming

regimes. Most of the Marlstone Rock deposits occurring in the north east of the area in particular in the parishes of Harlestone, Harpole, Norton and Weedon. There is a fair amount of correlation between the sands and marlstone rock soil horizon distributions. Isolated outcrops of limestone geology are concentrated in the southern parishes of Pattishall, Gayton, Tiffield and Towcester and to a lesser extent in the north east of the locality around Harlestone and Duston parishes.

The availability of water from spring line sources that emerge on the intermediate slopes provides excellent opportunities for irrigation and larger scale domestic requirements. A mixture of lighter, more tractable soils and the availability of water and helpful drainage combine to promote farming and settlement. The accessible soil horizons constituting these areas of landscape offer the necessary opportunities for occupation particularly of benefit to operating a mixed agricultural regime. This in turn it could be contended would impact on the structures and features connected to any settlements located on these geologies and therefore possibly to the material assemblage retrieved. At the very least one would expect elements that are indicative of both stock rearing and arable production. Although occupying most of the locality investigated and probably containing the highest number of the known settlements in the distribution pattern, these environmental niches should be seen as more intensely occupied than the heavy clay areas but less densely exploited than the areas of glacial gravel and sands.

This can be observed in the figures of settlements located on the intermediate slope geologies where three fifths of the landscape (59%) with permeable soils contain only half (50%) of the site distribution pattern. As expected, this figure indicates that the majority of sites are located on these geologies because the largest area of the survey landscape is covered by the permeable soil horizons of the intermediate slopes. It demonstrates these environmental niches are desirable locations for settlement and are exploited extensively. However the distribution pattern indicates these locations are not the densest areas of settlement although they contain the majority of sites. Six of the settlements (55%) in the survey sample are positioned on the permeable soils of the Intermediate Slopes. This closely reflects the percentage of landscape (59%) and

the actual total number of sites (50%) that comprise the permeable soil horizons and known settlement distribution of this environment niche.

The Intermediate Slope sites are the only ones that display a variation in the extent of the focal coverage of the archaeological remains connected to the location of settlements. On the permeable soil horizons the size of these settlements varies between two and four hectares indicating a more complex hierarchy of sites associated with these tracts. The lighter clay environments that form part of the intermediate slopes account for exactly half of all the sample locations and all of the larger sites in the survey area that cover about four hectares. Northampton Sand and Limestone geology houses the remaining settlements which envelop areas of between one and two hectares. The findings demonstrate that as expected the permeable soil horizons of the intermediate slopes offer the greatest number of potential locations for settlement. It also indicates that the aptness of these areas of countryside for mixed farming attracted a wider clientele and variation in farm and estate management. The general aspect of all these sites is best portrayed as situated on flat plateaus with residential focal point towards the centre of the archaeological features spread across the landscape.

2.4 Glacial Gravels & Sands of the Lower slopes

The areas of glacial gravels and sands coverage are less extensive than the heavy and intermediate geologies and are situated mostly on the lower elevations around the 60m OD. The majority of sands and gravels lie parallel to the valley of the River Nene in the north of the locality, although there is a considerable outlier in the unusually higher elevation of 120m OD within Brington parish on the watershed of the River Nene.

Here the gravels are derived from glacial as opposed to the estuarine river terrace material noted further to the east of Northampton but these areas enjoy the same advantages that help promote agricultural specialisation and the promotion of intensive arable farming. The soils associated with the glacial gravels and sands

account for 14% of the total area of the locality and because they are particularly well drained can be considered as enticing for arable farming and its attendant settlement. One might expect and the actual distribution demonstrates significant occupational activity to be attached to these areas with a relatively dense distribution of settlement that should reflect particular or specialist practice linked to the exploitation of cereals and the like throughout the area.

These glacial gravels support light and easily drained soil which is best suited to the development of very intensive arable cultivation. The freedom from flooding and the very gentle slopes of the gravels would also equate more readily to the technology capacity available to farming communities of the pre and early historical period. The fact that the tilth can be relatively easily cultivated makes the zone particularly conducive to arable production. Indeed the location of the gravel deposits mainly adjacent to the shallow floodplain around the 60m contours might allow for the possibility of more explicitly commercial farming options and the transporting of surpluses to meet market demand. The estates located on the glacial gravels are better situated to utilise the headwaters of the River Nene where this would be possible. However before the navigational work on the River Nene in the 18th century the river may not have been navigable beyond Irchester on the Middle Nene.

The geological advantages for arable husbandry would resonate in the range and type of settlement utilising these areas. Both the availability of water and the excellent drainage would attract interest for settlement. Arable cultivation is an intense agricultural regime requiring a correspondingly greater range of structures to facilitate the processing and storage of crops. The ability to produce cash crops would provide the financial means and resources to construct more sophisticated domestic accommodation. It is most likely that an arable dominated agricultural regime would have encouraged the widest range of structures to meet the diverse needs of acculturation of any geological niche available in the area. The occupation related to the gravel soils offering the archaeological possibility of characterising the economical or social profile of settlements that optimised the agricultural potential of this zone for intensive arable cultivation.

Although covering a modest area of the locality the relative position of settlement demonstrates a denser distribution pattern than any other landscape unit involved. Intensive arable production would require extensive labour resources, housing larger populations and involving the development of complex agricultural and domestic facilities. Thereby settlements should be larger and more densely located and this is confirmed in the analysis of site locations from the survey area which reveals that twice as many settlements (28.5%) can be identified on the gravel and sands than on any other geological area.

Three settlements (27%) of the survey sample are linked to Glacial sand and gravel soil horizons which closely reflects the percentages of the actual total number of sites (28.5%) situated in these areas and twice that of the landscape comprising this particular environmental niche (14%). The settlements on the gravels and sands are uniform in size and consistently enclose areas of archaeological activity of about four hectares. These statistics support the expected density in the settlement distribution pattern and indicate the substantial and uniform size of individual sites associated with the gravel geology. Again the evidence confirms the intensive exploitation of the gravel geology with its emphasis predominately on an arable and probably cereal agricultural regime. The general aspect of these sites is more varied because of the high level of popularity for settlement on the gravels and the way the occupation might have physically manifest itself to meet the structural requirements of intensive arable cultivation. In the sample from the Local People: Local Past survey the residential focus is mainly situated on the northern edge of the archaeological features identified in the landscape.

2.5 *Floodplain Alluvium*

All of the alluvium floodplain deposits are low lying located between the 30m and 60m OD contours within the shallow valley bottoms eroded by the headwaters of both the River Nene and to a lesser extent the River Tove. Alluvium deposits account for comparatively modest landscape coverage with approximately 8% of the total land

surface. As a zone of influence on the development of early agricultural occupation this area would probably be seriously limited in its potential to affect the distribution and character of settlement because of the drainage and agricultural disadvantages that affect it.

The alluvium of the floodplain is subject to a range of problems very similar to those posed for the heavy Boulder clay areas but with a tendency to be more extreme. Unfortunately the alluvial deposits are much more liable to serious flooding and prone to suffer from continual poor drainage. Low lying soil horizons next to the river need long term stable climatic conditions and access to ample social / economic resources to allow effective and probably only specialist exploitation of this landscape zone. In reality the nature of the agricultural regime suited to the floodplain would therefore potentially be very specialist in outlook. It would be excellent for fodder production rather than arable cultivation and undoubtedly could be used in conjunction with other more adaptable soil horizons as part of the resources of a larger integrated farm or estate as meadow land. The most realistic interpretation of the floodplain area may well be that it was never used extensively for settlement but that its role was more of a resource in the development of animal husbandry for farmers occupying the other agriculturally advantaged environmental niches. Undoubtedly the alluvial floodplain would be a beneficial resource for the production of hay or pasture for stock in the spring and summer.

2.6 Limitation of the Environmental on Settlement Distribution

To sound a note of caution on the environmental principle of site location there are a couple of caveat that should be taken into consideration before its wholesale adoption as one of the generic pillars of settlement characterisation. The actual extent of countryside that might be accessible and utilised by individual settlements and the social elites who owned and maintained them is impossible to quantify or to standardise across the locality. The assumption that all settlements were situated on or had entrée to only one particular geological area does not fully take into account the centralising tendency of landownership and the desire for larger estates to diversify or

specialise production across ever larger or disparate land holdings.

It is possible that sometimes depending on the extent or particular location of a settlement and its attendant community the associated areas of countryside would have included or had access to a wider range and mix of soil horizons from the environmental niches available. An example of this type of land holding is evident in the early medieval period as can be seen in the Domesday Book distribution of manors and the shared location of plough land, meadows and woodland. The cycle of tenancy and ownership is also an unknown quantity with the impact of success or failure of settlement difficult to calculate. Therefore to support the environmental approach it is important to be able to recognise in the archaeological evidence identified from the material and structural generic diagnostic criteria differences in the data, particularly associated with status, that might highlight this anomaly wherever it occurs to provide a rationale that is not only capable of explain the phenomena but also can outline and assess the extent of the influence it exerted over the environmental characterisation of landscape.

3.0 Characterisation of Settlement

3.1 Historical Background

The model used for identifying potential settlements for the Local People: Local Past survey was very dependant on the identification in the past of a range of structural and cultural material recorded at any particular find spot of Romano-British date. At each chosen location the variety and volume of finds recorded was accepted as indicative of the presence of a settlement; the type and scale of the material and assemblages recovered providing a mechanism for judging the probability of occupation. Some sites have been identified through excavation whilst others have been discovered by metal detectors and ad hoc field walking.

All of the eleven sites in the survey sample which have been subjected to intensive survey had previously been archaeologically investigated to some degree. On two sites, antiquarian excavations are recorded as at Nether Heyford 2 in 1699 and 1821 and Harlestone 3 in 1927. Meanwhile in comparatively recent times Harpole 1 was extensively excavated in 1963 ahead of construction of a dual carriageway along the A45 and Harpole 2 was trial trenched in the early 1950's. The quality of the published material is variable but the existence of major complexes of sophisticated building is not in doubt.

At Nether Heyford 2 an account of the antiquarian excavation refers to the uncovering of several rooms which formed part of an extensive range of a building that were only partially revealed. The internal layout of these structures was not clearly differentiated, explained or interpreted in any great depth. Unfortunately no detailed plan of the configuration of the building or the relationship of the rooms to each other has survived. Mention is made of stone slates and ceramic roof tiles, painted plaster and potsherds of 3rd/4th century date being recovered. The principle discovery was a significant section of a polychrome mosaic with a geometric design that had framing patterns of duplex knots, a guilloche border and inset lotus flowers. Only the southern section of the mosaic was uncovered but it can be attributed to the work of the Midland Group of mosaic artisans and features an adapted scheme of spaced octagons, the construction date of which is certainly no earlier than mid to late 4th century AD. Most of the mosaic was lifted in 1780 and used for road mending but part of the border survived and was re-excavated in 1988.

The archaeological report of the Rev. Cavalier's excavation of the Romano - British site at Harlestone 3 included a plan of the remaining foundations that were uncovered, although the limited structural evidence was not sufficiently detailed to enable a holistic reconstruction of the overall ground plan. The description of the remains outlines the existence of a building range measuring 60m in length and 15m wide with elements of a projecting corridor or '*porticus*' on its eastern elevation. In the account is an inventory of pottery retrieved during the excavation which is indicative of

occupation from the mid 2nd century onwards into the late 4th century AD. A detailed coin list included a hoard of 814 coins, predominantly late Roman, which were probably deposited in the early 5th century AD was also recorded. It appears that the building may have lain in a walled compound and was aligned towards the south east. The walls as described are quite substantial and capable of supporting a two storied structure. A complete absence of tesserae suggests that the building was devoid of any mosaics.

An antiquarian excavation at Harpole 1 (1846) discovered and uncovered another mosaic pavement. Again it probably dates to the mid 4th century AD with the design focus on a central octagon enclosing a guilloche bordered medallion containing a red cross. The rest of the tessellated pavement is divided into four main panels with semi-circular or scallop shaped lozenges. It is believed the mosaic is part of a group of pavements which are attributable to a South Midland Group of mosaic artisans. The antiquarian fieldwork at the Red Lion site was limited to the pavement although archaeological material in the wider general area was noted. Later a large open area rescue excavation was undertaken in 1966 in connection with the construction of the dual carriageway for the A45 across the site. The excavation revealed a stone cistern and fragments of a 4th century AD building over lying robbed out 2nd century AD walls. A large assemblage of 4th century pottery was retrieved as well as tile fragments.

A third instance of a tessellated pavement was observed at Harpole 2 in the mid 19th century although beyond the Victoria County History assertion the mosaic was a '*floor of rough unornamented tessellation*' little else is known. In 1950 trail trenching was undertaken on the site which revealed an extensive range of buildings orientated towards the south east with a frontage of nearly 35metres long. Pottery from the excavation indicated 1st to 4th century activity.

Most of the rest of the surveyed sample were located by ad hoc field walking in the 1960s & 70's by several local amateur archaeologists. The latest and most recent identification of a Romano-British settlement is the site of Nether Heyford 1 which

was discovered during a metal detecting survey of the area in 1996.

3.2 *Settlement Density & Distribution*

Initial analysis of the Roman settlements in the locality demonstrates a wide geological spread for site location covering a variety of soil horizons. A network of twenty eight settlements has been identified in the landscape with a mean dispersal ratio of a site approximately every five square kilometres. The distribution pattern indicates the Romano-British population of the locality was prepared to utilise the different geologies and topographical niches available. It also indicates specific soil horizons have different densities of occupation reflecting the agricultural possibilities of a zone. However it is important to note there is no way of knowing to what extent the distribution of settlement surveyed in the locality reflects the total numbers of sites that once existed in the area during the Roman period. The correlation of settlements with geology only really provides an initial, base line, statistic for occupation of the locality. In reality a greater density in the overall settlement pattern should be expected to emerge in the future as new locations are identified, recorded and further fieldwork is undertaken.

On the heavy boulder clay which accounts for nearly a fifth of the total area lie six Roman settlements. The distribution reflects a comparatively light but consistent distribution pattern across these soil horizons. In fact Boulder Clay locations account for just over a fifth (21%) of all settlements and just under a fifth (18.5%) of the total area of the locality. The boulder clay horizons have a mean settlement pattern of a site every four to five square kilometres which accords well with the overall mean distribution of settlement for the locality. First this proves these environments were used by the Romano-British population for agricultural purposes and secondly that the qualities of soil horizons do have an impact on the distribution densities and by extension the character of settlements.

Meanwhile the gravel and sand soil horizons which account for less than a seventh (14%) of the countryside have eight (28%) settlements located on them. Therefore

between a quarter and a third of all the settlements in the locality are situated on only 14% of the available landscape; a doubling of the density of settlement in relation to the soil horizon type compared to the parity between the ratios evident in the boulder clay figures. This demonstrates that there were differences in the distribution densities between the major soil horizons. The figure for the gravel and sand soil horizons indicate a far more concentrated density of a site nearly every three square kilometres. This validates the hypothesis that the natural environment did have an effect on settlement distribution. It is possible to contend that agriculturally attractive areas would attract higher levels of occupation depending on the farming regime employed. In the case of gravel and sand soil horizons the density at almost twice that of the boulder clay locations highlights the agricultural possibilities of those land units.

However, the majority of known settlements in the locality are found on the permeable soils of the intermediate slopes which account for three fifths of the entire landscape in the locality. The number of sites positioned on these soil horizons equate to half of all the known settlements being located in 59% of the countryside. In comparison to the statistics of the Boulder clay and glacial gravels and sands there are more settlements located here on intermediate permeable soils than both of the other major categories of landscape added together. A total of fourteen settlements indicate a density pattern ratio of one site for approximately every six and half square kilometres of landscape; a statistic that implies a distribution of settlement that is even less dense than on the heavy clay soil horizons which would seem unlikely considering the amount of landscape occupied by such geology.

It is unlikely that the permeable intermediate slope horizons are less desirable than the heavy clay environments for general farming purposes and probably the situation encountered here is much more symptomatic of a lack of fieldwork and the re-discovery of Roman settlements that once existed. In support of this statement it is possible to take the mean figure for settlement density across the whole locality to calculate and extrapolate the site distribution on permeable intermediate slope soil horizons. Working this way a total of seventeen settlements might be expected on these environmental niches as against the fourteen currently verified. This would

suggest roughly an 18% short fall for site locations in the settlement pattern connected to these soil horizons.

Overall we can conclude the majority of Romano-British settlements in the locality were situated on the permeable intermediate slope soils horizons, reflecting the fact that such geologies cover three fifths of the countryside. However the densest occupation appears to have been concentrated on the well drained and agriculturally adaptable landscape of the glacial gravels and sands. The opportunities afforded by the boulder clay soils were not overlooked but they appear not to have had the necessary range of attributes required to have attracted more attention in terms of settlement location. These findings demonstrate that the natural environment was an influential factor in determining the distribution pattern of settlement in the area and most likely has shaped the character of individual settlements in the process.

In addition to the variety of soil horizons it is also possible to draw some conclusions on the impact of elevation on settlement density. The most popular elevations for settlement are above the 90m OD contour with a total of twelve sites (43%) located here. This is not surprising as 46% of the entire area lies between these elevations. A further nine settlements (32%) are located at elevations above the 120m OD contour although this part of the locality accounts for only 24% of the landscape. The least favoured elevations are those below 60m OD which covers 30% of the area and these accounts for the remaining seven settlements (25%). We therefore have an overall settlement ratio of 4:3:2 based on the 90m, 120m and 60m OD contours.

There is a reasonable parity between the number of settlements and the mid range contours above 90m OD. This relief accounts for nearly half of the landscape in the vicinity of the survey and perhaps it is to be expected that most settlements overall would be located here. However what was less predictable is that the highest relief above the 120m contour, covering just under a quarter of the landscape, has the actual densest settlement distribution pattern even though it covers the smallest area of relief. Meanwhile on the lower relief contours above the 60m OD a substantial third of the total survey area contains less than a quarter of all the settlements that have

been identified. A conclusion to draw from this is that higher elevations were preferable to ones on lower relief and height also influenced the location of settlement as did geological context.

	Sites per		Land per Topography		Settlement
	Topography	%	Sq/kilometres	%	Ratio
>60m OD	7	25	44.27	30	1: 6.3
>90M OD	12	43	68.63	46	1: 5.7
>120M OD	9	32	35.33	24	1: 3.9
TOTAL	28	100	148.3	100	1: 5.3

Using this data it is possible to extrapolate from this the density of settlement currently identified for the area which is dependant upon the elevation. This enables us to deduce that there was a density of occupation that equated to a settlement for every 5.75 sq kilometres of landscape on contours above the median of 90m OD. Meanwhile this density is surpassed with one site every 4 square kilometres for settlements in excess of elevations above 120m OD. The level of settlement distribution falls slightly lower to that experienced on the 90m OD contours of one site every 6.25 sq kilometres for the lower lying establishments below 60m OD.

One can conclude from this that although there are fewer settlements identified on the highest elevations the relative density of occupation exceeds that found at the lower contours and that therefore these locations were favoured for settlement above those of the lowest elevations. However the remaining elevations were extensively used, especially those above 90m OD because these locations offered the majority of opportunities for occupation and exploitation as they constituted nearly half of the all the available elevations within the landscape. The settlement locations on the lowest elevations were also utilised but the slightly lower density suggests the settlement opportunities to be had were probably less appealing than those found elsewhere across the countryside.

These figures along with those for soil horizons indicate that both factors were important in the location and distribution of settlement and probably had an impact on

the character and development of those sites. It is now time to examine the distribution spreads and artefactual assemblages that define the physical character of these settlements to see if it can provide evidence of the hypothetical points already made.

Fortunately the strands of evidence which can be used to formulate the indicative criteria for defining and shaping the character of settlement are clear and easily described. In the Local People: Local Past survey several obvious candidates have been observed to showcase the character of the settlement in the locality. Broadly the framework for interpreting settlement can be divided into four distinct components which are directly related to either the rationale underpinning the distribution pattern or to the inimitable structural and material profile associated with them.

Beside the influence exerted by geology and relief on the general distribution of settlement and the type of agricultural regimes practised, the character of a site is also mirrored through the surviving archaeological remains which are present at that location. These can range from the evidence obtained through the interpretation of aerial photographic coverage to geophysical surveys. Both techniques can supply an outline of the hidden features surviving beneath the plough soil of the stone scatters, soil dis-colourations and earthworks that mark out the general layout of a settlement.

3.3 Model of Development

The analysis of the pottery and coin assemblages from the Local People: Local Past survey which can be analysed on the web site reveals two important facts about the Roman occupation of the locality. Firstly the settlements were continuously occupied and secondly activity at the sites had a considerable longevity. The actual distribution of Roman settlements examined also demonstrates that the local population were prepared to utilise the full range of topographic and geological environments to address their agricultural needs. The level of settlements occupied throughout the Roman period signifying an intensive occupation of the countryside indicative of a robust and distinctive response towards the process of Romanization.

The archaeological evidence confirms that the origin of large scale and intense occupation of the locality appears to have started by the late Iron Age. This in itself is a significant step forward in our understanding of the evolution of settlement in the locality, as the origin and development of the area has never been clearly defined. It also makes plain that the Roman conquest did not herald an instantaneous wholesale change across the countryside within the locality. In contrast it points to a steady absorption of presumably a numerous and diffuse population whose control over and development of the landscape had already been extensive and successful.

Unfortunately at the moment it is difficult to characterise the nature of that settlement because relatively little cultural material from the Late Iron Age, in comparison to the considerable number of Roman finds, has been recovered from the site surveys or been recorded from earlier fieldwork. However the crucial evidence supporting this contention is reflected in the identification of Late Iron Age shards recorded in the pottery assemblages and coins retrieved from all of the sites. Evidence of this earlier enigmatic landscape can also be postulated in through the recognition of round houses and enclosures identified during the geophysical surveys on several sites. Nether the less the limited range of evidence allows us to hypothesis on the nature of the Late Iron Age.

The findings are indicative of a settlement pattern based around a fairly dense spread of relatively small enclosed farmsteads inhabited by extended family or kinship groupings. Sometimes these appear to be associated with planned field systems and probably represent the operation of a subsistence mixed farming economy across the locality; the focal point of the native occupation within these settlements being situated where possible on exposed hill top locations which were presumably chosen for their good lines of visibility and defensive properties in relation to the local hill fort complexes. Most of the sample survey sites have good lines of sight to the Iron Age hill forts of Borough Hill, Daventry and Hunsbury Hill, near Northampton which occupy elevated sites in the west and east of the locality.

However limited previous fieldwork has implied, settled farming and extensive occupation of the area going further back in time possibly to the Bronze Age as excavations at the hill fort on Borough Hill near Daventry have confirmed. Amongst the geophysical anomalies the earliest landscape features appear to be extensive lines of 'pit alignments' whose probable function was to demarcate land holdings. One such alignment identified at Whitehall Farm has been excavated revealing a pit 1.5 m wide and 2m deep with a perceived spacing interval between pits of about two metres. These pits appear to have been kept clean while in use although no dating evidence was retrieved from the fill of the excavated feature. However other examples in the wider area of the Nene Valley beyond the Local People: Local Past locality have contained dating evidence suggesting a construction date consistent with the chronological interface between the Late Iron Age and the conquest period.

All of the surveyed settlements demonstrate a degree of activity during the conquest period of the mid to late 1st century AD. Undoubtedly the character of these sites mirrored, to some degree, the social organisation and agricultural regimes that was prevalent in the area in the Late Iron Age. The lack of evidence of any obvious military sites across the locality implies that the local population was not unduly hostile to the Roman penetration of the area. Any contact with the Roman army appearing to have been minimal and most likely of a limited duration. A good example of a timber round house within a defensive enclosure can be observed on the geophysical survey of Nether Heyford 2 situated to the west of the later villa compound.

Two sites in particular, at Bugbrooke 1 and Harpole 1, have considerable assemblages of mid to late 1st century pottery, accounting between them for nearly 77% of all the sherds recorded of this date from the field walking survey. Whereas at the other end of the spectrum the sites located at Flore 1 and Weedon 1 have only about 2% of the total assemblage of this date from the survey area. Undoubtedly this demonstrates to a degree a differential in the amount of activity on individual settlements and possibly of the relative status of the survey sites. The main diagnostically indicative early fabric involved in the creation of a chronology is a distinctive handmade 'grog' ware

that was produced either on site or in the close vicinity, perhaps on a neighbouring settlement. Judging by the poor quality and utilitarian function of the vessels the pottery probably represented a local seasonal manufacture.

It is only in the late 1st to early 2nd century AD that a significant change can be seen having an impact on these settlements. A significant increase in the amount of material indicates a reorganisation and change on the individual settlements and their associated farm management. It is characterised in two building and architectural routes: the appearance of a traditionally designed round house but now constructed of stone reflecting the native indigenous building tradition and rectangular Roman building design inspired farmsteads and estates. The vernacular building tradition reflected in the stone round houses replaces the more ephemeral ubiquitous wooden construction of the Late Iron Age.

These rejuvenated farmsteads were accompanied by new layouts of inland field systems emphasizing the continuation of the mixed farming economy. However this development wasn't necessarily universal across the locality and at Whitehall Farm excavation confirmed the construction of a rectangular timber proto-villa although this had gone out of use by the end of the 1st century AD to be replaced by the ever present stone round houses of the early 2nd century. A clear example of the native round house tradition is clearly evident in the geophysical survey of Nether Heyford 1 where the structures are situated directly to the north and south of the latter main villa range.

The stone round house remained the predominant building design amongst the settlements in the locality until the late 3rd century AD when there appears to be a major change in settlement and farming regime, particularly in the north of the locality. Across the Local People: Local past survey area large ditched and banked compounds covering two to five hectares were laid out over the existing inland farm field systems. These field systems appear to have been allowed to go out of use and silt up whilst stock management enclosures and paddocks were laid out within the enclosures, and main villa ranges with separate bath houses were erected. A common

factor of these complexes is that the main villa residences are often located between two pre-existing stone round houses which at first continued in domestic use but later were utilised for agricultural or industrial activities. The structural integration of villa range with the round houses suggests that the communal approach of the population of estates was maintained through to the new regimes being developed.

Interestingly this development happened on the majority of settlements in the locality and quite possibly was undertaken within a comparatively short space of time and certainly within a generation or two at the most. Again the villa complexes appear to be designed for extended family or kinship groupings with the main villa range providing the residential space for those involved with the estate. The appearance of stock yards and paddocks indicates a change in the farming regime from a mixed farming economy to the rearing of sheep principally for the production of wool and the textile industries of the North-western provinces of the empire; a situation that is further supported by the continental influence present in the material assemblages recovered during the field survey.

The prosperity of this period is evident in the hierarchical division which characterises the villa layouts that can be recognised in the locality. There are numerous examples of wing corridor villas, several larger courtyard villas and a double courtyard villa. These appear to lie in concentric rings with the largest and most complex villa at the centre. The limited period of construction and similarity in layout and purpose are suggestive of the existence of a significant 'latifundia' in the hinterland of the posting station at Bannaventa (Whilton Lodge) on Watling Street. Both the scale of the edifices and the timescale with its abrupt changes to the local rural landscape imply a step change influx of resources. This appears to be firmly linked to the major political and social upheavals of the Gallic Empire in the last quarter of the 3rd century AD. This was specifically as a result of the devastating Germanic invasions that affected the Rhineland and Gallic provinces. Particularly in relation to 276 AD when between 60 and 70 of the largest cities and the associated settlement patterns of their hinterlands are recorded as destroyed in those provinces causing huge social dislocation.

Not only did the military collapse on the Rhine have a devastating impact on urban life in the north western provinces but it must also have been extremely destructive and ruinous to the industrial and agricultural base of those territories. The Roman strategic response was to construct a new system of defence in depth allied to state sponsored commercial attempts to revitalise the countryside. However, well established large scale industries such as wool and textile must have been severely disrupted at this time as was the cultivation of grain. The dislocation would have been immense and sufficient to cause the inception of new approaches to deal with the challenges that abounded for supplying the clothing and essentials of life.

It can also be demonstrated that large numbers of villas in northern Gaul were abandoned, probably because of these troubles whilst at the very same time British villas located particularly along the Jurassic limestone spine of the south west and Midlands begin to appear and flourish on a large scale at this time. This indicates a situation where we see a 'flight of capital' from the stricken areas if not the actual relocation of the owners themselves. It is probable that the construction of villa complexes may have been part of an organised and extensive commercial response to the economic challenges and industrial requirements of the north western provinces of the empire. This was the commercial situation that became common place by the mid 4th century as reliance on the importation of Britain's grain production and fleet for the maintenance of Roman power in the north western provinces in the reign of the emperor Julian demonstrated.

Both the coinage and pottery assemblages from the villa complexes suggest that a period of prosperity based on a continental trade system continued until circa 340 AD. The collapse of the trade was probably initiated by the death of Constantine II in the social and economic upheavals caused by the civil wars fought between the heirs of Constantine; a state of affairs that culminated in the usurpation of Magnentius (350-353 AD) and the assimilation of the Roman Empire by Constantius II after the former's defeat. It was a change of political circumstances that probably heralded the break up of the large privately owned 'latifundia' with wide ranging trading contacts

into either state run operations or a series of smaller independent estates as their landlord paid the price for supporting the losing imperial faction.

Henceforth local estates would have been managed to meet the needs of the state or a more limited agricultural horizon based upon local and possibly regional farming requirements. However analysis of the assemblages recovered in the survey demonstrate that a number of the villas continued to be reasonably prosperous well into the Valentinianic period (364-378) of the late 4th century. Several of estates continued into the early fifth century as indicated by the number of coins from the House of Theodosius which appear on most of the sites in the locality. The continuity of occupation in the locality is further illustrated by the excavation of the Post Roman timber phase of buildings at Whitehall Farm which survived into the mid 6th century AD although for all the estates and farms of the locality most likely on an increasingly less productive scale of subsistence agriculture.

3.4 Settlement Chronology

Chronological investigation of sites in the locality has identified three general periods of occupation relating to an early, mid and late era. The early period can be divided into a time frame consistent with the conquest and post conquest period of the Roman occupation. The initial part of this timeframe relates to the mid 1st to late 1st century AD; exemplifying the interface between the Late Iron Age tradition and the introduction of Roman culture during the invasion period. Meanwhile the latter half should be associated with the late 1st to early 2nd century AD and the appearance of the first generation of Romano-Britons who look forward toward the expanded economic and social horizons brought to the locality by imperial Rome.

The mid Roman period is roughly aligned with the mid 2nd to mid 3rd century AD; an era of great economic and social development within Britannia epitomised by the mass produced material culture finding its way to the settlements under investigation. It is most obvious in the scale of consumption evident in the retrieved pottery assemblages of mid as opposed to early material. The amount of shards recovered are

anywhere between double and four times more numerous in the individual settlement pottery assemblages for the one period as opposed to the other.

Late Roman pottery covers the period from the mid 3rd to mid 4th century AD; a time that signifies the traditional end of Roman Britain. The coin lists from several of the survey sites indicates periods of prosperity in the late 4th century AD. However the late pottery assemblages are not as extensive as earlier in the Roman period which partly reflects the lack of understanding of the non fine ware forms and their production and manufacture during this period. It probably also reflects a disrupted and shrinking economy as well as the social political malaise that typifies the end of Roman Britain.

The sites included in our sample appear to demonstrate a range of similarities in their ground plans, structures and amongst their material assemblages.

3.5 *Project Conclusions*

Local People: Local Past has demonstrated that an integrated systematic methodological approach to field survey can produce an effective indicative profile of settlement. It is possible to create a set of diagnostic signposts that not only outlines the general development of a site but is capable of accounting for and explaining the character of communities and their associated landscapes. The most informative indicative criteria for profiling the character of Roman settlement within a locality must examine and be aware of four generic areas of investigation.

Initially it is important that the natural environment in relation to the different geological soil horizons, the associated relief and aspect be reviewed and understood to provide a working context for interpreting the full range of available data. Secondly the evidence derived from geophysical survey clearly establishes the range of features and structural complexes present on the site of the settlement. The ability to apply either magnetometer or resistivity surveys allowing for the necessary detail to be retrieved to fully explicating the results obtained. A critical approach that can build on

the locational detail obtained affording a framework for the interpretation of other evidence.

A detailed approach to recording the fragmentary structural remains and physical attributes of a site offer another range of possibilities that is diagnostically useful in developing indicative criteria. The noting of scatters of stone building debris helping fix the residential centre and boundary of the structural element of each settlement whilst the retrieval of ceramic roof tile and box flue tile is illustrative of the character of a site. A particularly diagnostic trait being the occurrence on settlements of different sized *tesserae* dislodged from mosaic and tessellated pavements. The appearance of extensive soil marks implying the existence of more ephemeral structures. The survival of earthworks pointing to the condition of the archaeology remains of individual sites.

The assemblages of material culture are also of particular help in profiling the character of a settlement not least because it provides the basic evidence of the chronology and phasing of each site and occupation of the overall locality. An ability to add systematic metal detecting surveying to the fieldwork process also has enhanced the coin list for a number of settlements and increased the amount of diagnostically helpful non ferrous objects available for interpretation.

It should also be noted that the integration of technological approaches helps in understanding the mechanics behind the deposition of concentration of archaeological material. It demonstrated the distribution of artefacts does not always accord with the extent of a settlement as revealed from the geophysical survey but that archaeological material in the plough horizon still has a significant spatial and chronological resonance with the features and contexts that lie below in the sub soil. The chosen methodological approach has also restricted the amount of bias sometimes attached to the data sets and increased the objectivity expressed in the interpretation of archaeological information. In addition it has demonstrated that intensive and integrated fieldwork within a locality can reveal the necessary indicative criteria that enable meaningful interpretations of settlement characterisation to be undertaken and

for expressions of Romanisation at a local level to be recorded and evaluated. Finally the project has realised the potential of community based archaeological in promoting and delivering landscape characterisation projects and has shown that the quality and importance of the work undertaken can be ground breaking and of the very highest standard.