An experiential and comparative analysis of the landscapes of movement and visibility at five Late Iron Age earthwork complexes in Britain

BITHELL, SAMUEL,THOMAS

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By Samuel Thomas Bithell

Abstract:

In recent decades, the territorial oppida of Late Iron Age Britain have begun to be assessed more as landscape constructs than individual sites. In addition, studies of other contemporary complexes frequently excluded from the classification of oppida have revealed remarkable similarities with the traditionally defined territorial oppida. Terminological debates about classification of oppida have often led to these landscapes evading study and comparison. This thesis therefore looks to compare the landscapes of both traditionally defined oppida (Bagendon, Stanwick and Silchester) and two complexes identified by Corney (1989) as Multiple Ditch Systems (Gussage Cow-Down and the Nadder-Wylye Ridge) without a focus on terminological issues. The focus on studying both oppida and similar earthwork complexes as landscapes has also led to ideas about the way in which such monuments divided up the landscape and may have controlled the experience of movement. To this end, the least cost and viewshed analysis presented in this thesis characterises the landscapes of movement and visibility at each of the five complexes. The results are compared through an experiential lens and through the use of phenomenology and the concept of affordances. In this way the terminological debates about characterisation of oppida are bypassed and the sites compared purely on their similarities, rather than previous classifications. The results of the analysis show that each of the complexes make intimate use of their topographical settings, and the arrangement of earthworks and foci in order to control the experience of movement. Additionally, the location of each complex is shown to be, at least partially, a by-product of regional scale routeways which in turn have affected the local scale layout of the complexes.

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Samuel Thomas Bithell

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Department of Archaeology

Durham University

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Chapter 1

Introduction and Research Questions

1.1. Summary

The o*ppida* of Late Iron Age Britain bridge the gap between traditional notions of archaeological sites and landscapes. Many are so large that they can hardly be characterised as single, contained sites in their own right, Garland (2017:18), for example, indicates that *Camulodunum* covers an area of as much as 10,000ha. However, despite having long been discussed in the archaeological literature in both Britain and continental Europe (e.g. Cunliffe and Rowley, 1976; Collis, 1984; Fichtl, 2005) they remain a somewhat elusive concept. While *oppida* frequently share many similarities both in terms of form, material culture and date, they can also be highly varied. For example, there are significant morphological differences between Stanwick (Haselgrove, 2016) which is formed of several coherent and enclosing dykes, and *Camulodunum* (Hawkes and Crummy, 1995) which viewed in plan comprises a wide sprawl of dykes, ramparts and enclosures (see *Fig 1*). This apparent variability in form and

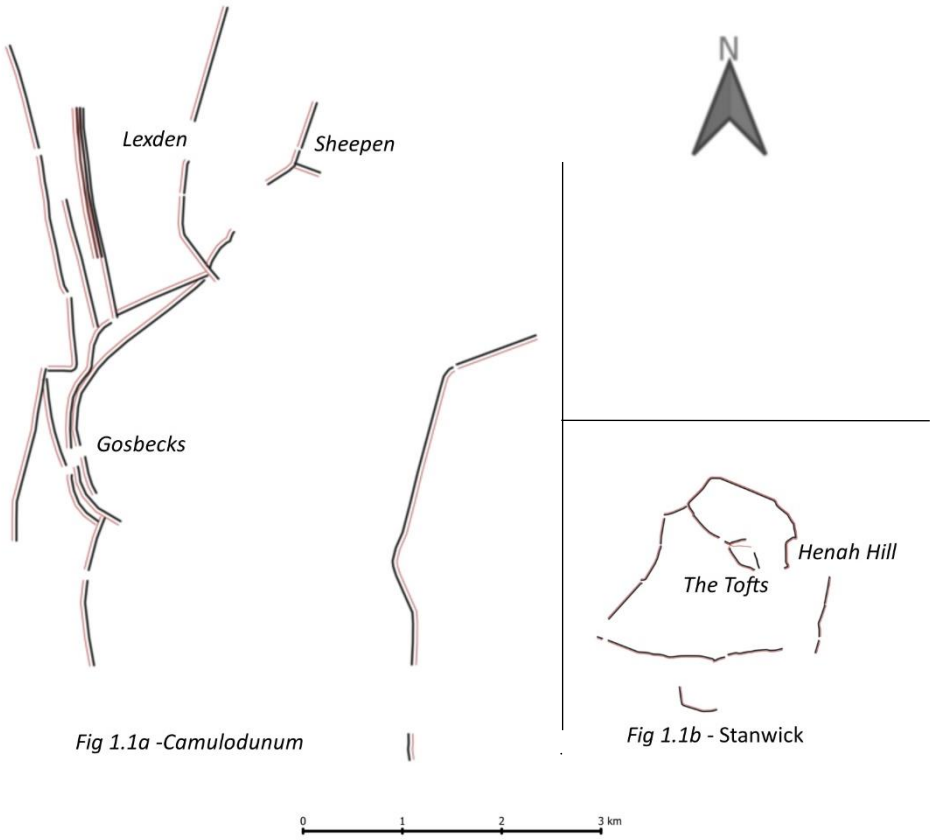


Fig 1.1a -Camulodunum

Fig 1.1b - Stanwick

Fig 1 – To scale plans of the Stanwick and Camulodunum earthworks and some major foci (after Haselgrove, 2016 and Hawkes and Crummy, 1995)

function has led to long running terminological debates which have dominated much discussion of *oppida*. This thesis looks to move beyond such debates by comparing five Late Iron Age earthwork complexes through a mixed GIS and experiential approach. A focus will be placed on the way in which the arrangement of the earthworks and foci of each landscape could have affected not only patterns of movement but the experience of that movement. This will be accomplished through the use of complimentary Least Cost and Viewshed analysis at each site in order to build up comparative models of movement and visibility for each complex. Layered on top of the GIS approach will be a continual evaluation of the new evidence through an experiential framework, based on a knowledge of current literature and the understanding that a purely data driven approach cannot hope to truly understand how such landscapes operated within the minds of their inhabitants.

One of the main concerns of any study assessing Late Iron Age, landscape-scale earthwork complexes is the terminological debate alluded to above. For example, the frequently used sub-classifications of 'territorial' and 'enclosed' *oppida* could refer to larger scale, more disparate dyke systems, and smaller, often fully enclosed sites respectively (Cunliffe, 2005:159). Both Stanwick and Camulodunum mentioned previously fall into the category of territorial *oppida*, but other sites such as Dyke Hills in Oxfordshire (Allen, 2000:22-27) are instead classified as enclosed *oppida*, which tend to be smaller and slightly earlier in date (Historic England, 2018:3). Other sites and landscapes, such as the Multiple Ditch Systems identified by Corney (1989; 1991) and Polyfocal Complexes (Bryant 2007; Moore, 2012; Haselgrove, 2000), often not traditionally considered as *oppida* but sharing many similarities, further complicate the matter. These issues have been recognised for some time (Woolf 1993; Haselgrove, 1995; 2000) but discussions continue to use problematic terminology (E.g. Pitts, 2010; Rogers, 2008 – see Chapter 2). Research Question 1 and Chapter 2 explore the terminology and diversity of these sites and landscapes further, setting the scene for the issues this thesis hopes to tackle through Research Questions 2 and 3.

As discussed, one of the defining characteristics of all the sites in questions is their large area of extent, so the term 'site' is used loosely and 'landscape' is more applicable. This will be one of the first studies to examine the landscape characteristics of such complexes using spatial data alongside an experiential approach. Research in the North Yorkshire Wolds (Fioccoprile, 2015) recently examined in great depth how movement and earthworks in the Iron Age were interrelated and this research takes a broadly similar approach but with significantly more emphasis on a comparative analysis of disparately located, yet apparently similar landscapes. While there has been discussion of how the earthworks and foci of these sites might have controlled or influenced the experience, particularly visual experience, of movement (E.g. Moore, 2012:409-410; 2017a:289-291 at Bagendon (and

earthwork complexes more generally); Creighton, 2000:197; 2006:124-135 at *Verulamium* and *Camulodunum*; Bryant, 2007:71-72 at *Verulamium*) this will be the first study to approach similar concepts with relation to Late Iron Age earthwork complexes using GIS analysis.

Through the use of the methods outlined in Chapter 4 (specifically Least Cost and Viewshed analysis) this thesis will apply a more empirical approach to an understanding of experience and movement through the landscapes of five case studies: Bagendon, Stanwick, Gussage Cow-Down, the Nadder-Wylye Ridge, and Silchester. The archaeological, environmental and topographic setting of each of these is explored in detail in Chapter 3 and as part of Aim 2.1, in addition to a discussion of the recent and historical research pertinent to each case study. Following the application of Least Cost and Viewshed Analysis to each case study an experiential, interpretive framework will be layered over the results presented in Chapter 5. This will be through the lens of a phenomenological approach and the application of the concept of affordances (Gibson, 1977; 1979; Llobera, 1996; Chemero, 2003) which is discussed as part of Chapter 4.

Through the use of Least Cost Analysis, Viewsheds and an experiential approach Aim 3.1 looks to identify patterns (or lack thereof) in the layout and use of the foci within each landscape with relation to each other and their local topography. The identification of these patterns and comparison between the case studies will allow Research Question 3 to be answered and the results of this thesis to be placed within the context of wider archaeological research in accordance with Aim 3.2. This research therefore looks to tackle the issues outlined above in a lateral manner. Rather than explicitly tackling terminological problems relating to *oppida* or sticking to rigidly previous definitions it moves beyond these concepts and begins to compare a number of broadly similar sites irrespective of their previous classifications.

1.2. Research Questions and Aims:

Research Question 1:

What was the nature of the earthwork complexes that emerged during the Late Iron Age in Britain and what were their societal and environmental settings?

Aim 1.1: Discuss how archaeologists have used the terms *oppidum*, polyfocal complex and multiple ditch system.

- Explore how useful these categories are and how our understanding of them has changed over recent decades.

Aim 1.2: Explore how pre-existing sites and routeways shaped the development of such complexes.

Aim 1.3: Explore what scales of analysis – from individual sites, to wider landscapes and regional perspectives – are useful for studying such complexes.

Research Question 2:

Can the function and development of these earthwork complexes be understood in terms of their ability to exert control over, and influence the experience of movement through their respective landscapes?

Aim 2.1: Explore the landscapes of the five case studies chosen for analysis: Bagendon, Stanwick, Gussage Cow-Down, the Nadder-Wylye Ridge and Silchester.

- Seek to understand both their archaeological and environmental settings, as well as both the recent and historical research into each landscape.

Aim 2.2: Conduct Least Cost and Viewshed Analysis for each landscape in order to determine inter-relationships between individual sites, between sites and their topographic setting and between the core earthwork complexes and their wider landscapes.

- Evaluate how well these methods have worked to answer the Research Questions.

Aim 2.3: Apply a phenomenological landscape approach to these results, alongside a consideration of affordances, in order to understand how the arrangement of earthworks and foci at each site could have affected people's experiences of the landscape.

- Consider the outcome of this aim in terms of whether such control or influence could have been a deliberate act or an unforeseen consequence of the arrangement of the complexes with relation to people's movement around them.

Research Question 3:

How can understanding these complexes in light of the results of the Least Cost and Viewshed Analysis help to place them in the wider archaeological context?

Aim 3.1: Discuss any common themes emerging from the GIS results and experiential landscape approach of each case study.

Aim 3.2: Discuss any implications this study may have for future research into Late Iron Age earthwork complexes and societies more widely.

Chapter 2

Literature Review: The Terminology, Character and Environs of Late Iron Age Earthwork Complexes

2.1. Introduction

Research Question 1 addresses the nature of the earthwork complexes that emerged in Britain during the Late Iron Age, their societal and environmental settings. This chapter tackles this question, and in particular Aims 1.1 & 1.2, by setting out the background research upon which the thesis is based and exploring the issues that comparative GIS and experiential analysis of such complexes can help to address. First, it will discuss the terminological debates that have dominated studies of Late Iron Age *oppida* in Britain over last few decades. Through this discussion and a clear definition of terms the conclusions of this research will be able to move beyond the terminological debates whilst simultaneously incorporating the many valid concerns raised over the years. Secondly, the nature of the group of earthwork complexes to be studied in this thesis will be discussed. While checklists for defining the various characteristic features of *oppida* and similar complexes are problematic (see section 2.2) it is important to understand the ways in which such sites have been discussed in the past and what makes the complexes discussed in Chapter 3 comparable with one another. Thirdly the nature of the societies into which these complexes emerged will be discussed. This will incorporate a discussion of settlement patterns, and some models for the function and development of the complexes under study. Finally some conclusions will be drawn about the state of current knowledge on the topic, and how this research will provide novel ways of viewing Late Iron Age Society in Britain, in particular the development of landscape-scale earthwork complexes.

2.2. Terminology

As has been seen, Late Iron Age societies in Britain are often discussed in the context of large dyke systems and partially enclosed sites, frequently referred to as territorial *oppida*. These monuments emerged at the end of the Late Iron Age and into the early Roman period, with a particular focus on the southeast (Cunliffe, 2005:151) but are present further afield as well (e.g. Bagendon in the Cotswolds and Stanwick in North Yorkshire). In general, territorial *oppida* are large complexes (in the hundreds of hectares) defined by large ditches and banks, with evidence of coin minting, long distance trade in the form of Gallo-Belgic and Roman imports (see section 2.3.3), ritual and burial activity (see

section 2.3.4), frequently placed in liminal areas or on geographic/economic/political boundaries (Hill, 1995), and with multiple foci of activity (Bryant and Niblett, 1997; Haselgrove, 2000; Moore, 2012). Debate over their place within Iron Age society has often focused on ideas such as urbanism/proto-urbanism (E.g. Cunliffe, 1976; Pitts and Perring, 2006; Moore 2017a;2017b – see section 2.3.5), the emergence of tribal polities or kingdoms (E.g. Creighton, 2000; Cunliffe, 2005; Moore 2011) and core-periphery models (E.g. Haselgrove, 1982; Cunliffe, 1988; Hill, 1995; Moore 2007a).

Traditional examples of these monuments however, while sharing many similarities, are often highly variable in form, for example Stanwick (Haselgrove, 2016), which is formed of several coherent and concentric rings of earthworks, compared to Camulodunum (Hawkes and Crummy, 1995) which appears as a sprawling tangle of earthworks spread over several thousands of hectares (Garland, 2017:18, see *Fig 1*). In addition, the frequently used sub-classifications of 'territorial' and 'enclosed' *oppida* can refer to larger scale, more disparate dyke systems, and smaller, fully enclosed sites respectively (Cunliffe, 2005:159). In reality these are not true 'sub-classifications' because they refer to entirely independent and morphologically distinct types of site. Other sites – for example, Multiple Ditch Systems (Corney, 1989;1991) and Polyfocal Complexes (Haselgrove, 2000; Bryant, 2007; Moore, 2012) – not traditionally considered as *oppida* but sharing many similarities, further complicate the matter. Most importantly for this project Corney (1989, 1991) identified a number of monuments such as those at Gussage Cow-Down, the Nadder Wylye Ridge, Forest Hill and Blagdon Copse (the first two of which form case studies for this thesis) presenting numerous characteristics which elsewhere determined a site's classification as an *oppidum* (Corney, 1989:125). The other three case studies (namely Bagendon, Stanwick, and Silchester) fall into the traditionally defined category of territorial *oppida*.

The term o*ppidum* is also used to refer to sites spread across the rest of Northern Europe such as Bibracte (Dhennequin *et al.*, 2008), Manching (Wendling, 2013) and Zavist (Drda, 1994) among others. These can differ considerably from their British counterparts (Haselgrove, 2001:59), but in some instances can also be comparable (e.g. Woolf, 1993; Haselgrove, 1995). These sites also have similar terminological problems associated with them, particularly in relation to the question of pre-Roman urbanism in Northern Europe (Woolf, 1993). In the context of Late Iron Age Britain the use of the term *oppidum* is therefore predicated on the notion that such a coherent site type actually exists. However, as Woolf (1993:231) concludes in reviewing the state of research into *oppida* in the early 1990s:

"The term oppidum embraces a wide variety of sites, too wide to allow easy generalisation and yet arbitrarily exclusive…"

This is demonstrated clearly in Late Iron Age Britain in the grouping of sites such as *Camulodunum* (Hawkes and Crummy, 1995), Stanwick (Haselgrove, 2016) and *Verulamium* (Haselgrove and Millet, 1997) into the same category despite their evident morphological differences, while simultaneously excluding sites such as Gussage Cow-Down (Corney, 1989; 1991) from the same classification. In fact, morphologically speaking the extended Gussage Cow-Down complex (see section 3.2.2) appears to share more similarities with *Camulodunum* than sites such as Bagendon (see section 3.2.1). As such the use of a checklist classification to define inclusion in the category of *oppida* has led, in part, to the arbitrary exclusion of certain monuments and the questionable inclusion of others. For example, the frequent exclusion of open sites despite their fulfilment of many points on the list barring a lack of enclosure and ramparts (Woolf, 1993:224).

These issues have been recognised for some time (Woolf 1993; Haselgrove, 1995; 2000) but many discussions continue to use problematic terminology. For example, Pitts (2010) and Rogers (2008) both discuss this issue at length but can find little other solution than to use exactly such terminology as a framework for further analysis. Pitts (2010:35) describes Cunliffe's (1976:135-136) classification system (which comprises four categories: enclosed *oppida*, territorial *oppida*, undefended *oppida* and ports-of-trade) as covering an "*uncomfortably broad range of sites"* (Pitts, 2010:35) but uses the system in order to identify trends between various sites and landscapes. The issue being that trends defined through the use of an ill-defined dataset may simply be products of the poor definition. Rogers (2008:38-39) likewise discusses how the use of the terms "enclosed" and *"*territorial" to categorise *oppida* is difficult and how rigid definitions of such sites has led to neglect in the study of other uses of land and natural places in the Iron Age at the site of later Roman towns. Nonetheless, through a necessity to organise the evidence for easy analysis Rogers splits discussion between *"Oppida"* (2008:44-48) and *"Non-Oppida"* (2008:48-51). In a review of evidence relating to continental *oppida* Fernández-Götz (2014) discusses the enormous diversity in form encompassed by the term. *Oppida* in this model can describe sites which could be ascribed the term "city" (which is acknowledged as a decidedly complex term - Fernández-Götz, 2014:383), as well as those that are not (*ib id.*:382-383). It includes sites which lean more towards a purely economic function, more towards a religious or ritual function or a mixture of both (*ib id.*:380) and excludes agglomerated open settlements which rival nearby *oppida* in quantities of material culture (*ib id.*:381). This is not to say that the term *oppida* is not useful in categorising a large number of sites under one umbrella for large-scale analysis, for example in the study of novel forms of urbanism (Moore, 2017a; 2017b). However, the term begins to lose explanatory power as scales of analysis decrease from regional down to local levels.

Much of the difficulty surrounding terminological issues related to the term *oppida* stems from their central role in core-periphery narratives of social change during the Late Iron Age in Britain (e.g. Haselgrove, 1982; Cunliffe, 1988). Such narratives have often focused on the relationship between Britain and the near continent, in particular the Roman Empire and it is clear that prior to the conquest the influence of Rome and the near continent was greatly felt. The presence of Gallo-Belgic and Roman imports at many sites throughout the southeast (see section 2.3.3) attests to this. The presence of imports as grave goods in elite burials also demonstrates an association between control of these goods and the higher-status elements of society. It was in large part due to this that the core-periphery models of the 1980s developed (e.g. Haselgrove, 1982; Cunliffe, 1988), which were for a long while the predominant narratives of social change during the Late Iron Age (Hill, 2007). These posited that exposure of polities in the south and east of England during the Late Iron Age to the expanding Roman Empire had a drastic effect on the regional wealth and political hegemony of the south-eastern 'core' compared to the surrounding 'periphery' (Haselgrove, 1982). The territorial *oppida* of southeast England were central to such discussions not only due to their perceived 'urban' nature (see section 2.3.5) but also due to their apparent status as capitals for the local 'tribes' (Cunliffe, 2005:159; *c.f.* Moore, 2011:3) which inhabited them and their surrounding landscapes, and due to their place and hubs for trade and exchange.

It has since been recognised however, that such explanations for social change in the Late Iron Age not only do not fit with the prevailing evidence (Hill, 2007:17) but that they largely ignored indigenous developments in the centuries prior to the Roman invasion (Hill, 2007). In part this focus on the influence of Rome may stem from the imposition of a Roman historical narrative on a prehistoric society and the subsequent utilisation of this by archaeologists and antiquarians from the 19th century onwards (Moore, 2011). Haselgrove (1995:82) explains that the cyclical expansion and contraction of Late Iron Age societies, if halted unexpectedly, may give the false impression of permanent social change where none was actually present. Hill (2007) demonstrated through analysing changes in material culture, burial and settlement evidence in the later Middle Iron Age, and up to the beginning of the Roman period, that many of the socio-political changes that took place during the Late Iron Age could be attributed to indigenous developments. As such many authors suggested a need for new understandings of social change during the Late Iron Age on a wider scale (Creighton, 2001; Haselgrove et al., 2001; Hill, 2007; Moore, 2007a). While there has been little subsequent development by way of large-scale models of social change during the Late Iron Age it maybe that something of a similar scale to earlier core-periphery models must be by its nature overly simplistic. The use of the term *oppida* therefore carries with it assumptions about the political and societal hegemony of particular groups which is not necessarily evident.

Over-use of the term *oppida*, distinctions such as 'territorial' and 'enclosed', and exclusion of otherwise genuinely similar sites from the category have confused discussions of this complex and diverse range of monuments that emerged at the end of the Late Iron Age. The debates described above have become so engrained in the literature that despite acknowledgement of the issues on all sides many publications are prefaced with a discussion of a problem which has been acknowledged for over 20 years (e.g. Rogers, 2008; Pitts, 2010; Moore, 2012). It is not lost on the author that this is exactly what the past few paragraphs have been discussing. It is important to mention that attempts have been made to develop new terminology to describe the various types of site that are either subsumed within or excluded from the term *oppida.* The terms Polyfocal Complex and Multiple Ditch System (and previously terms such as territorial, enclosed, undefended or nucleated) are attempts to do just this but redefinitions of terms cannot, alone, lead to a paradigm shift in the way in which such monuments are discussed. Terms such as these are useful aids in allowing analysis of groups of similar monuments but it must be remembered that our Iron Age ancestors likely would not have classified their landscapes into such a format. Part of the objective of this research is therefore to move beyond strict terminological definitions, to compare sites based on their merits, and to conduct new research based on their comparability rather than on previous definitions. While there is no attempt to hide the terminological issues surrounding the term *oppida* it is not the focus of this research. Instead the known similarities between each landscape are discussed in Chapter 3 and the data and analysis presented and discussed in Chapters 5&6 move beyond terminological definitions to identify patterns in the way in which movement was experienced at a number of morphologically similar landscape-scale earthwork complexes.

2.3. The Nature of Landscape-scale Earthwork Complexes

2.3.1. Introduction

In light of the terminological debates that have dominated the study of landscape-scale earthwork complexes over the past several decades it is clear that such sites incorporate a range of characteristics and functions which overlap in some cases and not in others. Unfortunately, due to a historic bias focussing on Late Iron Age centres that subsequently developed into important Roman towns, such as at *Verulamium*, *Camulodunum* and Silchester (Moore, 2012:412) many sites which have not traditionally been classed as *oppida* are not well researched. It should be noted, however, that many of these under-studied sites did in fact continue to be important centres of occupation into the Roman period (E.g. Corney, 1989; Bryant, 2007; Moore, 2020). Nonetheless, given the overarching Research Questions posed in this study it is important to elaborate on the contextual archaeological data which

has led to the selection of the case studies presented in Chapter 3. The following section will therefore elaborate on the characteristics that might allow us to group similar sites together based on their merits, rather than previous terminological classifications. In order to address Aims 1.1 & 1.2 this will begin with a discussion of the polyfocal nature of the landscapes in question, followed by a discussion of the importance of trade and exchange, landscape heritage and ritual, and similarities in their form, function and placement. This section will address debates and discussion surrounding the urban question with regard to these sites, something which has dominated much discussion of all classes of *oppida* throughout Britain and Northern Europe over the past decades. Finally there will be a discussion of how recent research into the ways in which polyfocal landscapes are organised has led to new ideas about movement and experience, which is of direct relevance to Research Question 2.

2.3.2. Polyfocal Complexes

Reassessment of the evidence surrounding territorial *oppida* and other sites from the 1990s onwards identified interesting patterns in how their landscapes were organised. At *Verulamium*, Baldock and Broughing, Bryant and Niblett (1997) identified evidence for separation between ritual and burial foci, and the main areas of occupation. Similarly observations were made at *Camulodunum* where the burials at Lexden and Stanway would have been the foci upon entering the complex from the north or south respectively (Creighton, 2000:197), while at Sheepen and Gosbecks the focus would have been on the dykes and occupation (Hawkes and Crummy, 1995). At Bagendon (Moore, 2020) activity appears to have been focused not simply on the central occupation area of the oppidum but also on the enclosures at the Ditches, Middle Duntisbourne and Duntisbourne Grove, and prior to the oppidum's height the Cutham and Scrubditch enclosures would have been important landscape foci as well (Moore, 2012; 2020). This apparent zoning of activity (Woolf, 1993; Bryant and Niblett, 1997; Haselgrove, 2000; Moore, 2012) has led to the use of the term 'polyfocal complex' which incorporates a wider range of monuments than traditional definitions of *oppida* and as such can include sites which might otherwise have been ignored (Haselgrove, 2000). A benefit in the use of this term is that it has allowed debates about urbanism to be opened up in light of recent developments in the study of the urban phenomenon (notably low-density urbanism: Moore, 2017b; Fletcher, 2009; 2010 – see section 2.3.5).

Numerous landscapes have been identified over the past few decades were, in addition to traditionally defined territorial *oppida*, polyfocality is evident. Of particular importance are the sites identified by Corney (1989;1991) as "*Multiple Ditch Systems*" at Gussage Cow-Down, the Nadder-Wylye complex, Blagdon Copse, and Forest Hill, and those identified by Haselgrove (2000) as polyfocal complexes at the South Midlands Grim's Ditch (Hingley, 1989; Cracknell and Hingley, 1995), Welwyn, the Bulbourne

Valley (Bryant and Niblett, 1997; Bryant 2007), Saham Toney and Thetford (Davies, 1996), and Stonea Camp (Jackson and Potter, 1996). No doubt many more of such sites and landscapes will be discovered over the coming years and decades, especially given the continuing rapid increase in developer funded archaeology. The use of the term polyfocal complex and the recognition of the polyfocal nature of both traditionally defined territorial *oppida* and other Late Iron Age landscapes allows a degree divergence from some of the problematic terminological issues discussed previously (see section 2.2). However, the value of the term lies not simply in the ability to classify sites into groups but rather in identifying a particular phenomenon in Late Iron Age settlement patterns. The identification of polyfocality within Late Iron Age landscapes allows analysis of the relationships between the individual foci and the way in which such landscapes functioned which is the driving focus of this study.

2.3.3. Trade, Imports and Coinage

A defining characteristic of traditionally defined territorial *oppida* is their association both with high-status continental and Roman imports, and concentrations of Iron Age coinage (often including evidence for actual minting of coins at the sites as well). For example, evidence of coin minting is present at, among others, Bagendon and *Camulodunum* in the form of ceramic coin moulds and locally produced coins (Clifford, 1961; Hawkes and Crummy, 1995), and *Verulamium*, in addition to its placement in a liminal geographic zone, also sits at the boundary of various coinage distributions (Haselgrove and Millett, 1997). It was in part this association with high status goods and coinage that led Corney (1989; 1991) to compare his "*Multiple Ditch Systems"* with territorial *oppida*. All of the complexes identified by Corney have produced significant numbers of Late Iron Age coins, including a 19th century find of a hoard of approximately 100 coins from Forest Hill (Corney, 1989) despite their overall lack of excavation (see sections 3.2.2 and 3.2.3 – Gussage Cow-Down and the Nadder-Wylye Ridge). While there is currently no evidence that actual coin minting took place at these sites as at other *oppida* (see Haselgrove, 1987) this general lack of excavation means it is highly likely that this is simply a gap in the archaeological record. Indeed, it can be strongly inferred that coining minting would have taken place at such sites and Corney (1989:125) postulates that the "*sub-Dobunnic*" coin series may even originate at the Forest Hill complex.

Towards the latter end of the 1st century BC some coins in the southeast region even begin to be struck with the names of kings such as Tasciovanus and Cunobelin and the names of actual places such as *Camulodunum* (Haselgrove, 1987; 1993; Hawkes and Crummy, 1995). It is interesting to note that while the assumption to a modern mind is that coinage would have primarily been used as payment for goods or services, this was not necessarily the case in Late Iron Age Britain. Haselgrove (1993) suggests that distribution patterns of gold, compared to struck bronze and silver coins demonstrates

that the former were used by the political elite in some form of patron-client relationship and were probably deliberately deposited rather than lost. Meanwhile the latter appear to be concentrated more in places where their use as a form of currency would make more sense (*ib id*). As such, the minting of coins at sites such as Bagendon (Allen, 1961:97), *Verulamium* and Silchester (Haselgrove, 1987) and the discovery of coins at numerous other polyfocal complexes (Corney, 1989) indicates that these sites would have been importance centres for both trade and exchange, as well as seats of societal power and control.

In addition to the presence of coinage, many of these complexes display evidence of imported goods such as amphorae and Gallo-Belgic pottery as well as control of regional trade networks. For example, the sites at Gussage Cow-Down and Blagdon Copse are associated with high-status imported pottery, including Dressel 1 amphora (Corney, 1989). Imported amphorae are also present in many burials during the Late Iron Age in the southeast, which are often associated with polyfocal complexes (see section 2.3.4). The presence of these amphorae (although not in quite the same quantities as in pre-Roman Gaul – Loughton, 2003) may indicate the importance of imported wine during feasting rituals. For example, at the Lexden Tumulus (Foster, 1986) the grave goods (including amphorae that would have contained no less than 450 litres of Italian wine – Fitzpatrick, 2007) demonstrate that there was an association between wealth and status, and access to continental luxuries. Examples such as Lexden as well as imported commodities excavated from non-funerary contexts demonstrate that not only was trade with the continent a common occurrence but that it was directly associated with the accumulation of wealth and power focused on high-status sites such as *Verulamium* and *Camulodunum*.

Imported pottery is also present at Stonea Camp (Jackson and Potter, 1996) including Samian ware – although Stonea's date to the decades immediately following the Roman conquest might imply a change in the dynamics of trade. More strikingly at Braughing there has been recovered an extraordinary amount of imports from across the channel, and as far afield as Italy (Partridge, 1981:351-352), suggesting that the site was a regionally significant centre for trade in addition to a centre for intensive settlement and potential ritual activity (Bryant, 2007). Braughing's lack of large-scale earthworks, similar to the sites studied here, sets it apart from polyfocal complexes and *oppida* such as *Verulamium* or Gussage Cow-Down, but it is unclear to what degree this difference is superficial to the actual function of the complex. Moore (2007a:53-55) explains that Bagendon is situated at the periphery of several different regional trade and exchange networks. Its presence in such a liminal area is therefore likely either a deliberate decision to control such trade networks, or else the organic growth of a settlement at a pre-existing node for trade and exchange. Stanwick

(Haselgrove, 2016) sits at an important geographical cross-roads between the Stainmore Pass over the Pennines, the Vales of York and Mowbray, and the Valley of the River Tees, all of which remain important north-south and east-west routes today in the form of the A1 and the A66. On a more localised scale Haselgrove (2016:459-461) discusses the location of Stanwick in relation to routeways around the Iron Age landscape, some of which may well survive as lanes and footpaths in the present day and many may have been present in the landscape prior to the construction of the *oppidum*.

2.3.4. Landscape Heritage and Ritual

In order to facilitate a phenomenological understanding (see Aim 2.3) of any landscape the heritage and origins of the features within it must be considered. It has been thought that a number of *oppida* and polyfocal complexes were constructed in previously uninhabited or under-utilised areas of their respective landscapes (Moore, 2007a:55; 2013). By way of example, at *Verulamium* there is a general lack of settlement evidence pre-dating the initial phases of the *oppidum* (Haselgrove and Millett, 1997), and it has been proposed that the pre-Roman complex at Silchester is an example of a planned Late Iron Age settlement on virgin ground (Fulford and Timby, 2000). However, recent work has suggested a more complex picture, which considers things such as the importance of natural places and community assembly, which might leave little archaeological trace. Recent geophysics and excavation at Bagendon has revealed two banjo-type enclosures of Middle Iron Age date, including an inhumation which immediately pre-dated the development of the Late Iron Age *oppidum* (Moore, 2012; 2014; 2020). While banjo enclosures remain woefully under-investigated (Lang, 2016:341) there is evidence that Middle Iron Age examples may have developed into larger polyfocal sites elsewhere besides at Bagendon. For example, Lang (2016:355) argues that banjo enclosures may have pre-dated the polyfocal site at Grim's Ditch in North Oxfordshire (see also Copeland, 1988; Moore, 2012). Similarly, at Gussage Cow-Down numerous, complex banjo-type enclosures are evident through aerial photography and although none of these are dated, Early Iron Age pottery has been recovered from the vicinity of the complex (Corney, 1991). Though not explicitly of the 'banjo' type there is also a striking similarity between the enclosure at Gussage All Saints (Wainwright, 1979) which has earlier Iron Age origins, and the enclosure at the Ditches (Trow, James and Moore, 2009) which forms part of the Bagendon complex (see section 3.2.1). It is also evident at Gussage Cow-Down that the system of dykes, field systems and enclosures have been influenced by the orientation of a Neolithic Cursus monument (Corney, 1991). Comparably, at Stonea Camp (Jackson and Potter, 1996) a Bronze Age round barrow is present outside the main ramparts and a palisaded ring ditch of Late Neolithic-Early Bronze Age date has been excavated there as well (Malim, 1992:32).

In addition to archaeological evidence for activity predating numerous polyfocal complexes, such sites may have been previously important for reasons that have left little archaeological trace. Haselgrove (2000) argues that these sites may have originated as sacred locations and periodic meeting places with very little permanent settlement and Moore (2017a) views assembly as one of their primary functions. This would go some way to explaining why the dyke systems present at many polyfocal complexes delimit vast areas of seemingly empty land. An interesting analogy could be drawn here with Anglo-Saxon England, where meeting places for both ritual and secular purposes were often natural places, sometimes incorporating *"prominent topographical features"* and *"almost always associated with routes of communication and movement"* (Brooks and Reynolds, 2011:86). Many of these assembly places would have been at the edges of important secular and religious areas and close to important routeways (Baker and Brooks, 2013:150) drawing direct comparisons with Late Iron Age polyfocal complexes. In light of this it is interesting to reconsider whether a lack of archaeological evidence necessarily implies a lack of prior significance.

Another reason why significance may have been attached to otherwise 'empty' areas of a landscape prior to the construction of polyfocal complexes is their frequent association with routeways and important nodes for trade and exchange (see section 2.3.3). As Moore (2012) explains, traditional explanations for decisions of where to situate territorial *oppida* in the landscape have focused on control of these routeways (Cunliffe, 1976:156). For example, *Verulamium's* situation at the eastern end of the Chiltern Hills, straddling the valley of the River Ver, overlooking the floodplains of the River Colne to the south, and sitting at the very edge of the loamy soils of south-east England may have placed it at the interface of just such trade and exchange networks (Haselgrove and Millet, 1997). Such natural, liminal areas may have acted as neutral meeting places for business, ritual or other activities which would eventually have evolved into a focus for the wider social group (Haselgrove, 2000). Bagendon, in a similar fashion to *Verulamium*, sits beside the Churn Valley at the very edge of the Cotswolds, controlling a potential route between the Upper Thames Valley and a crossing of the River Severn at Kingsholm, Gloucester. Stanwick likewise sits at the interface between the Tees Valley and the uplands of the Pennines, on good agricultural land and with excellent potential for exploiting natural resources such as copper, lead, iron ore and building stone (Haselgrove, 2016:2). Stanwick also appears to have been orientated on pre-existing routeways through the landscape and the five entrances may well be aligned on these (Haselgrove, 2016:459-461). Stanwick developed from a relatively small, marshy, promontory fort at the Tofts – which Haselgrove (2016:446) compares to the likes of Sutton Common (Van der Noort, Chapman and Collis, 2007) – into the c.300ha enclosure still standing today. While the earliest evidence of occupation at the inner enclosure of the Tofts dates to the beginning of the 1st century BC with only a very small amount of activity pre-dating this

(Haselgrove, 2016:387) it may be that the Tofts was originally sited in order to exploit an important pre-existing cross-roads. There is precedent for comparable pre-existing activity at several *oppida* in Northern Europe as well. Fernández-Götz (2014) collates several examples of *oppida* which clearly have their origins in much earlier temple and assembly sites. Temple A at Manching, for example, dates back to the 4th century BC, along with a nearby paved area dating to between 2nd-C4th centuries BC that may have been for assembly of some kind (Fernández-Götz, 2014; Sievers, 2007; Wendling, 2013). Similarly, sanctuary sites at Gournay-sur-Aronde, Corent and Entremont developed before their respective *oppida* (Fernández-Götz, 2014; Brunaux, Meniel and Poplin, 1985; Poux, 2011; Armit, Gaffney and Hayes, 2012:192).

Pre-existing routeways and meeting places were not the only factors that would have affected the choice of where to situate a large earthwork complex. As with the sanctuaries and temples of continental oppida it is quite likely that there was a religious or ritual aspect. Indeed Haselgrove (2000) separates polyfocal complexes from other 'nucleated settlements' partly along the lines of ritual versus economic functions. In a similar vein to their association with banjo enclosures (which are sometimes thought to have ritual or high-status functions – Moore, 2012; Lang, 2016) polyfocal sites frequently show evidence of significant ritual or religious functions. At Blagdon Copse a sub-square barrow with a Late La Tène cremation burial was excavated, with potential for a more extensive cemetery in the surrounding area (Corney, 1989). Similarly a square ditched barrow lies at the northern entrance to the Gussage Cow-Down complex (White, 1970; Corney, 1989;1991). The presence of a rich burial on a main route into to a complex such as this is reminiscent of the burials of Lexden and Stanway at *Camulodunum* (Hawkes and Crummy, 1995; Creighton 2000) and the Folly Lane burial at *Verulamium* (Niblett, 1999; Bryant, 2007). As discussed above a Bronze Age barrow and several other barrow-like features are present at Stonea Camp in the Fens (Jackson and Potter, 1996) suggesting that pre-existing funerary activity at these sites may have been a factor in their initial development.

However, evidence for pre-existing ritual activity at some polyfocal complexes is not necessarily so clear cut as the presence of barrows or temple complexes. To this end Rogers (2008) puts particular emphasis on the wet, marshy landscapes that many polyfocal sites developed in. For example, at *Camulodunum* in addition to concentrations of activity in marshy areas during the Iron Age (such as at Sheepen – Hawkes and Crummy, 1995), Roman religious activity in the floodplain of the River Colne may represent continuation of a special place from the Iron Age (Rogers, 2008:45). Excavations and geophysics in the, still boggy, valley bottom at Bagendon revealed that this is where the most intense activity in the oppidum was situated, at the confluence of Perrott's Brook and the River Churn (Clifford,

1961; Trow, 1982; Moore, 2012). At Stanwick the Tofts enclosure, and indeed the oppidum as a whole, is situated on what would have then been an important watercourse (the Mary Wild Beck), even though today the ground is largely drained (Haselgrove, 2016). Crease (2015:152-4) emphasises the importance of the marshy areas and their ritual contexts at Roman Verulamium, citing as well Niblett's (1999:409) suggestion that the name for the pre-Roman oppidum of *Verulamium* is drawn from its association with the marshy landscape. This is perhaps not surprising given the continued importance of watery places throughout British prehistory (see Fitzpatrick, 1984; Richards, 1996; Crease, 2015). Indeed, in the later part of the 1st millennium BC "*fine metalwork and weaponry*" was increasingly deposited in such places (Hill, 1995:85). Given the discussion above about pre-existing activity at polyfocal sites in Britain, it is interesting to suggest that even where none is evident in the archaeological record there are many things, such as mass-assembly, or the presence of sacred natural places that might have denoted societal importance without leaving much of a trace.

2.3.5. Urbanism

Arguments surrounding the definition of what constitutes urbanism in the archaeological record are long-standing, having been debated since the 1970s (Ucko, Tringham and Dimbleby, 1972). The *oppida* of Britain and Northern Europe have subsequently became central to discussions of urbanism in Late Prehistoric Europe (E.g. Cunliffe and Rowley, 1976; Collis, 1984; Pitts and Perring, 2006; Moore, 2017b) at the fringes of the classically urbanised (Erdkamp, 2012; Nevett and Perkins, 2000), even globalised (Pitts and Versluys, 2015) Roman Empire. For a long while the assumption was that *oppida* represented a genuine flourishing of urbanism prior to the Roman conquests of the 1st centuries BC and AD. Recent reassessment and new research into the Fürstenzitze of Early Iron Age western-central Europe (Kimmig, 1969; Pare, 1991) such as the Heuneberg, Mont Lassois, Glauberg and Závist (Fernández-Götz and Krausse, 2013; Fernández-Götz and Ralston, 2017) has also shown that development of seemingly urban settlement would not be without precedent in Northern Europe (Fernández-Götz, 2018).

While Woolf's (1993) paper challenged archaeologists to reassess the evidence for *oppida* as a coherent site type and as evidence for urbanism in Late Iron Age Europe this did not end the debate. Despite most *oppida* not being considered as 'urban' using Woolf's (1993) characterisation of the term, issues surrounding its definition (recognized as far back as the 1970s – Ucko, Tringham and Dimbleby, 1972) mean that pinning the concept down rigidly is no easy task. For example, Wheatley (1972:623) despaired that:

"…it is, in the present state of knowledge [in 1972]*, impossible to do more than characterize the concept of urbanism as compounded of a series of sets of ideal-type social, political, economic and other institutions which have combined in different ways in different cultures and at different times."*

It seems likely that given the difficulty in pinning down a definition of urbanism a focus on the processes and *"historical sequences of socio-political and economic institutions"* (Chapman, 1995:31) that lead to apparently urban characteristics may be a more useful pursuit. In a similar vein Sharples (2014) argues that in attempting to move away from a more traditional definition of urbanism it becomes more feasible to make useful comparisons between sites whose similarities would otherwise not have been considered. Although in this case the comparison of Late Iron Age developed hillforts to Greek *polis* continues to frame the discussion in terms of classical urbanism (Moore, 2017b:290). Moore (2017b:1) likewise notes that while *oppida* have been "*surprisingly absent from comparative urban studies*" new perspectives focusing on its diversity (e.g. Smith, 2007; Fletcher, 2010) mean that this merits re-appraisal. It is therefore suggested that oppida may represent a form of 'low-density' urbanism (Moore, 2017b) whereby large areas of open and agricultural or pastoral land is integrated within an urbanised infrastructure and a dispersed population (Graham, 1999; Lucero, Fletcher and Coningham, 2015; Fletcher, 2009;2010).

Given these recent developments it appears that, as is almost always the case, the concept of urbanism in the Late Iron Age is more complex than just a yes/no answer. Despite assertions that *oppida* do not fulfil the relevant characteristics of urban settlement (E.g. Woolf, 1993) this is probably the wrong way to approach the problem. However, continuing to discuss *oppida* in terms of whether they are 'cities' or not and even using the same term to describe both *oppida* which apparently are cities and *oppida* which apparently are not cities (E.g. Fernández-Götz, 2014:383) does not seem useful. Instead, facing the issue without a strict definition of urbanism based on a classical model, such as the Greek *polis*, can help us to better understand not only the processes which led to the emergence of *oppida* in the first place but also the ways in which they may have functioned. This is especially the case when considering how their inhabitants may have experienced and conceived them without assuming that they maintained a worldview similar to that of the Classical Mediterranean.

2.3.6. Choreographed Landscapes

As has been discussed, the simple act of controlling routeways – while probably important – is likely an over-simplification of both the reasoning behind the locations of many polyfocal complexes and an oversimplification of the reasons behind their layout. Instead, the (often incomplete) enclosure of large open spaces and the enhancement or emphasis of pre-existing landscape features (such as dry

valleys or ridgelines) may have acted to control movement through, and assembly within, such landscapes. For example, linear boundaries at the Nadder-Wylye complex and Blagdon Copse emphasise the ridges on which they sit and control the movement along them (Moore 2012:406). Bryant (2007) suggests that, were the forum in the bottom of the valley the focus of attention at *Verulamium*, the earthworks upslope from this would have formed impressive skyline features. At Camulodunum visitors would have been forced to pass by the Lexden monument and Stanway burials upon entrance to the *oppidum* (Creighton, 2000:197). Similarly at *Verulamium*, the focus at King Harry Lane was by the western access route and that at Folly Lane had commanding views throughout the *oppidum* (Creighton, 2000:197). If these sites were indeed periodic meeting places for large numbers of people, as suggested by the expansive, open areas they define (see above – Haselgrove 2000; Moore, 2017a), controlling the experience movement through their landscapes would have been of particular importance. Indeed, Moore (2017a:289) sees this "*choreographing"* of movement as a primary role of British territorial *oppida*, the function of which was to "*communicate the status of the community of the place itself"* (Moore, 2017a:290).

The attempts to control movement through Iron Age landscapes in Britain are not exclusive to polyfocal complexes, linear monuments being common throughout later British prehistory. For example, a recently evaluated triplet of Middle Iron Age, parallel, linear ditches at Linton in Cambridgeshire run along a paleochannel from the floodplains of the River Granta into the uplands immediately to the north (Cotswold Archaeology, 2017). The largest of these ditches being over 2 metres in depth would have greatly enhanced the scale of the channel and the experience of moving along it to or from the river. Recent excavations by OA East (Ladd and Mortimer 2017) at the Bran (or Haydon) Ditch have shown that the Cambridgeshire Dykes (generally accepted as of Anglo-Saxon date) may in fact have their roots in the Early Iron Age. The Iron Age phase of the Bran Ditch itself was shown to be a triplet and of a very similar form to those at Linton which may have acted as territorial divisions and routeways, controlling access along the Icknield Way and between upland areas and fenlands to the north. Research incorporating Least Cost Analysis by Fioccoprile (2015) in the Yorkshire Wolds demonstrated that the dyke systems there were likely formalising pre-existing routes through the landscape. Although it is important to mention that while these routes may have existed prior to construction of the dykes their very construction would have drastically altered perceptions of that movement once they were built.

Long linear monuments such as these form an integral part of many polyfocal complexes and are a characteristic feature of traditionally defined territorial *oppida*, being one of the features that exclude landscapes such as at Braughing (Bryant, 2007). For example, it has been suggested that the triplet of

Iron Age dykes known as the 'Mile Ditches' may have formed the north-eastern boundary of the *oppidum* at Baldock (Burleigh, 1980;1995; Historic England, 2018). The Beechbottom Dyke at *Verulamium*, while significantly more monumental than those at Linton, also enhances the scale of pre-existing natural valleys, and the suggestion that Beechbottom Dyke may have formed a processional routeway in/out of the complex (Bryant, 2007) would be consistent with such an interpretation. Likewise at *Verulamium*, the organisation of the foci at Folly Lane, the St Michael's enclosure and the King Harry Lane cemetery (in addition to the villa complex at Gorhambury) appears to have been designed to allow for a form of procession between the monuments (Creighton, 2006:129). Interestingly the development of the Roman town appears to have followed a similar pattern with a direct focus on Folly Lane (Creighton, 2006:129). The Scrubditch dyke at Bagendon could well have played a similar role, directing movement in or out of the *oppidum* (Moore, 2012) enhancing the scale of a dry river valley. In this context the fact that the bank and ditch rather oddly, face inwards to the complex would make much more sense. The other earthworks at Bagendon appear to also be designed in such a way, not only as to control movement through and around the complex, but to create a sense of "*theatre*" (Moore, 2017a:289). Control of landscapes such as this is inherently a visual phenomenon whereby the arrangement of the dykes and the foci facilitate different views throughout the complex as people progress through it along the 'correct' path. This is evident at *Camulodunum* in the location of the foci at Gosbecks (specifically the theatre) which sits at a 90^{o} angle between the foci at Lexden and Stanway (Creighton, 2006:131). Looking out from the theatre along this arc Creighton (2006:131) explains that the arrangement of the dykes and the natural topography of the wider complex would only have allowed for restricted (or rather, deliberately controlled) views of Lexden and Stanway. Enhancement of the bank at the Folly Lane enclosure at *Verulamium*, as late as the AD 140s, through the addition of white chalk on its townward face implies that the visual impact of the monument was important here too (Creighton, 2006:128).

While numerous authors have demonstrated that polyfocal landscapes both with and without ditches are similar in many ways (such as the presence of imports, coins and ritual foci) the imposition of a ditch system upon a landscape must necessarily be one of its defining features, especially from the perspective of the visual experience of movement. Ditches create areas of landscape that are physically impermeable and force movement in particular directions, such landscapes are therefore quantitively different from permeable landscapes where patterns of movement would have been directed by social idiosyncrasies rather than physical barriers. It is entirely possible that such socially impermeable (though physically permeable) barriers existed in landscapes without ditches (pit alignments may be a physical manifestation of such things – Rylatt and Bevan, 2007). However, such societal barriers are often archaeologically invisible and therefore clearly distinguishable from ditch

systems. Authors have previously focused on how ditches and elaborate enclosures can be seen as displays of power, wealth and status on the part of the builders and while this is true, they also serve the genuine function, deliberate or otherwise, of funnelling movement in particular directions.

In light of this it may be that the construction of integrated dyke systems at polyfocal complexes are not so much isolated events in the Late Iron Age, but a concentrated example of a wider societal desire to divide and control movement through intensively settled landscapes. This choreography of movement (Moore, 2017a) would have been integral to conveying the power of the place. Moore (2012:413) has also compared such polyfocal complexes to contemporary Irish 'Royal' sites such as at Navan and Dún Ailinne (Lynn, 2003:46-8; Newman, 2007) which utilized earthworks to alter the experience of assembly and movement through the sites. Such a hypothesis – that polyfocal complexes were designed to enhance and control the experience of movement, perhaps in order to convey power – would fit well within the overall picture painted above. Despite the fact that both ditched polyfocal complexes and isolated linear dykes are clearly discussed in terms of movement and landscape-wide control little attempt at comparison has been made in the literature. Similarly, and with the highly notable exception of linear monuments in the Yorkshire Wolds (Fioccoprile, 2015), little attempt has been made to truly define the nature of this movement beyond educated speculation. Actual testing of the hypothesis that polyfocal complexes, and other Late Iron Age landscape features (such as the Linton ditches), were designed to enhance the experience of movement will require more rigorous analysis.

2.4. Wider Landscape

2.4.1. Introduction

The study of the wider landscapes of Late Iron Age earthwork complexes has gained increasing importance over recent decades with several large projects investing significant time and energy in the study of the landscape environs (for example at Stanwick (Haselgrove, 2016), Silchester (Fulford and Timby, 2000; Creighton and Fry 2016; Fulford *et al.* 2018; Truscoe, 2019; University of Reading, 2020), and Bagendon (Moore, 2020)). An understanding of the contemporary environs of the complexes to be studied is of paramount importance to this study and is expanded on for each specific landscape as part of Chapter 3. What follows is a necessarily brief overview of some of the settlement evidence for the British Iron Age more generally, in order to contextualise the landscape specific evidence laid out in Chapter 3.

2.4.2. Settlement Patterns

Settlements during the Late Iron Age in Britain are wide-ranging with many different forms, functions, and regional variations. These range from the simplest unenclosed farmsteads and isolated roundhouses to complex, multivallate hillforts, and the massive landscape constructs that this research is focussed on. Compiling such categories of site into settlement hierarchies can give an indication of the scale that a given society might operate at and is a common tool used by both archaeologists and geographers. However, without a critical appraisal of the hierarchies suggested this can give an overly simplistic interpretation of a complex and interconnected society, especially given the incompleteness of the archaeological record (Bevan and Wilson, 2013). Additionally, the imposition of a strict settlement hierarchy often comes hand in hand with assumptions about its inherent complexity comparable to Service's (1975) Band-Tribe-Chiefdom-State model.

Studies of the Late Iron Age have often discussed the socio-political system at the time in terms of a settlement hierarchy dominated by *oppida* (mostly in the south and east). These sites were often considered to represent the apparent capitals of territories ascribed to various tribes identified by their Roman occupiers (Cunliffe, 2005:159) although this view is rooted in colonial and 19th century adherence to classical literature (Moore, 2011) and the imposition of Roman colonial *civitas* capitals upon pre-existing *oppida* (for example at *Camulodunum* and *Verulamium*). Additionally, previous assumptions that these sites represented a flourishing of genuine urbanism (see section 2.3.5) prior to, and immediately following the Roman conquest has perhaps set them apart from other contemporary, high-status sites and landscapes more than was justifiable. As Haselgrove (2001:58; 2004:18) explains it is wrong to assume that the *"largest and most prominent sites necessarily formed the apex of the regional settlement hierarchy"*. Haselgrove (2001:58) gives the example of the southern Fenland where small but relatively wealthy and high-status sites such as Wardy Hill (Evans, 1992;1997;2003) may instead have fulfilled such a role. It is important to note that while the polyfocal earthwork complexes under study here may well represent a separate settlement phenomenon to previous centuries, they are often not coherent settlements. By definition they are comprised of multiple foci, loosely grouped together and often connected by large, linear dyke systems. Each foci has the potential to act independently of any other and as such ascribing the entire landscape to the top tier of a developed settlement hierarchy is, at the very least, an oversimplification. Instead of discussing these complexes as the dominant form at the apex of a settlement hierarchy it is more useful to attempt to understand the way in which such landscapes interacted with surrounding settlements. As such Research Question 2 (in particular Aim 2.1) focuses on the nature of the

landscapes and settlement patterns associated with each of the five case studies. Chapter 3 looks in detail at the nature of settlement around of each of the five case studies to exactly this end.

The increase in developer funded archaeology since the mid-1990s has added a huge amount of new information to our understanding of lower level settlement in the pre-Roman Iron Age. While developer funded archaeology is necessarily biased towards locations where modern development is taking place, the bias towards studying sites and landscapes for pre-conceived notions of their archaeological importance is removed. The countless publicly available grey-literature reports (E.g. Cotswold Archaeology 2018; Warwickshire County Council, 2010; Albion 2003) therefore fill an important gap in the archaeological record and facilitate projects such as the recent Roman Rural Settlement project (Smith *et al.* 2016; Allen *et al.* 2017; Smith *et al.* 2018). This project in particular demonstrated just how dense small-scale, rural occupation in the form of both simple farmsteads and more complex settlements became in the years either side of the Roman conquest. By making use of local Historic Environment Record (HER) data (presented in *Tables 1-5* and Appendix 2) this thesis similarly looks to fill out the contemporary Iron Age landscapes of each case study.

An important aspect of many of these farmsteads and larger settlements is the trend towards enclosure (Thomas, 1997) in the latter centuries BC, for example in the Severn-Cotswolds (Moore, 2007a), the Trent Valley (Knight, 2007), the Oxfordshire-Cotswolds (Hingley, 1984) and East Anglia (Hill, 1995). This trend would have greatly affected the way in which sites interacted with each other and how they were experienced by the people inhabiting their landscapes. Small, enclosed sites such as these come in many varieties throughout British prehistory and often take relatively ubiquitous forms (e.g. sub-circular, rectilinear, D-shaped) which are not necessarily indicative of function. One form of enclosure, the 'banjo' enclosure, has been postulated as having a close association with the polyfocal earthwork complexes studied in this thesis (Moore, 2012). Banjo-type enclosures (originally identified by Perry, 1972) are formed of a circular enclosure with one entrance flanked by ditches and banks and antennae ditches which could have funnelled movement towards the enclosure. While woefully under-excavated as a type of site (Lang, 2016), they are considered to have potential ritual functions, in addition to the corralling of animals, high status occupation and occasional burials (for example: Cutham and Scrubditch – Moore, 2012; 2014; 2020 Winterbourne Kingston – Russell *et al.* 2014; Rollright Heath – Lang, 2016). As mentioned, Moore (2012) has indicated that banjo-enclosures may have a close association with *oppida* and other, high-status polyfocal sites. Three of the sites being studied here (the Bagendon, Gussage-Down and Nadder-Wylye complexes –section 3.2.1-3) incorporate numerous and complex banjo-type enclosures into their landscapes, although only at Bagendon have any been excavated in recent years (Moore, 2020). Other enclosures such as Gussage

All Saints (Wainwright, 1979) and the Ditches (Trow, James and Moore, 2009) also include antennae ditches and, while they would not fall under the classification of banjo enclosure, they may have fulfilled a similar function in the corralling of both animals and people.

While enclosure for both mundane and special activities was commonplace throughout the Iron Age and there was a trend towards more enclosure, many settlements both large and small remained unenclosed throughout the period, for example the Late Iron Age phases of settlement at Thorpe Thewles (Heslop, 1987) and Bancroft (Williams and Zeepvat, 1994). Additionally, there are a number of polyfocal agglomerations such as those noted by Bryant (2007) at Baldock, Broughing, Welwyn and the Bulbourne Valley that are distinct from the polyfocal earthwork complexes studied here due to their lack of large-scale dyke systems (although again, the degree to which this difference is superficial is not clear). While the incorporation of such dyke systems into landscape-scale complexes such as these probably cannot be considered as 'enclosure' in the traditional sense (many individual foci at these sites *were* enclosed) they may have functioned in a similar way in sectioning off areas off landscape to only be accessible by specific routes. While there was a trend towards this kind of enclosure it is important to note that there was regional variation in Late Iron Age British society, not only in the form of attitudes towards enclosure (for example in the upper Thames Valley (Hingley, 1984; Lambrick, 1992) but also towards death and burial (for example the regionally distinct Arras Culture in East Yorkshire – Stead, 1979; 1991; Parker-Pearson, 1999), and more mundane things such as pottery. It is important to consider that such regional variation could very well have impacted every instance of people's lives, both archaeologically visible and not. While this thesis compares a number of geographically dispersed but similar complexes (see Chapter 3), attitudes towards such landscapes may have differed greatly, and in such a way as cannot be evidenced in the data. We must be careful not to assume that an inhabitant of the Stanwick landscape, for example, would have viewed the Silchester landscape in the same light as a native.

2.4.3. Hillforts and Enclosed *Oppida*

While the smaller scale sites and enclosures make up a significant quantity of the settlement evidence from the centuries and decades preceding the Roman conquest, no appraisal of such a subject would be complete without a discussion of hillforts (especially as many of the foci for the Least Cost Analysis presented in Chapter 3 are hillforts of one form or another). Unfortunately, in part for historical reasons (for example Hawkes, 1931), hillforts are somewhat difficult to define (much like *oppida*). In particular this is the case in the regional Historic Environment Records (HERs), but also in the wider literature throughout the 20th century, which often makes little distinction between sites with vast differences not only in size and complexity but also local geography (Brown, 2009). Various attempts

have been made to overcome this issue, such as at Sutton Common which was classified as a 'marsh-fort' (Van der Noort, Chapman and Collis, 2007), although the inclusion of the word 'fort' still carries presumed military connotations that are not necessarily applicable, despite the suggestion that defence was not the primary function of the enclosure (*ib id.*:180). The recent 'Hillforts Atlas' project attempted to apply a more rigid set of classifications to hillforts on order to acquire a more coherent group of sites than previously, although it was acknowledged that certain aspects of the classification system remained contentious within the project itself (Lock, 2019). While the Hillforts Atlas project is both an impressive and practical tool that made entirely justifiable, pragmatic decisions about hillfort classification, it still seems an oversimplification of the sites' true functions and diversity.

For much of the past century hillforts given their impressive ramparts, deep ditches, and often complex entrances were assumed to have a strong military or defensive function (E.g. Avery, 1986;1993; Cunliffe, 2003; Wheeler, 1943). Recent reappraisal of the bioarchaeological evidence from Maiden Castle even confirms an association with warfare and potentially the Roman Conquest at the site (Redfern and Chamberlain, 2011). However, the modern consensus is that hillforts acquired numerous functions that differed both temporally and regionally (O'Driscoll, 2017a) such as facilitating social cohesion (Lock, 2011) and displays of both elite (Driver, 2013) and/or communal power and status (Sharples, 2010:120-124; O'Driscoll, 2017a), and that these and other functions do not have be mutually exclusive of the defensive or military aspects of some hillforts (Armit, 2007).

In the period following the 3rd century BC many of the lesser hillforts were abandoned in favour of extending and elaborating upon a smaller number of so-called 'developed hillforts' (Haselgrove, 1999; Cunliffe, 2005), such as Danebury, Maiden Castle and Old Oswestry, that were significantly larger, more elaborate and with denser occupation than their forbears, although were largely confined to Wessex (Haselgrove, 2001:56). It has even been suggested that some of these 'developed' hillforts could be classified as urban centres which rival some of the continental *oppida*, such as Titelburg, in scale (Sharples, 2014:225-226). Following the emergence of these developed hillforts other sites, generally termed 'enclosed *oppida'* (not to be confused with the 'territorial *oppida'* – see section 2.2) began to emerge. These include sites such as Oram's Arbour (Qualmann *et al.* 2004), Salmonsbury (Dunning, 1976) and Bigberry (Thompson, 1983; Blockley and Blockley, 1989) among many others. Enclosed *oppida* generally surround relatively large areas of land and it has been suggested that the corralling of herds of horses, as part of a display of wealth and status, may have been a primary function (Creighton, 2000:17-18). Given their apparent situation on important route-ways the development of enclosed *oppida* has been linked to the changing dynamics of trade and exchange

occurring in the latter centuries BC resultant from increasing contact with Gaul and the advancement of the Roman Empire into the near Continent (Haselgrove, 2001:45-46).

While often situated in valley bottoms rather than the domineering topographical situations of developed hillforts, Cunliffe (1976) considered them to be the final phase in the development of the hillfort dominated society of the preceding centuries. Cunliffe (2005:406) also considers developed hillforts and enclosed *oppida* to be links in the chain of a natural progression from a pre-urban to fully urban society, ultimately dominated by territorial *oppida* and open settlements. However, enclosed *oppida* suffer a number of similar terminological difficulties associated with other iterations of the term (see section 2.2), especially in terms of morphological variations, scale and topography. By way of example Dyke Hills in Oxfordshire comprises an area of 46ha (Cunliffe, 2005:403) while the Quarry Wood Camp *oppidum* in Kent covers a mere 12ha (Kelly, 1971). A number of sites such as Oldbury in Kent and Bigbury near Canterbury are similar to valley bottom enclosed *oppida* but situated in hilltop locations (Cunliffe, 2005:406) blurring the boundary between enclosed *oppida* and developed hillforts. The suggestion that there was natural progression of such monuments, from simple to complex and that the divergence of enclosed *oppida* from developed hillforts is also (as acknowledged by Cunliffe, 2005:406) likely an oversimplification, stemming from under excavation and lack of archaeological data. Nonetheless it is these monuments, in addition to the smaller farmsteads, field systems and open settlements that made up the landscape of the Late Iron Age in which we find the large, polyfocal earthworks complexes which form the subject of this research.

2.5. Conclusion

This chapter has sought to expand on some of the issues surrounding the study of Late Iron Age polyfocal earthwork complexes in the past few decades with reference to Aims 1.1 and 1.2 of Research Question 1. Through this review of the state of archaeological knowledge on the subject the discussion and conclusion of the research presented in Chapter 6 can be placed in context as described by Research Question 3. Throughout this chapter it has become apparent that a number of issues, namely terminology surrounding the word *oppida*, debates about urbanism and the nature of Late Iron Age social change have clouded interpretations of a wide range of morphologically similar monuments. One of the most difficult aspects of the study of *oppida* and polyfocal complexes, as can be seen in much of the literature, is the need to separate the terminology which a study uses from its historical meaning. It is very difficult to use the term *oppida* without invoking the historical usage of the word and thus failing to acknowledge sites which were never previously described as such. The driving force behind this thesis is therefore the need to conduct research into a range of morphologically and

archaeologically similar monuments and expand on ideas about their utility and function, rather than maintaining the focus on terminological classifications. This research therefore looks to move beyond some of the widely recognised issues to open up new interpretations and narratives of social change.

Chapter 3

Case Studies: The Research and Landscape Context

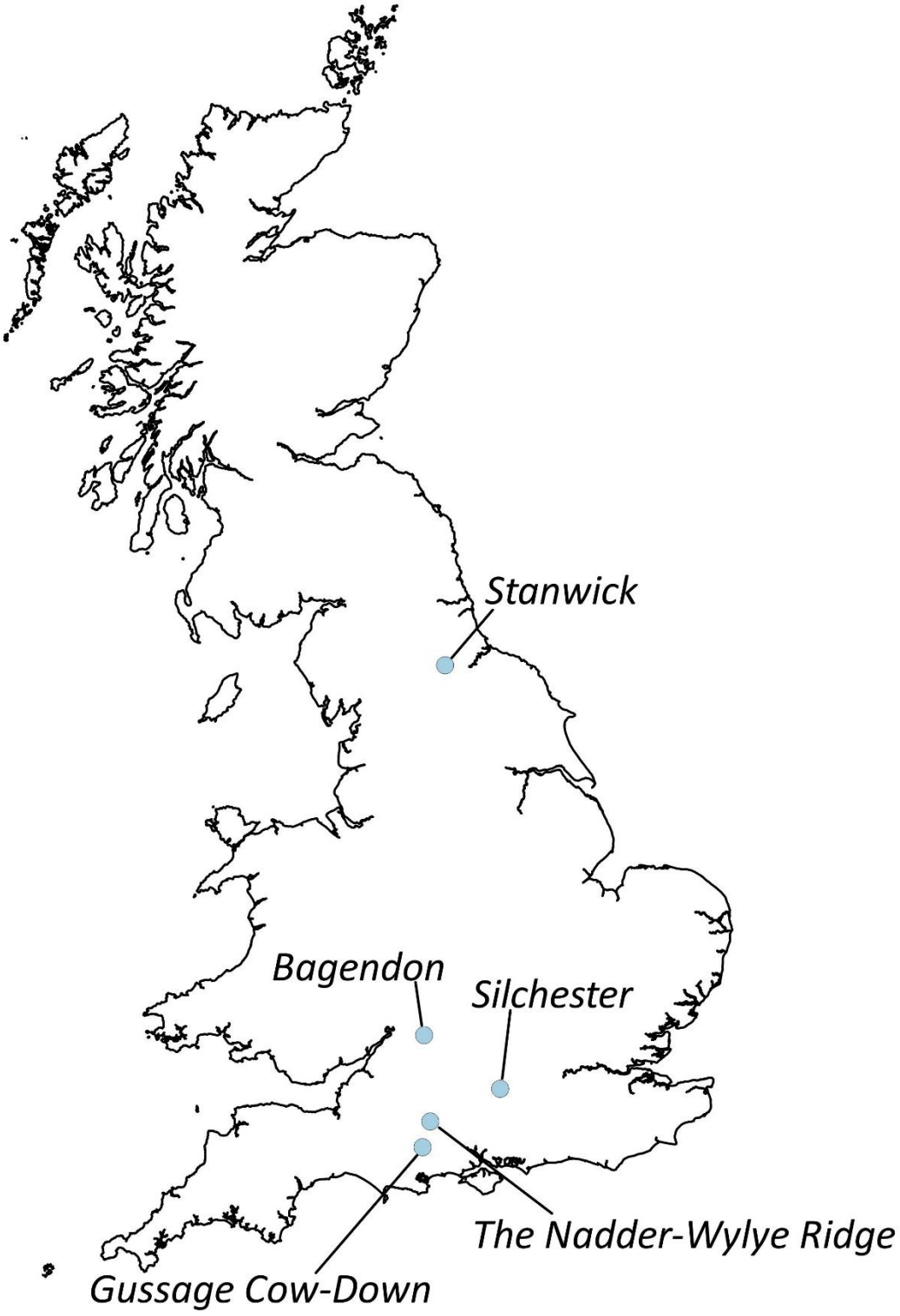


Fig 2 – The locations of each case study discussed in Chapter 3

3.1. Introduction

The following chapter outlines the research context for each of the five case studies upon which this research is based. In each case the location and nature of the complex is discussed in addition to a brief outline of each area's present-day situation. The evidence relating to contemporary palaeoenvironment is also outlined as an understanding of environment is pivotal to interpretations of both Least Cost Paths and Viewsheds (see Chapter 4). A summary of the Historic Environment Record (HER data) for a 5km radius around the centre of each complex is also presented, the full databases for which can be found in Appendix 2. Finally, the archaeological context for each complex is discussed relating to previous research and fieldwork within their respective landscapes.

3.2. Research Context

3.2.1. Bagendon

3.2.1.1. Introduction

The Bagendon *oppidum* (NGR – SP 016 062) is situated in Gloucestershire, a few kilometres north of the boundary between the Cotswolds and the Upper Thames Valley, approximately 5.5km north of modern-day Cirencester (Roman *Corinium*). It straddles the valley of Perrott's Brook just to the northwest of its confluence with the River Churn, where a horseshoe arrangement of dykes encloses an area of 250-300ha (*Figs 3 & 4)*. Descriptions of, and sources for, each of the foci for Least Cost Analysis presented in *Fig 3* can be found in Appendix 1.1. The Gloucestershire HER data for a 5km search radius around Bagendon can be found in Appendix 2.1 and a brief summary is presented in *Table 1*.

3.2.1.2. The Present Day

The modern village of Bagendon lies roughly central to the Iron Age complex and may have its origins in the early medieval period; it has been suggested that there are Saxon origins for the nave wall of the parish church of St Margret's (Verey and Brooks, 1999:152). As with much of the rest of the Cotswolds small villages and hamlets like Bagendon dominate the present-day settlement pattern around the complex, which is largely medieval in origin. The villages of North Cerney and Woodmancote bound the Iron Age complex to its northeast and north respectively while the hamlets of Daglingworth and the four Duntisbournes (Abbots, Leer, Middle and Rouse) follow the course of the valley to the southwest of Perrott's Brook. However, recent research revealing continued settlement within the complex during the Roman period (Trow *et al* 2009; Moore, 2020) indicates that

Table 1 – HER data summary for the Bagendon landscape. Based on Gloucestershire HER data, presented in Appendix 2.1. See Appendix 2 for definition of what constitutes "enclosed" and "settlement" sites. "Period From" and "Period To" describe the (often presumed) start and end periods for archaeological activity as defined by the relevant HER, see Appendix 2 for definitions of these periods.

		Bronze Age	Late Bronze Age	Iron Age	Early Iron Age	Middle Iron Age	Late Iron Age	Roman
Total sites	Period From	52	13	54	4	14	66	-
	Period To	52	5	22	7	16	30	73
Enclosed sites	Period From	1	1	24	2	4	18	-
	Period To	2	-	9	2	5	2	33
Settlement sites	Period From	1	7	19	3	7	21	-
	Period To	-	1	12	6	10	7	28

	Documentary sources	Cropmarks/ Earthworks	Geophysics	Fieldwalking	Findspots	Excavation
Sites by evidence	10	140	24	6	3	86

settlement in the Perrott's Brook valley may have been less interrupted than previously thought. Present-day land use in the vicinity of the complex comprises mostly enclosed agricultural land of arable and pasture of a typically modern form (see Hoyle, 2006 for the full historic landscape characterisation of the Cotswolds) with some areas of localised woodland.

Within the immediate vicinity of the complex it is also clear that late prehistoric and Roman features survive as part of a palimpsest modern landscape. The obvious examples of this are the Bagendon dykes themselves which can be seen to influence the course of modern roads such as the Welsh Way to the south of the complex and Cutham Lane to the east. The most striking landscape feature to

survive to the present day is Roman Ermin Street which runs along the southern ridgeline of the Perrott's Brook valley from Cirencester, past Daglingworth Quarry and cutting through the two Iron Age enclosures at Middle Duntisbourne and Duntisbourne Grove (Mudd *et al.*, 1999:77-96). Ermin Street then continues across the Cotswolds and dips down into the Severn Valley to cross the River Severn near Kingsholm. Additionally, the modern course of the White Way is located approximately 1km east of the Bagendon Complex and comprises a minor Roman Road which runs north-south from Cirencester in the direction of Chedworth Villa (RCHME, 1976:xii-li). Another modern road, the Welsh Way crosses the River Churn just to the south of its confluence with Perrott's Brook. From there it proceeds up the southern slope of the Perrott's Brook valley, between two of the dykes, crosses the

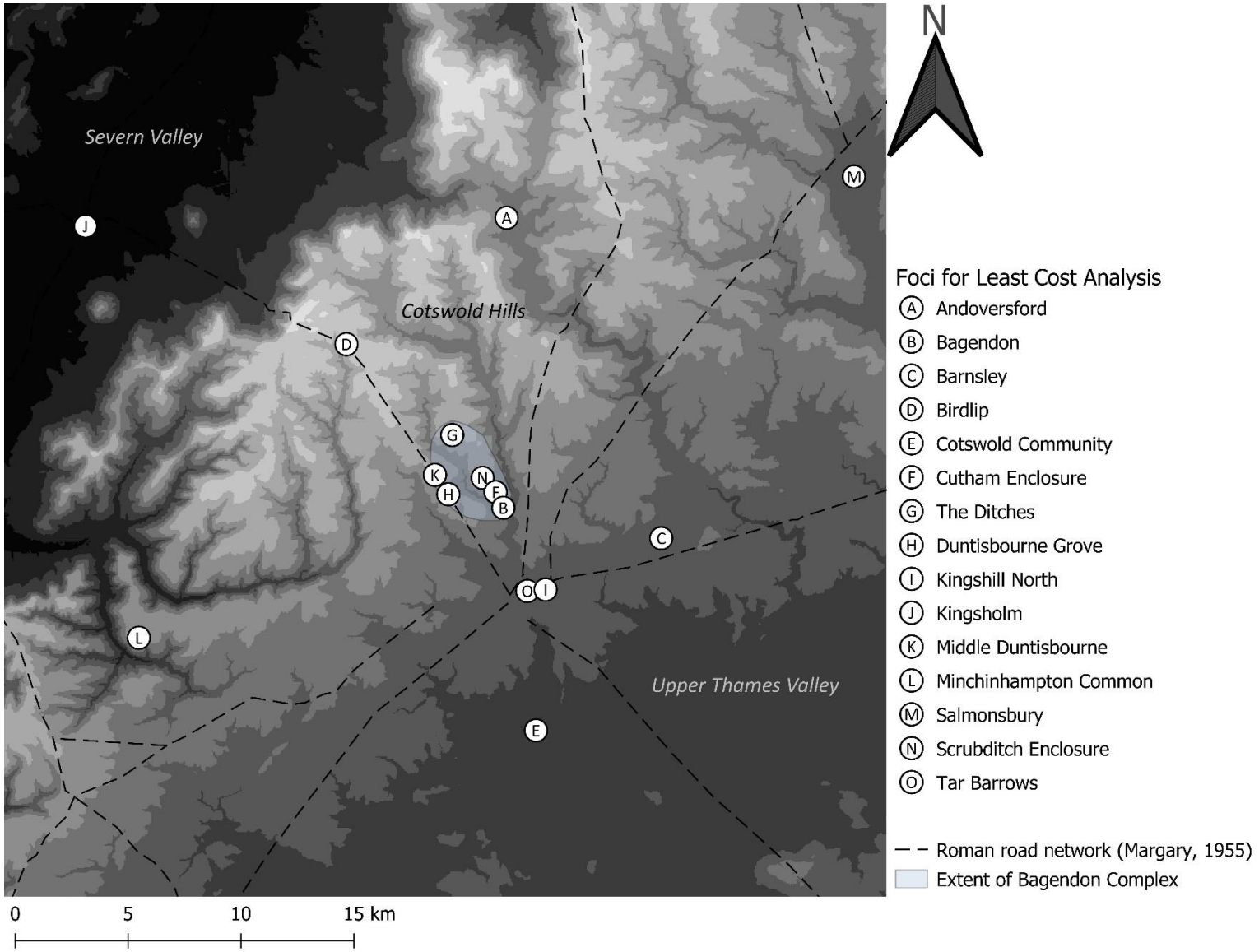


Fig 3 – The regional Bagendon landscape and foci for Least Cost Analysis (see Appendix 1.1) in relation to the Roman road network.

dyke at Daglingworth and joins Ermin Street between the two Duntisbourne enclosures. This is the western-most continuation of the old London-Gloucester road that can be traced back to the 13th century as a droveway for Welsh cattle and likely has Late Iron Age origins (Copeland, 2009:49-52). The Welsh Way links Bagendon with the northernmost navigable point of the River Thames at Barnsley (Copeland, 2009:49-52) where Late Iron Age activity, including a banjo enclosure, has been identified in proximity to a Roman Villa complex (Moore, 2006:143-147).

3.2.1.3. Palaeoenvironment

There is a general paucity evidence for the later prehistoric natural environment in the Cotswolds (Straker *et al.*, 2008:107) although the Upper Thames Valley to the south and south-east of Bagendon is better understood. In this region at least there is a clear trend towards woodland clearance over

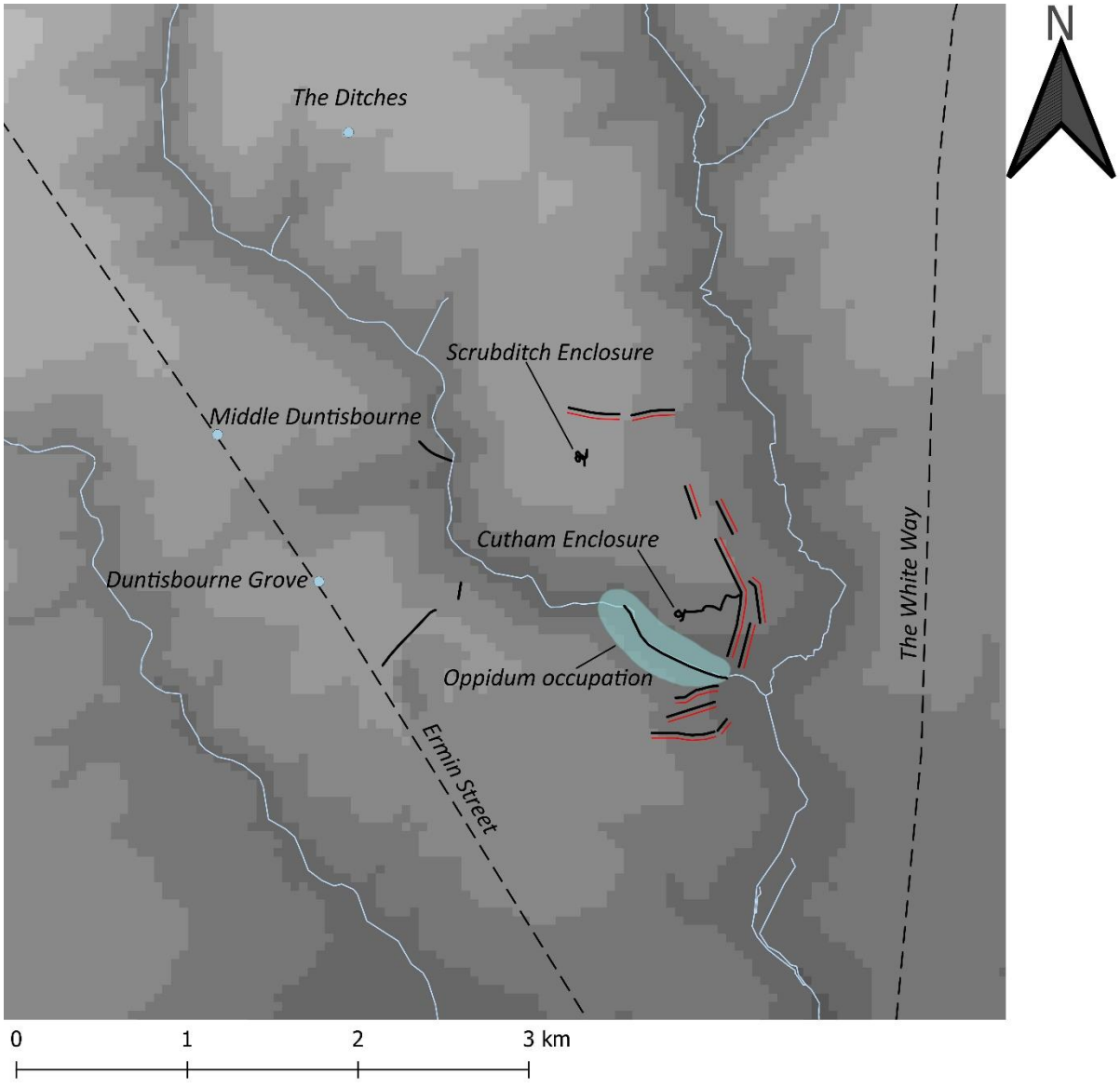


Fig 4 – The local Bagendon landscape with relation to major foci and with the local Roman roads (Margary, 1955) for reference (after Moore, 2012; 2020).

time with a generally open, agricultural landscape by the Late Bronze Age and subsequent intensification of agriculture throughout the Iron Age (Straker *et al.*, 2008:107-108). Excavations at Cotswold Community to the south of Bagendon provided a general picture of a Middle-Late Iron Age landscape comprising of cleared land with an assemblage in which hedgerow species predominated in the charred remains (Smith *et al.*, 2010:198-202). During the Roman period there appeared to have been a certain amount of oak woodland regeneration although this may have been highly managed (Smith *et al.*, 2010:202). Mollusc evidence from Cotswold Community is comparable, demonstrating extensive woodland clearance by the end of the Late Bronze Age and an increase in flooded environments in the Late Iron Age to Roman period that may be associated with further clearance for agriculture (Smith *et al.*, 2010:204).

Environmental analysis undertaken during the A419/A417 road improvement scheme is invaluable to understanding the natural environment before, during and after the activity at Bagendon. Excavations at Middle Duntisbourne and Duntisbourne Grove (Mudd *et al.*, 1999:495-497) were able to recover significant sequences of molluscs from Late Iron Age ditch fills, although pollen assemblages were sparse at both sites (Mudd *et al.*, 1999:474). The mollusc samples demonstrated that both enclosures were probably set in relatively wooded environments, at least during the initial infilling of the ditches. Evidence from a pre-Roman buried soil at Dartley Bottom, sampled during the same scheme, suggests a similarly wooded environment (Mudd *et al.*, 1999:495). However, towards the end of the infilling of the sequence at Middle Duntisbourne the land appears to have been mostly cleared, such activity might tie in with the abandonment of the site and the construction of Ermin Street. Environmental sampling also took place through alluvial deposits in the Churn valley as part of the same project (Mudd *et al.*, 1999:500-510). Unfortunately dating evidence for this sequence was sparse and the two radiocarbon dates obtained suggest a medieval date. It is possible that the bottom of the sequence which contained evidence of lime species can be compared to the Latton 'Roman Pond' sequence of the same project (Mudd *et al.*, 1999:510-512), where better dating placed the decline of lime species in the Bronze Age. This might indicate a Bronze Age date for the base of the Churn Valley profile and as such the subsequent diminishing of woodland and increase in agricultural species to the Iron Age and later periods, although this is tentative at best.

Recent research and excavations conducted at Bagendon (Moore, 2020) have revealed important environmental information about the complex itself to supplement the wider environmental contexts discussed above. Evidence from the Cutham and Scrubditch enclosures, which predate the Late Iron Age valley bottom occupation, suggests that they were set in an environment consisting of combined woodland and pasture (Moore, 2020). This would be broadly consistent with the environmental

evidence from the Duntisbourne enclosures and indicates a degree of continuity in land-use between the Middle and Late Iron Age. The presence of woodland in the vicinity of the Bagendon complex is therefore not in dispute, although the exact extent and location of woodland is unclear. Moore (2020) suggests that stands of woodland could have existed throughout the emptier areas enclosed by the wider ramparts.

3.2.1.4. Research Context

The Perrott's Brook dykes appear on the 1884 OS map marked as "intrenchments" and "Scrubditch Camp" (Ordnance Survey, 1884) indicating that the complex was known about and understood to be ancient at least as far back as the 19th century. The first research into the origins of the Bagendon complex took place in the early 20th century when Rees (1933:20-28) conducted some basic landscape analysis of the complex and identified what, at the time, he considered to be a barrow and a "British Camp" on the north facing slope of the Perrott's Brook valley. The barrow (if it ever existed – it is not recorded on the 1884 OS map) has now long since disappeared and the "British Camp" he refers to may in fact be a series of earthworks visible on LiDAR that seem more likely to be medieval or Post-medieval lynchets. He does, however, describe two inhumations recovered from the southern end of the main Cutham Lane dyke that comprise half of the Iron Age inhumations recovered from the complex and its immediate vicinity; (including that from Lynches Trackway (Mudd *et al.*, 1999:76) and the Cutham enclosure (Moore, 2014; 2020). Additionally, Rees (1933:20-28) describes the presence of a large, flat area that had been largely quarried away by the time of his publication but may have been part of the area excavated by Clifford (1961) two decades later.

The first serious archaeological investigations at Bagendon did not take place until the 1950s when Elsie Clifford excavated in the valley bottom, adjacent to the modern road leading to the village (Clifford, 1961). Clifford's excavations revealed a site abundant with high-status imported goods, evidence of metal-working and coin minting, and what she identified as a "platform", leading to the site's interpretation as a "Belgic Oppidum". While dating from Clifford's excavations originally placed the heyday of the complex to between AD20-60 re-evaluation by Swan (1975) pushed the date forward to decidedly post-Roman conquest.

Following Clifford's excavations there was little further work at the complex until the Royal Commission on the Historic Monuments of England (RCHME, 1976:6-9) surveyed the dykes in the 1970s. Nine dykes and a number of smaller earthworks and features were classified as part of this survey, namely: 'dykes a-h', 'Scrubditch dyke', 'dyke x' and 'earthwork 'j'. While this has remained the naming system for the dykes since the 1970s recent research and geophysics has revealed the

earthwork survey to be an understandably incomplete picture of the true extent of the complex (Moore, 2012; 2020). The next fieldwork to be carried out at Bagendon comprised some small excavations and a fieldwalking survey in 1980-81 in order to acquire better stratified dating material from the site following Swan's (1975) re-evaluation, and to attempt to define the limits of the valley bottom activity (Trow, 1982; Moore, 2020). Trow concluded from this fieldwork that Bagendon probably comprised a "pre-Roman industrial site" rather than an *oppidum*, although following excavations at the Ditches, Bagendon continued to be described as an *oppidum* (Trow, 1988; Trow, James and Moore, 2009).

Investigations at Ditches Hillfort (Trow, 1988; Trow, James and Moore, 2009), located approximately 3km northwest of Clifford's excavation, from 1982-2006 revealed a complex and high-status Late Iron Age settlement which reached its peak in the period immediately preceding the Roman conquest. The continuing significance of the site following the disuse of the enclosure is demonstrated by the construction of an early Roman villa at the site. The most impressive aspect of which is the stone walled cellar surviving to a depth of almost 2 metres. Geophysics of the enclosure and its immediate surroundings showed it to be of a similar form to that at Gussage All Saints (Wainwright, 1979 – see section 3.2.2), and with a trackway running southwest to northeast through the enclosure (Trow, James and Moore, 2009) from the antennae ditched entrance in the southwest to a gated entrance in the northeast. The presence of a villa at the Ditches has recently been set in a wider context of Roman occupation in the Bagendon complex with the discovery of two other villas on the south-facing slope of the Perrott's Brook valley (Moore, 2020), one of which has been excavated at Black Grove mere metres up the slope from Clifford's excavations.

Between 1996-1997 Oxford Archaeology undertook excavations along the line of the A419/417 (Ermin Street) in advance of a road improvement scheme (Mudd *et al.*, 1999). This included the excavation of two enclosures (Mudd *et al.*, 1999:77-96) at Middle Duntisbourne and Duntisbourne Grove along the ridge to the south of the Perrott's Brook valley. The enclosures were shown to be broadly comparable in date with the occupation at the Ditches and the valley bottom. Each of the enclosures was shown to have two phases of activity in the Late Iron Age to early Roman periods prior to backfilling and disuse, and both were truncated by Roman Ermin Street. Interestingly the modern east-west course of the Welsh Way crosses the River Churn before climbing the southern slope of the Perrott's Brook valley and arriving between the two enclosures and subsequently descending towards Middle Duntisbourne village (Copeland, 2009:49-52). While the Welsh Way may well have Late Iron Age origins it seems unlikely that the route would have bypassed the main focus of the Bagendon complex during its floruit and the trackway identified by geophysics indicates that this was a well-

travelled route. It may be that following the abandonment of the complex in the latter half of the 1st century AD it was deemed no longer necessary for the Welsh Way to proceed through the marshy and difficult terrain of the Perrott's Brook valley and it was at this point that it began to rise up the slope of the valley between the southernmost dyke of the complex, and towards the Duntisbournes.

During the same road scheme a crouched inhumation burial was uncovered by workers at Lynches Trackway, just to the east of the main entrance to the *oppidum* and close to the route of the Welsh Way. Radio-carbon dating of the skeleton (that of a young adult male) placed the inhumation in the early 1st or 2nd century BC with 68% confidence (Mudd *et al.*, 1999:76). While this predates the height of the activity at Bagendon by a significant amount, recent fieldwork has dated the banjo-type enclosures at Cutham and Scrubditch to the Middle Iron Age (Moore, 2014; 2020). While no other activity was identified in the immediate vicinity of the grave it may well have formed part of a wider landscape that was important in the Middle Iron Age, well before the peak of the Bagendon complex.

The most recent investigations into the Bagendon landscape have been undertaken over the past few years and have comprised the large-scale geophysical survey of the complex in addition to the targeted excavation of the enclosures at Cutham and Scrubditch, the villa at Black Grove and a number of test pits Moore (2012; 2014; 2020). This fieldwork has not only defined a great deal of the extent of the occupation in the valley bottom and the full length of the dykes it has also demonstrated that the Cutham and Scrubditch enclosures, in addition to dyke 'e', are Middle Iron Age in date and may have formed an integrated complex (Moore, 2020) pre-ceding the wider *oppidum* as originally defined by Clifford (1961). By contrast, the discovery of two new Roman villas (in addition to that at the Ditches) through geophysics and the excavation of that at Black Grove (Moore, 2020) demonstrates the continuing importance of the area following the foundation and development of Roman *Corinium* in the AD 70-80s (Holbrook 2008:312).

3.2.2. Gussage Cow-Down

3.2.2.1. Introduction

The polyfocal complex at Gussage Cow-Down (NGR – ST 993 140) is situated in Dorset, towards the southern boundary of Cranborne Chase and is set in the landscape of chalky downland that characterises the Chase. The dyke complex at Gussage Cow-Down is not well defined, being spread across four separate ridgelines and bisected by three northwest-southeast orientated river valleys (*Figs 5 & 6*). The main focus of the dyke complex is Gussage Cow-Down itself but numerous other enclosures and cross-ridge dykes extend over an area of over 4000ha, from Thickthorn Down in the southwest to the Wor Barrow enclosures in the northeast, and from Gussage All Saints in the south to Humby's Stock Coppice or even Woodcutts Common in the north. All together this might make the Gussage Cow-Down complex the widest ranging of all the landscapes studied here by a considerable margin. Descriptions of, and sources for, each of the foci for Least Cost Analysis presented in *Fig 5* can be found in Appendix 1.2. The Dorset HER data for a 5km search radius around Gussage Cow-Down can be found in Appendix 2.2 and a brief summary is presented in *Table 2*.

3.2.2.2. The Present Day

Modern settlement in the area consists of just a few small villages and hamlets such as Gussage All Saints, Gussage St Andrew and Gussage St Michael. In addition to this are a number of modern farms and the A354 which runs east-west through the northern part of the complex. The village of Gussage All Saints roughly bounds the complex to the south, as does the modern A354 to the north and two tributaries of the River Allen to the west. The present-day land cover is predominantly a mix of arable and pasture with occasional patches of woodland, reflecting the general pattern of modern land-use throughout Cranborne Chase.

Despite the generally good preservation of sites around Gussage Cow-Down (at least until the 20th century) little of the modern land-use appears to have been influenced by Late Iron Age activity in the region. The exception to this is clearly Bokerley Dyke (Bowen, 1990), which is still a major upstanding earthwork and indeed remains the boundary between the counties of Dorset and Hampshire. Similarly the line of the Roman road Ackling Dyke is preserved in the modern field boundaries on Gussage Cow-Down and around Woodyates to the northeast as the modern A354. Additionally, it is possible that aspects of the 'celtic field systems' recorded in the area (Bowen, 1990) have been preserved in modern patterns of land-use although this has not previously been noted.

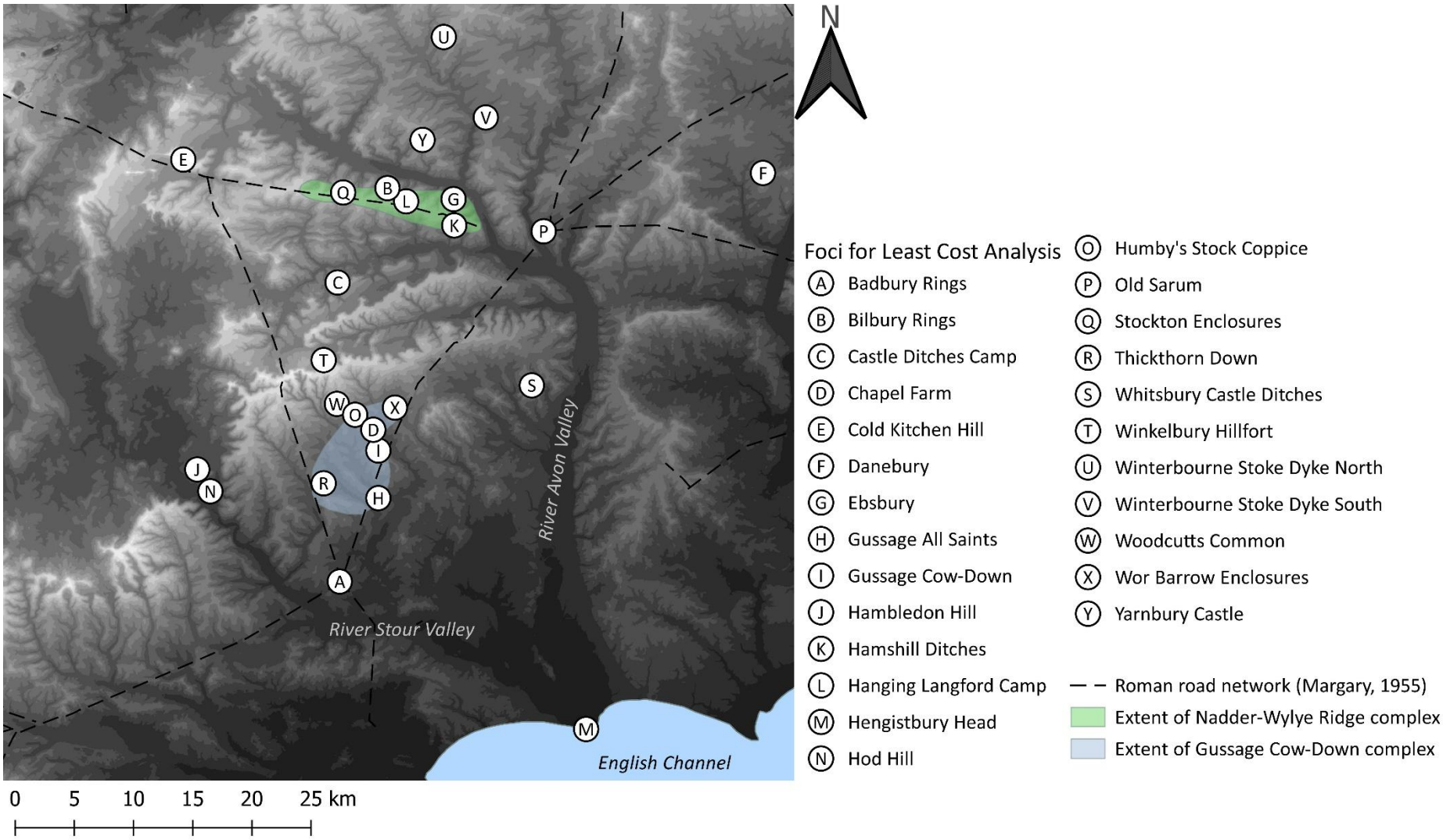


Fig 5 – The regional landscape of the Gussage Cow-Down and Nadder-Wylye Ridge complexes, and the foci for Least Cost Analysis (see Appendix 1.2) in relation to the Roman road network.

Table 2 – HER data summary for the Gussage Cow-Down landscape. Based on Dorset HER data, presented in Appendix 2.2. See Appendix 2 for definition of what constitutes "enclosed" and "settlement" sites. "Period From" and "Period To" describe the (often presumed) start and end periods for archaeological activity as defined by the relevant HER, see Appendix 2 for definitions of these periods.

		Bronze Age	Late Bronze Age	Iron Age	Early Iron Age	Middle Iron Age	Late Iron Age	Roman
Total sites	Period From	387	-	27	1	2	21	-
	Period To	356	1	49	1	-	1	34
Enclosed sites	Period From	15	-	8	-	1	4	-
	Period To	6	1	22	-	-	1	5
Settlement sites	Period From	6	-	3	-	2	7	-
	Period To	-	1	6	-	-	1	10

	Documentary sources	Cropmarks/ Earthworks	Geophysics	Fieldwalking	Findspots	Excavation
Sites by evidence	-	434	-	5	2	7

3.2.2.3. Palaeoenvironment

The local environment of Gussage Cow-Down during the Iron Age in general appears to have been heavily cultivated and not particularly wooded, as indicated by the presence of field systems and lynchets visible from aerial photography and LiDAR. Of course, this does not preclude the presence of hedgerows or localised areas of woodland and vegetation and says little about the wider landscape. A recent in-depth study of Holocene environment and landscape change in the upper Allen Valley (which feeds into the Gussage Cow-Down complex) provides a great deal of evidence for what the area would have been like in the millennia leading up to occupation at Gussage Cow-Down (French and Lewis, 2005; French *et al.*, 2007). The picture is one of a landscape that may not have been heavily wooded from the beginning of the Holocene and where open grassland was already predominant by the Neolithic (French *et al.* 2007:225). Subsequent intensification of agriculture from the Bronze Age onwards would have maintained this open landscape and kept woodland to a minimum (French *et al.* 2007:225).

Relating specifically to the Iron Age, mollusc studies of samples recovered from excavation of a bank and ditch at Gussage Cow-Down and Iron Age colluvial deposits at Monkton-up-Wimbourne demonstrated that open grassland or arable landscapes would still have predominated in this period

(French *et al.*, 2007:174-176). The soil composition in the triple bank and ditch excavated at Gussage Cow-Down comprised windblown sediments presumably deposited from exposed topsoil from nearby chalk downland and arable fields (French *et al.*, 2007:74-75), corroborating the evidence for an intensively farmed landscape implied by the recorded field systems in the area. This landscape is in contrast to that of the Bagendon environment discussed in section 3.2.1.3 which appears to have been comprised mixed woodland and pasture. In terms of the Least Cost Analysis and Viewsheds conducted as part of this study this means that the results for Gussage Cow-Down are more conducive to open interpretation. However the general paucity of environmental evidence for the area means that such an interpretation of the environment is also open to change.

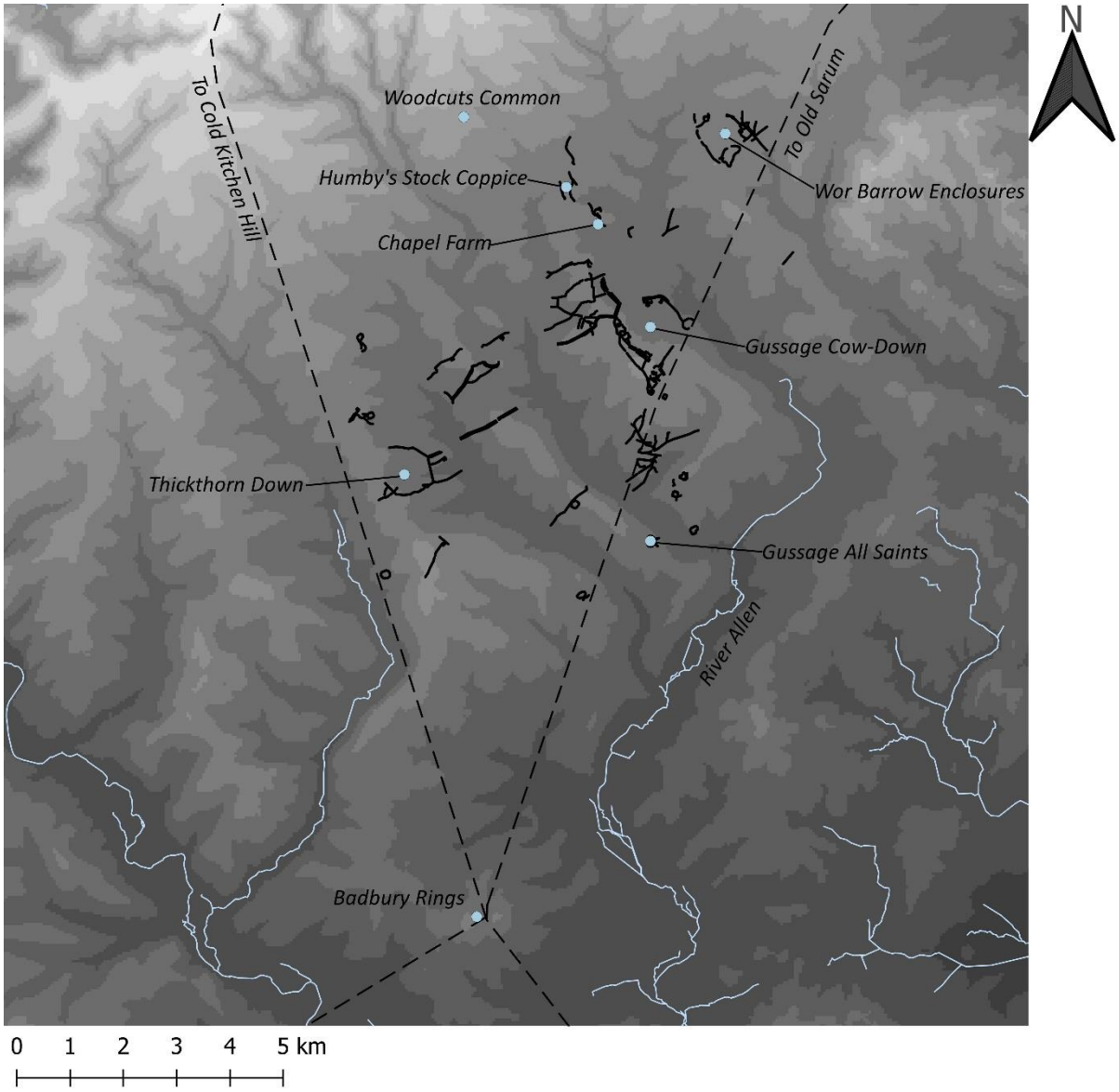


Fig 6 – The local Gussage Cow-Down landscape with relation to the major foci and with the local Roman roads (Margary, 1955) for reference (after Bowen, 1990).

3.2.2.4. Research Context

Cropmark and earthwork evidence at Gussage Cow-Down and the surrounding hills reveal a landscape of dykes, enclosures, Iron Age field boundaries and lynchets, Bronze Age barrows, the Roman road of Ackling Dyke and the Neolithic Dorset Cursus. Despite this, or perhaps because of this (due to the scheduling of many aspects of the landscape), there has been remarkably little by way of intensive investigation of the complex in the modern era. However, due to the impressive earthworks present throughout much of Cranborne Chase the area has been the subject of archaeological and antiquarian interest for over two centuries. With relation to the Gussage Cow-Down complex Colt Hoare conducted a survey of the earthworks evident at Gussage St. Michael which he described as the "*Roman Station at Vinocladia*" (Colt Hoare, 1821 – reproduced in Bowen, 1990:3) although *Vinocladia* is now thought to have been the Roman settlement near Badbury Rings from which Ackling Dyke runs towards Old Sarum (Papworth, 1997:354). Later in the 19th century General Pitt-Rivers undertook a great deal of work throughout Cranborne Chase including the excavation of the site at Woodcutts (Pitt-Rivers, 1888) just to the north of the dykes at Gussage Cow-Down. As might be expected given the timeframes of Colt Hoare's and Pitt-River's research and excavations the earthworks at Gussage Cow-Down, the Dorset Cursus and numerous other monuments in the surrounding landscape are recorded on some of the earliest OS maps, the earthworks on Gussage Cow-Down are even referred to as a "British Town" on the 1887 and 1902 maps (Ordnance Survey, 1887; 1902).

Following on from Pitt-River's excavations Cranborne Chase was subject to some of the earliest examples of what we now term remote sensing, with the publication of 'Wessex from the Air' (Crawford and Keiller, 1928) incorporating numerous aerial photographs of the region including the earthworks at Gussage Cow-Down and the Wor Barrow enclosures (as well as several of the earthworks along the Nadder-Wylye Ridge – see section 3.2.3). These aerial photographs are invaluable because they record a time when significant areas of downland had not been subject to modern ploughing and as such the prehistoric landscape remained better preserved for aerial photographic record.

Aerial survey such as this contributed greatly to the RCHME surveys of the historic monuments of Dorset (RCHME, 1952; 1970a; 1970b; 1970c; 1972; 1975), as part of which much of the Gussage Cow-Down complex was surveyed in great detail. This work was elaborated on over the next decades resulting in detailed plans of the earthworks and cropmarks evident around Gussage Cow-Down (Bowen, 1990) although this work had a particular focus on Bokerley Dyke to the northwest. It is important to note that while Bokerley Dyke probably cannot be considered to form part of the

Gussage Cow-Down complex itself it was certainly a contemporary earthwork and would have influenced movement in the surrounding landscape.

Since the excavations on Cranborne Chase in the 19th century by Colt Hoare and Pitt-Rivers there has been relatively little by way of actual excavation of the Gussage Cow-Down complex. In 1969 an excavation was undertaken at a square ditched round barrow to the northeast of the double banjo enclosure at Gussage St. Michael (White, 1970). While the barrow itself had been robbed and suffered heavily from erosion it was shown to have been covering a possible funeral pyre and a few fragmentary sherds of Iron Age pottery were recovered from the excavation (White, 1970:30). The excavation of a barrow such as this is significant as it allows comparison to be drawn between Gussage Cow-Down and other sites traditionally termed *oppida* such as the Lexden Tumulus at *Camulodunum* (Foster, 1986), which forms an integral part of the complex. Perhaps the most significant fieldwork to have taken place was the excavation of the enclosure at Gussage All Saints (Wainwright and Spratling, 1973; Wainwright, 1979). Located at the southern extent of the complex overlooking the valley of the River Allen to the southeast, it comprises an approximately 1.5ha enclosure with an entrance facing southeast and antennae ditches extended out to either side. Comparisons might be drawn with the enclosure at the Ditches at Bagendon (Trow, James and Moore, 2009) which is similar in form. In the vicinity of Gussage All Saints three other similar enclosures have also been identified by aerial photography (Bowen, 1990:Figure 1) although none have been excavated.

Excavation at Gussage All Saints began in 1972 and comprised the total stripping of approximately 1.5ha, the entire enclosure. This led to the discovery of a site comprising numerous functions from bronze working (specifically for horse/chariot mounts – Foster, 1980) and inhumations to more mundane features such as four-post structures for the storage of grain (Wainwright and Spratling, 1973; Wainwright, 1979). The enclosure itself comprises three phases, roughly corresponding to the Early, Middle and Late Iron Age. The Phase I settlement consisted of a sub-circular enclosure with a single east facing entrance and timber gateway, flanked by antennae ditches and with an external bank. During Phase II the enclosure ditch and antennae ditches were re-dug and the timber gateway refurbished. A number of inhumations and disarticulated human remains were also recorded during Phase II. By Phase III the enclosure ditch had begun to silt up but it appears no effort was made to re-establish it. However, the Phase III activity respects the bounds of the Phase I/II enclosure and as such Wainwright proposed that it may simply have been bounded by a banked hedgerow (*ibid.*:25). During Phase III the remains of up to 45 individuals were interred within the enclosure, a significant number of them being infants, additionally a large working hollow from which evidence of an iron smelting furnace, brooches and other post-conquest artefacts were recovered. The overall picture is of a high-

status enclosure, incorporating metalworking activity (including the minting of coins – Foster, 1980) and burials, and with a long life-span, from the Early Iron Age to early Roman period. Gussage All Saints therefore provides a tantalising hint of the nature of occupation at the Gussage Cow-Down complex and one of the only sites to have been rigorously excavated using modern techniques.

In addition to Wainwright's excavations at Gussage All Saints Martin Green has conducted numerous and intensive field walking surveys and excavations throughout Cranborne Chase, results of which cover periods from the Palaeolithic to the Post-Medieval period (Green, 2000). Field survey at Gussage Cow-Down has revealed evidence of Late Iron Age and Roman pottery, evidence for Roman buildings (including wall plaster), numerous coins and a miniature bronze spear head (Green, 2000:128-129). It is clear as well from the distribution of surface finds that there are areas defined by the dykes that were largely void of occupation while other areas were densely settled with high-status activity, Green (2000:128) has even indicated the presence of a Roman-British temple within the complex. While intrusive survey has not been conducted at Gussage Cow-Down dating from such surface survey provides ample evidence for a high status, Late Iron Age settlement which continued to be an important centre into the Roman period.

More recently, fieldwork (including targeted, sample excavations) was undertaken at Gussage Cow-Down as part of a landscape study of the Allen Valley (French and Lewis, 2005; French *et al.*, 2007). The investigations of Iron Age activity in the area consisted simply of a trial trench across a north-west/south-east orientated triple ditch and bank alignment at the south-west side of the main Gussage Cow-Down complex (French *et al.*, 2007:74-75) and three trial trenches through the, largely ploughed out, associated lynchet system to the north (French *et al.*, 2007:83). As expected, the lynchets, while shown to be surviving, were heavily truncated by ploughing and provided no dating evidence. The earthworks by comparison showed relatively good preservation of the up-cast banks including a preserved soil underlying the bank and an indication of a possible 'green lane' running adjacent to the ditch. The ditch itself was largely filled with a windblown silty loam that may have blown in from nearby arable fields during the Iron Age (French *et al.*, 2007:74-75).

While recent excavations at the Gussage Cow-Down complex have been relatively limited (in large part due to its rightfully scheduled status) there is enough evidence for some authors to have suggested it represents a site comparable to those elsewhere described as *oppida* (see section 2.2). Corney (1989;1991) was the first to identify the Gussage Cow-Down complex as potentially similar to so-called *oppida,* citing the evidence for high-status imports at the site, the association with large-scale earthworks and even the presence of a potentially high status, square-ditched barrow by the northern entrance to the complex (White, 1970; Corney, 1989;1991). In addition, Moore (2012) has

compared the site to Bagendon given the presence of banjo enclosures at both sites and his suggestion that these may share a relation with polyfocal complexes in numerous different places. Corney (1991) notes as well that the while the area to the north of the main complex of earthworks at Gussage Cow-Down comprises a 'celtic field system' the area to the west of this and across to Thickthorn Down is entirely absent of such a field system. Corney (1991) has suggested that this may have been for stock management and there are marked comparisons to be made with *oppida* such as Bagendon (Moore, 2012) or Stanwick (Haselgrove, 2016) where large open areas are also present. However, modern LiDAR data hints at ploughed-out field boundaries or lynchets which may be a continuation of the so-called 'celtic fields' in the area to the west of Gussage Cow-Down. While these areas have often been presumed, as Corney (1991) proposes, as areas for stock management there is little actual evidence for this.

3.2.3. The Nadder-Wylye Ridge

3.2.3.1. Introduction

The Nadder-Wylye Ridge complex (NGR – SU 045 368) is located in the West Wiltshire Downs, beginning approximately 6.5km to the northwest of Salisbury and stretching away westward towards the Blackmore Vale. The individual foci of the complex appear to be linked by the linear Grim's Ditch which stretches for approximately 15km, along an east-west orientated ridge between the valleys of the River Wylye to the north and the River Nadder to the south. Unlike at Bagendon, Silchester, Gussage Cow-Down and Stanwick the activity at the Nadder-Wylye Ridge complex extends over a long distance rather than being spread over a wide area and appears to be mostly confined to a single topographic feature, although it is plausible that the complex extends from the confluence of the Rivers Nadder and Wylye in the east as far west as the activity at Cold Kitchen Hill. Among the other case studies discussed here Grim's Ditch is morphologically most comparable to Scots Dike which runs for 10km to the south of the main enclosure at Stanwick (see section 3.2.4), although Scots Dike cuts across a number of topographic features and appears to be a less coherent monument than Grim's Ditch. Descriptions of, and sources for, each of the foci for Least Cost Analysis presented in *Fig 5* can be found in Appendix 1.2. The Wiltshire HER data for a 5km search buffer around the length of Grim's Ditch, atop the Nadder-Wylye Ridge, can be found in Appendix 2.3 and a brief summary is presented in *Table 3*.

3.2.3.2. The Present Day

Much of the present land cover atop the Nadder-Wylye ridge comprises managed woodland with some areas of arable farmland. In contrast to the Iron Age settlement in the area there is no modern settlement on the ridge itself. The nearest villages are located in the valley bottoms to both the north and south of the ridge and the largest modern town is Salisbury located 6.5km to the southeast. Medieval and Post-medieval ridge and furrow agriculture is still evident throughout much of both valley bottoms. Concentrations of post-Roman agriculture here rather than along the ridge may account for much of the astonishing preservation of the earthworks. Such preservation is also accounted for by the presence of mature woodland along much of the ridge. The Great Ridge Wood in the west and Grovely Wood in the east, two of the largest woods in southern Wiltshire, are both present on the Ordnance Survey maps of 1890 (OS, 1890a; 1890b). While such woodland certainly has played a role in preserving the earthworks it has likely caused damage to sub-surface archaeology. An interesting, although unrelated point, is that the 1890 OS map also labels much of Grim's Ditch as being the Roman road.

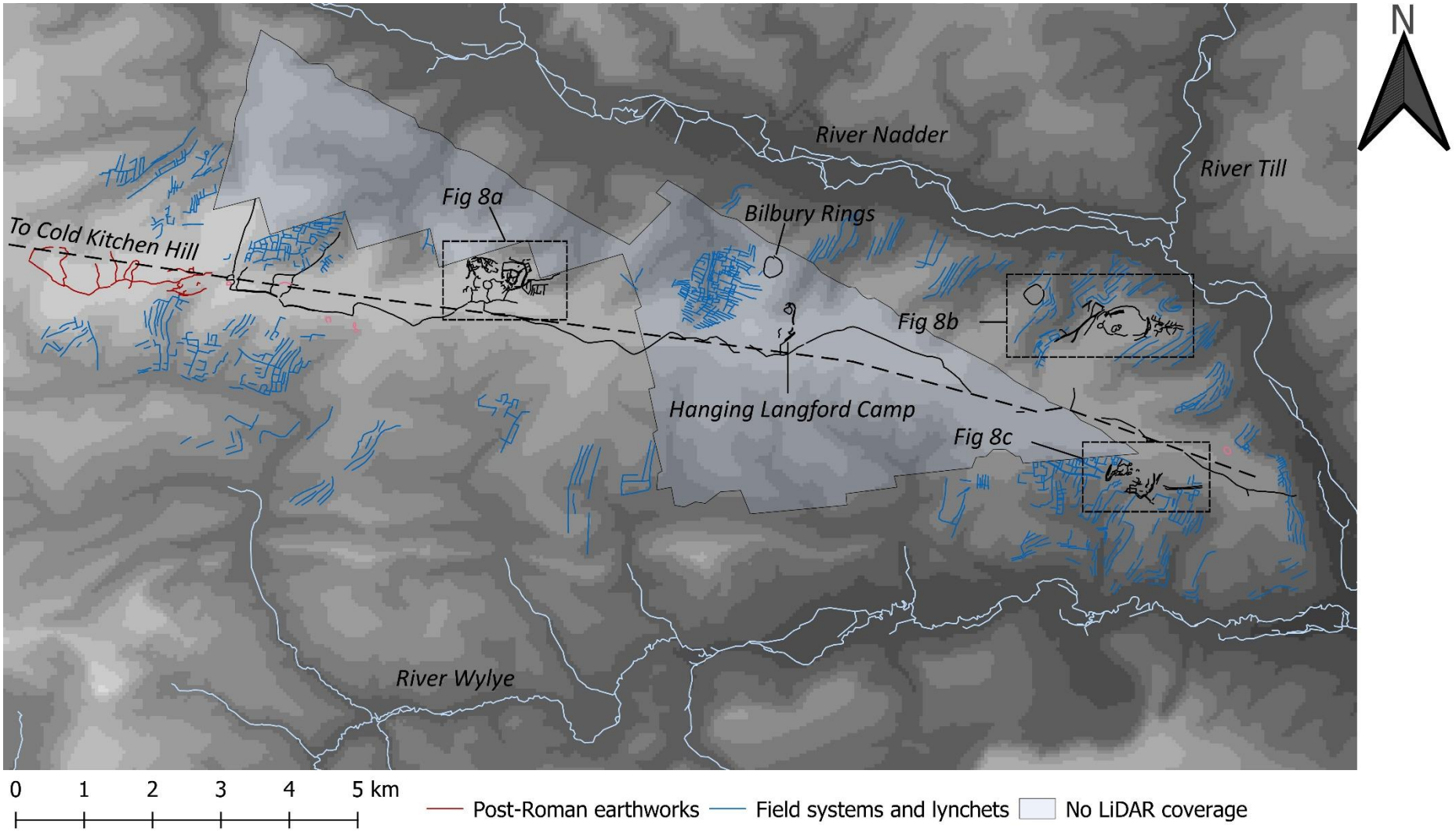


Fig 7 – The main foci and local landscape around the Nadder-Wylye Ridge. After Moore (2012:399) with additions and phasing by the author based on LiDAR data (Environment Agency)

Table 3 – HER data summary for the Nadder-Wylye Ridge landscape. Based on Wiltshire HER data, presented in Appendix 2.3. See Appendix 2 for definition of what constitutes "enclosed" and "settlement" sites. "Period From" and "Period To" describe the (often presumed) start and end periods for archaeological activity as defined by the relevant HER, see Appendix 2 for definitions of these periods.

		Bronze Age	Late Bronze Age	Iron Age	Early Iron Age	Middle Iron Age	Late Iron Age	Roman
Total sites	Period From	72	3	32	2	1	74	-
	Period To	65	-	30	3	1	7	80
Enclosed sites	Period From	7	-	6	2	-	13	-
	Period To	-	-	6	-	-	2	20
Settlement sites	Period From	1	2	7	2	-	22	-
	Period To	1	-	7	2	-	2	22

	Documentary sources	Cropmarks/ Earthworks	Geophysics	Fieldwalking	Findspots	Excavation
Sites by evidence	6	4	6	23	61	61

3.2.3.3 Palaeoenvironment

Due to a lack of modern excavation of sites along the Nadder-Wylye Ridge the local environment during their occupation is somewhat hard to determine. It is certainly the case that the surrounding hillslopes were covered in a complex, interconnected pattern of field systems and lynchets (see *Fig 7*) but this does not preclude the presence of patches of localised woodland or mature hedgerows dividing the fields. The proximity of the complex at Gussage Cow-Down and the recent environmental study of the Upper Allen Valley (French *et al.* 2007) means that the local environment along the Nadder-Wylye Ridge is likely to have been broadly similar at this time although again evidence for the Iron Age environment is sparse. The supposed presence of a corn-drying oven at Hamshill Ditches (Bonney and Moore, 1967:120-121) suggests that the Roman economy in the area included arable agriculture although, as is to be expected for an excavation carried out in 1934, there was no programme of environmental analysis.

The highest potential for deposits of environmental significance comes from valley bottom deposits on either side of the complex. However, the lack of modern development and infrastructure in the region means that little by way of development archaeology has taken place nearby and it is often such projects (like the A419/A417 road improvement scheme near Bagendon – Mudd *et al.*, 1999) that

provide the best opportunities for in depth environmental studies. The continued reworking of the valley bottoms in the post-Roman period may well also have truncated much of the potential for palaeoenvironmental remains pertaining to the Iron Age and Roman settlement in the area. The presence of extensive field systems and lynchets visible on LiDAR along the slopes of the ridge (particularly around Ebsbury – see *Fig 7*) indicates significant reworking of the surrounding landscape and as such the environment may well have been similar to that at Gussage Cow-Down. While this does mean that the Viewsheds for the Nadder-Wylye Ridge can be considered as fairly accurate the presence of lynchets on the slopes of the ridge would have had a significant impact on the routes that people took around the landscape. While these, similarly to the earthworks of each, were not included in the cost rasters for the Least Cost Analysis complex (see section 4.3.2.3) this could be a point for future research. It will also be interesting to see whether the Least Cost Paths intersect with the lynchets at all, or whether they fit into the pattern of field systems irrespective of their inclusion in the underlying cost rasters.

3.2.3.4. Research Context

In contrast to the Gussage Cow-Down complex 25km to the south the activity at the Nadder-Wylye Ridge comprises a number of apparently more distinct foci. At Gussage Cow-Down the tangle of dykes and enclosures is difficult to interpret and is not clearly divisible into separate units of activity or spheres of influence, whereas at the Nadder-Wylye ridge each focus is clearly distinguishable and therefore easier to discuss separately (and indeed each one has been researched separately in the past – Moore, 2012:397). The main foci of activity at the Nadder-Wylye Ridge comprise Bilbury Rings, Hanging Langford Camp, the Stockton Wood enclosures, Hamshill Ditches, and Ebsbury Copse and Grovely Castle (see *Fig 7*), all apparently connected with one another via the elongated Grim's Ditch earthwork and the extensive prehistoric field systems and lynchets that cover the slopes of the ridge on either side.

Unfortunately, dating evidence for the sites along the Nadder-Wylye Ridge is relatively poor and even a cursory glance at the earthworks and field systems visible on LiDAR and aerial photography indicates that the phasing is not simple (see *Fig 7*). Indeed while Grim's Ditch has been suggested as being both of Anglo-Saxon and Iron Age date due to its relationship with the Roman road crossing the ridge (Moore, 2012:397) it appears that this relationship differs in a number of places, suggesting that the Dyke may in fact be a multi-period and continually maintained landscape feature (see *Fig 7*). Comparison could be drawn with the Bran (or Heydon) Ditch recently excavated in Cambridgeshire by Oxford Archaeology (Ladd and Mortimer, 2016) where the Anglo-Saxon dyke was shown to be re-establishing the line of a triplet of Middle Iron Age ditches. Nonetheless, surface finds and occasional

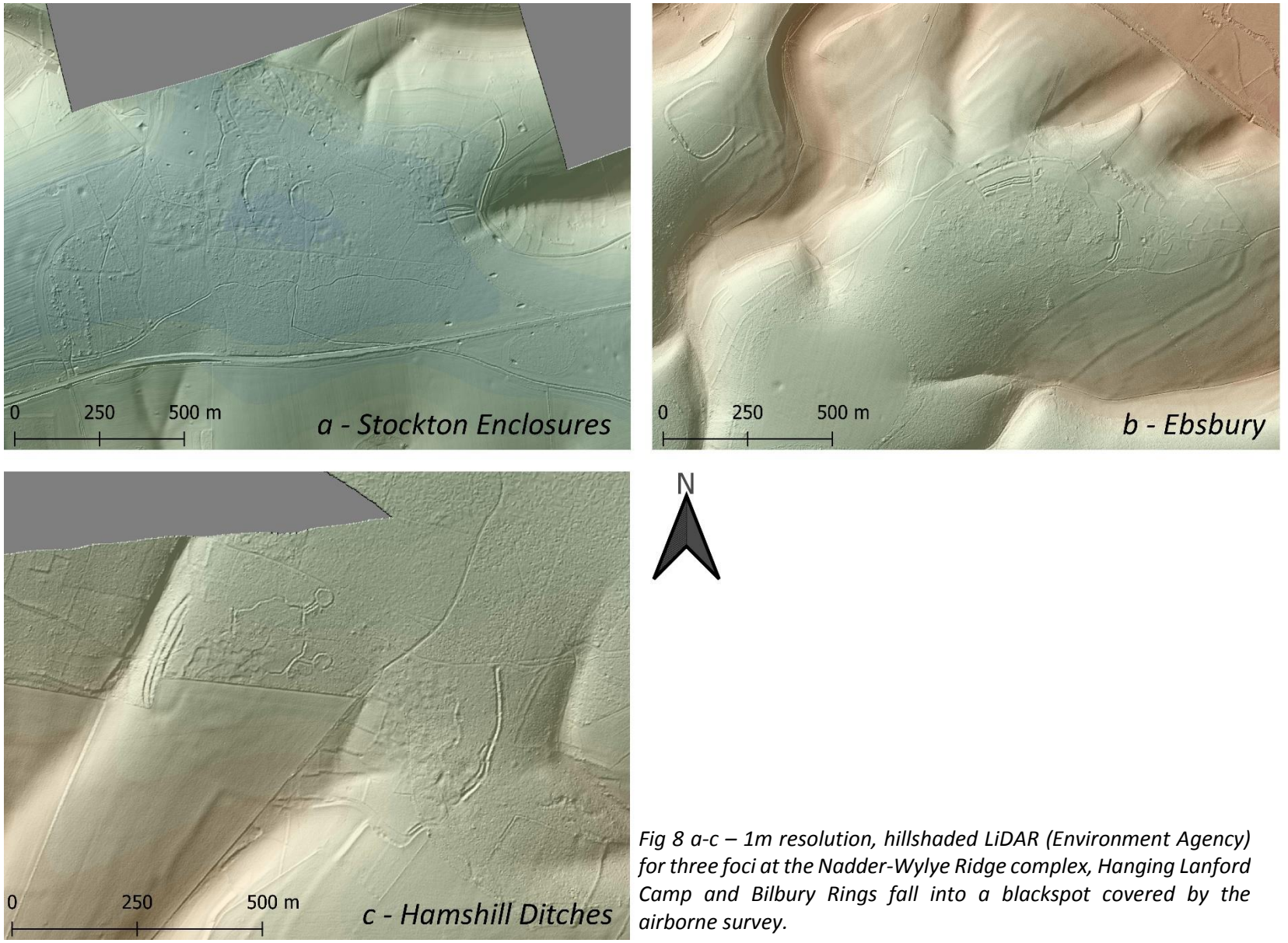


Fig 8 a-c – 1m resolution, hillshaded LiDAR (Environment Agency) for three foci at the Nadder-Wylye Ridge complex, Hanging Lanford Camp and Bilbury Rings fall into a blackspot covered by the airborne survey.

targeted excavation has provided enough evidence for authors such as Corney (1989;1990) and Moore (2012) to suggest that the sites stretched along the ridge comprise a contemporary complex comparable to those elsewhere termed *oppida*.

The south-eastern most focus of activity on the Nadder-Wylye ridge, and the only major settlement situated to the south of Grim's Ditch, is at Hamshill Ditches. The earthworks are located approximately 2km straight west from the end of Grim's Ditch and enclose an area of between 20-30ha depending on where one draws the boundary. The main enclosure is open to the north and southwest and encloses an area mostly void of surface remains, barring a few rectilinear enclosures. Multiple ditches enclose this area to the east, southeast and west and a double banjo enclosure on to the northwest is the main defining feature of the settlement. A large, sub-square enclosure is also visible on LiDAR to the east of the main focus and a straight linear dyke or possible lynchet extends from the opposite side of the dry valley to the east for approximately 600m. To the west two roughly parallel double dykes can be seen on LiDAR extending away from the main enclosure for more than 800m. Hamshill Ditches, as with the other main foci along the Nadder-Wylye Ridge, is set within an extensive and contemporary system of field boundaries and lynchets, some of which can be seen to join up with the dykes of the enclosures (see *Fig 7*). Excavations took place at Hamshill in 1934 and although the records are relatively poor (Bonney and Moore, 1967:120-121) they record the presence of a Roman corn drying oven and finds ranging from the early 1st century AD to the late Roman period (Bonney and Moore, 1967:120-121). Stray surface finds from Hamshill Ditches comprise Late Iron Age fibulae, pottery and Durotrigian coins suggesting a late 1st century BC date (Corney, 1989:116), taken with the excavation evidence this indicates a long standing and high-status settlement. Unpublished geophysics over the southern of the two banjo enclosures at Hamshill Ditches strongly suggests that either side of the funnel entrance was lined with stone revetments (Gater and Gaffney, *unpublished*; Corney, 1989:116).

Activity at Ebsbury Copse covers an area of approximately 45ha and is situated atop a spur of land jutting into the Wylye Valley, approximately 1.5km northwest of the eastern end of Grim's Ditch. The main enclosure comprises an irregular circuit of banks and ditches, in some places multivallate, and two internal enclosures. To the west of the main enclosure a trackway leads down the hill and becomes a modern field boundary while to the east a number of other earthworks may also be narrow drove-ways or routes away from the enclosure. Across a dry valley to the east is another sub-circular enclosure known as Grovely Castle, although this appears to be truncated by the field system associated with Ebsbury Copse and may therefore have been largely out of use by the Late Iron Age. Excavations at Grovely Castle recovered skeletons of five individuals buried in the ditch and a single

sherd of Early Iron Age pottery (Grinsell, 1957:107). LiDAR and aerial photographic survey of the surrounding slopes indicate the presence of a system of contemporary fields and lynchets (see *Fig 7*). Although it has been suggested that these are medieval in date (Tullett, 2011:126) this seems hard to justify given their respect of, and alignment on, the Iron Age enclosures atop the hill. The settlement at Ebsbury has been dated to the Late Iron Age and Romano-British period on the basis of surface finds although these are relatively few and far between (Corney, 1989:117) and a late Roman coin hoard was also discovered there in the early 20th century (Hill, 1907).

Hanging Langford Camp is situated approximately 3.5km to the west of Ebsbury Copse, 500m to the south of Bilbury Rings and just 200m north of Grim's Ditch. It is connected by way of a dyke to a banjo-enclosure at Church End to the north, which sits just downslope in a dry valley leading to the River Wylye. Bilbury Rings by comparison sits atop a ridge on the opposite side of the dry valley from Hanging Langford Camp. Both Bilbury Rings (Steele, 1963:244) and Hanging Langford Camp (Corney, 1989:117) have produced Late Iron Age finds and are likely contemporary in date. Finds from Hanging Langford Camp include Late Iron Age pottery, fibulae and Durotrigian coins (Corney, 1989:117).

A further 3.5km to the west of Hanging Langford Camp and Bilbury rings is the final focus of the Nadder-Wylye Ridge complex, at Stockton Wood. The Stockton Wood enclosures cover an area of just under 70ha and are located immediately north of Grim's Ditch. Aspects of the Stockton Wood enclosures are connected to Grim's Ditch by north-south orientated dykes, lending further weight to the argument for a late prehistoric date for parts of Grim's Ditch. The Stockton Wood enclosures comprise three main areas in the northeast, northwest and central parts of the site. The northeast area consists of a double ring of dykes partially open to the southwest. The area between the outer and inner ring of dykes appears to be void of activity but LiDAR shows extensive activity within the core of the enclosure. From there a trackway extends to the northeast, proceeding through the outer ring of ditches and from there into a later (potentially Roman) square ditched enclosure. The central area of Stockton Wood comprises a circular enclosure with a north facing entrance, linked to Grim's Ditch by a winding dyke. Much of the central area appears to be empty of surviving remains. To the northwest a further area of activity consists of a horseshoe shaped-dyke and numerous other intercutting features visible on LiDAR in a similar fashion to the northeast area. The earthworks at Stockton Wood date to the Late Iron Age to late Roman period and the settlement appears to have declined after this (Baggs *et al.*, 1980). Excavations of the western part of the site in 1923 revealed significant quantities of Late Iron Age finds including Durotrigian coins (Nan Kivell, 1926a). The possibility of a Roman villa at Stockton Wood has also been suggested on the basis of 19th century reports of masonry at the site (Scott, 1993:207). While evidence for such a villa is scant the presence

of high-status activity extending well into the Roman period along the entire ridge is promising when compared to other sites such as Bagendon which also demonstrate evidence for continuity between the Late Iron Age and Roman periods (see section 3.2.1.4).

Approximately 2.5km northeast of Stockton Wood and 1.5km northwest of Bilbury Rings a salvage excavation in 1974 during the A36/A303 road improvement scheme revealed two areas of Iron Age pits flanking an area void of features. The authors suggest this is probably an artificial distinction caused by modern truncation by the road works (Saunders, 1997:14), however the 1890 Ordnance Survey map (Ordnance Survey, 1890c) marks the presence of a "*hollow way*" at exactly this location providing another possible explanation for the blank area, not to mention the possibility of a routeway leading towards Stockton Wood. The settlement appeared to be unenclosed and dated to between the 5th-4th centuries BC (Saunders, 1997:23) although extensive truncation means that the possibility of nearby later Iron Age activity cannot be ruled out (Tullett, 2011:126). While this cannot be directly associated with the Late Iron Age polyfocal complex it provides the best evidence of a Middle Iron Age precursor and also hints at the possibility of further unenclosed (and therefore largely invisible) settlements along the ridge.

Beyond the main foci of the Late Iron Age settlement along the Nadder-Wylye ridge another site might be considered in relation to the complex, that at Cold Kitchen Hill. Neither Corney (1989) nor Moore (2012) has previously considered this as part of the Nadder-Wylye ridge complex, probably due to its distance (approximately 13km to the west of Stockton Wood) and its lack of an association with Grim's Ditch. However, its position just beyond the end of the Nadder-Wylye ridge, in a liminal position where the West Wiltshire Downs meets the Blackmore Vale, exactly at the point where a continued route from the western end of Grim's Ditch would lead, and its obvious high-status and religious position means that it deserves consideration. It is also important to note that Cold Kitchen Hill is in fact a similar distance from Stockton Wood as Stockton Wood is from Ebsbury Copse, or Hamshill Ditches. The activity at Cold Kitchen Hill comprises a Romano-British temple complex and so-called 'midden' (Scheduled Monument 1017314) from which various Late Iron Age finds have been recovered including a number of coins (*WANHM*, 1968:118; 1982:158; 1986:241). Excavations in the 1920s (Nan Kivell, 1926b; 1928) revealed large quantities of Late Iron Age artefacts (including at least 169 coins – Nan Kivell, 1926b:332) and indicated that the site would then have continued until at least the 4th century AD (Nan Kivell, 1926b:327). The Scheduled Monument entry describes the extensive deposits extending over at least 50ha as a "*midden*" deposit, though lack of recent excavations means this interpretation is hard to justify and it may represent a much more complex spread of features and layers than the simple term "*midden*" suggests. The Roman road to Old Sarum, although not preserved

near Cold Kitchen Hill certainly heads towards it and a large earthwork of presumed Bronze Age or Iron Age date is also present, cutting across the southwest facing scarp of Cold Kitchen Hill, in line with Grim's Ditch. Together these suggest that a potential routeway from east to west along the Nadder-Wylye Ridge may well have been directing movement towards a religious and ritual centre at Cold Kitchen Hill.

3.2.4. Stanwick

3.2.4.1. Introduction

The Stanwick complex (NGR – NZ 182 115) is situated in the county of North Yorkshire, near its northern border with County Durham. It lies approximately 4km to the south of the River Tees, 10km southwest of the modern town of Darlington, and immediately south of the Aldborough Beck, a tributary of the Tees. It is situated at the western border of the Tees Lowlands National Character Area, where it meets the Pennine Dales Fringe which is a transitional landscape between the uplands of the Pennines and the lowlands of the Tees Valley. The earthworks of the Stanwick complex enclose an area of approximately 270ha and consist of a single outer circuit, two internal enclosures surrounding the Tofts and the northern side of the complex. In addition to the main focus of the earthworks, Stanwick is considered to have an association with the segmented linear earthwork known as Scots Dike, which extends intermittently from a point just to the southeast of Stanwick for approximately 10km terminating just to the south of Richmond (Haselgrove, 2016:23-25). There has also been the suggestion that aspects of Scots Dike, though no longer surviving, may have continued running north towards Piercebridge, passing the eastern side of the Stanwick enclosure but there is little definitive evidence for this (Haselgrove, 2016:24). Besides the main enclosure at Stanwick there are a number of nearby, high status settlements which may form part of a much larger scale but interconnected complex; most notably at Melsonby (Fitts *et al.*, 1999).

Stanwick is centred on an area known as the Tofts and straddles the small watercourse of the Mary Wild Beck. The landscape within the complex consists of low rolling hills with one of the most identifiable topographic features being Henna Hill which is situated at the eastern edge of the complex, outside the main ramparts. While Henna Hill is by no means the highest point of the complex, it is contrasted to its surrounding landscape at a height of 102m aOD compared 90m aOD at its base. Descriptions of, and sources for, each of the foci for Least Cost Analysis presented in *Fig 9* can be found in Appendix 1.3. The North Yorkshire and County Durham HER data for a 5km search radius around Stanwick can be found in Appendix 2.4 and a brief summary is presented in *Table 4*.

3.2.4.2. The Present Day

Present day land-use in and around the Stanwick landscape consists primarily of pasture and arable fields divided by mature hedgerows and occasional patches of mature woodland, such as that

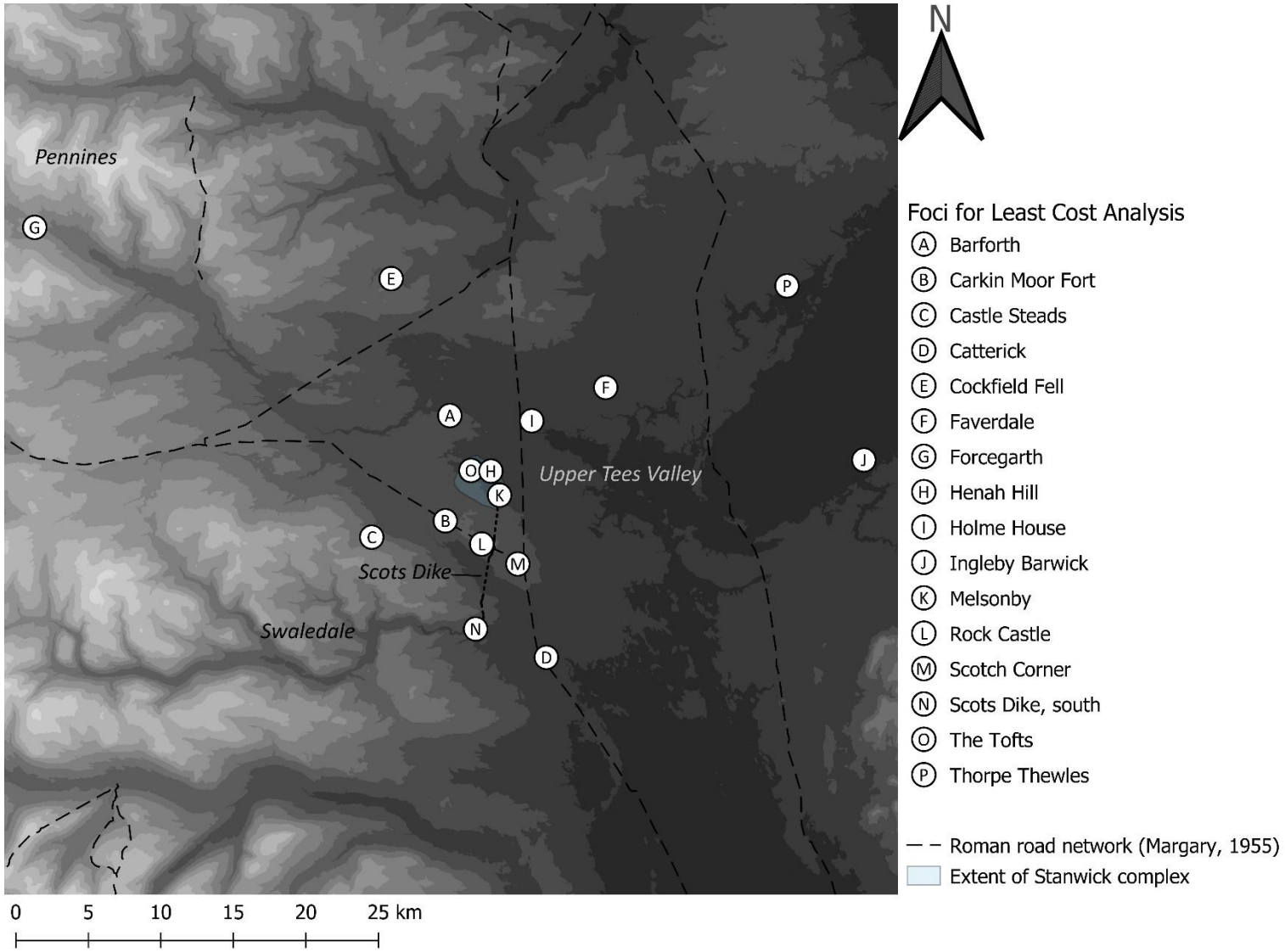


Fig 9 – The regional landscape of the Stanwick complex and foci for Least Cost Analysis (see Appendix 1.3) in relation to the Roman road network.

Table 4 – HER data summary for the Stanwick landscape. Based on North Yorkshire and County Durham HER data, presented in Appendix 2.4. See Appendix 2 for definition of what constitutes "enclosed" and "settlement" sites. "Period From" and "Period To" describe the (often presumed) start and end periods for archaeological activity as defined by the relevant HER, see Appendix 2 for definitions of these periods.

		Bronze Age	Late Bronze Age	Iron Age	Early Iron Age	Middle Iron Age	Late Iron Age	Roman
Total sites	Period From	2	-	17	-	1	6	-
	Period To	2	-	4	-	1	3	16
Enclosed sites	Period From	-	-	17	-	1	4	-
	Period To	-	-	4	-	1	1	16
Settlement sites	Period From	-	-	1	-	1	4	-
	Period To	-	-	-	-	1	1	4

	Documentary sources	Cropmarks/ Earthworks	Geophysics	Fieldwalking	Findspots	Excavation
Sites by evidence	1	21	4	1	-	6

associated with Forcett Hall park and garden, which abuts the northwest side of the Iron Age enclosure. The modern settlement pattern surrounding Stanwick is medieval in origin and comprises a number of small villages such as Caldwell, Eppleby and Stanwick St John to the north of the enclosure, Aldborough St John to the east, Melsonby to the southeast, and East Layton to the southwest.

The modern landscape around Stanwick has been influenced in a number of ways by landscape features contemporary with the Iron Age settlement. Most notably the earthworks are still clearly visible in the modern pattern of fields. However, two of the other most obvious landscape features to survive as part of the palimpsest are the A66 and A1 which converge at Scotch Corner, just 7.5km to the south-southeast of Stanwick. The A1 overlies Roman Dere Street which continues to the north as the modern B6275 heading towards the crossing of the Tees at Piercebridge and subsequently to Hadrian's wall. The A66 is the modern iteration of the Roman trans-Pennine route through the Stainmore Pass via Greta Bridge, and both of these routeways are likely to have pre-Roman origins (Haselgrove, 2016:2). Scots Dike also survives in a number of modern field boundaries and even defines the eastern limit of modern Richmond. A number of more subtle landscape features comprising hollow ways, tracks and field boundaries may also represent the crystallisation of much

more ancient routeways all around Stanwick within the modern landscape (Haselgrove, 2016:459-461). For example, MacLauchlan (1849:224-5) believed that Scots Dike could be traced continuing to the northwest of Stanwick in footpaths, hollow ways and field boundaries around Eppleby and Caldwell. While it is hard to prove that the fragmentary evidence presented by MacLauchlan does indeed represent a north-western continuation of Scots Dike, Haselgrove (2016:460) acknowledges that this could be evidence of an early trackway towards fords over the Tees at Gainford and Winston, preserved in the modern landscape.

3.2.4.3. Palaeoenvironment

Palaeoenvironmental evidence relating to Stanwick and the surrounding landscape has benefitted greatly from the increase in both commercial excavations – such as the those along the A66 (Zant and Howard-Davies, 2013) or the more recent and currently unpublished excavations along the A1 (Highways England, 2018) – and the number of accurately dated pollen cores (Haselgrove, 2016:420-421). Additionally, the recently published excavations at Stanwick itself provide direct data on the local environment of the complex and its arable economy (Van der Veen and Huntley, 2016:287-303). The evidence from Stanwick itself demonstrates that the inhabitants were practicing an arable agriculture similar to other agricultural sites in the vicinity (van der Veen and Huntley, 2016:303). There is also evidence for the exploitation of food sources from woodland edge environments such as hazelnuts, elderberries and sloe, and moorland vegetation such as heather (van der Veen and Huntley, 2016:302-303).

Haselgrove (2016:420-422) presents an overview of the environmental data pertaining to the northern-central and north east regions of England during the Iron Age, only a summary of which can be presented here. Agricultural expansion and woodland clearance appears to have been extensive around Stanwick by the Middle Iron Age, attested to by the quantity of open sites during this period (Haselgrove, 2016:421). Between the Tees and the southern end of the East Durham plateau appears to have seen the greatest extent of woodland clearance regionally during the earlier Iron Age (Haselgrove, 2016:421; Fenton-Thomas, 1992; Pratt, 1996). However, despite the relatively early evidence for woodland clearance and agricultural expansion in the northeast region, the wetter areas of river valleys such as the Tees and Wear remained under relatively dense woodland until the Roman period (Haselgrove, 2016:421). Further to the south in the Yorkshire lowlands similar levels of deforestation are also evident (Bridgeland *et al.,* 2011:267) and there is a clear trend towards removal of tree cover across upland sites in Northern Central Britain (Tipping, 1994; 1997). In the immediate landscape of Stanwick it seems highly likely that there would have been little by way of tree cover, excluding areas of managed woodland. Pollen evidence from Scots Dike and a ditch fill excavated at

Scotch Corner indicated that the landscape immediately south of Stanwick would have been a relatively open pastoral one, albeit with patches of alder and hazel following the ridgeline along the route of the A66 (Zant and Howard-Davies, 2013:173-179). The overall picture of the palaeoenvironment in the decades and centuries leading up to the main occupation at Stanwick therefore seems to be one of an already intensively farmed and cleared landscape even before occupation begins at the Tofts (Haselgrove, 2016:422). A subsequent intensification of the scale of woodland clearance due to an increase necessity for arable land then took place in the Late Iron Age leading to a landscape that was void of tree cover excluding in the lower and wetter areas around rivers such as the Tees. As at Gussage Cow-Down and the Nadder-Wylye Ridge it therefore seems that the contemporary natural environment around Stanwick would have had relatively little by way of influence on the Least Cost Analysis and Viewsheds presented in Chapter 5. Although the nature of

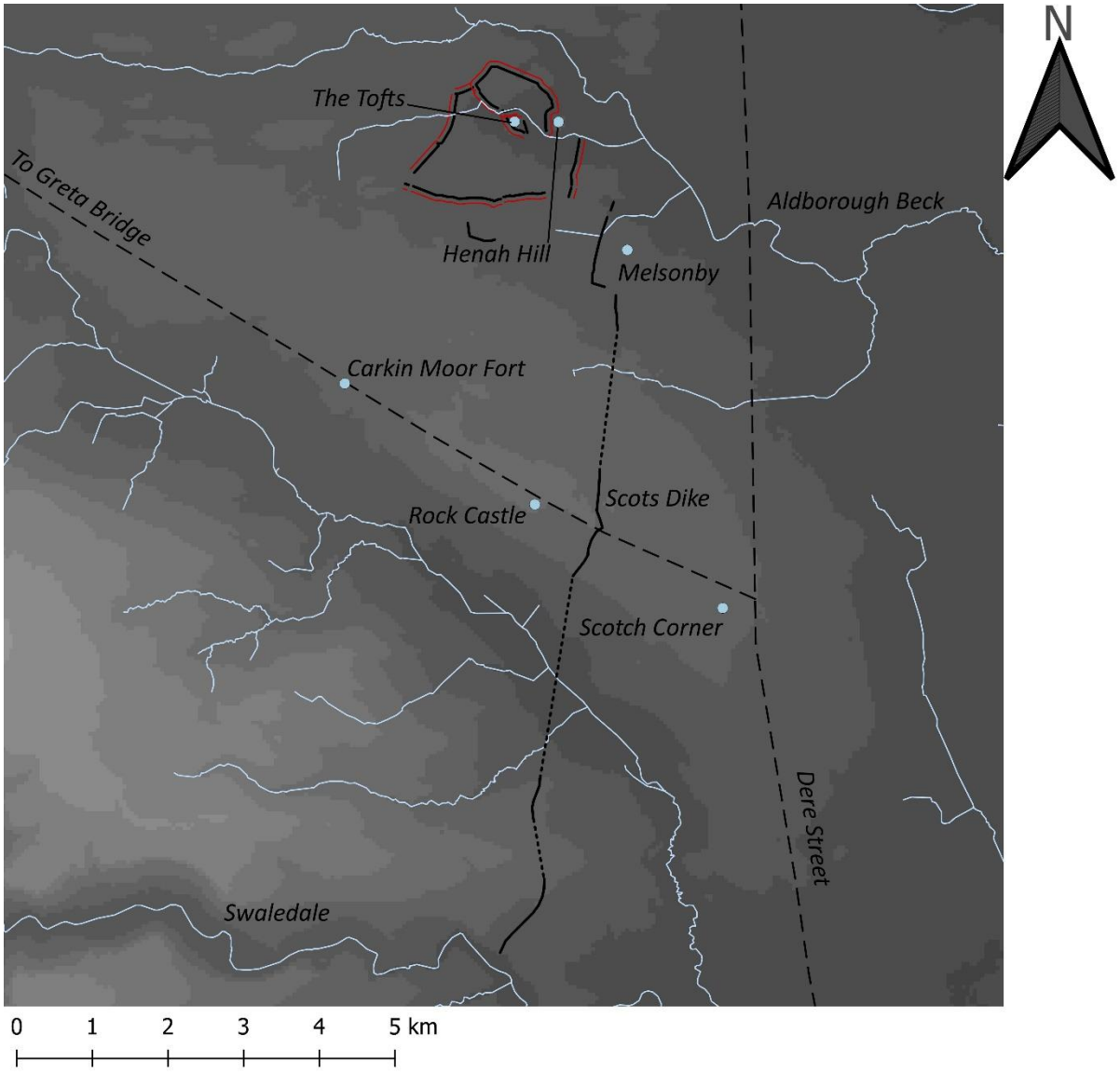


Fig 10 – The local Stanwick landscape with relation to major foci and with the local Roman roads (Margary, 1955) for reference (after Haselgrove, 2016).

the environment of the Stanwick landscape is comparatively better evidenced than at Gussage Cow-Down (section 3.2.2.3) or the Nadder-Wylye Ridge (section 3.2.3.3) due to fairly extensive and recent excavations, partly developer funded. There are also interesting comparisons to be drawn with the Bagendon landscape (section 3.2.1.3) in the presence of the occasional stands of woodland predicted by Zant and Howard Davies(2013:173-179).

3.2.4.4. Research Context

Research into Stanwick does not have quite such an extensive history as at Silchester (section 3.2.5) but has a broadly comparable history of antiquarianism as Bagendon, Gussage Cow-Down and the Nadder-Wylye Ridge. For the most part antiquarian interest in the earthworks consisted of the publication of a number of plans such as Richard Richardson's 1772 map of the Stanwick Estate, Thomas Bradley's 1816 plan (Whitaker, 1823) of the earthworks themselves, and William Lax' 1841 plan which was revised by MacLauchlan (1849). MacLauchlan (1849) certainly represents the most important pre-20th century study of Stanwick and its landscape, incorporating Scots Dike into his interpretation as well. MacLauchlan's work is also an important piece of archaeological history, being an early example of landscape archaeology and a discussion of the way in which archaeological features survive in the present landscape. MacLauchlan's work is also important because it discusses the potential for Scots Dike to have acted as some kind of road or track (MacLauchlan, 1849:336), rather than simply as a territorial or defensive feature and as such set a precedent for research such as that presented in this thesis. MacLauchlan's study of Stanwick was in part prompted by the discovery of the 'Melsonby Hoard' in 1843 (Haselgrove, 2016:5-6; MacLauchlan, 1849:339). This comprised, among other objects, a number of decorated horse harnesses, and a sword and scabbard, and was presented to the British Museum in 1847. Following the discovery of the Melsonby Hoard a number of findspots including heads of cattle and a human skull are recorded from locations within Stanwick, near the church and Henna Hill (Archaeological Institute, 1848:6), and various other finds including a late Roman buckle and fragments of pottery are also recorded as coming from Stanwick (Haselgrove, 2016:6).

Despite the mid-19th century interest in Stanwick, following the discovery of the Melsonby hoard, investigations at the complex abated until the mid-20th century when Mortimer Wheeler began excavations (Wheeler, 1952; 1954; 1956). Wheeler's excavations focussed primarily on the ramparts of the northern enclosure and the Tofts, with a single excavation at a possible entrance in the southern most earthwork and a small excavation internal to the Tofts enclosure. On the basis of these investigations Wheeler proposed three phases for the earthworks, beginning with the Tofts enclosure, followed by the ramparts to the north of the Mary Wild Beck, and finally the much more extensive

perimeter to the south. This phasing was, however, largely based on a landscape perspective of the ramparts rather than excavated relationships and was later challenged by the likes of Dobson (1970:39-40), and Challis and Harding (1975:114-115). They asserted that not only did the phasing not rely on the excavated evidence but that the perceived relationships expounded by Wheeler were debatable. Wheeler's attempts to tie the development of Stanwick into the civil strife between *Cartimandua* and *Venutius* of the *Brigantes*, largely on the basis of classical sources such as *Tacitus*, were also challenged (Hanson and Campbell, 1986).

Despite Wheeler's pioneering and widely recognised contribution to the study of Stanwick the criticisms of his (1954) work and the emergence of new methodologies in the intervening decades led to the development of the Stanwick Research Project which ran from 1981-2011. The initial phases of the research project comprised an earthwork survey (Ramm, 1981; Welfare *et al.*, 1990), geophysical survey of the Tofts and land at Kirkbridge Farm (David, 1981; Bartlett, 1983), and a program of trial trenching (Turnball, 1983). All of which led to the extension of the scheduled area of Stanwick across the Tofts and the area north of the Mary Wild Beck (Haselgrove, 2016:9). Ultimately the Stanwick Research Project conducted excavations at nine sites throughout the enclosure in addition to excavations at Rock Castle and Melsonby. The excavations of sites 1-8, Rock Castle and Melsonby were all published relatively quickly (Haselgrove *et al.*, 1990a; 1990b; Fitts *et al.*, 1994; 1999) while the excavations at Site 9 were published recently along with an extensive discussion of the landscape and environment of Stanwick (Haselgrove, 2016).

While the results of such an extensive and long running research project cannot be adequately represented here there are specifics of the results and interpretations that are of importance to this research. In particular, the most northerly excavated example of an Iron Age coin in Europe (Haselgrove, 2016:182-184) and the presence of large quantities of high status imported goods such as Roman glasswork and pottery from Site 9 (Haselgrove, 2016:432-437) attest to the status of the settlement. This assemblage is "*unparalleled for a pre-Roman Iron Age site north of the Humber*" (Haselgrove, 2016:434) and places Stanwick comfortably within the realm of sites such as *Camulodunum* and *Verulamium*.

In addition to the excavations at Stanwick itself, the geophysics and excavations at Melsonby are also of importance. The Melsonby settlement lies just over 1km southeast of the southeast corner of the Stanwick earthworks, on the opposite side of Scots Dike, and a similar distance to the north of the modern village of Melsonby. An initial geophysical survey was undertaken at the presumed site of the 1843 discovery of the Melsonby hoard, followed by an excavation (Fitts, *et al.*, 1999) and more extensive geophysical survey in 2004 (ASUD, 2005a) and 2011 (Haselgrove, 2016:335-336). While the

excavations revealed evidence of two roundhouses, Roman imported pottery and significant quantities of salt briquetage the dating evidence was somewhat inconclusive (Haselgrove, 2016:342-343), although it seems likely that the settlement would have been contemporary with Stanwick. The case for the contemporary nature of aspects of the Melsonby settlement with Stanwick is made stronger by the geophysical survey results which show a ladder settlement either side of a trackway pointing directly towards Stanwick (Haselgrove, 2016:335-337). The presence of at least one other such high-status and contemporary settlement in the vicinity of Stanwick makes it further comparable to sites such as Bagendon or Gussage Cow-Down in providing evidence for polyfocality. The recent discovery of another contemporary, high-status settlement during the A1 road improvement scheme at Scotch Corner (Highways England, 2018), just 5km to the southeast of Stanwick adds still further weight to the potential for a large-scale polyfocal landscape around Stanwick. The excavations at Scotch Corner also produced possible evidence for coin manufacture (the first such evidence in the north of England – Highways England, 2018:14) which is another defining characteristic of traditionally defined territorial *oppida* (see section 2.3.3).

Aside from Stanwick and other high-status settlements in its immediate vicinity the linear earthwork of Scots Dike must be discussed in conjunction with the complex. As has been seen, as far back as the mid-19th century MacLauchlan (1849) recognised the importance of the monument in relation to Stanwick, even going as far as to suggest that it may have acted as a route of some kind (MacLauchlan, 1849:336). Scots Dike comprises a discontinuous and irregular earthwork presumed to stretch over a course of some 10km from the southeast corner of Stanwick to the modern Town of Richmond, effectively linking the Rivers Swale and Tees, via Gatherley Moor. While it has been noted that Scots Dike is in a particularly fragmentary state, oral testimony acquired by MacLauchlan (1849:223) from elderly locals indicates that much of this may be due to Post-medieval and modern agriculture (and presumably there has been still more erosion since his time). Several arguments have been presented to try to extend the course of Scots Dike towards the Tees (e.g. MacLauchlan, 1849; Ramm, 1981; Haselgrove, 2016:24) but none are convincing (Haselgrove, 2016:24). Dating evidence for Scots Dike is fragmentary at best with little by way of dateable artefacts or radiocarbon dates for such an extensive monument (Haselgrove, 2016:25). However, excavation by Northern Archaeological Associates (NAA) in advance of a housing estate at Whitefields Farm, Richmond returned a radiocarbon date for the soil horizon underlying the bank of 134Cal BC-50Cal AD (Haselgrove, 2016:25). Optically stimulated luminescence and archaeomagnetic dating of another section of the ditch also revealed a 1st millennium BC date, albeit slightly earlier than that at Whitefields Farm (Millard, 2013; Zant and Howard-Davies, 2013:37-41). Despite these dates suggesting at least a partial overlap between Scots Dike and settlement at Stanwick it is important to note that, unlike the

otherwise comparable Grim's Ditch at the Nadder-Wylye Ridge (see section 3.2.3), the discontinuous nature of Scots Dike makes definite statements about its date problematic (Haselgrove, 2016:24).

In addition to the excavated evidence at Stanwick, the recently published monograph discusses the complex extensively in relation to its wider landscape and possible patterns of movement. Haselgrove (2016:460-461) makes the argument that the various entrances in the outer perimeter earthworks may well have aligned on pre-existing and long distance routeways, while making the counterpoint that these entrances could simply have facilitated movement to local field systems. These two points are, of course, not mutually exclusive. The location of Stanwick places it at natural cross-roads between north-south and east-west routes (e.g. the Tees valley, Vales of York and Mowbray and the Stainmore Pass) and it may be that Stanwick was situated here specifically to exploit such pre-existing routeways. The situation and arrangement of the ramparts and settlement foci in relation to experiential movement through the complex is also discussed by Haselgrove (2016:461-465). This discussion involves an appreciation of the way in which the different approaches to the complex would have affected people's experience of it and while the views discussed have evidently been ground-truthed such views are by definition constrained by modern landscape features. GIS analysis such as that presented here can bypass such modern features through the use of stripped back terrain models and contour data.

3.2.5. Silchester

3.2.5.1. Introduction

The Iron Age settlement at Silchester (Roman *Calleva Atrebatum*) is situated in Hampshire just south of the county boundary with Berkshire (NGR – SU 6273 6199). It lies 10km north of Basingstoke and 25km south-west of Reading in the Thames Basin Heaths with the Thames Valley to the northeast and the Hampshire Downs to the south. Approximately 5km to the northwest is the valley of the River Kennett and 15km north of Silchester is the confluence of the Rivers Kennett and Thames. The main enclosure and concentration of earthworks relating to the Iron Age lies on a southeast facing slope with occupation beginning at the top of an east-west orientated ridge, defined by the Silchester Brook to the south and the West End Brook to the north. Unlike Gussage Cow-Down and the Nadder-Wylye Ridge the Iron Age settlement at Silchester has a significantly more coherent set of enclosing earthworks, more akin to the complex at Stanwick. Other sites, slightly further afield from the main occupation, for example at Latchmere Green, or Windabout Copse may represent slightly more distant foci of the same interrelated complex. Silchester is unique among the case studies discussed in this thesis in that it became a *civitas* capital after the Roman conquest. This is not to say that the other complexes did not remain as important centres post-conquest but none quite so intensively as at Silchester. It is partly the presence of this Roman occupation, in addition to the change of settlement focus in the post-Roman period (leading to the excellent preservation of Roman remains) that means that Silchester has been the focus of more extensive survey and excavation than any of the other complexes discussed, albeit with a heavy focus on the Roman occupation. Similarly, the presence of a Roman town overlying the Iron Age occupation may well have influenced the perceived importance of the Iron Age occupation at Silchester compared to complexes such as Gussage Cow-Down or Bagendon. Descriptions of, and sources for, each of the foci for Least Cost Analysis presented in *Fig 11* can be found in Appendix 1.4. The Hampshire and West Berkshire HER data for a 5km search radius around Silchester can be found in Appendix 2.5 and a brief summary is presented in *Table 5*.

3.2.5.2. The Present Day

As has been briefly discussed Silchester is situated within the Thames Basin Heaths much of which comprises fields of both arable and pasture, mixed with areas of heathland and woodland. For example, Pamber Forest is located just a few hundred metres to the southwest of Silchester and is a remnant of the Royal Forest of Windsor, and Silchester Common is an area of heathland to the west of Silchester. Today, the Silchester Roman town is a greenfield site with the modern village of Silchester to the west of the Iron Age and Roman settlement, having been founded in the early Post-

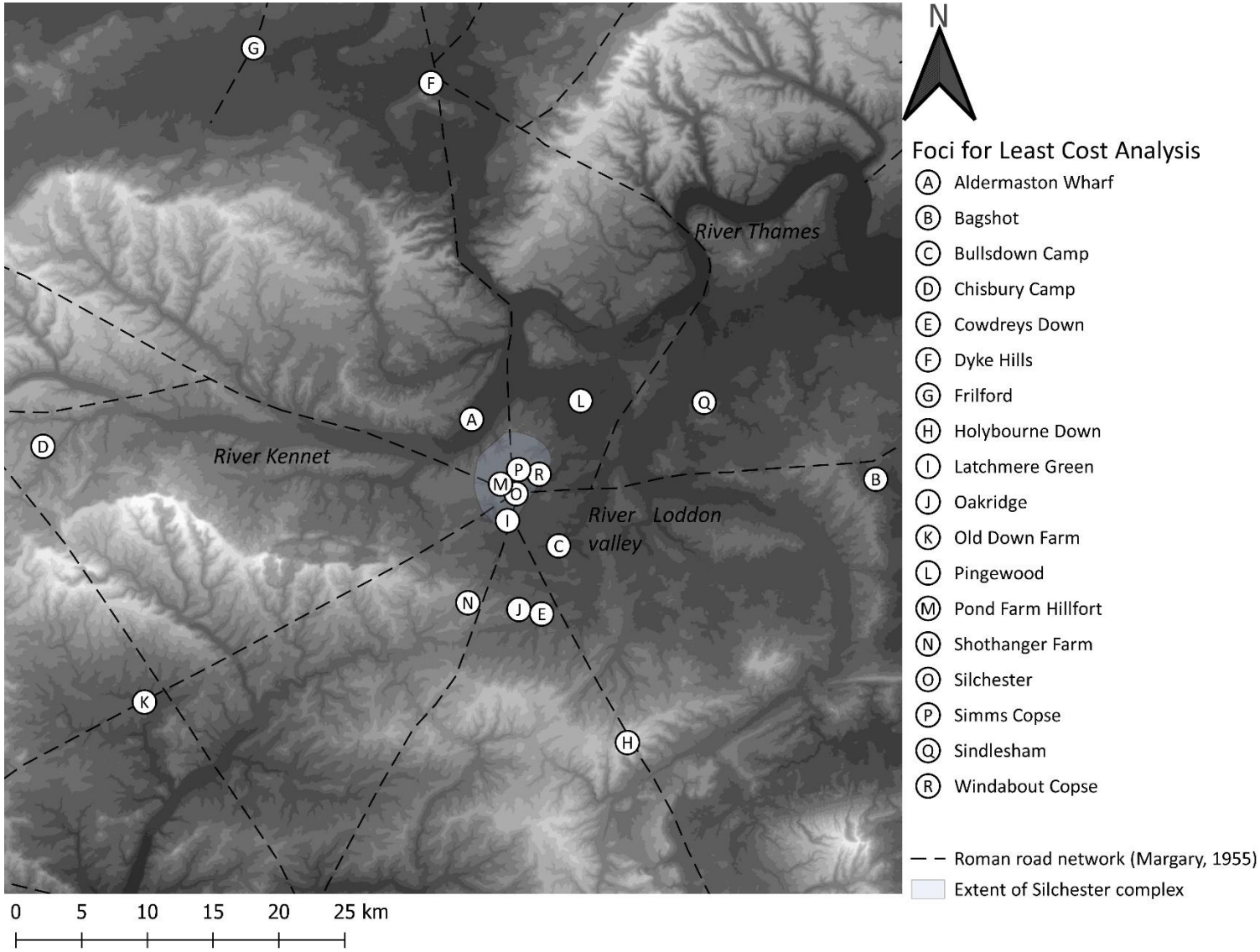


Fig 11 – The regional Silchester landscape and foci for Least Cost Analysis (see Appendix 1.4) in relation to the Roman road network.

Table 5 – HER data summary for the Silchester landscape. Based on Hampshire and West Berkshire HER data, presented in Appendix 2.5. See Appendix 2 for definition of what constitutes "enclosed" and "settlement" sites. "Period From" and "Period To" describe the (often presumed) start and end periods for archaeological activity as defined by the relevant HER, see Appendix 2 for definitions of these periods.

		Bronze Age	Late Bronze Age	Iron Age	Early Iron Age	Middle Iron Age	Late Iron Age	Roman
Total sites	Period From	19	3	14	1	2	29	-
	Period To	19	1	11	3	4	11	21
Enclosed sites	Period From	-	1	4	-	2	17	-
	Period To	-	1	3	1	3	5	13
Settlement sites	Period From	2	1	10	-	2	14	-
	Period To	2	-	8	3	3	4	11

	Documentary sources	Cropmarks/ Earthworks	Geophysics	Fieldwalking	Findspots	Excavation
Sites by evidence	3	46	6	6	1	35

medieval period. The only remnant of the medieval village of Silchester is the church of St. Mary which is located near to the eastern gate of the Roman town. Further to the west of modern Silchester is the village of Pamber Heath and the town of Baughurst. Present day occupation in the surrounding landscape consists predominantly of similar villages and small towns, of which the nearest large settlements are Basingstoke and Reading, 10km to the south and 25km to the northeast, respectively.

It is clear from aerial imagery and modern mapping that the occupation around Silchester from the Iron Age to Roman periods has heavily influenced the layout of the modern landscape. In large part this is due to the presence of the Roman roads which converge on Silchester from all directions, many of which now form modern field boundaries. Other Roman roads have survived as routeways through to the present day, for example the road north of Silchester, heading towards Dorchester, survives as the A340 to the west of Reading, and to the west of Silchester the A340/B3051 runs east-west through Baughurst. The Iron Age occupation has had less of an influence on the landscape and tends only to survive as field boundaries where upstanding earthworks remain. On a larger scale the mere presence of Silchester has had an influence on the county boundary where a northwards bulge of Hampshire, jutting into Berkshire, incorporates the settlement.

3.2.5.3. Palaeoenvironment

Reconstruction of the palaeoenvironment surrounding Silchester during the Late Iron Age has not only received significant attention in recent years, but the results of programs of environmental sampling during recent excavations have revealed a wealth of new information. By comparison with more poorly excavated sites such as Gussage Cow-Down and the Nadder-Wylye Ridge complex, Silchester therefore provides greater opportunity for an understanding of not only the Late Iron Age Palaeoenvironment but also the local economy. An extensive overview and analysis of the palaeoenvironmental evidence relating to Silchester and its environs is given by Lodwick (2014a).

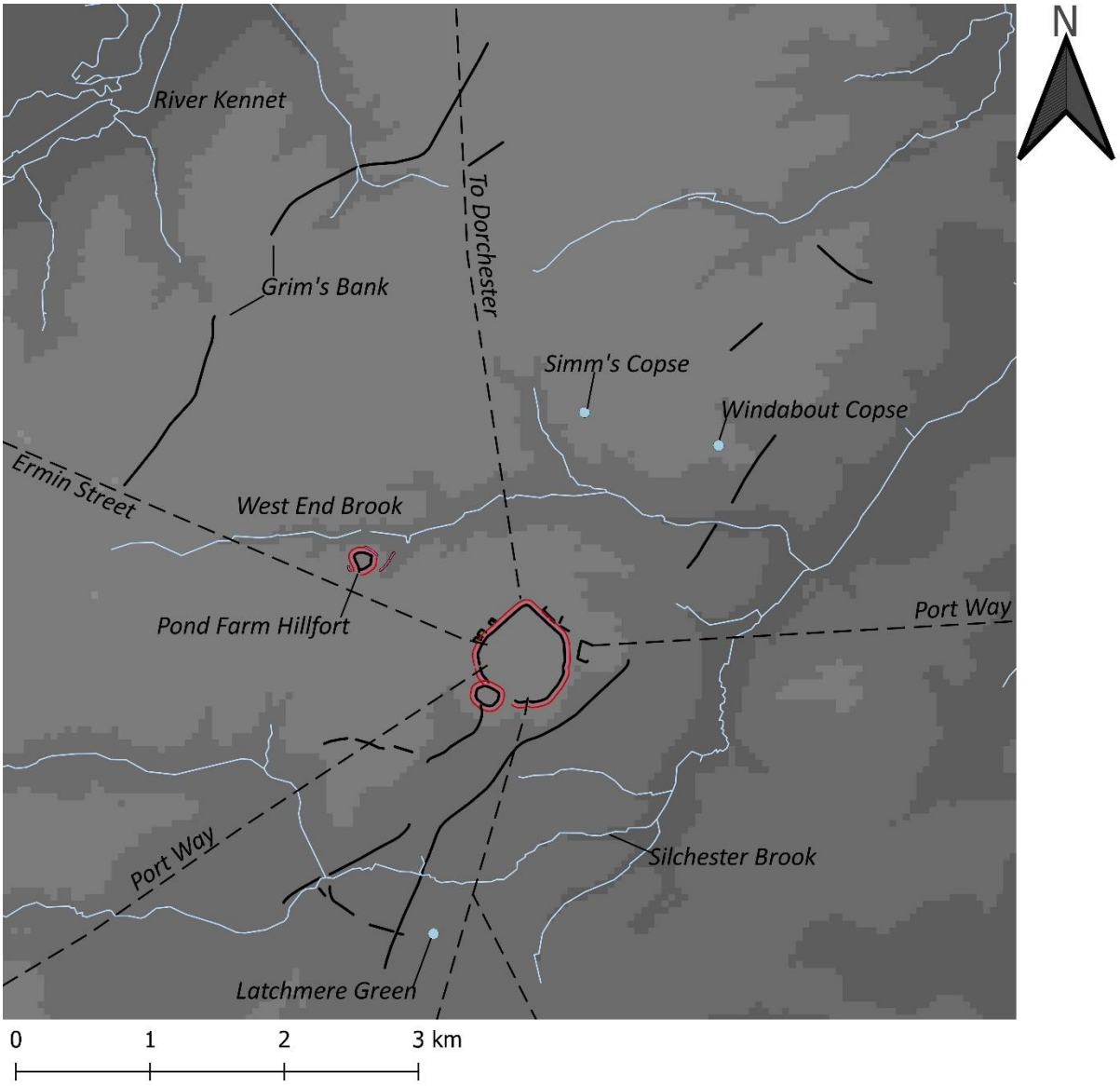


Fig 12 – The local Stanwick landscape with relation to major foci and with the local Roman roads (Margary, 1955) for reference (after Creighton and Fry, 2016 and Truscoe, 2019).

The earliest phases of Iron Age occupation seem to have grown very rapidly, having been established in a woodland environment that was quickly cleared as the occupation expanded (Creighton and Fry, 2016:343). The presence of a wooded environment at the outset of the foundation of Late Iron Age Silchester is even recalled by the place-name itself '*Calleva'*, meaning a woody place (Fulford and Timby, 2000:546). However, pollen samples from late first century BC wells at the Forum Basilica site and early 1st century AD soils beneath the amphitheatre floor indicate relatively low levels of arboreal pollen and a range of grassland types (Wooders and Keith-Lucas, 2000; Lodwick, 2014a:176). This seems to indicate a general decrease in woodland during the Late Iron Age and is corroborated by another waterlogged well assemblage indicating the presence of a mixture of heathland, woodland and hay meadows (Lodwick, 2014a:176-177). Pollen analysis of samples from buried marsh deposits beneath Silchester's south-east gate (Keith-Lucas, 1984) indicate that by the 2nd century AD there was very little by way of tree cover in the surrounding landscape. Evidence from the Grim's Bank earthwork to the northwest of Silchester, suggests a similar picture of woodland clearance in the Late Iron Age, indeed it is the pollen evidence from Grim's Bank which is suggestive of its Late Iron Age date as no actual dating evidence has been recovered from the earthwork (Astill, 1980:62). Taking these factors into account the general palaeoenvironmental picture at Silchester is one of a heavily wooded landscape that was rapidly cleared following the foundation of the Late Iron Age complex, leading to an increase in heathland, arable, and pasture fields. Nonetheless, recent wood charcoal analysis undertaken as part of the Silchester Environs project (Barnett, 2020) has built up a picture of the woodland environments of the Middle to Late Iron Age in the vicinity of Silchester. This picture is one of mixed deciduous woodland, some of which may have been managed with some wetland and heathland species as well (Barnett, 2019). A focus on charcoal may naturally lead to a predominance of wood species compared to grass or agricultural species as wood was a obviously a common fuel, however the picture remains one of a fairly densely wooded landscape during the Late Iron Age.

In addition to the reconstruction of the palaeoenvironment of Late Iron Age Silchester there is significant evidence of the local agricultural economy (Lodwick, 2014b; 2017). Analysis of waterlogged remains from Silchester demonstrated a number of somewhat unexpected conclusions. Firstly, that flax was likely being cultivated in the region (Lodwick, 2017:211-212), which was previously considered absent from Iron Age Thames Valley assemblages (Lambrick and Robinson, 2009:254), and secondly that the assemblages represent the earliest evidence of hay meadows in Britain (Lodwick, 2017:213). The presence of hay meadows, which have been shown to take upwards of 20 years to take hold (McDonald, 2007; Lodwick, 2017:213), also strengthens the evidence for an increasingly open landscape. Silchester has also provided evidence for the introduction of new foodstuffs into pre-Roman Britain in the form of olives, dill and coriander, evidence for all of which was recovered from

securely dated Late Iron Age deposits (Lodwick, 2014b). This research is interesting, however, given the presence of Gallo-Roman imports at many high-status Late Iron Age settlements, the presence of rare or exotic foodstuffs in similar contexts is unsurprising. Lodwick (2014b) therefore recognises the presence of olives, dill and coriander as part of the previously evidenced trade links between pre-Roman Silchester and the Mediterranean.

The presence of dense woodland followed by rapid clearance following the foundation of the *oppidum* at Silchester is interesting and contrasted with the other case studies discussed here. The fact that Silchester, and recently its environs (Barnett, 2019), has been subject to extensive environmental analysis means that the sudden change from a wooded to relatively open landscape can be assessed in terms of its implications for both the Least Cost Analysis and the Viewsheds presented in Chapter 5. In both cases the removal of woodland would have suddenly and drastically changed the way in which the landscape was perceived by people moving through it. While both the Least Cost Analysis and Viewsheds are conducted on a Digital Terrain Model (DTM) that essentially models a completely open landscape it can be assumed that prior to woodland clearance the Viewsheds would have been considerably more restricted and any major routeways would have been heavily constrained. Clearance of the woodland following the foundation of the *oppidum* must therefore not be considered purely from an economic standpoint but also in terms of the way in which the builders would have wanted their new landscape to be experienced.

3.2.5.4. Research Context

The research context relating to Silchester and its contemporary landscape is not only extensive but has a long history. In the 12th century Geoffrey of Monmouth ascribed to the site the coronation of two British Kings; Constantine and Arthur (Geoffrey of Monmouth, 1136:94, 149) and early antiquarians continued this interest in the site. Silchester was discussed in Camden's *Britannia* (1610:269-270) and there were early excavations at the site from which an inscribed stone was recovered (Ward, 1744-5). Excavations undertaken by John Stair in the mid-18th century not only uncovered evidence of pre-Roman occupation but Stair also seems to have shown remarkable grasp of stratigraphy before the concept was developed in geology by the likes of James Hutton (Creighton and Fry, 2016:13). Confusingly, throughout much of the early history of research relating to Silchester the site was wrongly attributed to the Roman town of *Vindomum/Vindomis*, the tribal capital of the Segontiacia (Creighton and Fry, 2016:5-9). Nonetheless, following Stair's excavations Silchester was subject to numerous further antiquarian excavations and surveys, including that of Colt Hoare (1821:57), who had also conducted surveys at Gussage Cow-Down (see section 3.2.2.4) and who rightly identified Silchester as *Calleva Atrebatum*. Antiquarian investigations at Silchester throughout

the 18th and 19th centuries were numerous and only a brief summary has been outlined above. The recently published Silchester Mapping Project has sought to collate much of the disparate information relating to all investigations at Silchester and presents a considerably more in-depth overview of continued research at the site from the earliest accounts (Creighton and Fry, 2016).

The modern interest in Silchester can probably be considered to begin with the excavations of the Society of Antiquaries of London, which lasted between 1890-1909. The excavations were outlined and developed by a number of individuals, notably Hilton Price (1887, 264), George Edward Fox, William Henry St John Hope and even Pitt Rivers, while Mill Stephenson managed the majority of the work on the site itself (Creighton and Fry, 2016:22-23). The excavations focused chiefly on the blocks of Insulae which were numbered from I to XXXVII and a fairly rigorous methodology was developed an outlined. Aspects of this methodology, such as the desire to spatially locate, register and label, and finally store with a museum every find (Fox and St John Hope, 1889-91:95) are remarkably reminiscent of the wording of 'Written Schemes of Investigation', which outline strategies for excavation in the modern commercial environment. The excavations largely came to a halt with the deaths of George Edward Fox and Hilton Price but the works nonetheless culminated with the production of Henry Hodge's Great Plan (St John Hope, 1909 – reproduced by Creighton and Fry, 2016:26). While these excavations were of a decidedly antiquarian character, with a particular interest in planning the outlines of the buildings, they are incredibly significant not only in the history of Silchester but in terms of the development of the discipline of archaeology itself. They exemplify the beginnings of the modern practice of archaeological excavation with a rigorous methodology outlined from the beginning and a long-term research objective.

Despite all this interest it was not until the middle and latter half of the 20th century that much attention was given to the pre-Roman settlement at Silchester. Aileen Fox (1948) was among the first to discuss such a topic by indicating the presence of a number of buildings that were misaligned with the Roman street layout. Although, rather than arguing for a pre-Roman settlement Fox instead suggested that these misaligned buildings were indicative of an earlier "irregular" Roman street plan (Fox, 1948:177). Boon (1974:47) subsequently noted that the majority of these misaligned buildings existed within the newly discovered 'inner earthwork' thereby suggesting that there may have been a Late Iron Age street plan of some description (Creighton and Fry, 2016:344). However, it was not until Fulford's excavations at the site of the Forum-Basilica that physical evidence for a Late Iron Age 'street plan' was discovered (Fulford and Timby, 2000:9, 26). As much as these streets may indicate a certain degree of planning prior to the Roman occupation the evidence points more strongly to a few planned

streets incorporated into a settlement that grew organically around a number of Late Iron Age enclosures (Fulford, 2003:100).

In addition to excavations within the Roman town and inner earthwork two recent projects have sought to better understand the wider landscape surrounding Silchester: The Silchester Mapping Project and the Silchester Environs Project. The Silchester Mapping Project (Creighton and Fry, 2016) not only synthesised a great deal of disparate information relating to Silchester into a single volume but also integrated this information with new geophysical data. As Creighton and Fry (2016:37) explain the Silchester Mapping Project was more than "just another large-scale geophysical survey", in that it incorporated geophysical survey of the interior of the Roman town as well as local landscape (Creighton and Fry, 2016:41, Figure 4.1) with historical maps and plans, aerial photography, field survey and excavation. The results were thorough and wide ranging and cannot be adequately summarised here, however, one of the most important aspects of the Silchester Mapping Project pertinent to this research is the refining of the phasing for the dykes of the complex (*Fig 11*. & Creighton and Fry, 2016:322-328). This review of the dating evidence, which is fairly fragmentary, pushes the date of many of the earthworks relating to the main focus of the complex well into the Roman period, where they had previously been considered part of the Iron Age complex (Boon, 1969).

The Silchester Environs Project has similarly sought to expand research on Silchester to the wider landscape. This included a number of excavations, for example at Pamber Forest, Simm's Copse (Fulford *et al.*, 2017) and Wood Farm Dyke (Fulford, Barnett and Clarke, 2016), and geophysical survey at a number of sites in the wider landscape (E.g. Linford, Linford and Payne, 2016a; 2016b; 2017; 2019a; 2019b; 2019c; Linford *et al.*, 2019a; 2019b), in addition to large scale LiDAR and aerial photographic survey (Truscoe, 2019). Interestingly the excavations at Pamber Forest and Simm's Copse revealed evidence of Middle Iron Age activity in the Silchester landscape. The Silchester Mapping Project indicated that there were 28 Middle Iron Age sites and 37 Late Iron Age sites within 15km of Silchester (Creighton and Fry, 2016:340). However, given the new evidence from Pamber Forest and Simm's Copse it seems possible that this is an artificial distinction created through differential preservation and identification of remains (although the actual settlement patterns remain clearly distinct between the Middle and Late Iron Age). LiDAR and aerial photographic survey of the wider Silchester landscape undertaken as part of the Silchester Environs Project (Truscoe, 2019) has revealed a landscape of linear dykes and enclosures surrounding Silchester itself. Many of these, such as Grim's Bank and Flex ditch, remain poorly dated but others, such as at Wood Farm have been dated to the Late Iron Age and to be contemporary with the main centre of occupation (Fulford, Barnett and Clarke, 2016). Interestingly the geophysical survey at Simm's Copse revealed anomalies

indicating the presence of a banjo enclosure although this is a tentative interpretation (Linford, Linford and Payne, 2019a:4-5). Prior to this the two banjo enclosures at Shothanger Farm (approximately 10km to the south of Silchester – ASUD, 2013) would have been the closest association that the Late Iron Age complex at Silchester had with this particular site type. Banjo enclosures are present at all sites discussed as part of this thesis (other than at Stanwick) and have been suggested as having a close association a number of Late Iron Age polyfocal complexes (Moore, 2012).

3.3. Conclusions

This chapter has sought to understand the nature of the environments and landscapes of the five case studies to be studied by this thesis, in accordance with Aim 2.1. These being Bagendon, Gussage Cow-Down, the Nadder-Wylye Ridge, Stanwick and Silchester. In each case the research histories, archaeological landscapes and contemporary natural environments have been explored in order to contextualise the results which are presented in Chapter 5 and discussed in Chapter 6. Of this information the palaeoenvironment is of particular importance to understanding the results of this research. As the Least Cost Analysis and Viewsheds are conducted on a DTM which simply represents the underlying topography of a landscape, the presence of any woodland or other ephemeral contemporary landscape features are not accounted for (see Chapter 4). For landscapes such as Gussage Cow-Down and the Nadder-Wylye ridge where the balance of evidence suggests fairly open contemporary landscapes this is not necessarily a huge problem. However, for landscapes such as Silchester, where a densely wooded environment appears to have been cleared fairly rapidly this necessarily affects the interpretation of the results. Similarly at Bagendon, and to a lesser extent Stanwick, evidence of mixed agricultural land and woodland means that topography and earthworks would not have been the only impediments to movement and visibility.

Chapter 4

Methodology: Experience and Empiricism in the Study of Movement and Visibility

4.1. Introduction

The Research Questions and Aims outlined in the Chapter 1 are focused on concepts of movement through landscapes and people's experience of that movement. In particular Aims 1.2, 2.2, 2.3, 3.1 and 3.2 all focus on characterising and understanding such movement. As discussed in Chapter 2 recent research has seen a shift towards thinking of Late Iron Age earthwork complexes from much more of a landscape perspective. This approach to the study of landscape-scale earthwork complexes is yet to produce much by way of empirical studies relating to concepts of movement, with a notable exception being Fioccoprile's (2015) study of the dyke systems on the Yorkshire Wolds. Through Aims 2.2 & 2.3, this thesis therefore provides new evidence by way of comparative GIS and experiential analysis on the role of movement and experience in the layout and composition of the five case studies discussed in Chapter 3. To this end, Chapter 4 will first discuss the ways in which movement and experience are studied and thought about by archaeologists. It will then explain the actual methods used in the study (Least Cost and Viewshed analysis) including their theoretical and methodological issues, and how they were applied to the case studies outlined in Chapter 3.

4.2. The Archaeology of Movement

4.2.1. Introduction

The archaeology of movement has garnered much interest over the years for many reasons. It is self-evident that people and resources (animals, pottery, minerals, food etc.) have and continue to move through landscapes for many purposes, from trade and exchange, to assembly and migration. This movement of people and resources at varying scales has been documented, studied and used to explain archaeological discoveries for decades. At the very birth of the modern discipline of archaeology, cultural historians such as Gordon Childe (1950) attempted to explain many archaeological findings in terms of migrations, such as those described by classical sources (e.g. the migration of the *Helvettii* – Caesar, *The Gallic Wars; Book I*:1-10 -Translated by Edwards, 1917). In its very earliest form migration was used to explain Thomsen's (1836) 'Three Age System' with successive

migrations from the East bringing with them new technologies and cultural advancements. Interest in migration as an explanatory model for social change has ebbed and flowed, largely mirroring theoretical shifts within archaeology over the course of the 20th century (Hakenbeck, 2008). But it is only relatively recently that, with improvements in various scientific methods such as stable isotope analysis and genetics, archaeologists have been able to definitely demonstrate through analysis of human remains that people in the past moved considerable distances relatively frequently (Bentley, 2006; Eckhardt, Muldner and Lewis 2014; van Dommelen, 2014).

In addition to the study of population movements, archaeologists have been able to demonstrate how artefacts and resources (and therefore, by proxy, people) moved through landscapes. For example, the bluestones of Stonehenge have famously been shown to have travelled great distances from the Preseli Hills of South-West Wales, all the way to Salisbury Plain (Darvill and Wainwright, 2014; Parker-Pearson *et al.*, 2015). Recent work has also shown that faunal remains of Neolithic feasting in the Stonehenge landscape (in addition to other Neolithic complexes in central-southern England) comprised animals from all over the country (Madgwick *et al.*, 2019). Similarly, the use of chemical analysis to provenance obsidian artefacts has been described as *"the success story of archaeological material provenancing"* (Williams-Thorpe, 1995) and has provided evidence of long-distance trade and exchange of obsidian in the Neolithic Mediterranean (Robb and Farr, 2005). Additionally, the presence of obsidian sources on Aegean and Central Mediterranean islands provides concrete evidence of one of the earliest maritime trade networks in the world (Johnstone, 1980:55). A similar, albeit smaller scale, case-study of relevance to this thesis is that of long-distance trade in the Severn-Cotswolds region, including the exchange of local pottery, querns and salt briquetage as far as 80km from their respective sources (Moore, 2007b:84). However, this thesis is primarily concerned not with demonstrating that movement around these complexes took place, that has been much theorised already (see section 2.3.6). Instead Research Question 2, and in particular Aims 2.2 & 2.3, are primarily concerned with defining possible routes of movement and exploring the experience of that movement. The following section looks at how the experience of movement is studied and understood, with a particular focus on phenomenology and affordances, and the way in which different scales of analysis can affect such studies.

4.2.2. The Experience of Movement

From the 1980s and 90s, archaeologists began to put significantly more emphasis on the experiences of people in past societies rather than attempts to create generalised theories of human existence. Such experiential studies are of fundamental importance to the study of movement. All of the instances elaborated on above are largely focused on the study of movement in a much more empirical

sense, that is to say did movement happen, how did it happen and why did it happen? None of these questions begin to answer what this movement was like for the people actually experiencing it. While this research makes extensive use of GIS analysis to study the possibility of movement through various landscapes it will also require a fundamentally experiential approach.

One of the first serious attempts to discuss landscapes and movement in an experiential way came with the development of archaeological phenomenology in the 1990s. Drawing primarily on the work of philosophers such as Heidegger (1978) and Merleau-Ponty (1962), phenomenology aims to describe the "*character of human experience*" through our interaction and understanding of the world in which we live (Brück, 2005:46). Tilley (1994;2008) explains that a phenomenology of landscape consists of several different, but interrelated factors "*places*", "*paths*" and "*sensory experience*". In other words, locations in a landscape (and their properties), the routes people take between them, and their experiences along the way. It has been used, particularly in studies of prehistoric societies, to elucidate more than a simplistic, economic discussion of the past and to this end Tilley (1994) gives several instances of how phenomenological analysis can be used. A notable example for this thesis (given that the case studies of Gussage and Nadder-Wylye are located in the same region) being the patterns of intervisibility between Neolithic long barrows on Cranborne Chase (Tilley, 1994:156-166). Another interesting case study of relevance to this research is Witcher's (1998) phenomenological analysis of Roman roads and their impact on people's experiences of the landscapes through which they were constructed. This is a particularly interesting study given the prevalence of Roman roads that were built through, or adjacent to, many earthwork complexes in Britain (all of the case studies for this thesis have close relationships with subsequent Roman roads – see Chapter 3). This would quite possibly have fundamentally altered the ways in which people moved through landscapes previously dominated by the large dyke complexes discussed in this thesis. Although it is also possible that where Roman roads were formalising pre-existing routes (perhaps along Grim's ditch and the Nadder-Wylye Ridge for example) the experience of movement could have changed comparatively little.

Another aspect of the experiential study of movement that needs to be seriously considered is the way in which landscapes themselves move. While this appears counterintuitive as landscapes are often considered static entities and a backdrop against which the theatre of human society plays out (Edgeworth, 2014) this is an overly simplistic view. Landscapes themselves are objects of movement with rivers and streams ebbing and flowing across them (Edgeworth, 2011; 2014) and frequently changing topography, especially over long periods of time. This movement and change alters the way in which people interact with their landscapes. Rivers are only one example of this but the notion could be expanded to include forests, animals, and human landscapes of agriculture and settlement,

all of which move, flow and change over time. The establishment of new routes (or fossilization of old ones) through the imposition of the Roman road network on the British landscape from the 1st century AD is a perfect example of such fluidity of landscape. Taking this kind of fluidity into account when studying movement through landscapes is important in order to understand the experience of that movement.

Valid and extensive criticisms have been drawn against phenomenological analysis, notably by Fleming (1999;2006), in particular relating to some of its more difficult to justify interpretations. For example, some of Tilley's (1994) assertions about the megaliths of South-Wales are poorly evidenced and fail to take into account other possible hypotheses for their function and placement (Fleming, 1999). While such criticisms are well founded, they are obviously not, in and of themselves reason to dismiss experiential studies out of hand and refer more to specific instances of poorly evidenced analysis. Other criticisms relate to how phenomenology can project modern, western experiences onto the past where they are likely not relevant (E.g. Gosden, 1996; Weiner, 1996; Brück, 2005). However authors such as Brück (2005), and Barrett and Ko (2009) accept these criticisms as valid while still making a convincing case for the use phenomenology. These debates are, of course important, however much of the disagreement is superfluous to the core principle behind phenomenology; that we should care about the study of people's experiences and how they embodied those experiences within their respective societies.

4.2.3. Scales of Analysis

In order to adequately discuss movement it is necessary to think about the varying scales of analysis at which it can be studied. For example, at a regional scale the intricacies of local road networks might be of less concern than larger scale topographic features, in some instances simply due to the resolution of the dataset. In this most basic definition scale refers simply to "*the distance on a map relative to the same distance on the earth's surface*" (Jones III, 2016). Scale can have a temporal, as well as spatial, dimension; the '*longue durée'* view of history being a perfect example of the macro-temporal scale (Braudel and Wallerstein, 2009; Lee, 2018; Tomich, 2011). But scale can also have a social element, the concept of settlement hierarchies would be a simple example of this, with different political and socio-economic process occurring at different scales of the relevant hierarchy. Archaeologists study various scales of analysis all the time, almost without thinking about it, the burial of a child for example offers extraordinary human insight into a tragic a heart-wrenching moment while also offering the chance to study historical demographics or culturally specific burial rights (Harris, 2017:128).

The concept of scale has often been taken for granted in archaeological analysis (Lock and Molyneaux, 2006:1) and yet during an experiential analysis of landscape it is inherent any interpretations (Lock and Molyneaux, 2006:1). The issue of scale is of particular importance in the use of GIS analysis because the software can make multi-scalar analysis so easy without an inherent consideration of the issues (Harris, 2006:40). However, the concept of scale need not only apply to landscapes and has also been discussed in terms of material culture (E.g. Banks, 2006; Harris, 2017). Lock, Kormann and Pouncett (2014:24) discussed two scales of analysis, an "*analytical scale*" and a "*phenomenological scale*" in their study of visibility and movement in the region of Danebury. The "*analytical scale*" refers to the process of research, measurement, recognition and analysis of patterns in relevant data sets, while the "*phenomenological scal*e" refers to the "*lived scale of being-in-the-world*" and the everyday experiences of people as they interact with their environment and their society (Lock, Kormann and Pouncett, 2014:24).

Since the study of scale was first discussed critically by human geographers in the 1980s (Taylor, 1982; Smith, 1984) the waters of its use have been so muddied by debate as to render the term difficult to pin down with an academic definition. Some have even proposed that 'scale' as discussed by human geographers is so problematic that it should not be used at all (E.g. Jones III, 2016; Marston, Jones III and Woodward, 2005; Jonas, 2006). Nonetheless, an identification of the issues surrounding scale is of paramount importance to any GIS-based, experiential study of movement for the reasons discussed above (Harris, 2006:40) and for the purposes of this study the scale-factors proposed by Lock, Kormann and Pouncett (2014) seem ideally suited. To this end a spatial, analytical scale is looked at, ranging from the local scale (within a few kilometres of the case studies) to the regional scale (a much wider view extending to the tens of kilometres and incorporating multiple different landscapes). In addition, an experiential scale will be assessed which aims to understand the empirical process of movement through the eyes of the people on the ground. It must be noted that none of these scales are truly independent from one another or from any number of other potential scales which are not discussed here. Changes in any one scale will cause changes at other scales, which will cause further changes at other scales and so on, acting as a feedback loop. It must also be noted that the resolutions of the datasets discussed in section 4.3 (for computational reasons) do not change with the spatial scale of analysis, meaning that there is a limitation to how detailed the local scale of analysis can really be.

4.2.4. Geographic Information Systems (GIS) and Affordances

As laid out in Aim 2.3 and in the previous paragraphs this study takes an experiential approach to the study of movement through the Late Iron Age Earthwork complexes discussed in Chapter 3. However,

it is hard to study movement without understanding the nuts and bolts of it, or to understand people's experiences without understanding what they might have been able see around them. GIS offers archaeologists a powerful tool to study landscapes in such a way and through a mixed approach with experiential analysis we can edge ever closer to a better understanding of experience and movement in the past. The functional methods chosen for this study – specifically Least Cost Analysis and Viewsheds (see sections 4.3.1-3) – are outlined in detail below. Their use by archaeologists during the study of experience and movement has been extensive, and as such they constitute relatively well theorised methods, although they are not without flaws. Through these approaches this thesis aims not only to acquire a better understanding of people's experience of movement in and around polyfocal complexes, but also to infer whether the monuments in question were constructed with control/influence/experience of movement in mind.

This is by no means the first such study of movement that combines social considerations with empirical spatial analysis. The use of a combination of a socialised, experiential understanding of landscapes and the study of spatial data using GIS is discussed at length by Llobera (2000) and is widely accepted within archaeological research (McEwan and Millican, 2012). However, while concepts of movement have been discussed in the context of the monumental dyke systems of Late Iron Age Britain (see section 2.3.6) this will be the first study to systematically approach the problem in relation to these monuments and attempt to define common themes between them (or the lack thereof – see Aim 3.1). Notably Fioccoprile (2015) has applied both Least Cost Analysis and Viewsheds independently to several examples of Late Iron Age dyke systems in the Yorkshire Wolds. However, the regional focus of Fioccoprile's work is contrasted with this study, which aims at a much wider scale, and comparative analysis of spatially disparate monuments and as such speaks to a more generalised, larger-scale, picture of the contemporary society.

While the development of GIS techniques in archaeology and a radical re-imagining of the study of archaeological landscapes coincided perfectly in the early 1990s (E.g. Bender, 1992;1993; Tilley, 1994 – see section 4.2.2), an unfortunate disconnect developed between the two sub-fields of GIS and theoretical landscape archaeology (Gillings, 2012). Many GIS researchers have however, attempted to demonstrate that while GIS cannot, and should not, replace theoretical landscape approaches such as phenomenology, there is no reason why they shouldn't be complimentary (for example Llobera, 2012; Whitley, 2017), although Gillings (2012) has called for the development of new theoretical models based on GIS research rather than continuing to attempt to bridge this gap. Nonetheless, presuming an adequate critique of the flaws inherent in both method and theory there seems no reason why they cannot be complementary.

One way in which the theoretical gap between GIS studies and experiential landscape archaeology may be bridged is through the study of affordances, first discussed in an archaeological context by Llobera (1996) in an attempt to reconcile the apparently deterministic outputs of GIS analysis with the (at the time of Llobera's writing) relatively recent development of phenomenology. The idea of affordance itself is one developed in psychology (Gibson, 1977;1979; Ingold, 1992; Jones, 2003) and there has been intense debate over the actual meaning and application of the term (See Chemero, 2003 for an overview). Gibson's (1977:67) own early definition was that an affordance of anything is "*a specific combination of the properties of its substance and its surfaces taken with reference to an animal*", although his discussion of definitions was less specific in later works, suggesting that his thinking on the subject was changing over time (Jones, 2003:112-113). The basic concept is that animals directly perceive meaning from the environment around them, rather than indirectly creating meaning from otherwise inherently meaningless sensory data. The affordances of an environment are therefore "*what it offers the animal, what it provides or furnishes, either for good or ill*" (Gibson, 1979:127).

Within the field of landscape archaeology there has not been a great deal of progress in the study of affordances. Llobera's (1996) initial proposition that affordances might offer an interesting and compelling new way to understand landscapes did not really take off. In fact it was the subject of fairly significant criticism from Webster (1999) who argued that the concepts of affordance and direct perception theorized by Gibson had not been adequately understood by Llobera and as such the attempts to implement them within a GIS framework were poorly founded. More recently, however, Gillings (2009; 2012) has revisited the concept of affordance in relation to landscape archaeology and GIS. Gillings (2012) argued that Webster's (1999) criticism of Llobera (1996) was based on an unnecessarily strict interpretation of Gibson's work on affordances and failed to recognise the extent and fluidity of the debate that was on-going within psychology at the time. Gillings (2012) bases his understanding on Chemero's (2003) relational theory of affordances. Chemero (2003) argued that affordances should not be considered as properties of either individuals or environments but rather as the relationship between the two in a given situation. This understanding of affordances is important because, as Chemero (2003) explains, it means that these relational affordances can exist independent of an individual, so long as a potential observer exists then the affordance is a real thing that can be studied objectively.

Besides Llobera's (1996) initial study of linear dyke systems in Wessex a number of archaeological studies have attempted to implement the concept of affordances. Lock, Kormann and Pouncett (2014) touch on the issue of affordances when modelling visibility and movement around four long-barrows

in the region of Danebury Hillfort, although their actual discussion of affordances is fairly minimal. Gillings (2009) discusses the theory behind it in some detail when applying it to megalithic structures on the channel island of Alderney. This study used cumulative Viewsheds to show how the monuments appeared not to be placed to exploit affordances related to sea-views around the island. Recently Wernke, Kohut and Traslaviña (2017) presented an example of the use of affordances to study visibility and movement within a colonial town in the highlands of Peru. This is perhaps the most in-depth discussion of affordances within an archaeological context and makes some important points about the concept which are absent from discussions within psychology simply by the nature of the discipline. Much of the literature on affordances within psychology discusses it in terms of 'animals' and 'organisms' whereas within archaeology these characters are necessarily human beings. Because of this, affordances as perceived by humans can "*shape power relations and can be manipulated to alter power relations*" (Wernke, Kohut and Traslaviña, 2017:24). As such, attempts to study and define the affordances provided by human/environment relationships must be understood in the context of known power dynamics but conversely may help us to better understand these very same relationships.

Within the context of this research affordances are used in order to better understand the pathways and visible landscapes proposed by the Least Cost Analysis (see section 4.3.2) and Viewsheds (see section 4.3.3). In this way the perception of GIS as providing deterministic outputs can be downplayed, instead of telling us where people walked or what they saw the Least Cost Analysis and Viewsheds describe a set of affordances which would have been provided to people as they traversed their landscapes. Viewsheds and Least Cost Paths therefore do not tell us exactly what would have been visible from a given point or where someone would necessarily have walked, instead they can be used to *"explore processes, concepts and notions defined within a larger landscape framework as it is perceived from an individual's perspective*" (Llobera, 1996:622).

4.3. GIS methodologies

4.3.1. Introduction

As has been seen the use of GIS to study landscapes and past movement of people is commonplace in archaeology. However, as yet the methods to be used here (i.e. Least Cost Paths and Viewsheds) as specified by Aim 2.2, have received little by way of explanation. The following sections go into detail about how these methods work and the way in which they were applied to the landscapes described in Chapter 3. In both instances the general concepts are deceptively simple, if the theory behind them remains complex. Firstly, Least Cost Analysis (see White, 2015) is a function of GIS that allows the

modelling of cost across a surface (for example a mountain range), given a predetermined set of variables (such as the difficulty of ascending a steep hill, or the presence of dense woodland). Upon such a cost surface can then be modelled routes between specified points which follow the Least Cost Path. Viewsheds (see Verhagen, 2018:18-20) are a simpler concept still, consisting simply of the visual representation of the range of places visible from a given point in the landscape. The view from a kitchen window across the street or the view from the trig point atop Scafell Pike would both constitute Viewsheds. In terms of GIS analysis the term Viewshed therefore corresponds to the representation of the pixels on a topographic raster which have line of sight from another given point on the raster.

4.3.2. Least Cost Analysis (LCA)

4.3.2.1. Topographical costs and r.walk

This research employed the GRASS GIS function '*r.walk*' (Franceschetti *et al.*, 2004) in order to calculate the Least Cost Paths between different points in the landscapes of each case study. Unlike some GIS cost functions, *r.walk* takes into account the difference in cost between walking up and down a slope of the same angle (known as anisotropic cost – differing outputs between Least Cost Paths accounting for isotropic and anisotropic costs are well reported (e.g. Surface-Evans and White, 2012; Kanter, 2012)). Costs within *r.walk* are based on a formula which uses Naismith's (1892) rule for walking times (Aitken, 1977; Langmuir, 1984) with relation to the slope factor of a topographic raster, in addition to any other friction costs which might be applicable. This concept built into *r.walk* is similar to Llobera's (2000:70-71) "*topographic cost*" although that is derived from a different source (namely Minetti, 1995). According to Bevan (2011) *r.walk.* performs relatively well when applied to a flat plain, which is a good test for determining the accuracy of a least cost algorithm given that this should always produce a straight line between two points and concentric banding of the accumulated cost (Douglas, 1994:37). Such accuracy is increased further through the use of a '*knight's* move' function which increases the number of neighbouring cells for which cost distances are calculated (Franceschetti *et al.*, 2004). Bevan (2011:387-388) also evaluated the accuracy of results provided by *r.walk* by applying it to the island of Crete and comparing the results to recorded journeys around the island by John Pendlebury (1939) during the 1930s. The results of this showed that, barring some issues such as the need for a person to stop for rests every now and then when traversing rough terrain, *r.walk* performed particularly well compared to other, GIS functions. The fact that *r.walk* uses the input simply of a digital terrain model (DTM) rather than a slope raster derived from a DTM means that it avoids any potential issues relating to the slope output raster. For example when using the popular

method for creating Least Cost Paths (Tobler's Hiking Function – Tobler, 1993), incorrect definition of slope raster using degrees drastically alters the output of the ultimate analysis (White, 2015:408-409).

4.3.2.2. Social Costs

By contrast to the topographic costs, the social aspects of the cumulative cost raster (which are analogous to Llobera's (2000:71-72) "*landscape feature cost*") must be by their very nature almost entirely subjective (Bevan, 2011:385). It is not possible to know what kind of cost/benefit analysis ancient people might have done in their heads to determine their favoured route through a landscape without direct evidence of the routes themselves. In addition, whether they would have travelled through an *oppidum*, or braved a dangerous river crossing would have been entirely situationally and individually dependent and to attempt to model all such situations would be futile. For this reason, Bevan (2011:385) argues that models should remain fundamentally simple so as not to risk losing "*all explanatory strength*" in a confusing and overly complex accumulation of various costs. This way, a relatively simple model can be used as a form of null hypothesis against which to test other patterns (Bevan, 2011). As such this thesis does not rely on a huge number of costs and values subjectively assigned to archaeological and social constructs. As is discussed in more detail below this study utilised only slope, elevation and Total Viewsheds (see section 4.3.3.3) as cost factors for analysis. This largely maintains the explanatory power of the models while also maintaining a focus on the societal aspect of movement in the relevant landscapes. The choice to use visibility and elevation, in addition simply to slope factor, is driven by the nature of previous discussions about movement around Late Iron Age earthwork complexes (see section 2.3.6) and by the frequent focus of the earthworks and foci of each monument on ridgelines and valleys (see Chapter 3).

4.3.2.3. Methodological issues

A serious issue facing any Least Cost Analysis is assessing how likely the results are to be accurate. This is affected by a number of different variables, including the subjectivity of social costs, the errors inherent in any DTM (see section 4.3.3.4), raster resolution and how small changes in start and end points can drastically alter the output (for example see Schild, 2016). Raster resolution is a serious issue that might totally alter a Least Cost Path. For example, this study utilises the OS Terrain 50 DTM (Ordnance Survey, 2017) which is of a high enough resolution for dense urban settlements and some modern roads to be visible. Using a coarser resolution raster removes such obstacles but drastically reduces the accuracy and precision of the results and restricts the scale at which analysis could take place (see section 4.2.3). The raster resolution issue is largely unavoidable due to constraints in computing power available for this project. In this case a resolution of 50m (OS Terrain 50) was used

to calculate all Least Cost Paths and as will be seen the issue regarding modern landscape features appears not to have interfered overly with the results. While a 50m resolution might be considered to give a reasonable approximation of topographic cost there is likely to be a high margin of error. When considering visibility from such Least Cost Paths especially (see section 4.3.3.3), this error could well affect the results, especially for the larger scale of analysis and at the edges of data sets. However, it is not the prerogative of this study to define the *true* route between points in the study area. Instead the Least Cost Analysis presented here is supposed to aid in our understanding of potential routeways, provide new avenues for research that would not otherwise be considered and to help in understanding the affordances provided to the inhabitants of each landscape (see section 4.2.4). It is worth noting at this point that the actual monuments and earthworks themselves were not included as costs within the analysis. Given that the DTMs used for the Least Cost Analysis had resolutions of 50m it was not possible to include features which were only 10m in width in the cost rasters. Future research with access to more computing power could use higher resolution rasters (they would probably need to have 10m resolution or better in order to incorporate earthwork features of roughly this scale) and add earthworks to the DTMs by way of raster calculation.

A further methodological challenge to be faced is the fact that small changes in the start/end points of Least Cost Paths might drastically alter where they run. This is evident in the validity analysis undertaken by Schild (2016:40-49) on Least Cost Paths conducted across the Amanus Mountains in Turkey. On the whole, Schild's validity testing showed the results to be accurate, however, there were instances where the movement of the start point by 250m compared to the original Least Cost Path produced a significant variation from the original for over 5km from the start, before they converged again (Schild, 2016:43-44:Figures 19 and 20). Given the scale at which Schild was conducting the study such a variation was not an issue for the interpretation, although it does show that such variations can influence the results. Validity tests such as that conducted by Schild (2016) are not always common in archaeological Least Cost Analysis – fewer than half of the case studies presented in White and Surface-Evans (2012) employ a similar assessment – but this should really be considered a prerequisite for any reasonable interpretation of results. Due to the quantity of Least Cost Paths calculated during this research a different form of validity testing was undertaken through the use of frequency analysis (see section 5.1). This analysis looked at the frequency with which Least Cost Paths of a given iteration in each landscape overlapped with one another. This is numerically represented throughout section 5.1 and Appendix 3.2 and visually represented as a series of heatmaps in section 5.1. The workflow by which the frequency analysis was undertaken is given in Appendix 3.1. Due to the quantity and density of Least Cost Paths of each iteration and each landscape it is assumed that the higher the frequency with which the Least Cost Paths overlap, the higher the likelihood that that particular part of the

landscape represents a frequently travelled route (within the model at least). By way of example, it is evident in the results presented for Bagendon in section 5.1.2 that the Least Cost Analysis relating to the slope factor had significantly less overlap between routes compared to the low elevation and low visibility iterations. As such the low elevation and low visibility iterations of Least Cost Analysis for Bagendon are relatively more accurate, and the landscape more sensitive to those cost rasters, than that considering only slope. By applying this relatively simple form of Least Cost Analysis this thesis aims to avoid some of the more complex theoretical and mathematical discussions surrounding its use. The point here is not to rigidly define where people were or were not moving in relation to the study areas, rather it is to provide some form of background to further discussions of how these landscapes were experienced.

4.3.2.4. Creating Least Cost Paths

The actual creation of Least Cost Paths is one of the more complex tasks undertaken by this study, involving numerous rasters, vector files and workflows. As discussed above (section 4.3.2.1), *r.walk* (Franceschetti *et al.*, 2004) utilises a number of equations to determine the walking time for a single person based on anisotropic slope factor. Due to these functions *r.walk* doesn't require a slope raster but simply a DTM. The DTM used for all case studies was the OS Terrain 50 raster (Ordnance Survey, 2017) at varying radii around each site depending on the scope of the Least Cost Analysis in each landscape. In addition to the DEM, r.walk requires another raster which describes the cost factors involved. This research utilised five separate cost rasters, incorporating three cost factors; slope, elevation and visibility, outlined below:

1. Slope:

This was calculated as a base level of analysis against which to test the other results. Least Cost Analysis was carried out for each case study using just slope as a cost factor. Because *r.walk* requires the cost raster field to be filled out this meant the creation of a blank raster with a value of '0' for every pixel.

2. Elevation:

This was in addition to the slope factor already incorporated in r.walk and used the same DTM as for the slope factor. The elevation cost raster was a reclassified version of the same DTM to assume a linear progression of cost, starting from '0' with an increase of '1' for every 10m increase in altitude relative to each landscape. An inverse raster favouring higher altitudes, starting at '0' cost and increasing by a value of '1' for every 10m of altitude lost was also created, producing two separate versions of Least Cost Analysis considering elevation as a cost. Giving lower altitudes lower cost should model a preference for travel along river valleys, coastal plains or mountain passes, while applying

lower costs to higher altitudes would model a preference for travel along ridgelines and potentially dryer parts of the landscape.

3. *Visibility:*

As with the elevation factor this was in addition to the slope factor already incorporated in *r.walk*. This version of Least Cost Analysis utilised the Total Viewshed (see section 4.3.3.3) calculated for each landscape which had a resolution of 50m and was also calculated using OS Terrain 50 (Ordnance Survey, 2017). Following the calculation of the Total Viewshed it was reclassified for each site to assume a linear progression of cost (much like with the elevation) starting at '0' (for the least visible parts of a landscape) and increasing by a value of '1' for every 10 more points that a pixel was visible from. As with the elevation cost raster an inverse of this was also created where the lowest cost was applied to the most visible arts of the landscape creating two separate versions of Least Cost Analysis considering total visibility as a cost. These two cost rasters model how people would have moved through a landscape depending on their desire to see (or be seen) by more or less of the surrounding landscape. It might be thought that elevation could act a proxy for visibility (high places see more than low places) but a quick comparison of the relevant reclassified cost rasters demonstrates that this is not the case (*Fig 13)*.

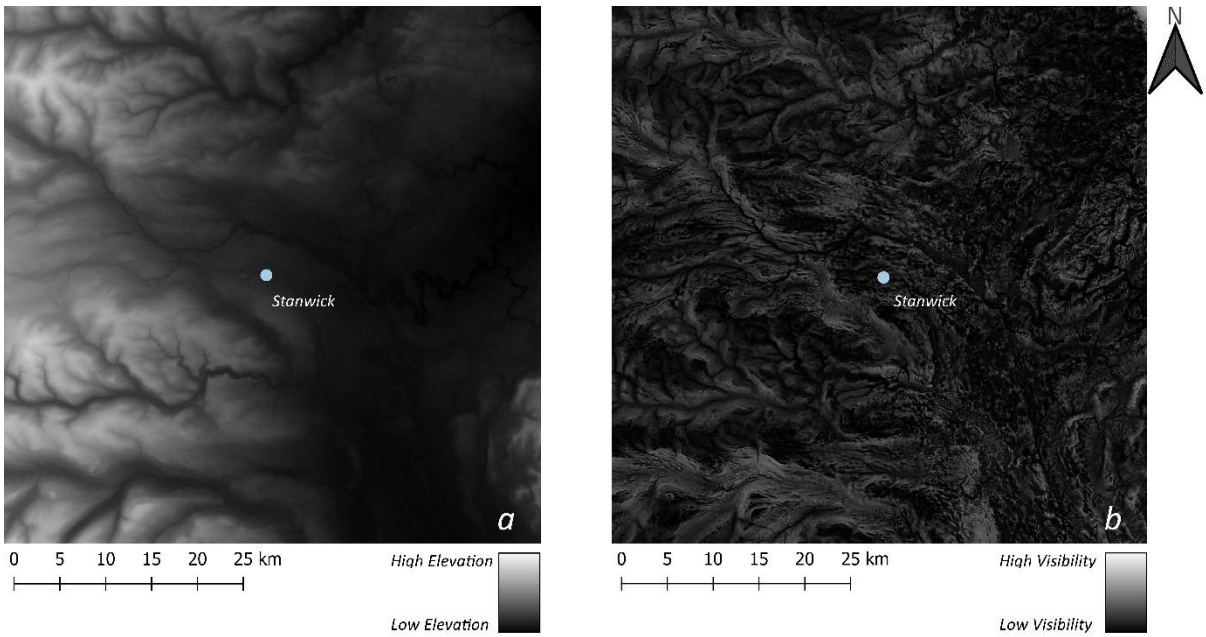


Fig 13 – Comparison of the elevation model (a) and Total Viewshed (b) for the Stanwick landscape, demonstrating how high/low elevation cannot necessarily be used as a direct proxy for high/low visibility.

Once the cost rasters were ready these were combined in *r.walk* along with the relevant DTM and the starting point for the Least Cost Path to be calculated. This produces two new rasters from which the final Least Cost Path itself can be calculated, the 'accumulated cost' and the 'movement directions'. The accumulated cost raster shows the increase in cost (in terms of time taken for travel) when moving away from the starting point, based on the DTM and cost rasters. The movement directions raster

records the sequence of movement taken between cells during the formation of the accumulated cost raster. Each cell is given a value in degrees counter-clockwise from the east, referring to the direction of movement requiring least cost from one cell to the next. This movement from one cell to the next can be calculated either with, or without, the 'knight's move' function (see section 4.3.2.1). This increases the accuracy of the results and was used in every instance throughout this research. Following the creation of the accumulated cost and movement direction rasters these are combined with the end point of the relevant Least Cost Path using *r.path*. This function traces back the path of least resistance – literally the Least Cost Path – from the end point, back to the original start point along the accumulated cost raster, guided by the movement directions raster. *r.path* outputs the final Least Cost Path as both a vector and a raster file for further analysis. Based on the above methodology, five separate iterations of Least Cost Analysis were produced for each landscape using the foci for analysis described in Appendix 1, and the relevant cost rasters all of which were ultimately derived from the OS Terrain 50 DTM.

4.3.3. Viewsheds

4.3.3.1. Introduction

While Least Cost Analysis deals exclusively with the movement through a landscape, the Viewsheds presented here are concerned more with the perception of that movement. While superficially these two methods differ considerably, they are in fact complimentary. The use of the two in conjunction is not a new idea and was postulated by several authors in the 1990s (Van Leusen, 1993;1999; Lee and Stucky, 1998). Since the 1990s, however, computing power has increased so rapidly that it has been possible to analyse larger and larger datasets at higher and higher resolutions. As such several recent studies have combined Viewsheds and Least Cost Analysis in their study of movement and experience over large areas and with a high level of detail (e.g. Bell and Lock, 2000; Llobera, 2003; Lock and Pouncett, 2010; Lock, Kormann and Pouncett, 2014; Oatley, Crick and Howell, 2015). This study aims not only to use Total Viewsheds (see section 4.3.3.3) to inform the cost raster (see section 4.3.2.4) as part of the Least Cost Analysis but also to employ the output of that Least Cost Analysis as a starting point for more in depth Viewshed analysis.

The concept of a Viewshed is not a complicated one and as with the study of movement has a long pedigree within landscape archaeology which continues to this day (E.g. Dungan *et al.*, 2018; Gillings and Wheatley, 2001; Jones, 2006; Wheatley, 1995). Viewsheds are a form of visibility analysis possible in GIS of which there are several variants. Other commonly used measures of visibility include intervisibility networks and more basic line of sight (l.o.s) analysis, although these are not used in this

study. For the purposes of this thesis cumulative and Total Viewsheds have been conducted for all of the case studies. In order to generate these Viewsheds the visibility analysis plugin for QGIS 3.X was used (Čučković, 2016; 2018).

4.3.3.2. Binary Viewsheds

Binary Viewsheds are the simplest form of this type of analysis and essentially consist of the calculation of line of sight from one point on a DTM to every pixel in the raster. This is followed by the subsequent presentation of the results as a raster showing all visible pixels (generally with a value of "1") and all of those not visible (with a value of "0"). While binary Viewsheds have not been incorporated into the results of this thesis they would make for a useful addition in any further research and are important to understand as both cumulative and Total Viewsheds simply comprise multiple binary Viewsheds added together (see section 4.3.3.3). Binary Viewsheds were not consulted as part of this thesis as the quantity of data to discuss is already quite extensive when including all of the Least Cost Analysis, cumulative and Total Viewsheds. Additionally, by their very nature binary Viewsheds describe the views from static points within a landscape and this thesis is focused heavily on movement. Binary Viewsheds are, as stated previously, the simplest form of Viewshed and have been applied in many different circumstances, for example, as part of a phenomenological study of six ritual, and mortuary sites in Southern England and North France (Garland, 2013), or a study focusing on the intervisibility of Iron Age and Roman sites in Southern Spain (Brughmans, Keay and Earl, 2015). In addition, they provide a quantifiable and easily interpreted output demonstrating how 'visible' parts of a landscape are from a specific point.

4.3.3.3. Cumulative (and Total) Viewsheds

Cumulative Viewsheds consist of the addition of several binary Viewsheds into a single raster. In this case each pixel acquires a value equal to the number of Viewsheds in which it is visible and the output is less a measure of the Viewshed from a single point so much as a measure of how visible parts of a landscape are from a series of points. The term cumulative Viewshed was coined by Wheatley (1995) who conducted Viewsheds from several Neolithic Long barrows in Wessex and added the results together to determine how visible they would have been to other places in the landscape. Since this, they have become one of the most popular forms of Viewshed amongst archaeologists (Llobera, 2003:33). Cumulative Viewsheds have been used in this thesis to reconstruct visibility along routeways suggested by the Least Cost Analysis, thereby imagining what sites, monuments, earthworks and other foci would have been visible from particular routes as people traversed the landscape. For the purposes of this thesis points were created at 100m intervals along sections of particular Least Cost

Paths around each landscape and cumulative Viewsheds conducted from these collections of points (see section 5.2). A 100m interval was chosen as this does not exceed the resolution of the underlying raster and provides a balance between good coverage of the route and a manageable amount of data. The sections of routes chosen corresponded to the most plausible routes around each landscape given the arrangement of foci, topography, earthworks and frequency analysis.

Total Viewsheds are the logical extension of cumulative Viewsheds to include every single pixel (or a regular grid of points) within the entire DTM. This in turn gives us a proxy for how visible every pixel in the landscape is compared to every other pixel (see Lake, Woodman and Mithen, 1998; Llobera *et al.*, 2010; Dungan *et al.*, 2018). In this study the Total Viewsheds were generated by creating a grid of points spaced at 500m intervals across each landscape. Due to the quantity of Viewsheds which needed to be calculated during the creation of each Total Viewshed and the computing power available as part of the project the DTMs used to generate each Total Viewshed had a 50m resolution. The spacing of points at 500m intervals rather than closer together was also a decision taken due to computing power and further study might be able to increase the output resolution of Total Viewsheds if more processing power became available. Total Viewsheds have been employed in a number of different ways in recent years to study archaeological landscapes. Dungan *et al.* (2018) used Total Viewsheds to provide new interpretations of how placement of great houses and great kivas in Chaco canyon during the 9^{th}-12^{th} centuries AD were related (or not) to visibility within the wider landscape. Murray (2018) has used a form of Total Viewshed to study British hillforts and their landscape visibility. This involved placing viewpoints at successively more distant radii around the relevant sites and summing these into a Total Viewshed. However, Murray's (2018) approach involved using significantly fewer points than Dungan *et al.*'s (2018) study of Chaco Canyon and can probably be seen more as a halfway house between cumulative and Total Viewsheds than as a true Total Viewshed. Another example of a quasi- Total Viewshed was employed in a study of visibility at Irish Hillforts (O'Driscoll, 2017b) where viewpoints were randomly generated over specified areas but the Viewsheds themselves spread over a much wider area than the points in question. Such an approach as that utilised by O'Driscoll (2017b) might be applicable to the study of tightly constrained earthwork complexes in Britain where the Viewshed for the area of the entire complex could be computed. The Total Viewsheds and cumulative Viewsheds are discussed together for each site in section 5.2.

4.3.3.4. Methodological Issues

While a useful and widely used tool, Viewsheds are not without their flaws, both methodological and theoretical. The simplest methodological issue is that when conducting a Viewshed a target and observer height must be set, corresponding to the eye level of the observer and the height above

ground-level of the point they are looking at. This seems a simple issue but the output of a Viewshed can change drastically whether you consider a person sitting down, standing up, or atop a rampart or building. To account for this and given that the heights of ramparts and buildings can only be guessed at, an observer height of 1.6m and target height of 0m have been used for all Viewsheds throughout the study. If Viewsheds were to be conducted from ramparts or to look for features above ground level these target and observer heights could be changed and this could be an objective for future analysis.

Another serious methodological issue to be considered (particularly for cumulative and Total Viewsheds) is the edge-effect created as Viewshed points approach the edge of a DTM. As this happens the number of points which are visible to them and from which they are visible naturally decreases. If left unacknowledged this could seriously skew any interpretations of the results. As it happens this can be relatively easily dealt with because the effect decreases as the radius of the Viewshed approaches and eventually exceeds "*the largest possible circle that can be fully contained within the study area*" (Llobera, 2003:33). As such Viewsheds have been conducted over an area (and in the case of Total Viewsheds using a grid of points) that extends well beyond the extent of the study area. By way of example, for a study area with a radius of 5km with Viewsheds restricted to a radius of 5km as well the Viewsheds would be conducted over an area with a radius of 10km, thus preventing the edge-effect from coming into play. It is important to note that for all Total Viewsheds the Viewsheds for each individual point were restricted to a maximum radius of 5km. Significantly more than this would have greatly increased the edge effect as discussed above and required larger datasets and DTMs to process, drastically increasing the necessary computing power. As it stands the Total Viewsheds therefore describe the visible landscape for a 5km radius around each point. An interesting focus for further study, and with the availability of greater computing power, would be to change the maximum Viewshed radius around each point, the density of points and the resolution of the DTM and compare result to see how they differed.

The error margins inherent in DTMs are also of serious concern when conducting any Viewshed (and also Least Cost Analysis) and is something discussed at length by Fisher in a series of influential papers in the early 1990s (Fisher, 1991;1992;1993;1994;1995). OS Terrain 50 data which has been used for this study is reported as having a Root Mean Square Error (RMSE) of 4m (Ordnance Survey, 2017:6). In order to account for such an error Fisher (1992;1994) proposed the concept of a Probable Viewshed which used a Monte Carlo simulation of the error margins to produce alternative DTMs. A Viewshed was then run from the same point in each DTM and the results summed to give what was essentially a cumulative Viewshed of the least and most likely visible areas of the landscape (Fisher, 1992;1994).

Unfortunately, this process involved the generation of Viewsheds for 20 individual DTMs and the addition of these together (Brughmans, Keay and Earl (2015:73) used as many as 100 iterations of a DEM for 190 sites). Given the scope of this research it was not considered practical to use Probable Viewsheds but it must be remembered that the DTM in question does have an error and this might have affected the results, especially near the edges of any Viewsheds. This error will be compounded in cumulative and Total Viewsheds which utilise the same DTM for multiple points. It is interesting to note that such a methodology might also be applicable to Least Cost Analysis although no such study has yet been conducted (again, this is beyond the scope of this work).

4.3.4. Theoretical Issues

Theoretical issues surrounding Viewsheds and Least Cost Paths are harder to deal with than the methodological issues and in many cases, they must be considered as part of the interpretation of the results but cannot be solved beyond this. One example of such a theoretical issue is the fact that none of the DTMs involved account for vegetation or changes in the landscape since the period of study, such as erosion or alluviation. For example, woodland might severely restrict parts of the visible landscape and ephemeral landscape features such as this (or fences, infilled ditches or unknown social constraints) would also restrict movement, entirely changing the dynamic of people's experience. It is worth noting on this point that classical authors (while their use of the term has contributed to modern difficulties in its use – see section 2.2) occasionally described the defences of *oppida* as being intertwined with natural features such as marshes and woodland (Historic England, 2018). Additionally, several landscape-scale earthwork complexes were established on previously unsettled or virgin ground (see section 2.3.4). One of the most striking examples of this is at Silchester (see section 3.2.5) where the complex was founded in a previously wooded area of the landscape which, within a relatively short space of time, was transformed into pasture (Creighton and Fry, 2016:343). LiDAR evidence at the Nadder-Wylye ridge shows that beyond the confines of the complex's foci the slopes of the ridge were covered in lynchets and would have been heavily cultivated (see section 3.2.3). Without detailed environmental modelling and prediction it is nigh on impossible to account such ephemeral landscape features on a large scale and such modelling is beyond the scope of this research.

Another serious theoretical problem is that the lines of sight modelled by Viewsheds do not necessarily constitute genuine visibility, a person standing at a point on a landscape may not truly be able to *see* every point to which they have line of sight. Fischer (1992:351) suggests that very small variations in the position of the observer and atmospheric conditions might completely alter the Viewshed. Gillings and Wheatley (2001) also neatly illustrate this principle by describing a hunting

stand, from which the hunter must both be able to see their prey, and simultaneously remain invisible to it. In this case were a Viewshed from the prey to be calculated, the hunter would fall within it despite actually being invisible. Given the overall short distances involved in this study and an assumption that observers in the past would not have been trying to hide themselves from view, like with the hunter/prey scenario above, a reciprocity of visibility has been assumed.

One issue that crosses over between both methodological and theoretical is that of distance. Anyone looking off towards a horizon could testify to the fact that objects get less visible and clearly defined as they move further away, eventually disappearing below the horizon or blending into the background. Fisher (1992;1994), alongside Probable Viewsheds, also proposed the idea of the Fuzzy Viewshed, one which could be altered to account or environmental conditions such as a sunrise, a low haze, a fog, or simply distance. As with Probable Viewsheds however, Fuzzy Viewsheds were not deemed practical due to the added layer of analysis necessary and the increased time they would have taken to compute. Instead for the Total Viewsheds the maximum Viewshed radius around each point was set to 5km (due to computational restrictions) and for the cumulative Viewsheds the maximum Viewshed radius was set to 80km in order to compute the maximum possible visible landscape. This accounts for the maximum visual distance (of approximately 70km) at which an object, of width 10m within a visual arc of 30", would be visible as calculated by Ogburn (2006:410) under absolutely ideal conditions. As such the 80km radius can be considered as the absolute ideal maximum visible range although in reality it is likely to be considerably less. As it happens the analysis of the results presented in Chapter 5 considers the Viewsheds on a much smaller scale.

Despite these problems it is important to remember that the point of this research is neither to define the actual routes people would have used to traverse their landscapes, nor to define the actual Viewsheds they would have had. Instead, the purpose of the GIS analysis laid out by Aim 2.2 is to inform the experiential understanding of the landscape considered by Aim 2.3 and Research Question 3. Through the use of a phenomenological approach, a consideration of affordances and an appreciation of the various scales of analysis (see sections 4.2.2-4) the methods laid out above can provide a starting point for understanding the ways in which the Late Iron Age earthwork complexes discussed in Chapter 3 were utilised to control and influence the experience of movement.

Chapter 5

Results of the Least Cost and Viewshed Analysis

5.1. Least Cost Analysis

5.1.1. Introduction

The following section presents the results of the Least Cost Analysis conducted at each of the five earthwork complexes discussed in Chapter 3. In each case the frequency analysis of overlapping least cost paths is presented first, with a brief discussion of its implications. The raw data for this analysis, can be found in Appendix 3.2 and the workflow used to acquire the data is outlined in Appendix 3.1. The details of the foci for Least Cost Analysis for each landscape can be found in Appendix 1 which correspond to *Figs 3, 5, 9 & 11* in Chapter 3. Heatmaps to visualise the predicted routeways are then presented for each iteration of Least Cost Analysis between every foci and within each landscape. Heatmaps were calculated on the basis of points every 25m along each least cost path and using a radius of 250m around each point, allowing for easy visualisation and the suggestion of a degree of leeway in the actual course of each predicted route. *Table 6* shows the number of foci for analysis within each landscape and the total number of least cost paths calculated for each iteration of the analysis (see section 4.3.2.4). Gussage Cow-Down and the Nadder-Wylye Ridge complexes were studied as a single landscape due to their proximity but the increased number of foci reflects the fact that the landscape incorporates both complexes.

Table 6 – Numbers of foci for analysis and total least cost paths for each landscape

	Bagendon	Gussage Cow-Down/Nadder-Wylye Ridge	Stanwick	Silchester
No. foci for analysis	15	25	16	18
No. least cost paths per analysis	210	600	240	306

5.1.2. Bagendon

5.1.2.1. Frequency Analysis

The results of the frequency analysis for Bagendon are presented in *Fig 14* and Appendix 3.2.1. The results of this analysis demonstrate that the Least Cost Analysis taking only slope factor as a friction cost had the least number of overlapping least cost paths. The slope factor also has a very high number of cells with a value of '1' indicating only a single least cost path and therefore the highest sensitivity to the anisotropic element of *'r.walk'* whereby the routes to and from the same two points do not overlap. The high elevation, high visibility and low elevation Least Cost Analysis for Bagendon all have fairly similar distributions and quantities of overlapping least cost paths while the low elevation Least Cost Analysis has a slightly higher frequency of overlap.

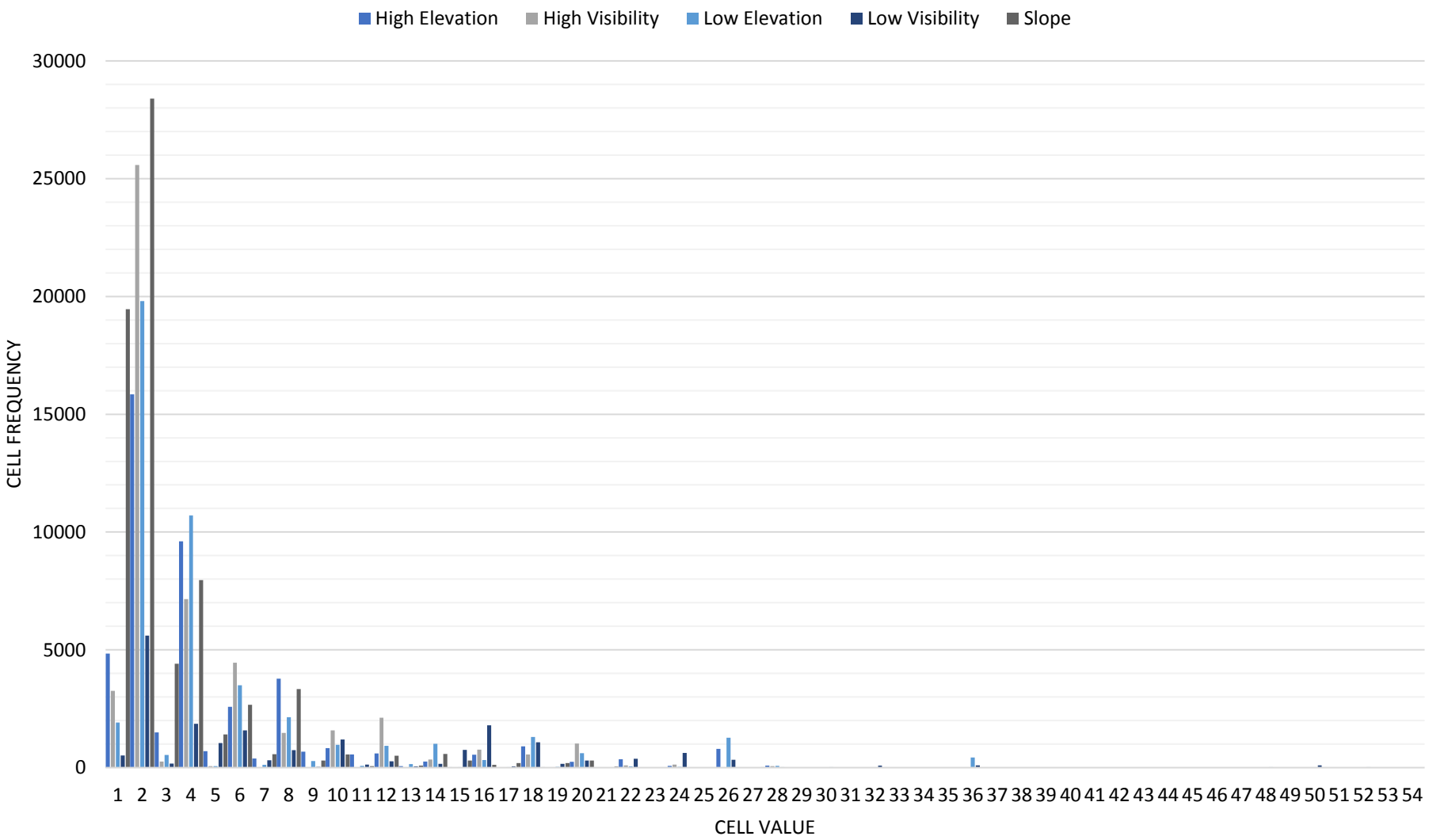


Fig 14 – A graph showing the frequency with which least cost paths overlap with respect to each iteration of Least Cost Analysis in the Bagendon landscape. Cell frequency equals the number of pixels of a given cell value resulting from the frequency analysis, where the cell value equals the number of overlapping least cost paths. For the technical details of the frequency analysis refer to Appendix 3.1.

5.1.2.2. High Elevation

The high elevation model for movement around the Bagendon landscape, as might be expected, tends to favour routes that traverse the plateaus between the river valleys permeating the Cotswolds. The ridgelines either side of the Perrott's Brook valley appear as some of the most frequently travelled routes due to the higher density of Least Cost Analysis points around the complex. There is some overlap between the routes to and from Kingsholm and Kingshill North/Tar Barrows and Ermin Street, although these diverge once the route drops below the scarp of the Cotswolds into the Severn Valley. Similarly the route between Salmonsbury and Barnsley has a degree of overlap with Ackling Dyke. Within the local landscape of the Bagendon complex the high elevation routes tend not to align well with the enclosing earthworks or the presence of the trackway in the valley bottom. However, several least cost paths proceed from the confluence of the Churn and Perrott's brook upslope, past the Cutham enclosure, towards the Scrubditch enclosure, and on towards the Ditches. Such a route might provide an explanation to the east facing entrances of both the Cutham and Scrubditch enclosures if they were focused on a north-south route along this plateau.

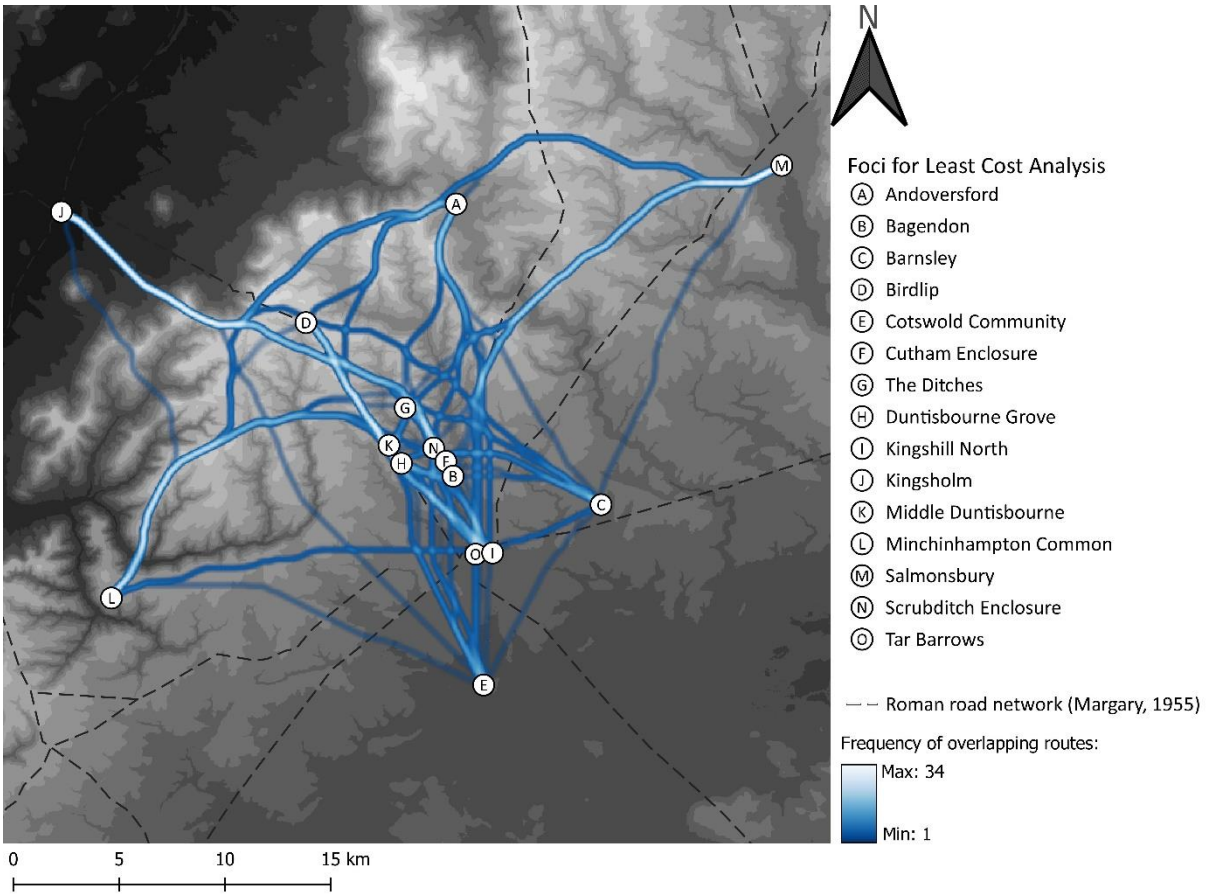


Fig 15 – Heatmap showing the high elevation Least Cost Analysis around Bagendon

5.1.2.3. Low Elevation

The low elevation least cost paths demonstrate one of the best fits for the arrangement of the dykes and layout of the foci at Bagendon. The valley bottom of Perrott's brook would clearly have been one of the most travelled routes according to this model and access to the Duntisbournes and Ditches enclosure would have been afforded by the dry river valleys upon which they are aligned. By contrast there is little by way of focus on either the Cutham or Scrubditch enclosures in this model which may reflect the changing nature and function of the complex following their abandonment. On a wider scale the low elevation model provides interesting routes from the Bagendon complex towards Andoversford, Birdlip and Minchinhampton. In the direction of Andoversford the River Churn provides the most likely route, towards Birdlip via the Perrott's Brook valley, and towards Minchinhampton a number of routes converge approximately 4km west of Bagendon as they descend into the valley of the River Frome.

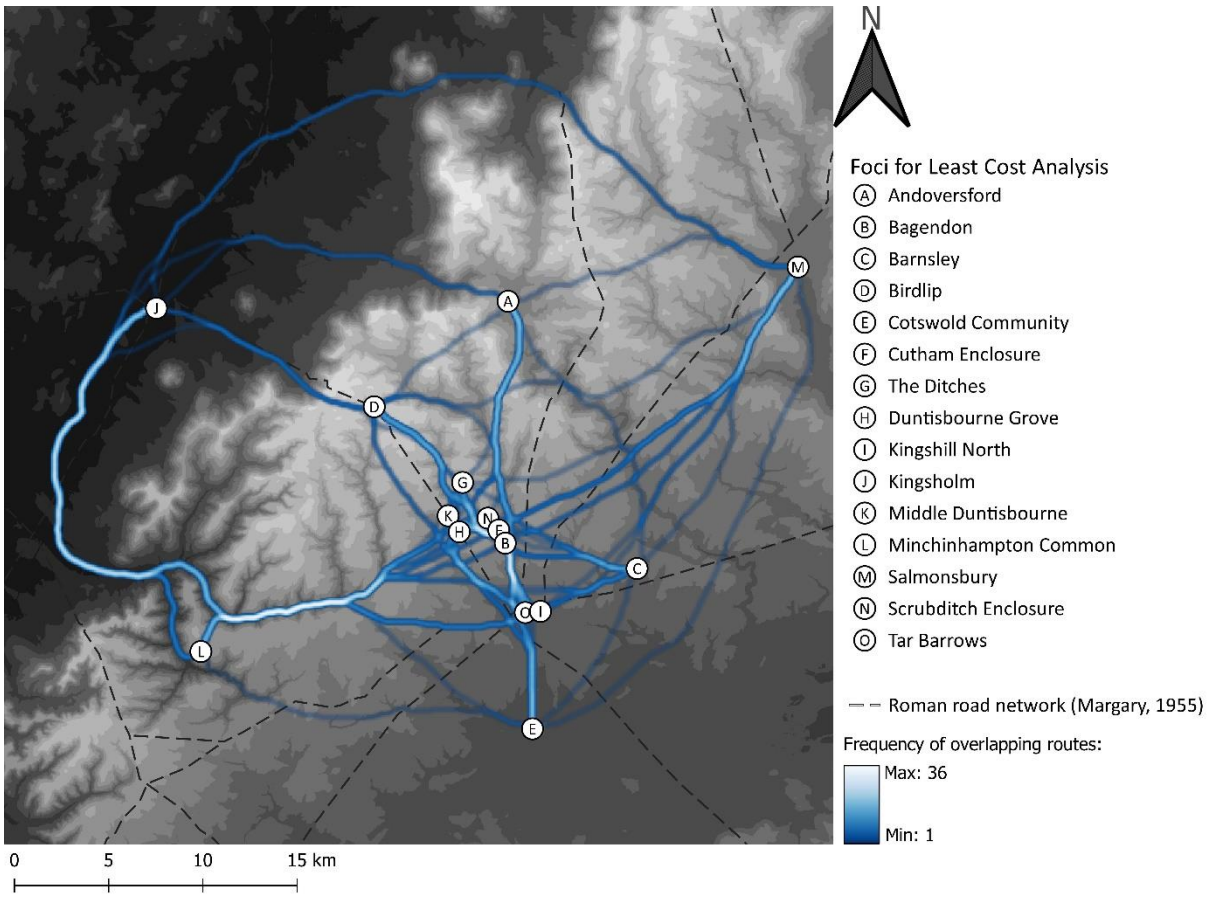


Fig 16 – Heatmap showing the low elevation Least Cost Analysis around Bagendon

5.1.2.4. High Visibility

The high visibility Least Cost Analysis for Bagendon demonstrates an interesting principle that will be discussed elsewhere in its lack of correlation with the high elevation Least Cost Analysis. This stems from a lack of complete correlation between the elevation model and the total viewshed upon which the Least Cost Analysis is based, as discussed in section 4.3.2.4, see *Fig 13*). Nonetheless, and as with the high elevation Least Cost Analysis, there is evidently a degree of overlap between the routes from Kingshill North and the Tar Barrows towards Birdlip, via the Duntisbourne enclosures, and Ermin Street. As with both the low elevation and low visibility Least Cost Analysis the route from Minchinhampton roughly traces the River Frome, although along north facing slope of the valley rather than the river itself.

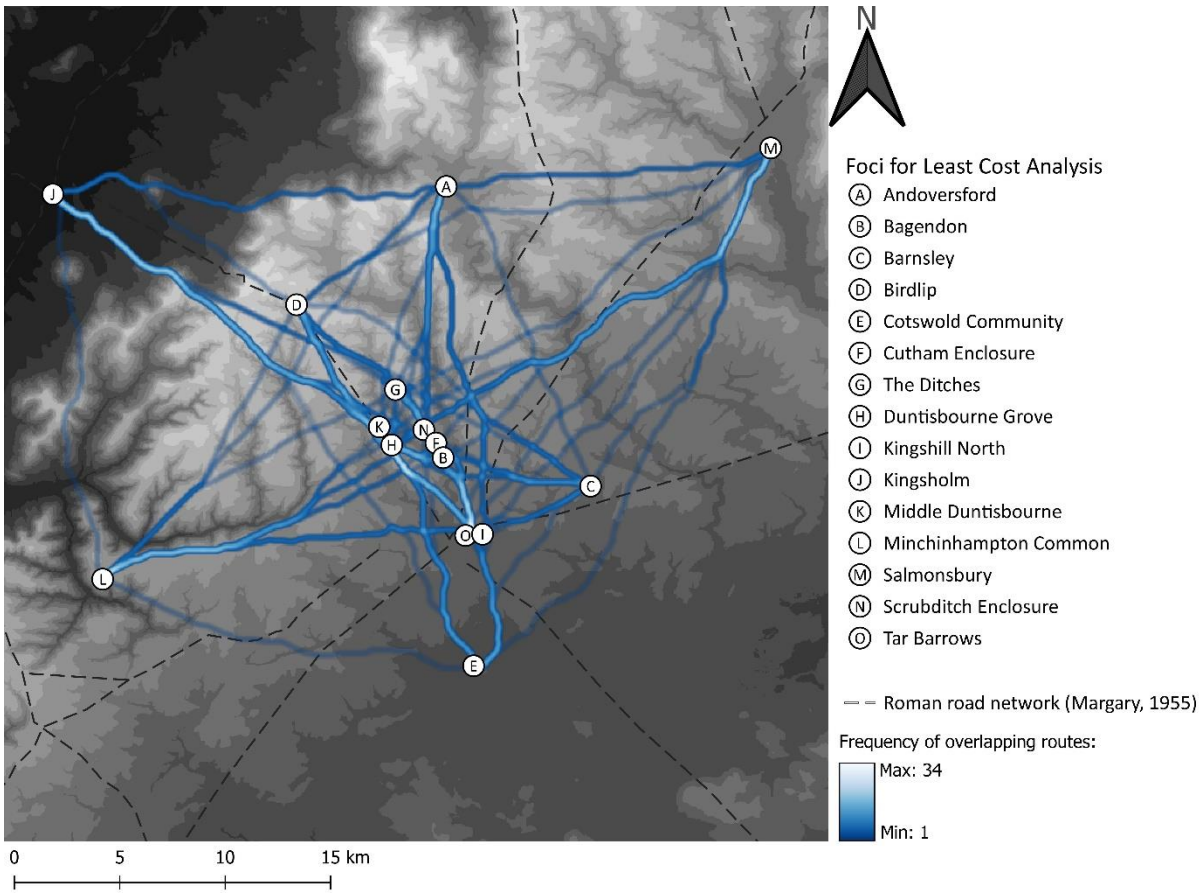


Fig 17 – Heatmap showing the high visibility Least Cost Analysis around Bagendon.

5.1.2.5. Low Visibility

The low visibility Least Cost Analysis for the Bagendon landscape produced a particularly interesting set of results. The route from Minchinhampton towards Bagendon follows exactly the course of the River Frome and enters Bagendon from the west via the two Duntisbourne enclosures. A similar result is partially reflected by the high visibility and low elevation results as well. Routes from the Tar Barrows, Kingshill North and Barnsley towards Bagendon all follow the River Churn before turning into the Perrott's Brook valley and accessing every foci of the Bagendon complex from the valley. The results even predict that access to the Duntisbourne enclosures and the Ditches is via the dry river valleys predicted by Moore (2017a:290). The Perrott's Brook valley is then followed further north from these foci before finally ascending in elevation upon nearing Birdlip. The final observation to be made about the low visibility model is that the route between the main centre of occupation at Bagendon and site further to the south in heading towards Andoversford is via the River Churn. As an overall observation it is clear that the low visibility model strongly favours the deep-cut river valleys throughout the Cotswolds, such as that upon which Bagendon is centred. v

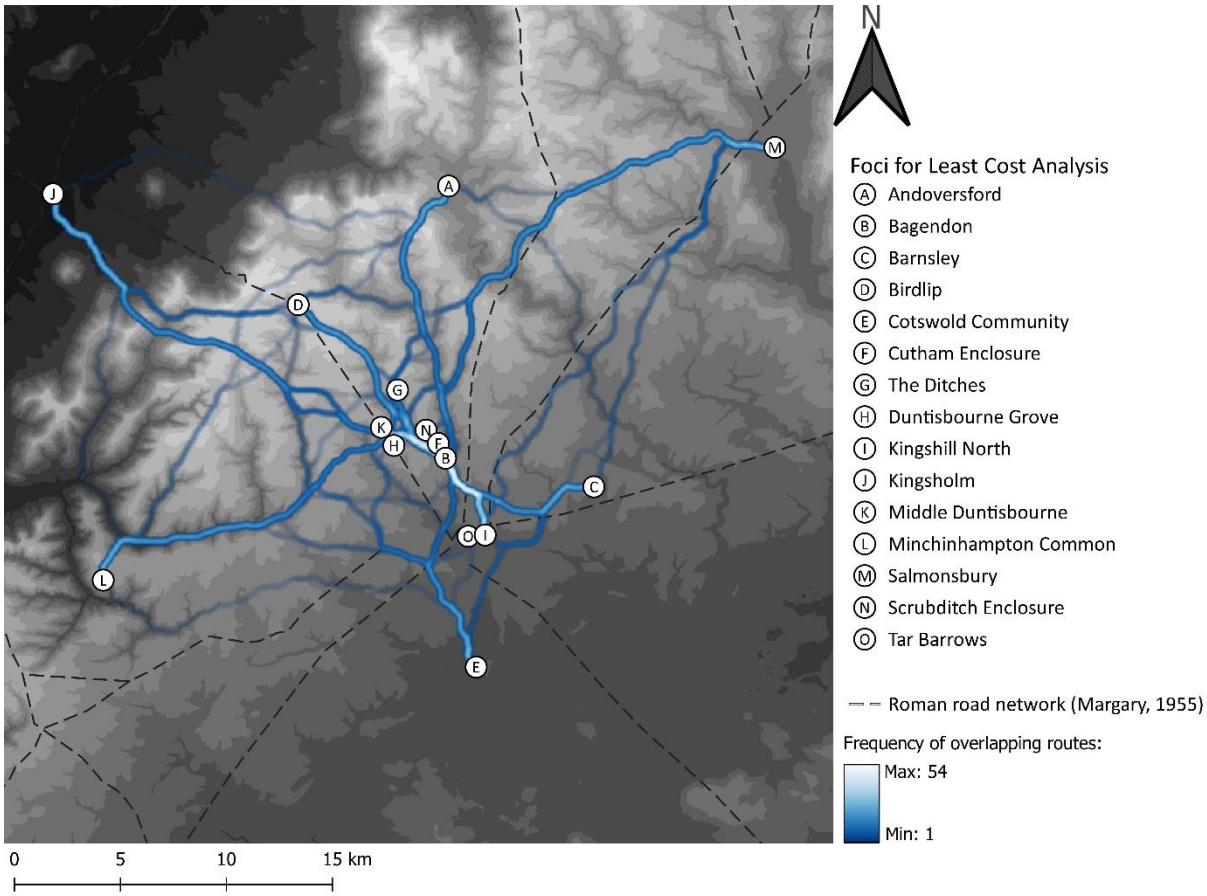


Fig 18 – Heatmap showing the low visibility Least Cost Analysis around Bagendon

5.1.2.6. Slope

Unlike with the majority of slope models for the other case studies, that for Bagendon has produced a few interesting results. It still suffers from similar issues to the other slope models, being lack of overlap between different routes and an apparent disregard for terrain that would be difficult to travers (steep sided valleys for example). Nonetheless there is a high degree of overlap between the route from Kingshill North and the Tar Barrows towards Birdlip and then to Kingsholm with Ermin Street. Indeed the slope model probably best predicts this route compared to any other model presented here. This conforms well with the suggestion by Reece (2003:278) that the Romans were most concerned with the least energy intensive route to ascend the dip slope of the Cotswolds, having proceeded from the Mendips, across the Upper Thames Valley, with the aim of a convenient crossing point of the Severn near Kingsholm.

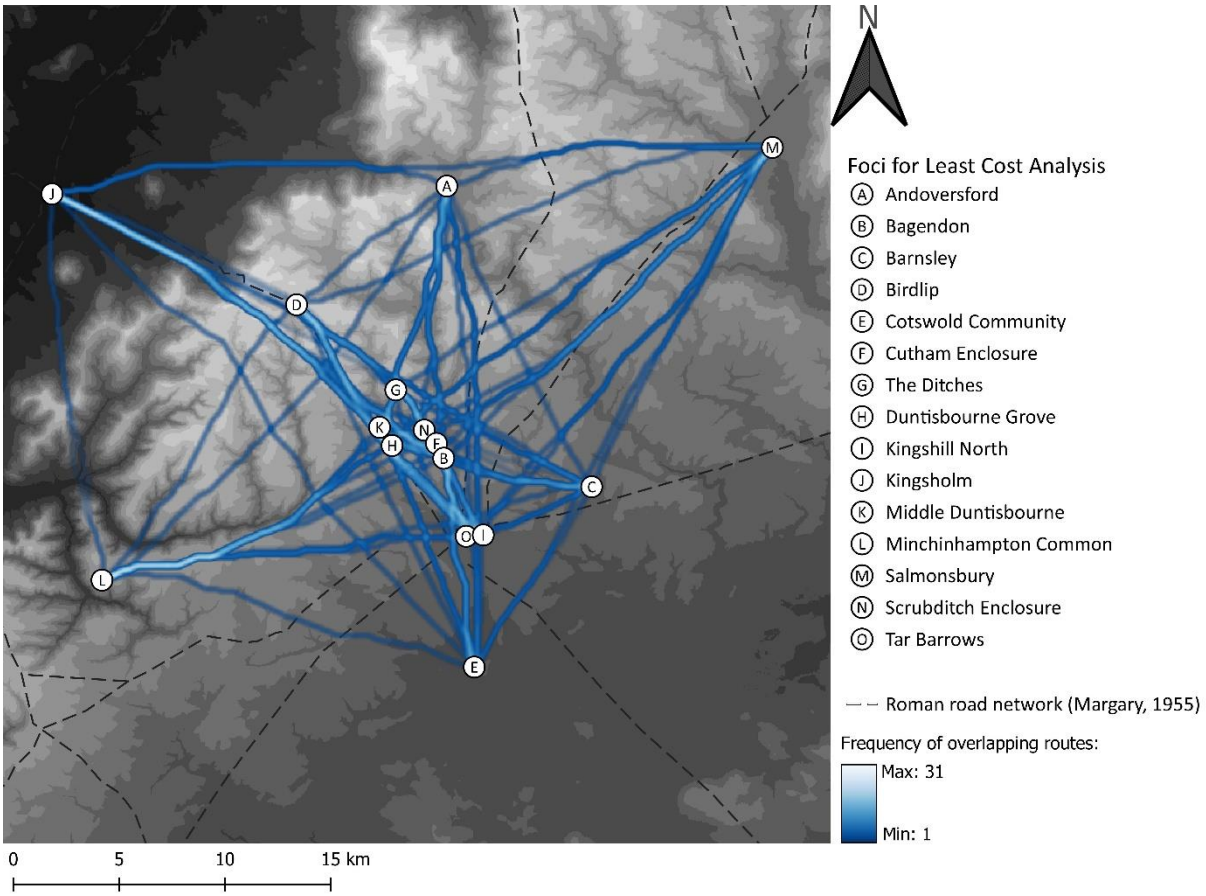


Fig 19 – Heatmap showing the slope factor Least Cost Analysis around Bagendon

5.1.3. Gussage Cow-Down and the Nadder-Wylye Ridge

5.1.3.1. Frequency Analysis

The results of the frequency analysis for Gussage Cow-Down and the Nadder-Wylye Ridge are presented in *Fig 20* and Appendix 3.2.2. The results of this analysis demonstrate that the Least Cost Analysis taking only slope factor as a friction cost had the least number of overlapping routes, followed by the high elevation model. It is worth noting that while the distributions of the high elevation and high visibility Least Cost Analysis appear superficially similar, the high elevation frequency analysis demonstrates that there were actually significantly fewer overlapping routes. This may reflect the fact that while the landscapes of Cranborne Chase and the West Wiltshire Downs vary greatly in elevation, this is not necessarily reflected in the smoothness of the total viewshed. By comparison, the low elevation and low visibility rasters are relatively similar. Both have long tails to their distributions, indicating a small number of very highly frequented routes, which is not reflected in the other three iterations of the analysis.

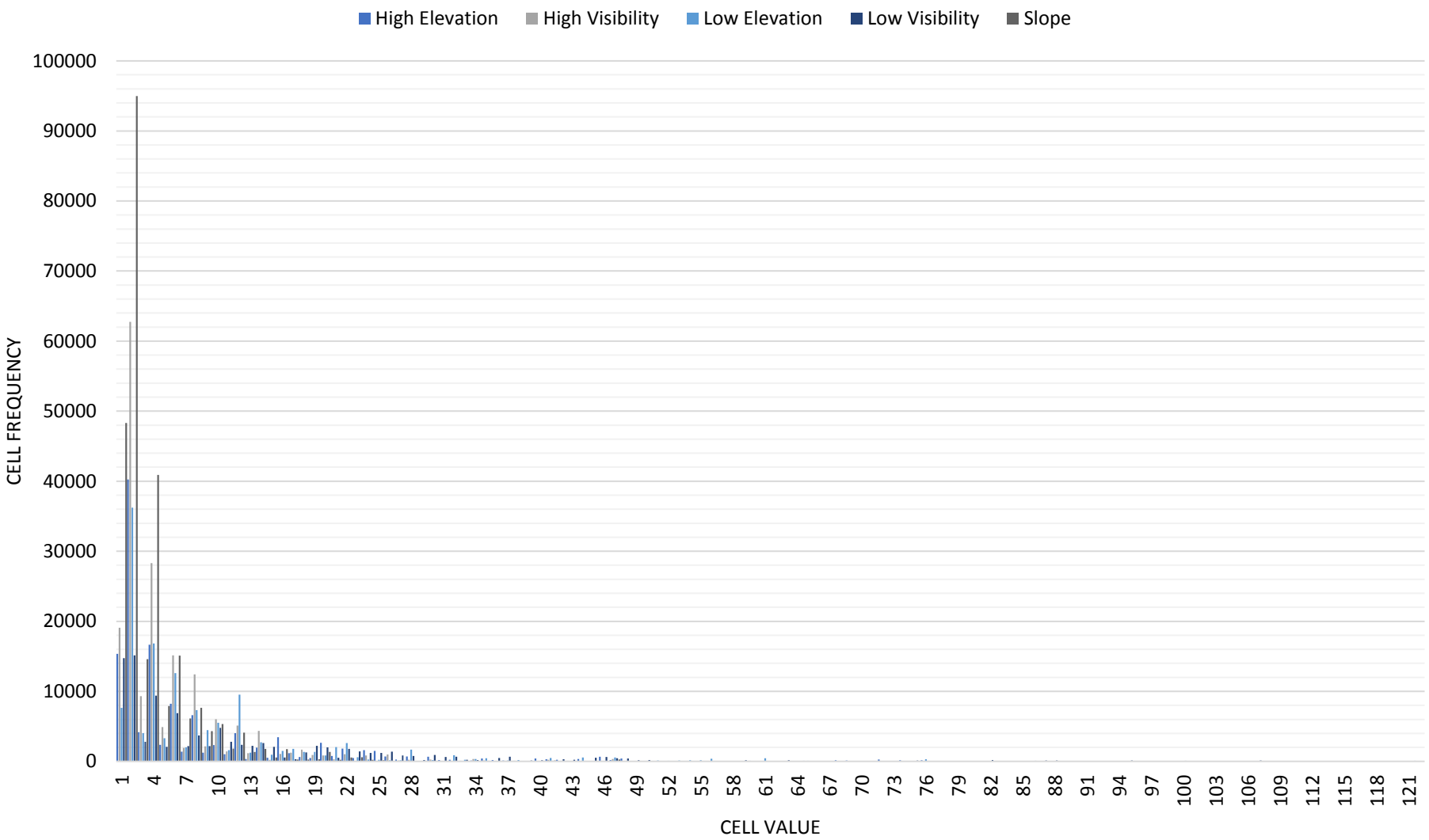


Fig 20 – A graph showing the frequency with which least cost paths overlap with respect to each iteration of Least Cost Analysis in the Gussage Cow-Down and Nadder-Wylye Ridge landscapes. Cell frequency equals the number of pixels of a given cell value resulting from the frequency analysis, where the cell value equals the number of overlapping least cost paths. For the technical details of the frequency analysis refer to Appendix 3.1.

5.1.3.2. High Elevation

The high elevation model for movement around this landscape provides a number of interesting observations. Most importantly it indicates that the three major ridges dividing Cranborne Chase and the West Wiltshire Downs (separated by the rivers Nadder and Ebble) could have acted major routeways. The central ridge provides a route between Hod Hill and Hambledon hillforts and sites to the northeast, including both Old Sarum and the Nadder-Wylye Ridge. The route along the ridgeline to the south of the River Ebble correlates remarkably closely with the prehistoric Ox-Drove ridgeway (Wiltshire HER MWI3114; Tilley, 2016:101-105). Within the Gussage Cow-Down complex the high elevation model suggests indicates two major north-south routes from Badbury Rings and Gussage All Saints via the ridges occupied by Thickthorn Down and the Gussage Cow-Down enclosures. It is notable that many of the earthworks making up the wider Gussage Cow-Down complex would have acted as barriers to such movement, directing it into the valleys either side. In the vicinity of the Nadder-Wylye Ridge the high elevation model has a high degree of overlap with the alignment of Grim's Ditch and the Roman road linking Old Sarum with Cold Kitchen Hill. Perhaps more interestingly a number of north-south routes also bisect Grim's ditch, linking the Nadder and Wylye valleys. Grim's Ditch would have acted as a significant barrier to any north-south traffic such as this but settlements such as at the Stockton Enclosures, Hanging Langford Camp, Ebsbury and Hamshill Ditches may have focused and facilitated any such movement.

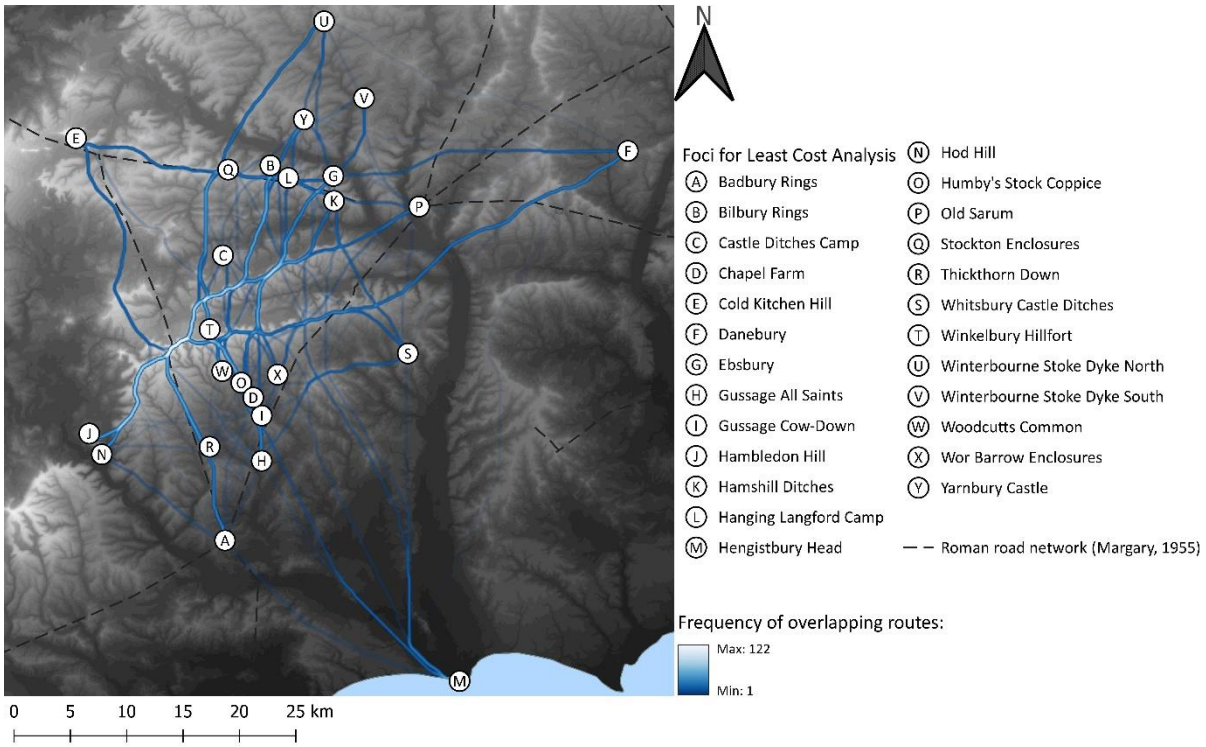


Fig 21 – Heatmap showing the high elevation Least Cost Analysis around Gussage Cow-Down and the Nadder-Wylye Ridge

5.1.3.3. Low Elevation

While there appears to be little coherency in routes predicted by the low elevation model the utilisation of the Rivers Stour and Avon as routes heading inland from Hengistbury Head stands out. While the River Stour route bypasses Gussage Cow-Down significantly to the south anyone taking this route could easily have been redirected to the north through influence exerted by Badbury Rings. It is notable that the Roman roads emanating from Badbury Rings head north-west towards Cold Kitchen Hill, and northwest towards Salmonsbury, via Gussage Cow-Down. Such a road network could well be a crystallisation of earlier, Iron Age routes designed to control movement to and from Hengistbury Head. In contrast the low elevation route following the River Avon would have led any travellers directly to the eastern end of Grim's Ditch and from there either along the ridgeline, or further north and west via the Wylye valley. As might be expected the low elevation route doesn't follow the line of Grim's ditch along the Nadder-Wylye Ridge, however a number of north-south routes crossing Grim's ditch are indicated. These differ in their location from the high elevation examples of the same nature but hint at a similar function for the Nadder-Wylye Ridge complex, namely control of access north-south across the ridgeline.

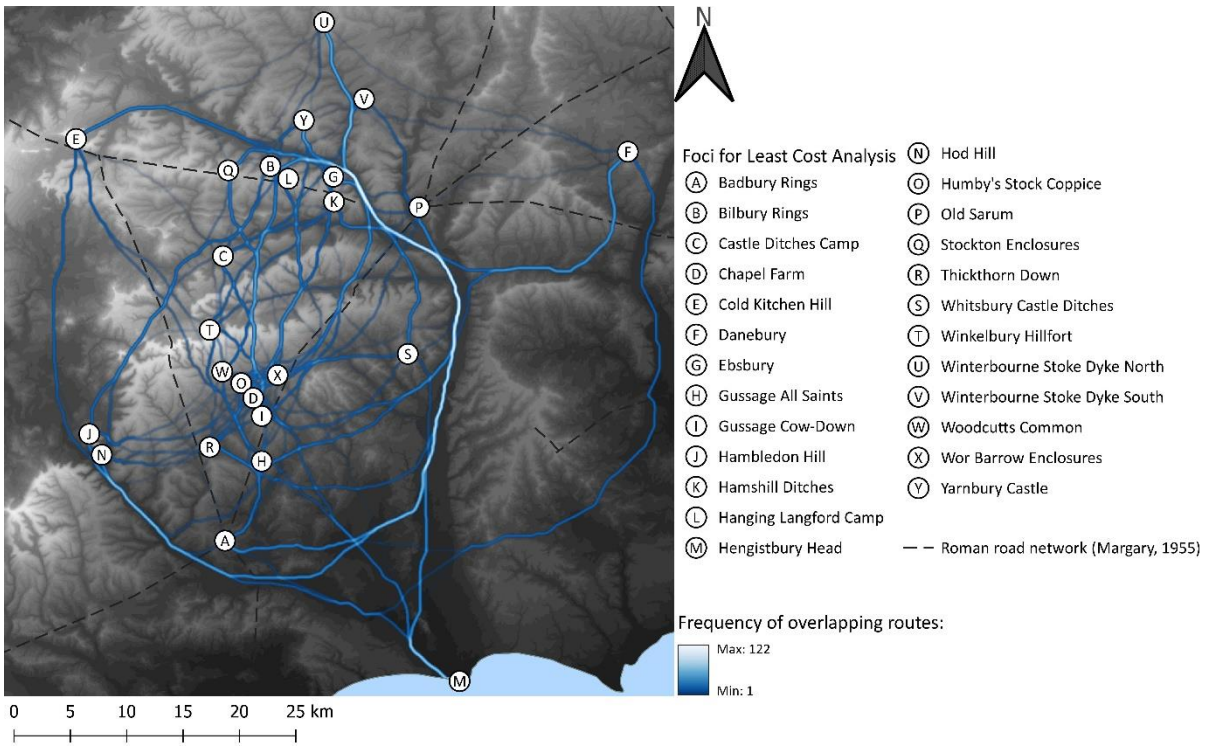


Fig 22 – Heatmap showing the low elevation Least Cost Analysis around Gussage Cow-Down and the Nadder-Wylye Ridge

5.1.3.4. High Visibility

As illustrated by the frequency analysis, and similarly to the high elevation model, there is little by way of overlap between different least cost paths within the high visibility model. Only two potential routes stand out, that between Yarnbury Castle and Gussage Cow-Down, and that from Gussage All Saints towards Winkelbury Hillfort. The former might be interpretable in a similar framework to the north-south routes highlighted in the high elevation model. It is notable that the ridgelines exploited in the high elevation model are not favoured in this one suggesting that they do not necessarily command extensive views, despite their elevation. The latter route follows a similar path to the same route in the high elevation model and again might suggest that the earthworks atop Gussage Cow-Down were designed to control movement along the ridge, either concentrating it towards specific areas, or forcing it down into the valley bottoms.

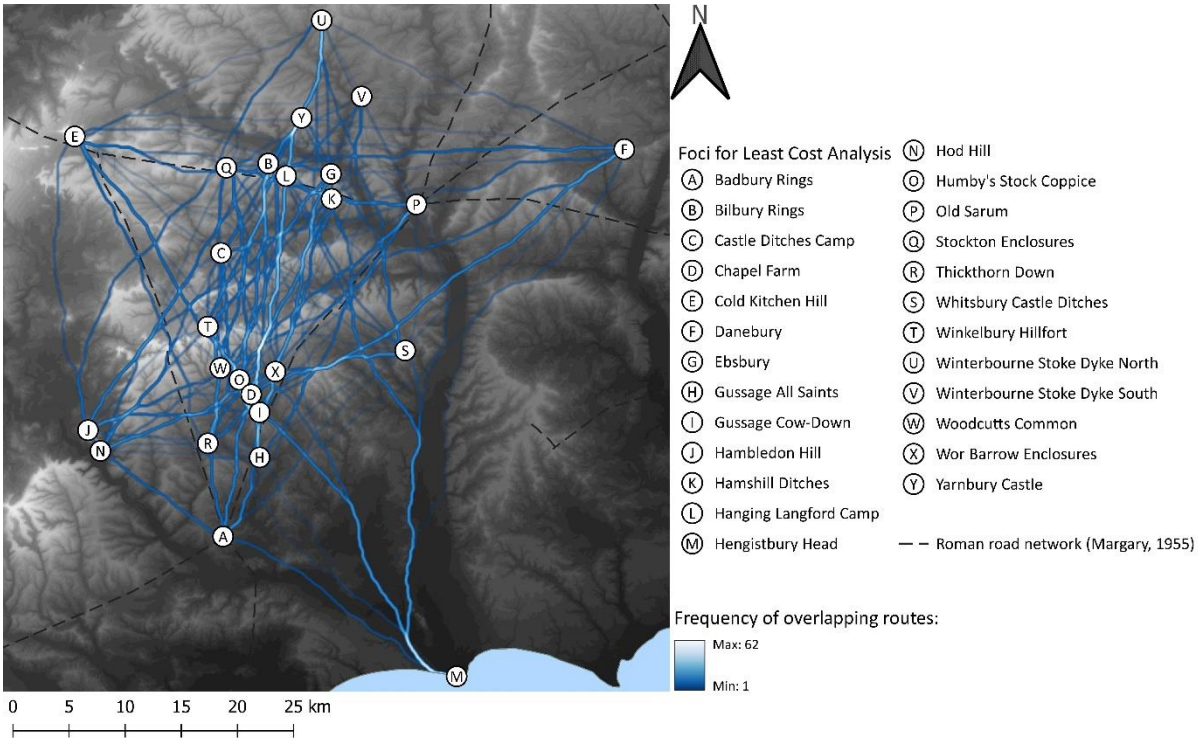


Fig 23 – Heatmap showing the high visibility Least Cost Analysis around Gussage Cow-Down and the Nadder-Wylye Ridge.

5.1.3.5. Low Visibility

One of the most notable observations regarding the low visibility model is its lack of similarity with the low elevation model. This is demonstrated in the lack of focus on the Rivers Stour and Avon and instead on the narrow, steep sided valleys permeating Cranborne Chase and the West Wiltshire Downs. In particular the route from the north of Gussage Cow-Down (around Winkelbury Hillfort) towards Bilbury Rings and Hanging Langford Camp stands out. The low visibility route along the Nadder-Wylye Ridge roughly follows the line of Grim's Ditch in large part because the dyke sits atop the blind summit of the ridge. It is possible that this reflects the 5km limit on the search radius for the total viewshed and that the ridge affords excellent long-distance visibility, but this does not mean that Grim's Ditch itself would have been visible from such distances. This once again emphasises the north-south routes that are a theme within the results for the Nadder-Wylye Ridge. Interestingly, many of the least cost paths totally avoid the main occupation at Gussage Cow-Down and the movement instead focuses on the northwest-southeast orientated river valleys. Taken in conjunction with the high elevation model and the nature of many of the earthworks in acting as cross ridge dykes this may testify to the function of some earthworks to funnel movement either up or down the dry valleys and from there direct it towards the major centres of activity.

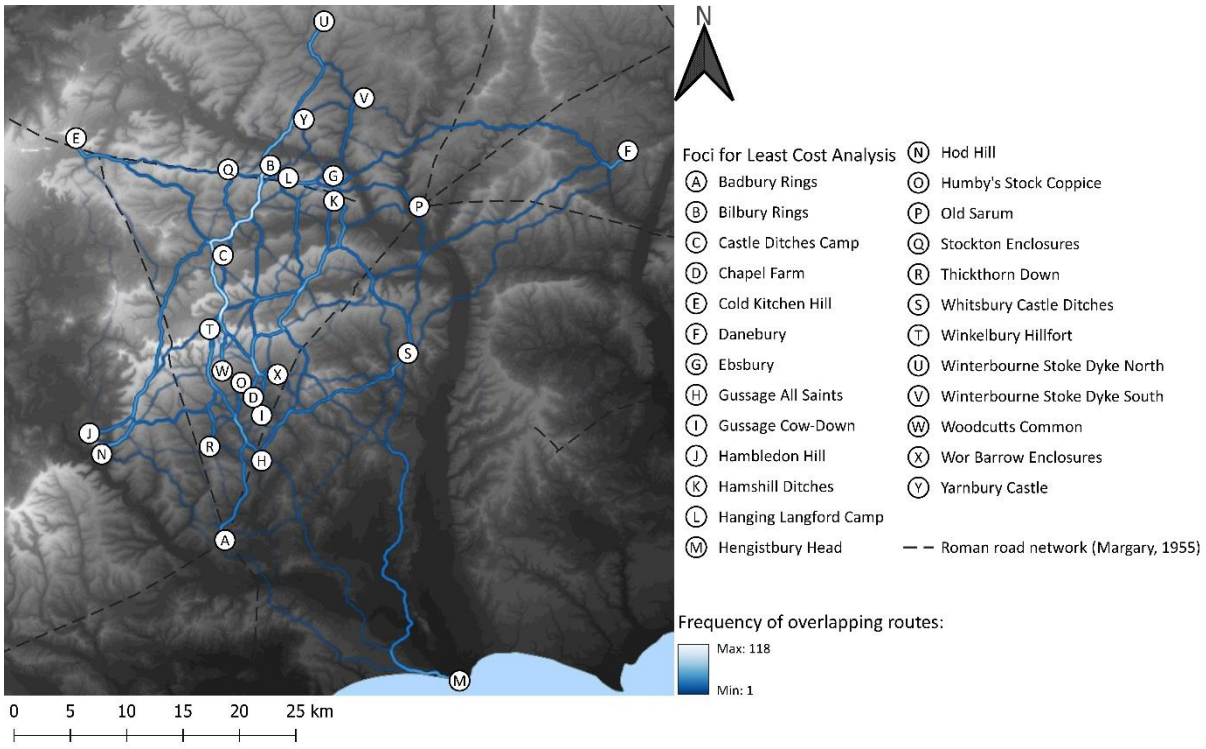


Fig 24 – Heatmap showing the low elevation Least Cost Analysis for Gussage Cow-Down and the Nadder-Wylye Ridge.

5.1.3.6. Slope

As with the slope model for the other sites presented in this chapter that for Gussage Cow-Down and the Nadder-Wylye Ridge complexes generally presented a lack of overlapping least cost paths. The frequency analysis demonstrates that least cost paths within the high elevation, low elevation and low visibility models overlap at least twice as much as for the slope model. Despite this, the slope model still appears to favour fairly direct, north-south routes between Gussage Cow-Down and the Nadder-Wylye ridge and these routes appear to have the greatest degree of overlap. As with all other models (excepting the low elevation model) the route between Salmonsbury and Cold Kitchen hill once again favours the Nadder-Wylye Ridge and the route taken by the Roman road.

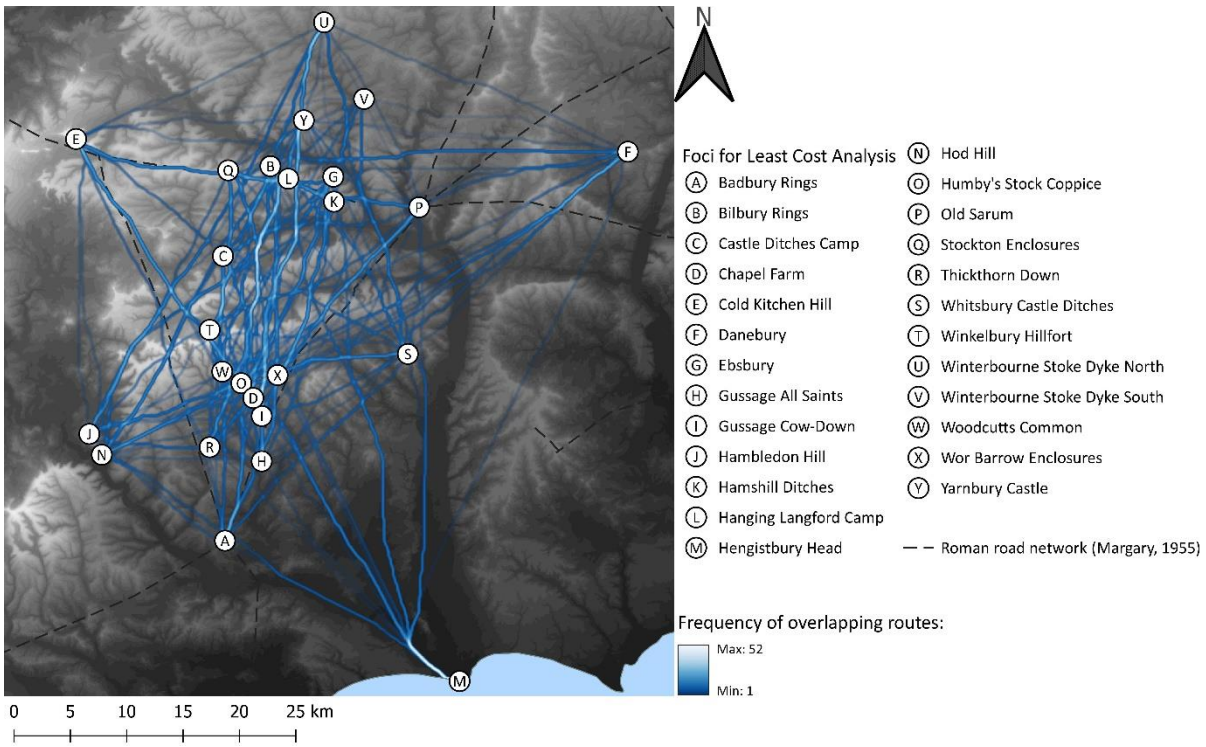


Fig 25 – Heatmap showing the slope factor Least Cost Analysis for Gussage Cow-Down and the Nadder-Wyle Ridge.

5.1.4. Stanwick

5.1.4.1. Frequency Analysis

The results of the frequency analysis for Stanwick are presented in *Fig 26* and Appendix 3.2.3. The results of this analysis show that both the slope and high elevation models had roughly half as many overlapping least cost paths as each of the other iterations of the analysis, and remarkably similar distributions of cell value frequencies. The high visibility, low visibility and low elevation models also have broadly similar frequencies of overlapping routes. The disparity between the high elevation and high visibility analysis in terms of overlap is significant because it demonstrates that being high up does not necessarily guarantee being in a highly visible part of the landscape.

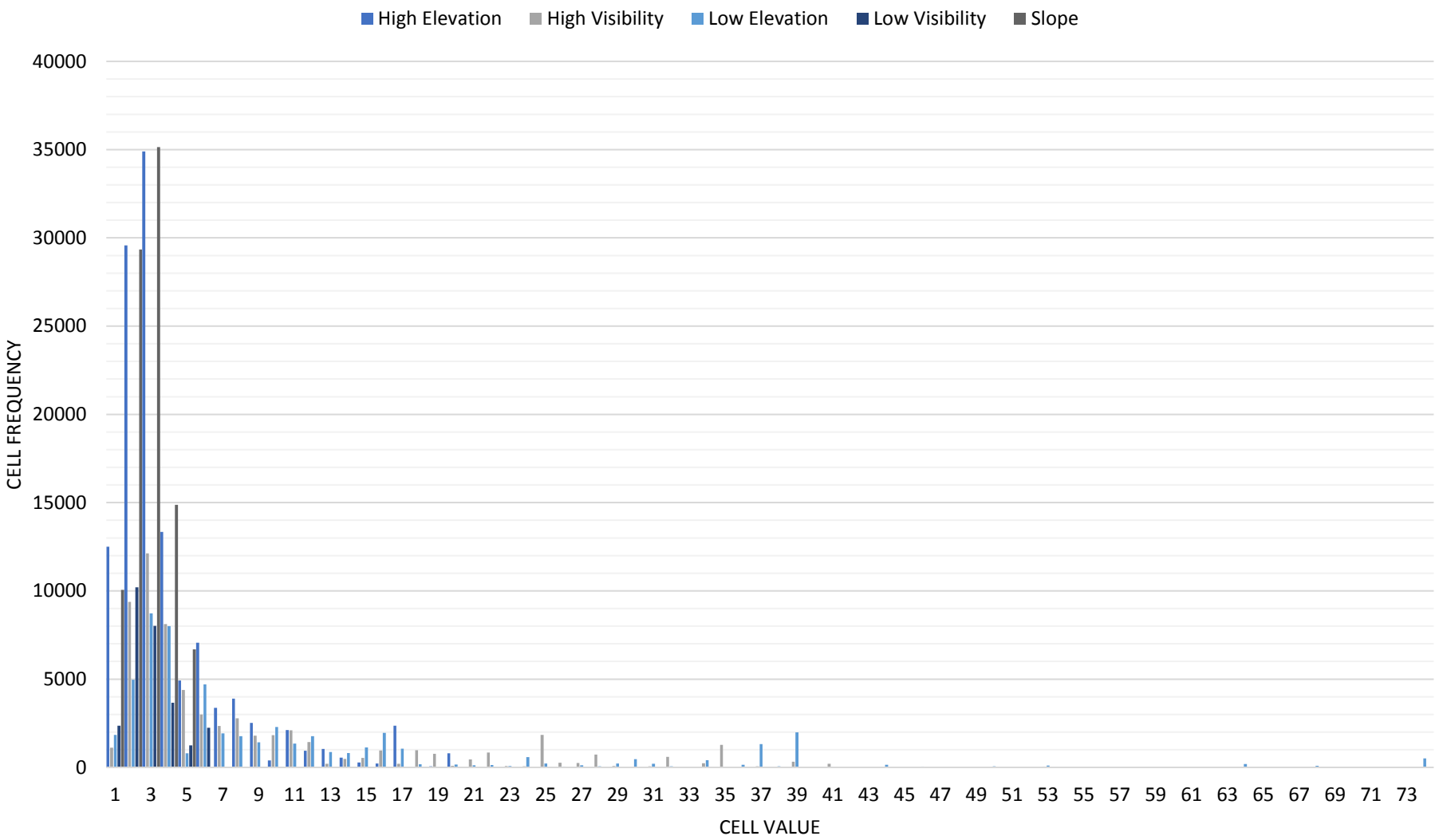


Fig 26 – A graph showing the frequency with which least cost paths overlap with respect to each iteration of Least Cost Analysis in the Stanwick landscape. Cell frequency equals the number of pixels of a given cell value resulting from the frequency analysis, where the cell value equals the number of overlapping least cost paths. For the technical details of the frequency analysis refer to Appendix 3.1.

5.1.4.2. High Elevation

The most plausible routes resulting from the high elevation model relate to those to and from Forcegarth in the Pennines. The straight nature of least cost paths in and around Stanwick and further east is likely a product of the lack of differentiation in the landscape at higher elevations throughout the Tees Lowlands. By comparison, the frequent peaks and troughs throughout the Pennines and North Yorkshire Dales lead to more plausible looking routes to and from Forcegarth. While the routes to the south and east from Forcegarth appear to cut across or avoid the River Tees and Stainmore Pass this is no reason to believe that they are not realistic and could provide examples of routes frequented while herding sheep through upland pastures.

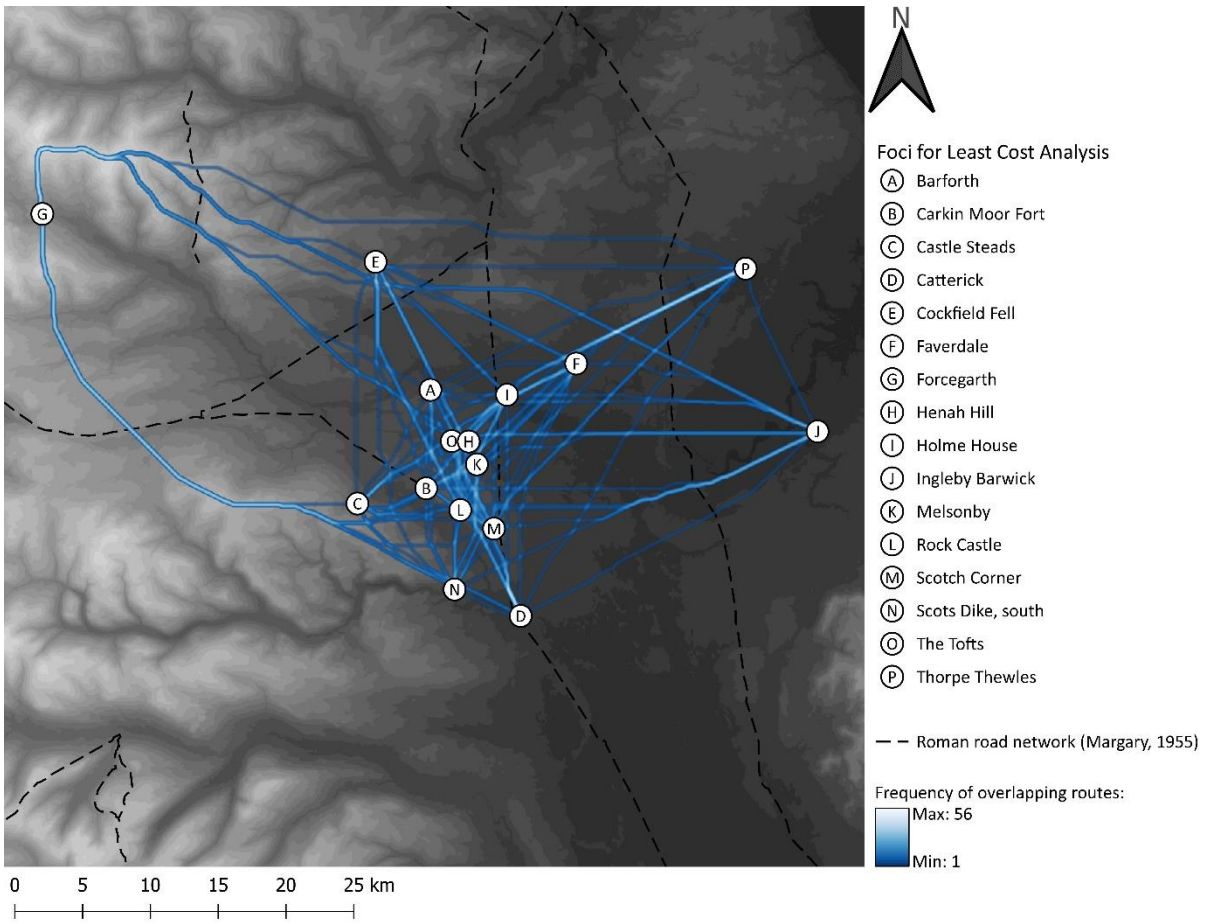


Fig 27 – Heatmap showing the high elevation Least Cost Analysis around Stanwick.

5.1.4.3. Low Elevation

The low elevation model for Stanwick encounters a similar problem to the high elevation model, in that there is a clear lack of differentiation at the low end of the elevation cost raster in the immediate vicinity of Stanwick. This is manifested again as numerous individual routes with a lack of overlap and as such little explanatory power. However, the routes along the River Tees from Ingleby Barwick and Thorpe Thewles towards Cockfield Fell and as far west as Forcegarth stand out. This clearly demonstrates that the River Tees itself, not unsurprisingly, could have served as an efficient highway for movement both to and from the coast and further inland as well. While the low elevation model does not provide consistent routes for movement between Stanwick and the River Tees this is not to suggest that established routes did not exist and other models presented here offer such possibilities.

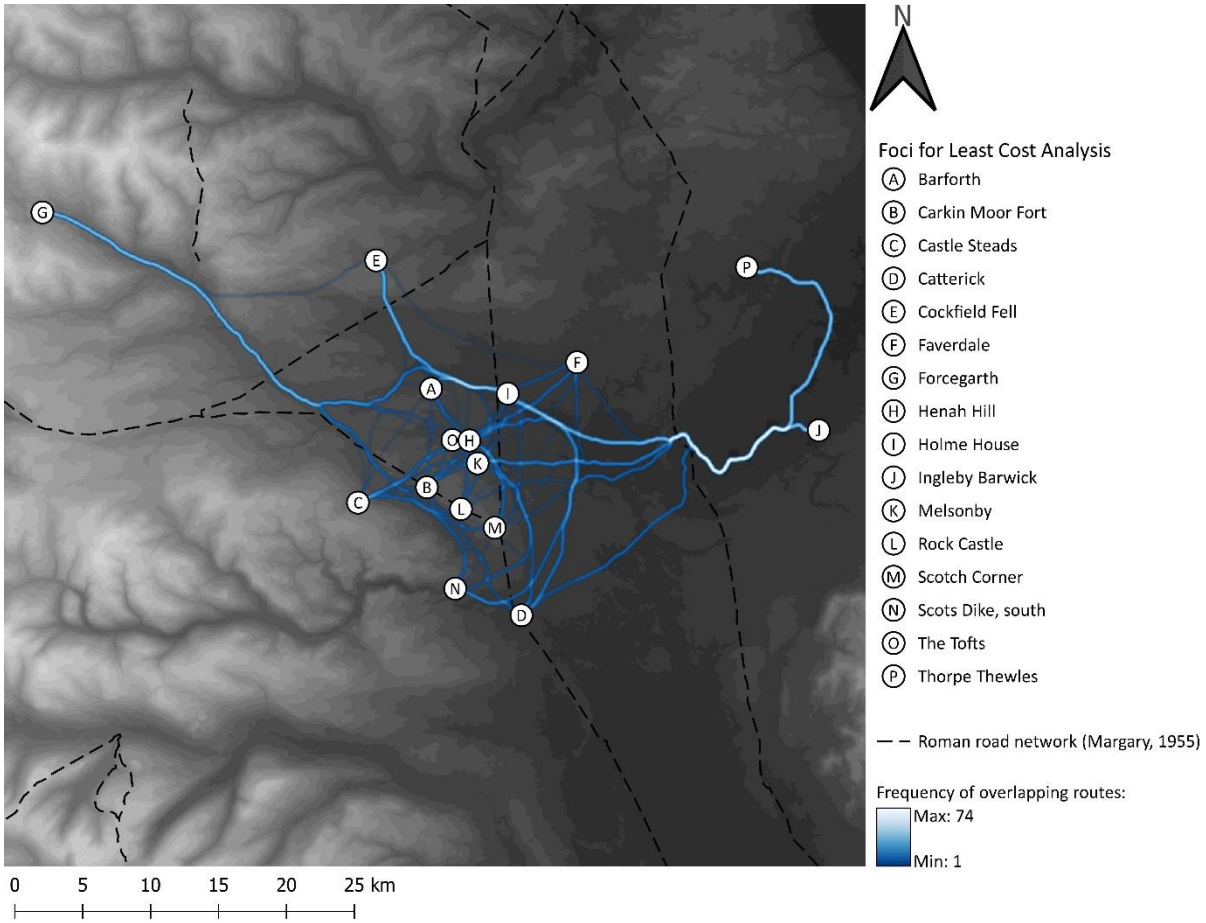


Fig 28 – Heatmap showing the low elevation Least Cost Analysis around Stanwick

5.1.4.4. High Visibility

The high visibility model for Stanwick comprises a number of incoherent least cost paths at the local scale (for example in the immediate vicinity of Stanwick where the total viewshed is relatively undifferentiated at the higher end of values) but with several longer distance routes with significant overlaps. The route from Forcegarth in the Pennines broadly follows the line of the River Tees, albeit mostly up slope, and it is interesting to note that following the River may still have been favourable for travellers who cared about visibility, despite its relatively low elevation. It is also interesting that this route from Forcegarth to Stanwick diverges from the River Tees near the point of the Roman river crossing at Greta Bridge. Similarly, the route between Stanwick and Ingleby Barwick to the east roughly follows the River Tees. Another notable route predicted by the high visibility model is that from Faverdale towards Stanwick, via Holme House and then from Stanwick on towards Castle Steads. It is notable that this is a well-travelled route because of the possible pre-Roman crossing point at the Tees near Piercebridge (Haselgrove, 2016:459; Wessex Archaeology, 2010;15 & 35-37). Similarly, it is interesting that the route from Melsonby towards Cockfield Fell skirts the northern side of Stanwick to cross the Tees near Barforth. Such a route was proposed by MacLauchlan (1849) as a possible northern continuation of Scots Dike and Haselgrove (2016:460) suggests that some hollow ways may indeed be the remnants of pre-Roman trackways to the north of Stanwick.

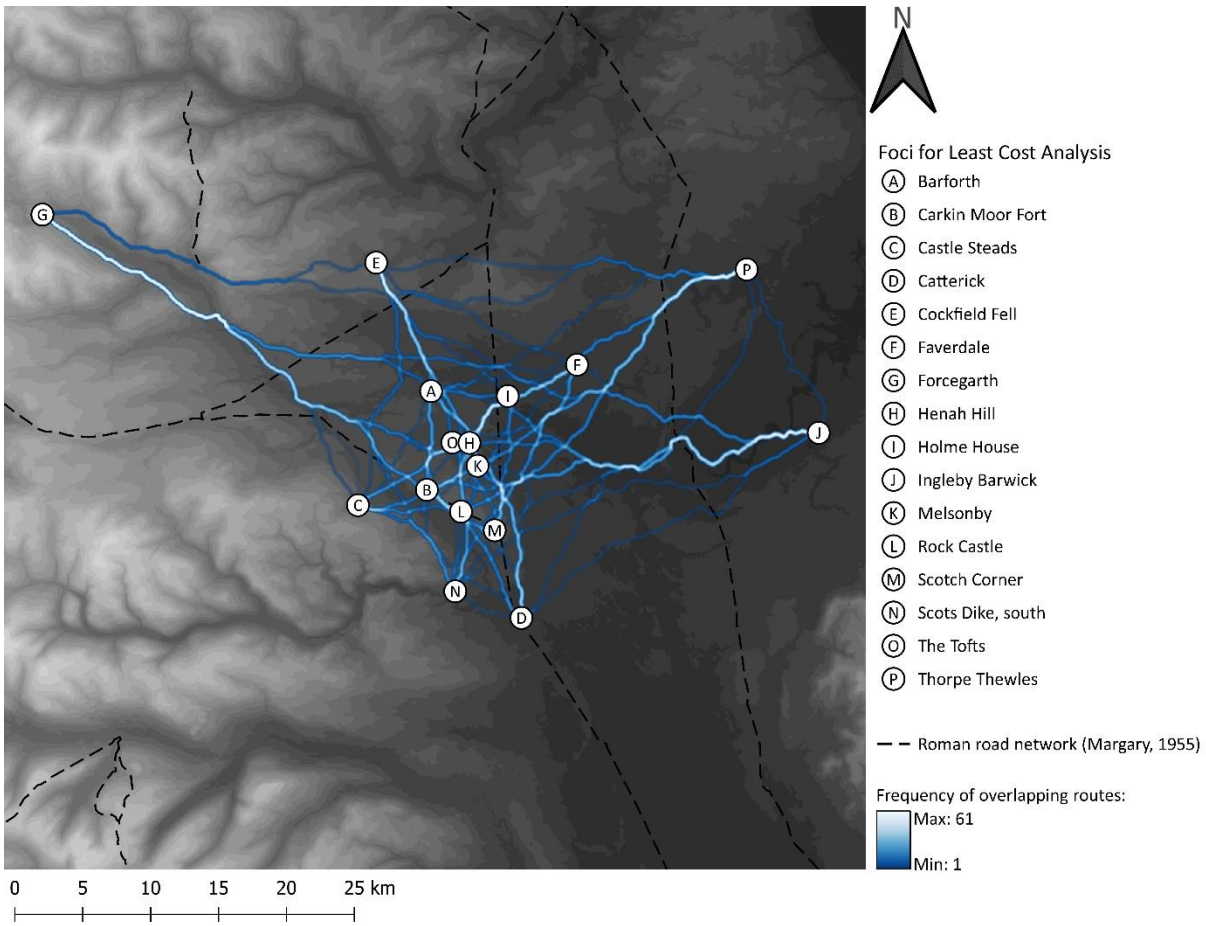


Fig 29 – Heatmap showing the high visibility Least Cost Analysis around Stanwick

5.1.4.5. Low Visibility

The low visibility model at Stanwick again demonstrates the lack of a direct correlation between elevation and visibility. While the models relating to high and low elevations require significant differentiation between high and low areas in order for least cost paths to converge with one another, slight folds in the landscape can create highly obscured pathways that would otherwise be ignored by a model that favoured elevation. Nonetheless there are areas where elevation and visibility are locally highly correlated, such as along the route from Forcegarth to the east, which mostly follows the River Tees, until it enters the Tees Lowlands. The most notable aspect of the low elevation model is the association with the Stanwick earthworks themselves. This is the only model which provides a route through Stanwick along the course of the Mary Wild Beck. This route is significant given Stanwick's association with the watercourse and the Tofts' siting adjacent to it, as well as previous suggestions relating to routeways in and around the complex (see section 3.2.4.4). In fact, the low visibility model predicts a number of routes to and from the Tofts, including along the Mary Wild Beck from the east.

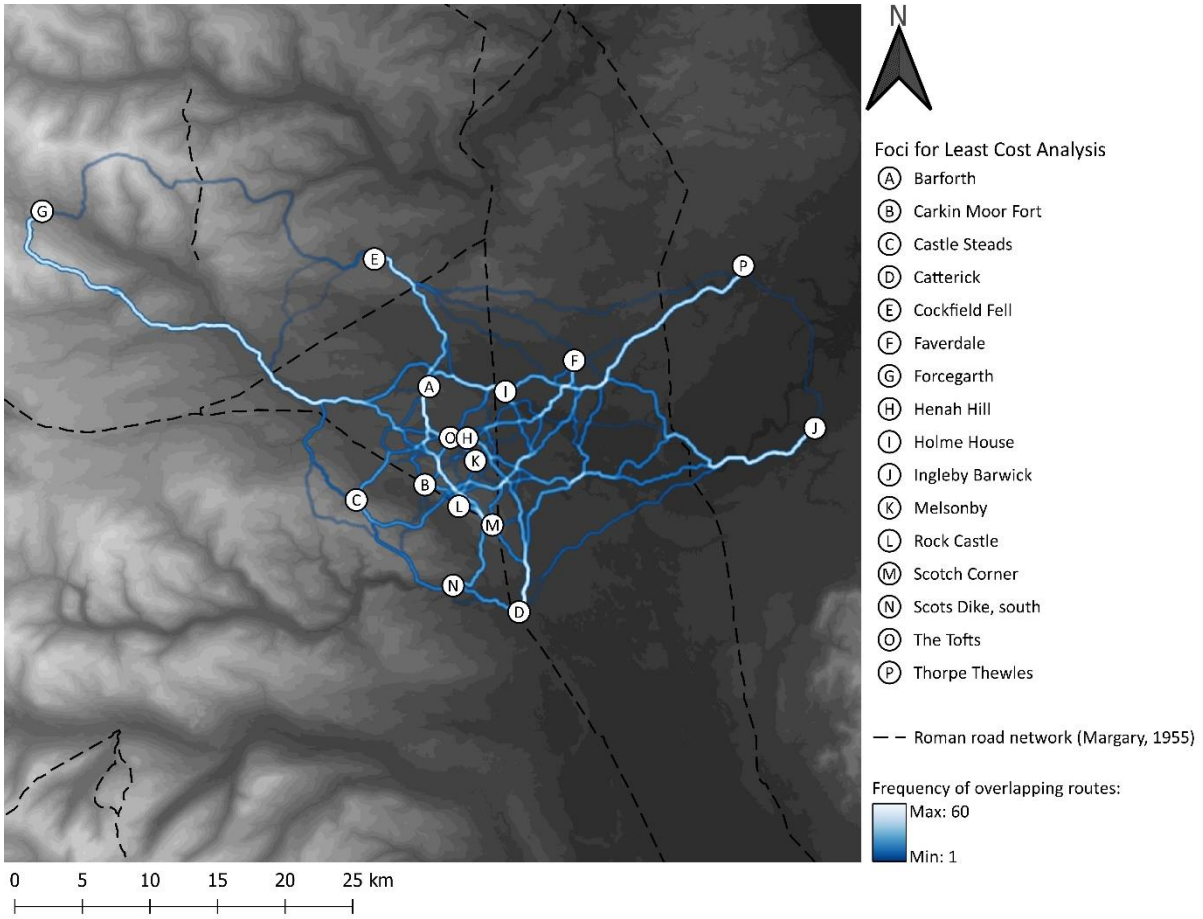


Fig 30 – Heatmap showing the low visibility Least Cost Analysis around Stanwick

5.1.4.6. Slope

As with the other slope models presented here there is little of interpretative value to the Stanwick model due to a lack of differentiation across the cost raster. This has produced numerous straight lines with few overlapping least cost paths to indicate frequently travelled routes. The results appear to indicate a crossroads-like pattern aligned northeast-southwest and southeast-northwest and centred on Stanwick. While these sites have been chosen for good reason (see Appendix 1) this pattern nonetheless seems to be a product of the alignments of the sites chosen, combined with a lack of variability in slope factor across the DTM.

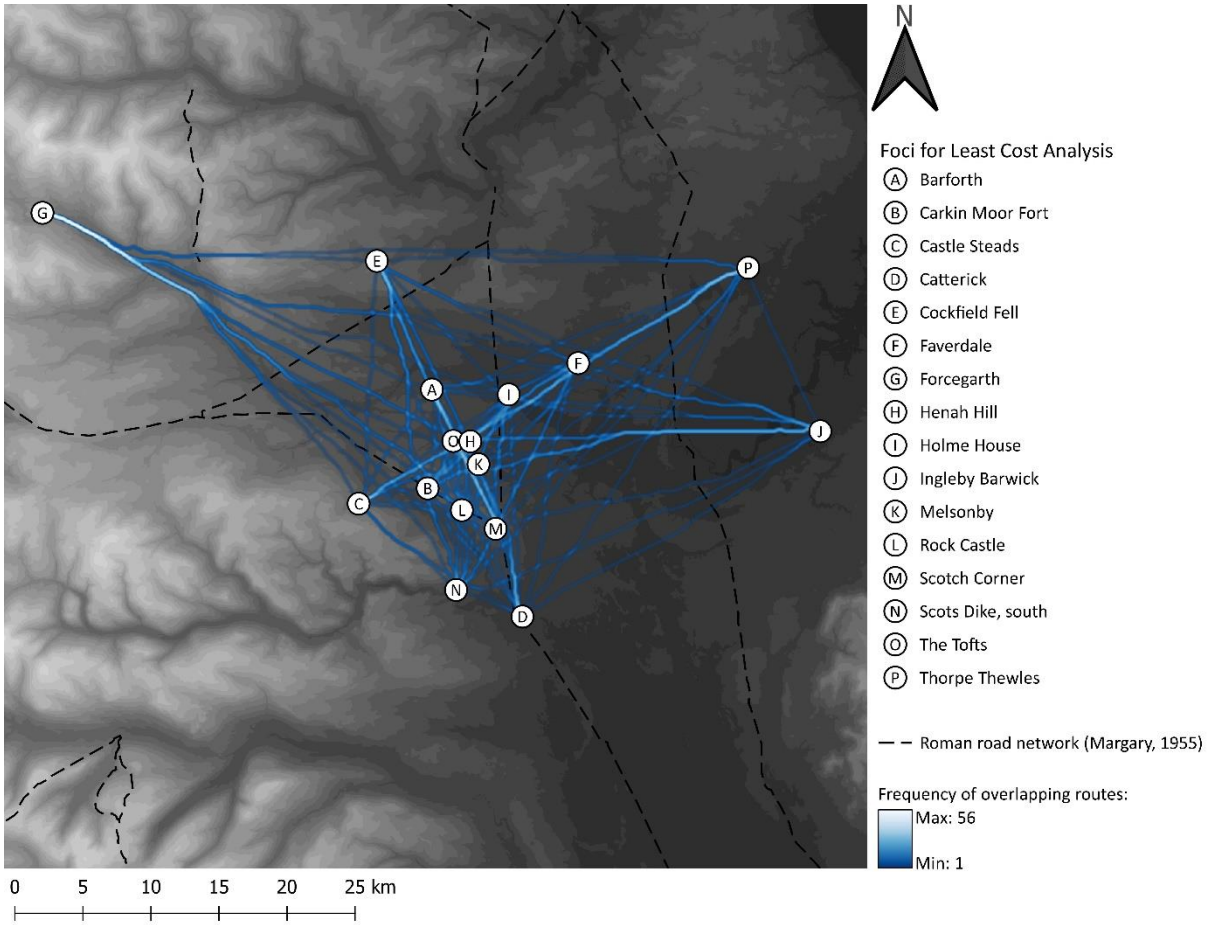


Fig 31 – Heatmap showing the slope factor Least Cost Analysis around Stanwick

5.1.5. Silchester Least Cost Analysis

5.1.5.1. Frequency Analysis

The results of the frequency analysis for Silchester are presented in *Fig 32* and Appendix 3.2.4. The results of this analysis demonstrate that the model taking only slope factor as a friction cost had the least number of overlapping least cost paths. It also had the highest frequency of cells representing only one path which demonstrates that it has the highest sensitivity to the anisotropic aspect of *r.walk* (see section 4.3.2.1). The high visibility and high elevation models have broadly similar frequencies of overlapping routes, as do the low visibility and low elevation models. In both cases this may indicate a correlation between elevation and visibility within this specific landscape, in contrast to some of the other models presented above. While actual routes presented below do not corroborate this it does suggest that the elevation and total viewshed cost rasters provide a similar degree of differentiation between high and low values across each raster.

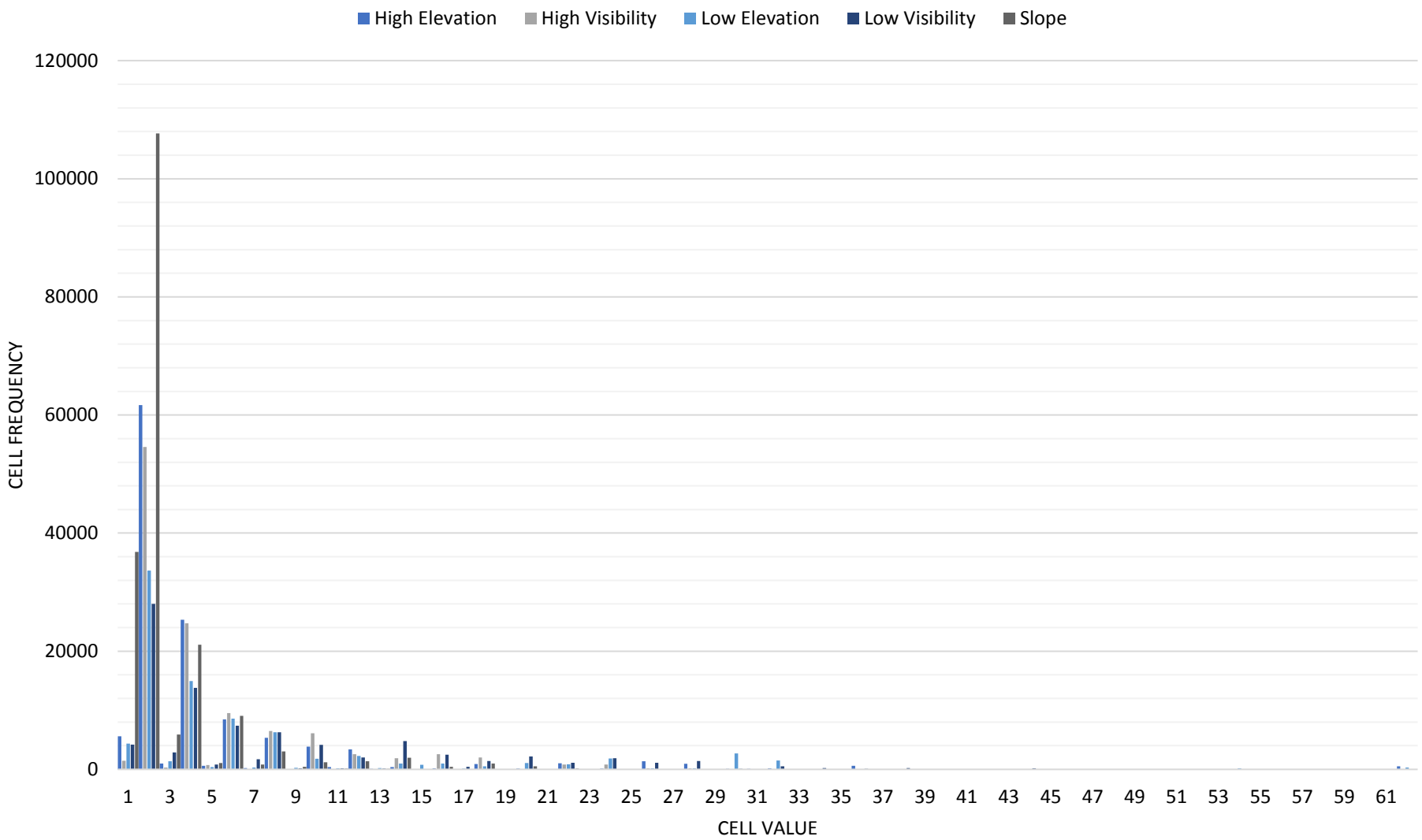


Fig 32 – A graph showing the frequency with which least cost paths overlap with respect to each iteration of Least Cost Analysis in the Silchester landscape. Cell frequency equals the number of pixels of a given cell value resulting from the frequency analysis, where the cell value equals the number of overlapping least cost paths. For the technical details of the frequency analysis refer to Appendix 3.1.

5.1.5.2. High Elevation

The high elevation model for Silchester only highlights two main routes, those from Old Down Farm and Chisbury Camp, towards Silchester and other monuments in the surrounding landscape. Locally to Silchester there are few overlapping routes, probably reflecting its location in the Thames Basin Heaths which are relatively undifferentiated in terms of areas of high elevation. The ridgeline utilised to approach the valley of the River Loddon from the west in this model is also highlighted as a well-travelled route in the high visibility model.

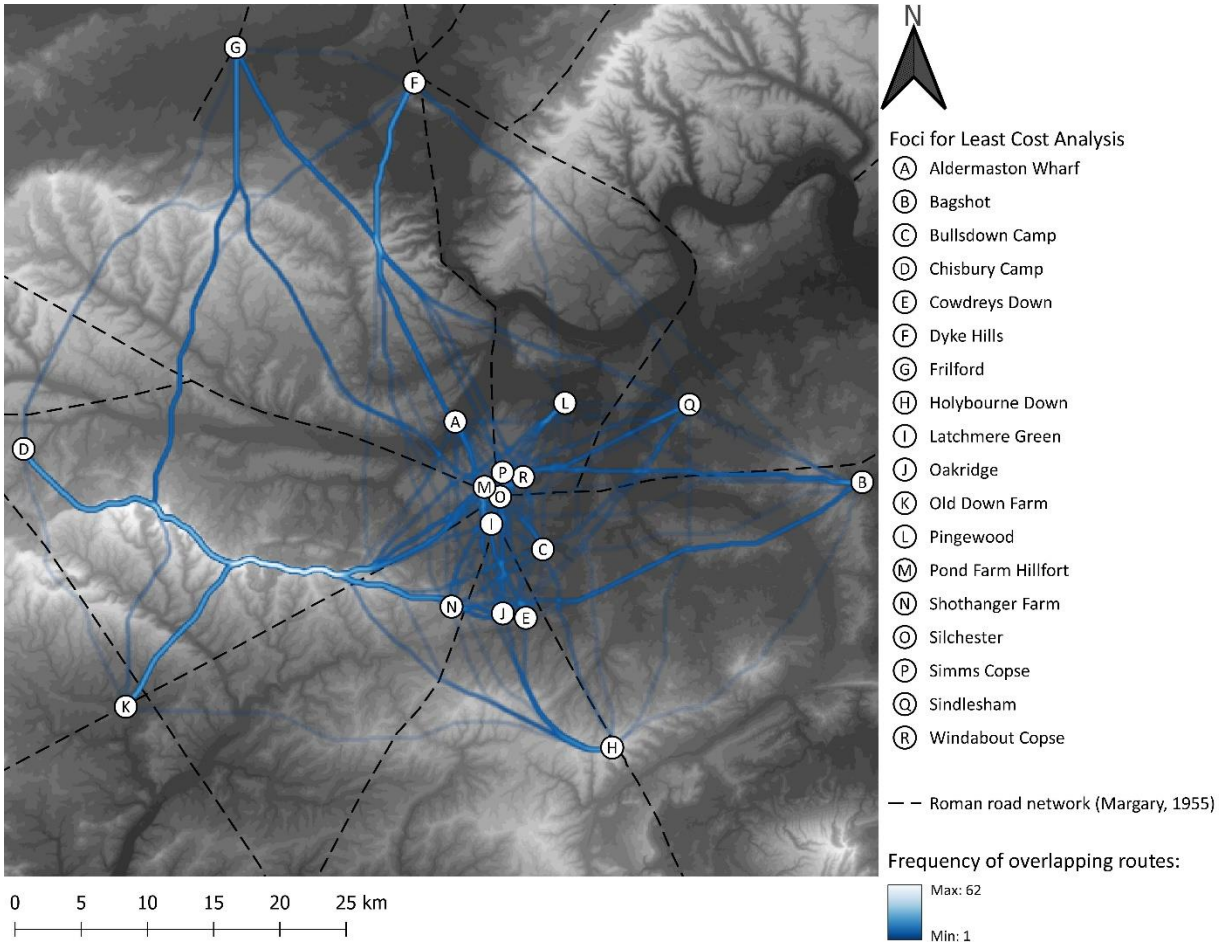


Fig 33 – Heatmap showing the high elevation Least Cost Analysis around Silchester

5.1.5.3. Low Elevation

In a similar manner, the low elevation model shows relatively little overlap between least cost paths in and around Silchester, again reflecting the undifferentiated landscape of the Thames Basin Heaths and the valley of the River Loddon. In the wider landscape a few routes show a reasonable degree of overlap, notably between Dyke Hills and Frilford, via the River Thames to and from various sites in the vicinity of Silchester itself. Similarly, many routes between sites around Silchester and Chisbury Camp converge on the valley of the River Kennet to the north and west of Silchester.

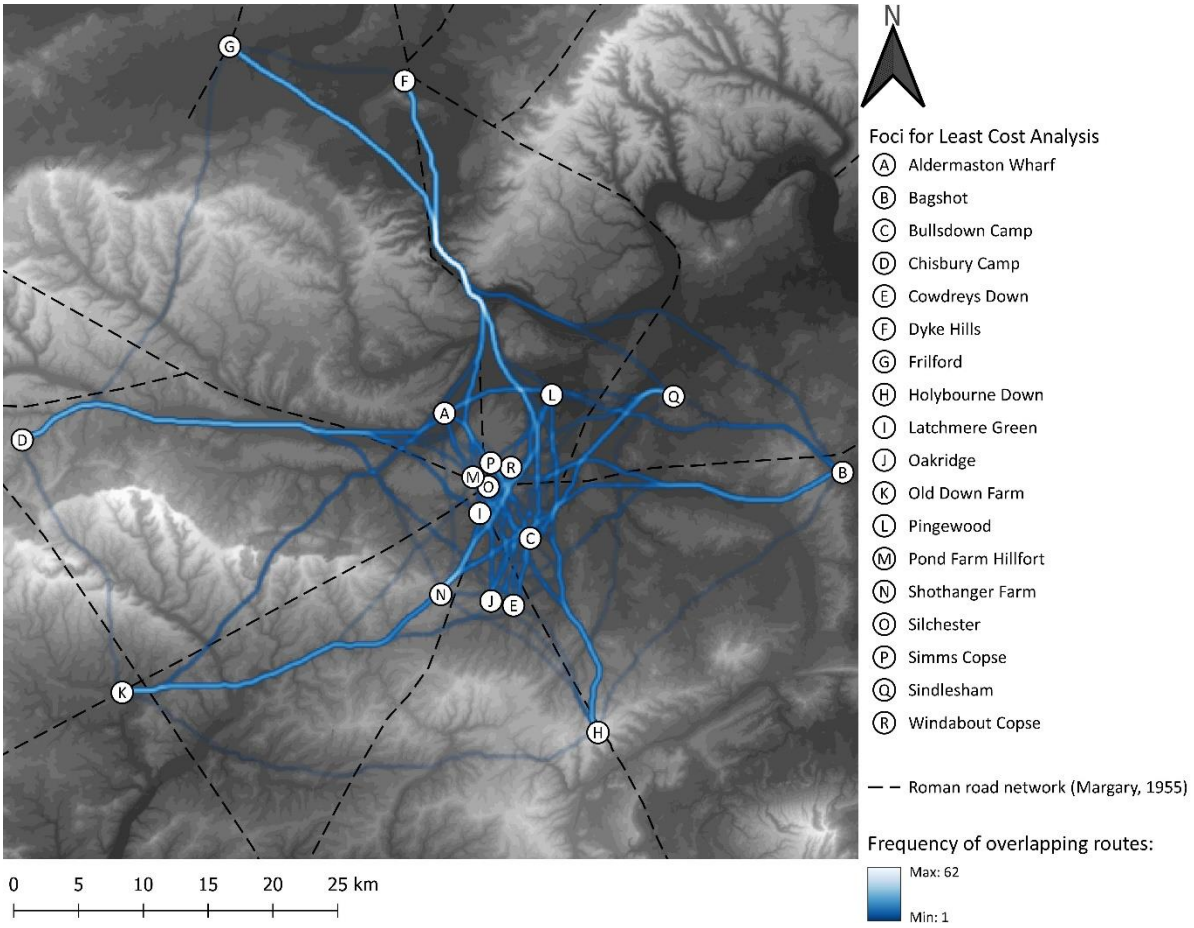


Fig 34 - Heatmap showing the low elevation Least Cost Analysis around Silchester

5.1.5.4. High Visibility

As with the low elevation model the highest degrees of overlap within the high visibility model seems to converge on the Rivers Kennet and Thames, between sites around Silchester and the sites at Frilford, Dyke Hills, and Chisbury Camp. Although in each case, rather than following the rivers themselves the routes progress along the more highly visible slopes of each valley. It is notable that while some routes highlighted by the high elevation model are mirrored in the high visibility model there is in fact relatively little overlap. The high visibility route to and from Bagshot and sites around Silchester shows small amount of similarity with the Roman Port Way which runs from Silchester to St Albans and onwards to London.

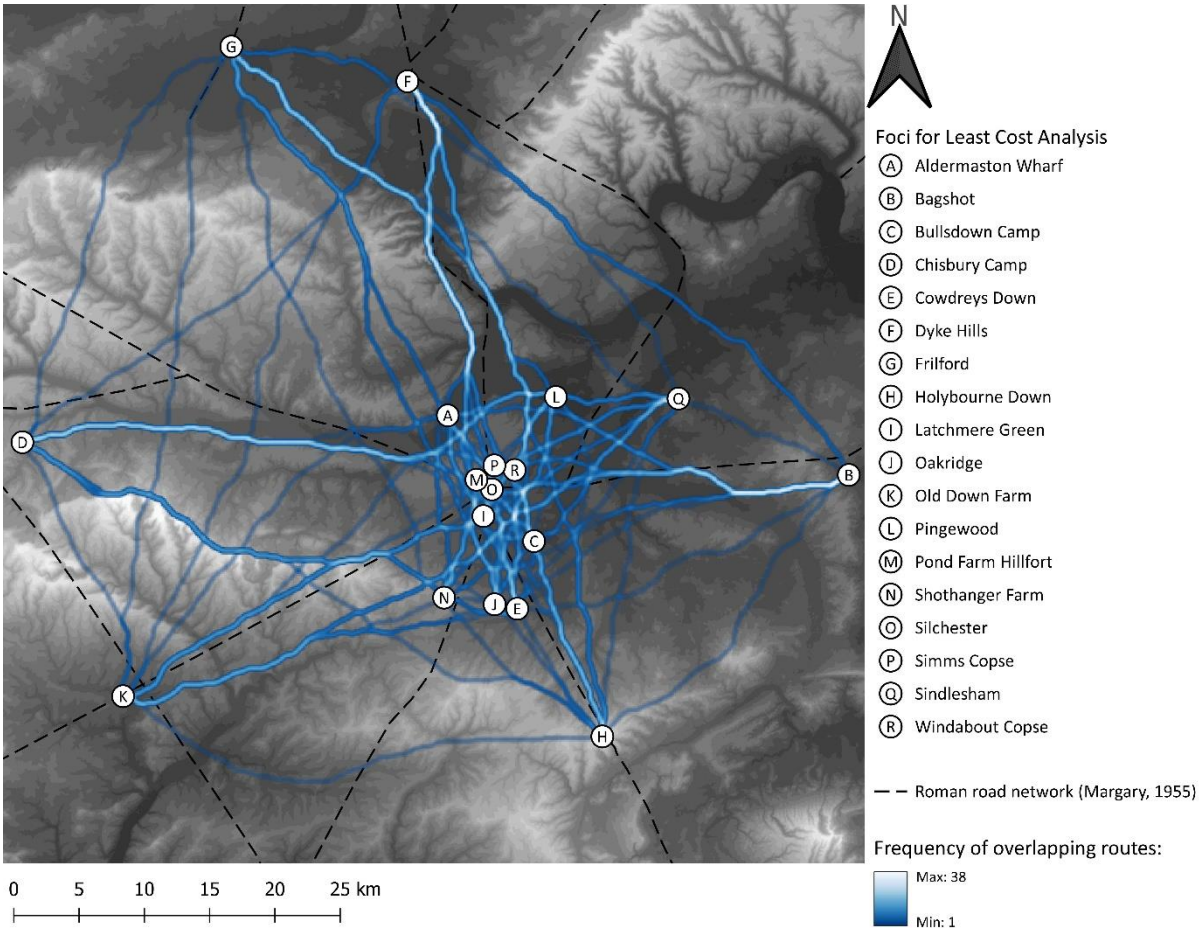


Fig 35 - Heatmap showing the high visibility Least Cost Analysis around Silchester

5.1.5.5. Low Visibility

Unlike the other models for Silchester there is not much of a regional level perspective to be garnered from the low visibility model, with little by way of overlap at this scale. Nonetheless the low visibility routes in the immediate vicinity of Silchester show higher degrees of overlap at such a scale than the other models. In particular the routes from Oakridge, Shothanger and Cowdrey's Down converge on a single route towards Latchmere Green and from there towards the main Silchester enclosure. It is notable as well that there are only two major approach routes towards Silchester from the north, one from Aldermaston Wharf and the other from near Pingewood. The approach from Aldermaston Wharf may have been blocked or redirected by Grim's Bank, but that from Pingewood would not.

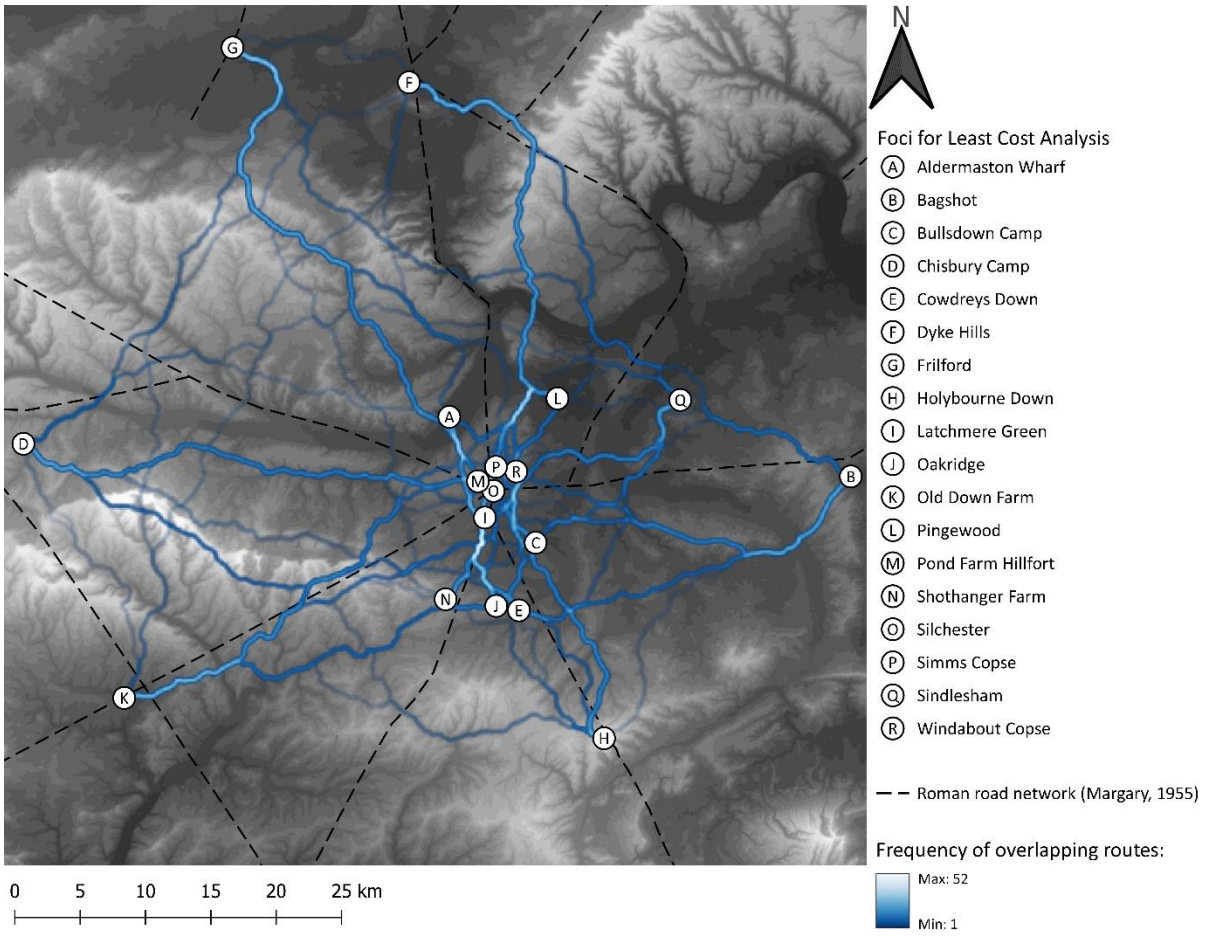


Fig 36 - Heatmap showing the low visibility Least Cost Analysis around Silchester

5.1.5.6. Slope

Once again, the results relating to slope show little overlap and tend to ignore otherwise inconvenient topographic features and as such provide little by way of explanatory power. While the routes from Dyke Hills and Frilford towards the various sites around Silchester show a degree of overlap this is likely an example of the data involved and the arrangement of sites predetermining a particular outcome, similarly to that at Stanwick. While the landscape between these sites is by no means flat it is likely that the slopes involved are not steep enough, or the friction costs assigned to them are not great enough, to produce results that vary greatly from a flat plain.

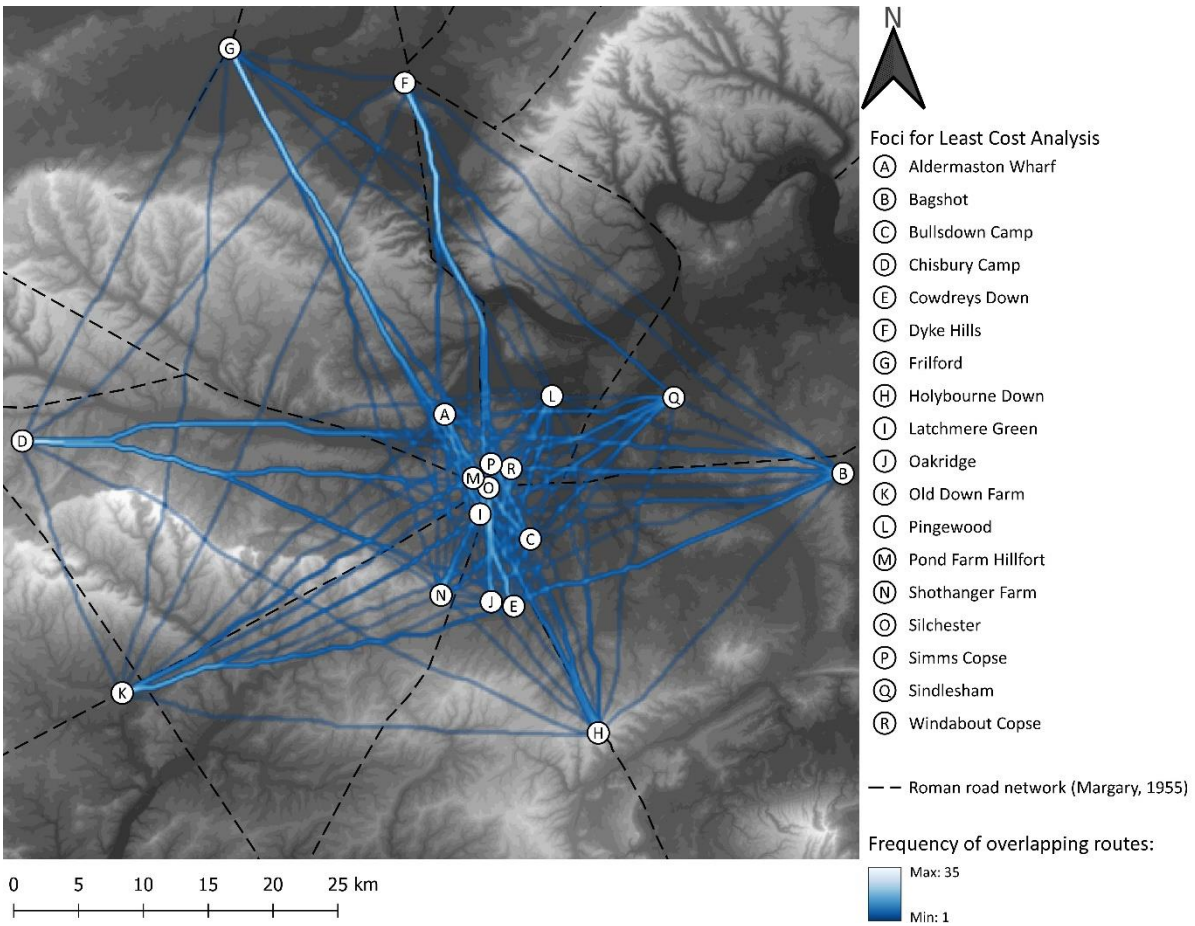


Fig 37 - Heatmap showing the slope factor Least Cost Analysis around Silchester

5.2. Viewshed Analysis

5.2.1. Introduction

The following section presents the results of the viewshed analysis conducted at each of the five earthwork complexes discussed in Chapter 3. This comprised the calculation of a total viewshed for each landscape, in addition to cumulative viewsheds conducted along sections of least cost paths (see section 4.3.3.3). The sections of routes used for viewshed analysis were chosen on the basis of how well they conformed to the arrangement of foci, earthworks and topography within each landscape. In addition to the total viewshed, six cumulative viewsheds are presented for each landscape and discussed together.

5.2.2. Bagendon Viewshed Analysis

5.2.2.1. Total Viewshed

The total viewshed for the Bagendon landscape (*Fig 38*) highlights the numerous steep sided valleys and proud ridgelines that permeate the Cotswolds and creates a landscape of great variability in local visibility. This variability is reflected throughout the arrangement of the foci of the Bagendon complex. Aspects of the Bagendon complex, such as the Duntisbournes, Ditches and Scrubditch enclosures are situated atop relatively visible ridgelines, in contrast to the valley bottom occupation, Cutham enclosure, and even the main ramparts which only occupy areas that would have been visible to their immediate environment. It is interesting that Bagendon could easily have been situated approximately 500m south, still along the River Churn, but in a much more highly visible area of the landscape. One conclusion to be drawn here is either that its builders were not concerned about visibility (at least not as much as other things) or that they actively were concerned with controlling visibility in some way. The locations of the two Duntisbourne enclosures and the Ditches are also interesting with relation to the total viewshed. In both cases the foci occupy moderately visible ridgelines atop steep and highly invisible valleys leading down into Perrott's Brook. The least cost analysis indicates that routes to and from each of these foci might have utilised such valleys in order to access the foci from the valley bottom (as has been suggested by Moore (2017a:289-290).

5.2.2.2. Cumulative Viewsheds

Figs 39-40 show two high elevation routes through the Bagendon complex, via the ridges either side of the Perrott's Brook valley. Wider scale views from each are broadly similar with extensive views to the south towards the Tar Barrows, beyond to the Upper Thames Valley and in fact as far as the

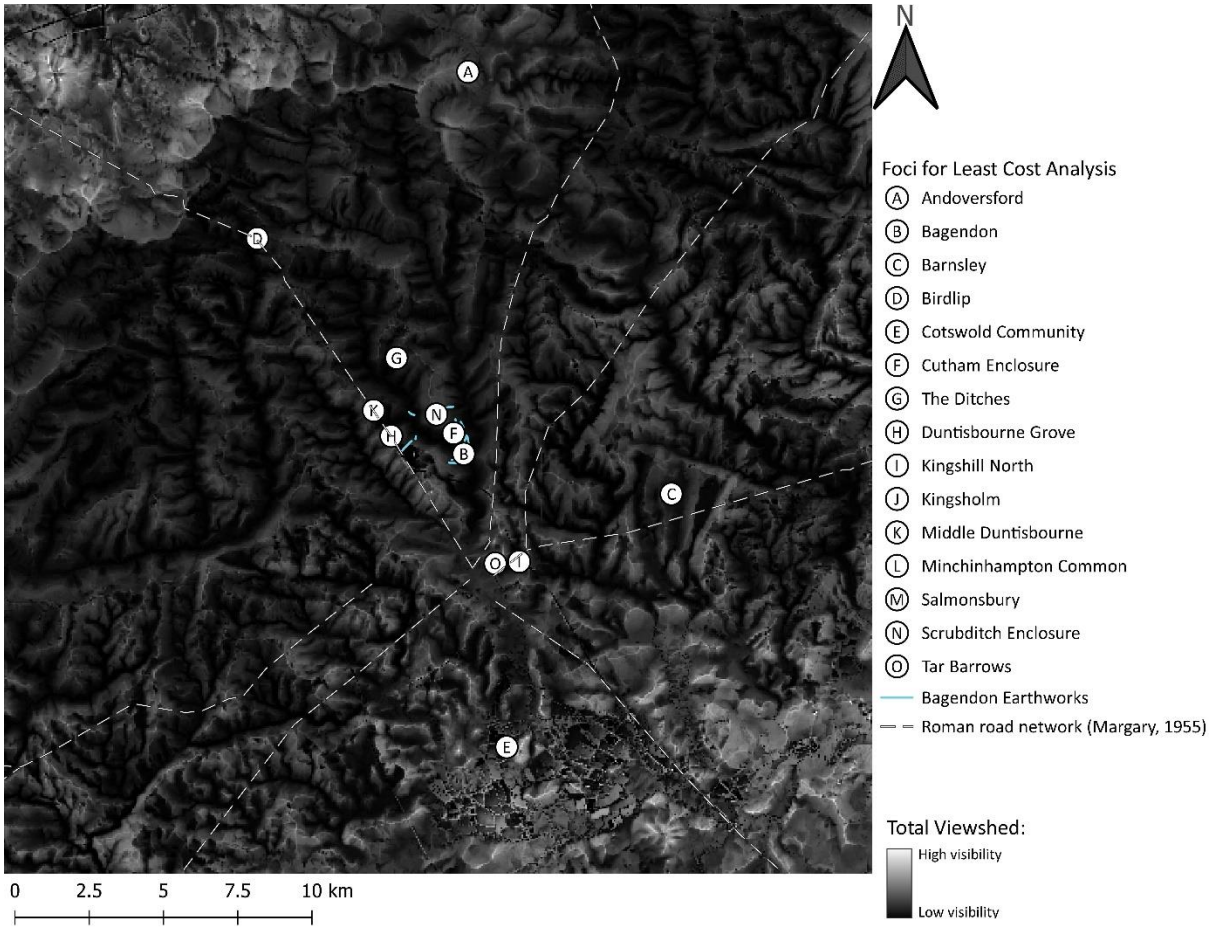


Fig 38 – Total viewshed for the Bagendon landscape.

Marlborough Downs. *Fig 40* has better views of the interior of the complex as would be expected given it passes right through the entrance. *Fig 39* by comparison traces the line of Ermin street and gives an indication of the areas of the complex that would have been visible from the road. Notably the Ditches enclosure and villa would have been highly visible from the road. This raises the question of whether the road itself was replacing an earlier Iron Age route that both the Duntisbournes and the Ditches enclosures hoped to influence.

Fig 41 shows the route through the complex via the Perrott's Brook valley and the ultimate ascent towards the Ditches. The most interesting part of this route is the overall lack of visibility of both the Ditches enclosure which remains largely invisible until the final stages of the approach. Such a phenomenon is also evident at the south-eastern access to the complex, where the main ramparts are clearly not situated in the most highly visible areas. In both cases it appears that the relevant foci were partially hidden from view in order to open the complex up only at the final moments of an approach.

Fig 42 illustrates the low visibility least cost path approaching the Duntisbourne enclosures from the west, via the River Frome. As seen in *Fig 41* with relation to the southeast ramparts and the Ditches enclosure, both of the Duntisbournes remain invisible until the summit of the ridge has been scaled.

The same is true when approaching the Duntisbournes from the opposite direction and the interior of the complex. It is also worth noting that the valley bottom occupation would not have been visible to people approaching the complex from the west via this route until they were past the Duntisbournes and had descending into the valley itself.

Fig 43 shows the low visibility route tracing the valley of the River Churn, immediately to the east of Bagendon. The most obvious observation to be made here is the fact that the majority of the interior of the complex would have been invisible to anyone taking his route. Tantalising hints of it may have been visible as people passed by the entrance itself as would a fairly brief sense of awe as the dykes and ramparts appeared and soon thereafter faded out of view. It is also worth noting that the presence of taller structures, the sounds and smells of the activity and possibly billows of smoke would have still been noticeable.

Fig 44 shows a route into the complex from the north, via a dry river valley and passing the Scrubditch enclosure before descending into Perrott's Brook valley to the west of the main occupation area. This route would have afforded some of the best views to the south of Bagendon, across the Upper Thames Valley and as far south as the Marlborough Downs. Despite this the views into the interior of the complex itself are still highly restrictive and in fact the most highly visible area of the immediate landscape is the opposite side of the River Churn at exactly the point where the Welsh Way approaches the complex from the foci at Barnsley.

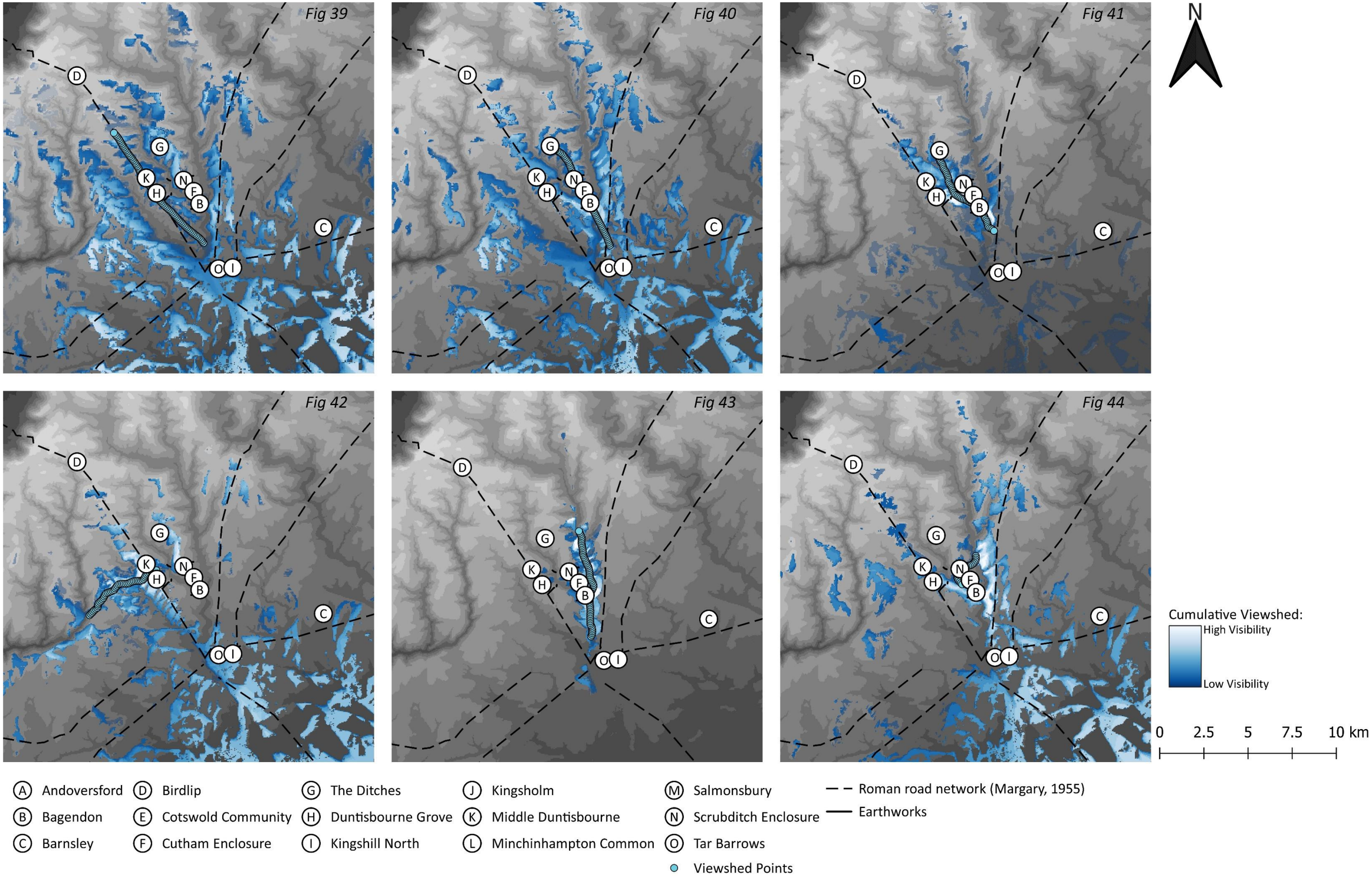


Fig 39 – High elevation route to the southwest of Bagendon. *Fig 40 – High elevation route through the centre of Bagendon.* *Fig 41 – Low visibility route through the centre of Bagendon.*

Fig 42 – Low visibility route approaching Bagendon from the west, via the Duntisbournes. *Fig 43 – Low visibility route along the River Churn to the east of Bagendon.* *Fig 44 – Low visibility route entering Bagendon from the north, via Scrubditch.*

5.2.3. Gussage Cow-Down Viewshed Analysis

5.2.3.1. Total Viewshed

The total viewshed for Gussage Cow-Down (*Fig 45*) illustrates a landscape of visibility similar to that of the Cotswolds. The numerous steep sided valleys and ridges create a landscape of highly variable visibility. It is evident that the southeast facing dip-slope of Cranborne Chase means that the total visibility of the various ridges increases further north yet the Gussage Cow-Down complex is situated to the south of this and spread over a relatively less visible area of the landscape. Gussage Cow-Down not only resides in a similar landscape to Bagendon but also demonstrates exploitation of similar landscape features, in particular the dry valleys which drain from the north-south orientated ridgelines. All of the enclosures at Humby's Stock Coppice, Chapel Farm, Gussage All Saints, and the two double banjos on Gussage Cow-Down itself sit atop relatively invisible valleys. Similarly while many of the linear earthworks making up the complex appear to be sited on more highly visible ridgelines many of them in fact work together to enclose less visible areas of the landscape. The Thickthorn Down earthworks exemplify this and the same is true of several of the Gussage Cow-Down earthworks themselves. On a larger scale it is notable that there is a wide and relatively invisible valley to the southwest of the main Gussage Cow-Down earthworks that appears void of activity and is roughly enclosed on several sides by the earthworks of the wider complex.

5.2.3.2. Cumulative Viewsheds

Figs 46-47 show two high elevation routes predicted by the least cost analysis from the main focus of earthworks on Gussage Cow-Down, and from the Thickthorn Down enclosure to the northwest. It is clear from these viewsheds, in particular *Fig 47,* that the main earthworks at Gussage Cow-Down, including the double banjo enclosure at Gussage St. Michael, sit at the very crest of the ridge and from the right distance and angle would have been silhouetted against the skyline. The positioning of the route shown in *Fig 46* being downslope from the highest point of the ridge means that there is a focus of its visibility to the northeast, whereas the positioning of the route in *Fig 47* atop the ridgeline itself means that there is better all-round visibility. The focus on the Gussage St. Michael banjo enclosures towards the northeast also indicates that this side of the ridgeline was a more favourable routeway.

Fig 48 shows a high visibility route also heading to the north from the main Gussage Cow-Down earthworks. There is a notable difference in the extent of the surrounding visible landscape between this and *Fig 46* which follows a none too dissimilar route a short distance to the east. This illustrates

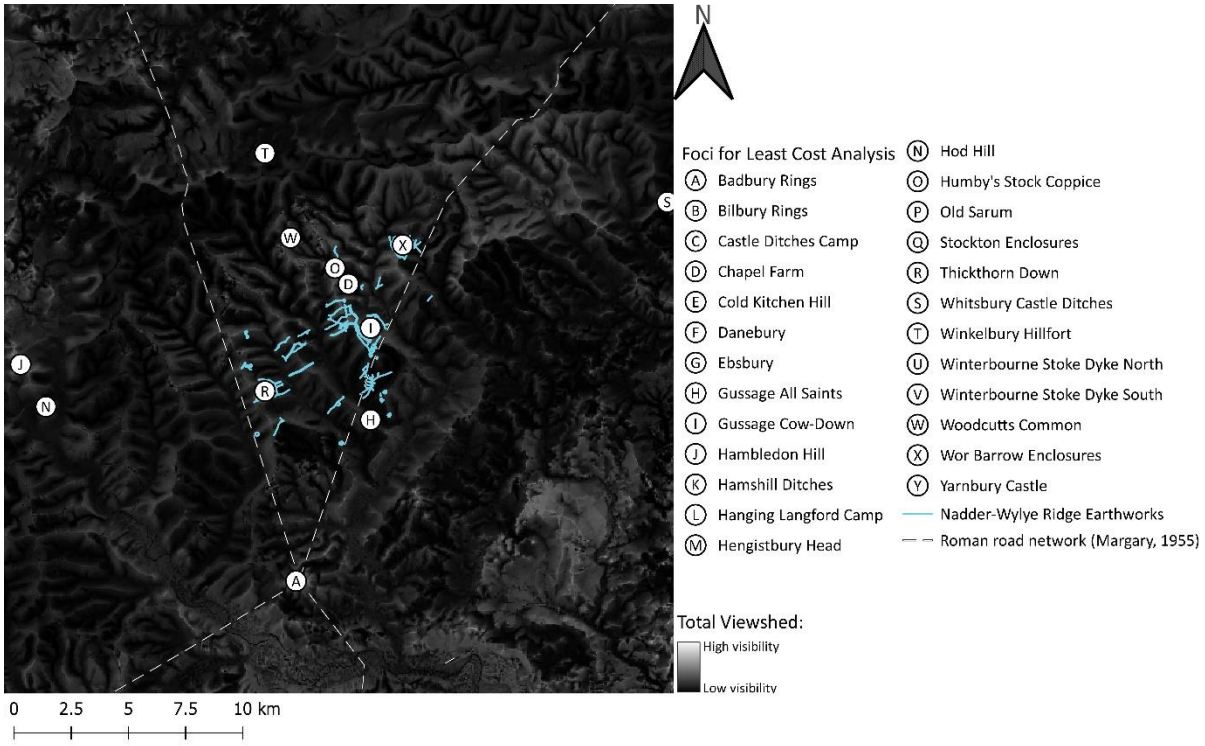


Fig 45 – Total Viewshed for the Gussage Cow-Down landscape

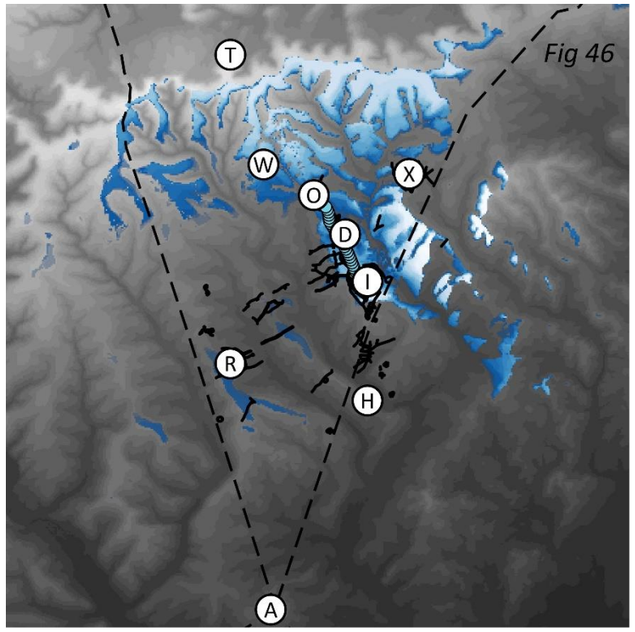
well the extent to which a small change in terrain can have a huge impact on landscape-wide visibility. Within *Fig 48* it is also worth noting that while the earthworks of the Thickthorn Down enclosure are largely visible, the area which they actually enclose is not.

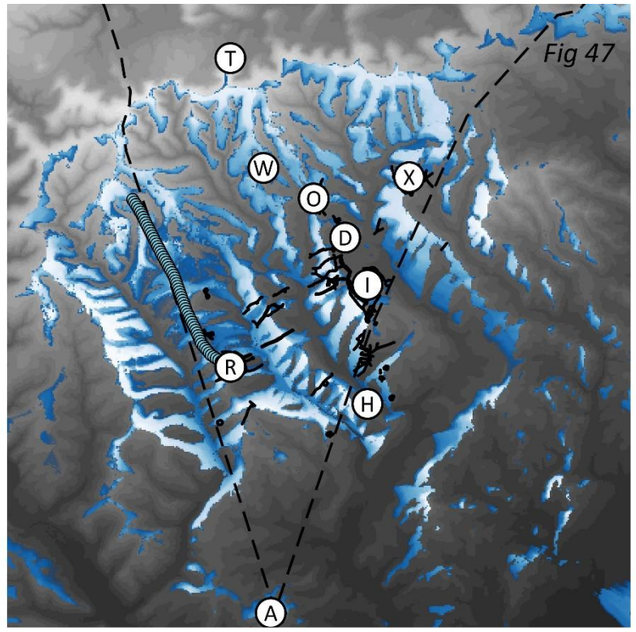
Figs 49-51 show a low elevation and two low visibility routes and the contrast in landscape visibility between these and the previous figures is stark but not unexpected given each routes' progression along the more visibility restrictive valleys. *Fig 49* shows a low elevation approach route towards the Gussage All Saints enclosure from the east and while there is a high degree of local visibility along the route itself the interior of the Gussage Cow-Down complex to the north is almost entirely invisible. Interestingly Gussage All Saints itself is sited in such a way as to be largely invisible for much of the route as well. With this said the entrance to Gussage All Saints is not orientated in the exact direction of this route so it may have been designed to be more highly visible from a different direction.

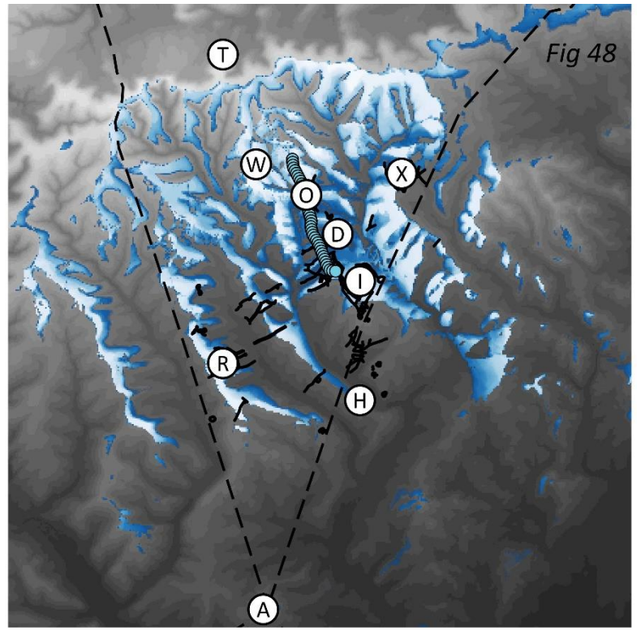
Fig 50 shows the cumulative viewshed for a route progressing along the valley to the north of Gussage All Saints, downslope to the west of the main Gussage Cow-Down earthworks. As might be expected there is little by way of visible earthworks from the valley bottom, the majority of which are focussed on the ridgelines either side. However, the cross-ridge nature of a number of these earthworks might suggest that movement was being forced from the ridgelines into the valley bottoms. The complete lack of visibility of earthworks to the east of the route also indicates the presence of a blind summit

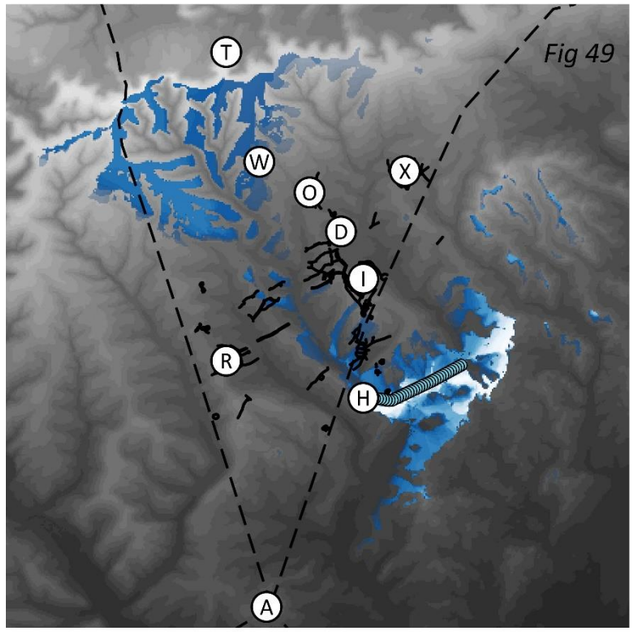
to this ridge, upon which Gussage Cow-Down is focussed. The use of a blind summit in this way is comparable to Grim's Ditch along the Nadder-Wylye ridge (see section 5.2.4).

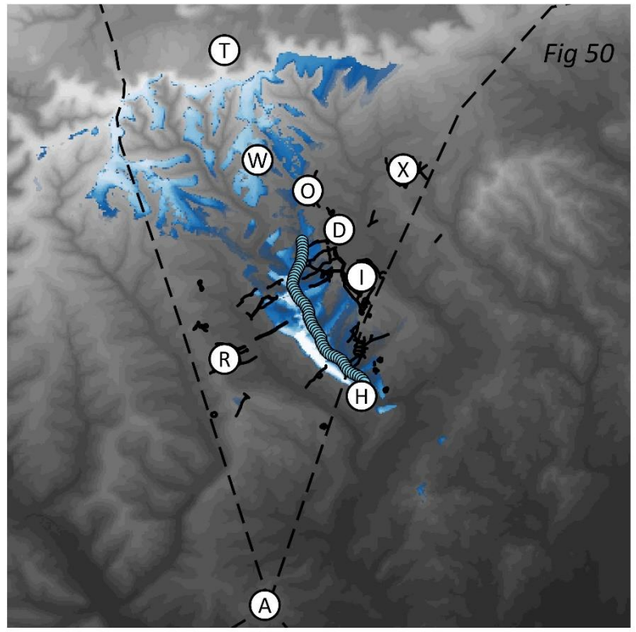
Fig 51 shows a low visibility approach towards the southern pair of banjo enclosures at Gussage Cow-Down from the east. Comparable with both the Duntisbournes and the Ditches enclosures at Bagendon (see section 5.2.2) these banjo enclosures appear to have been largely invisible for much of this particular route's approach towards them. In the instance of *Fig 51* it is also important to mention that from a very small portion of the route aspects of the earthworks and enclosures further to the north are also visible. However, as is the case for the Thickthorn Down enclosure in *Fig 48*, the entire interior of the area remains invisible due to its situation enclosing a depressed valley.

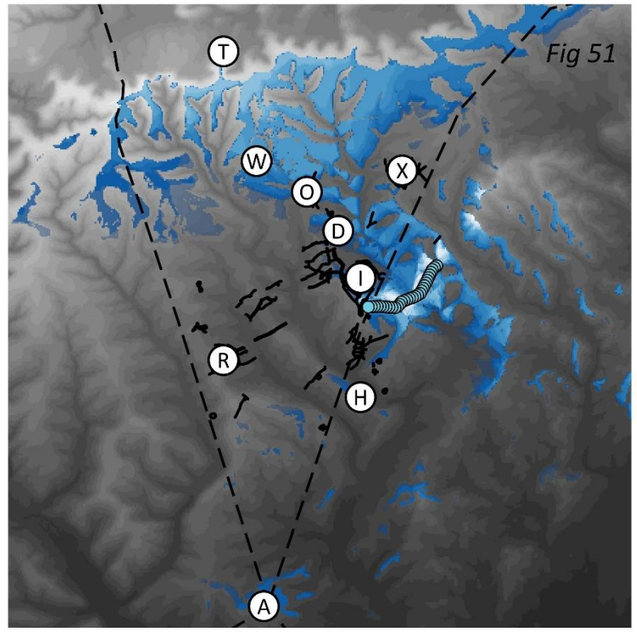












N

Cumulative Viewshed:
High Visibility
Low Visibility

0 2.5 5 7.5 10 km

(A) Badbury Rings
(B) Bilbury Rings
(C) Castle Ditches Camp
(D) Chapel Farm
(E) Cold Kitchen Hill
(F) Danebury
(G) Ebsbury
(H) Gussage All Saints
(I) Gussage Cow-Down
(J) Hambledon Hill
(K) Hamshill Ditches
(L) Hanging Langford Camp
(M) Hengistbury Head
(N) Hod Hill
(O) Humby's Stock Coppice
(P) Old Sarum
(Q) Stockton Enclosures
(R) Thickthorn Down
(S) Whitsbury Castle Ditches
(T) Winkelbury Hillfort
(U) Winterbourne Stoke Dyke North
(V) Winterbourne Stoke Dyke South
(W) Woodcutts Common
(X) Wor Barrow Enclosures
(Y) Yarnbury Castle

Viewshed Points
Roman road network (Margary, 1955)
Earthworks

Fig 46 – High elevation route to the northwest of Gussage Cow-Down.

Fig 47 – High elevation route to the northwest of Thickthorn Down.

Fig 48 – High visibility route to the north of Gussage Cow-Down.

Fig 49 – Low elevation route to the east of Gussage All Saints.

Fig 50 – Low visibility route to the north of Gussage All Saints.

Fig 51 – Low Visibility route to the east of Gussage Cow-Down.

5.2.4. The Nadder-Wylye Ridge Viewshed Analysis

5.2.4.1. Total Viewshed

The total viewshed for the Nadder-Wylye Ridge complex (*Fig 52)* comprises a broadly similar set of topographic features to the landscape around Gussage Cow-Down, roughly 25km to the south. The landscape comprises highly visible ridgelines contrasted with invisible dry valleys but is dominated in particular by the Ridge upon which the Nadder-Wylye complex is situated, in addition to the river valleys of the Wylye and Nadder to the north and south respectively. The situation of Grim's ditch atop this ridge places it in a seemingly dominating visual position in comparison to the surrounding landscape. However, the total viewshed demonstrates that the ridge has a false summit (there is an area of significantly decreased visibility along the entire length of the ridge) and Grim's ditch winds its way along either one side or the other of the false summit. The result of this would be that the views from along the ditch itself will always be focussed either to the north or south and would likely not have been visible during an ascent of the ridge. This would imply a need to have been close to the earthwork in order for it to be visually imposing which conforms with the suggestion that a primary function was to facilitate movement along the ridge. The oddly irregular nature of Grim's Ditch might be explicable by either an organic development of the monument and/or its need to conform with a potentially pre-existing field system spread across the ridge (see *Fig 7*) By comparison the individual foci of the complex (with the exception of Hanging Langford Camp) do appear to be in more visually

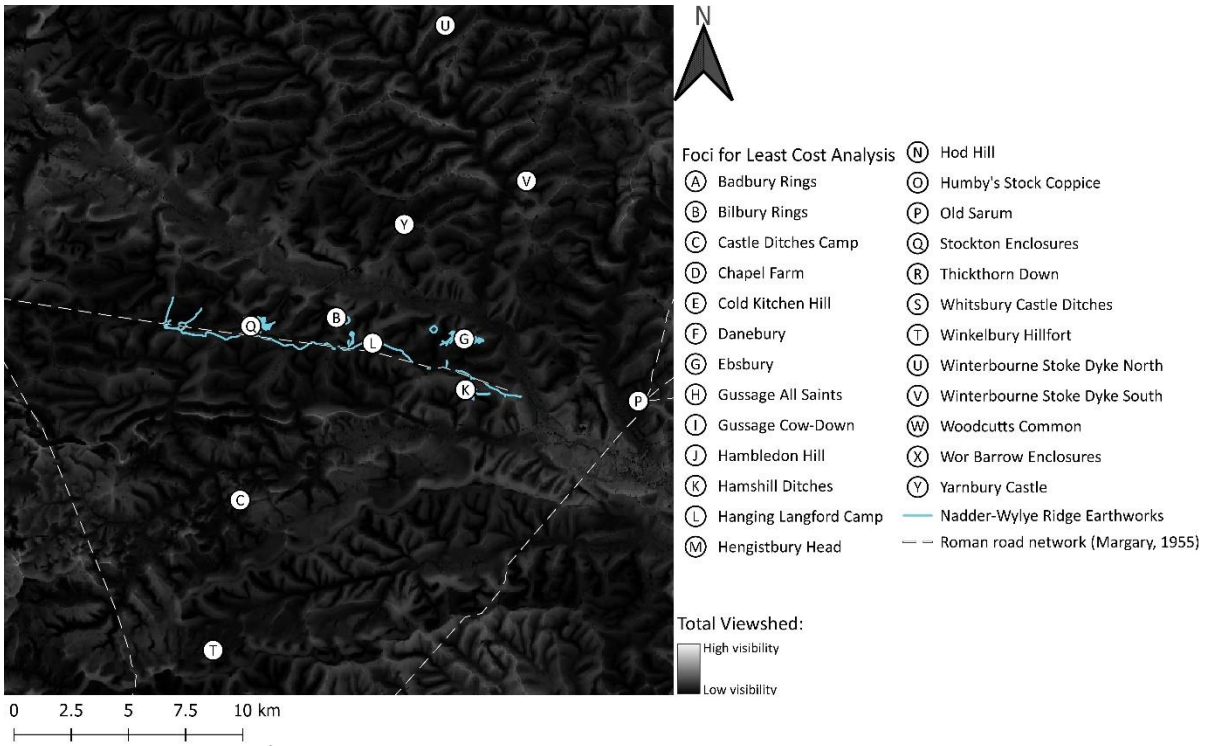


Fig 52 – Total viewshed for the Nadder-Wylye Ridge landscape

accessible locations, in particular Bilbury Rings and Ebsbury. Although, with the exception of Ebsbury which is situated on a promontory jutting into the Wylye Valley, all of the other major foci are situated sit atop dry river valleys and many least cost paths directed on these foci utilise such valleys in much the same way as at Bagendon and Gussage Cow-Down.

5.2.4.2. Cumulative viewsheds

*Fig 53*shows an atypical route in approaching the foci at Ebsbury from the east compared to *Figs 54-58* in that the presence of an apparent drove-way or avenue on the eastern side of Ebsbury (visible on LiDAR – see *Fig 8b*) suggests this was the probable entrance to the site. The route presented in *Fig 53 therefore* combines this avenue with a low elevation route along the Wylye Valley. Despite the relatively high elevation and visibility of the main enclosure at Ebsbury the viewshed for the approach route depicted in *Fig 53* leaves the enclosure almost entirely invisible. The implication of this is that the focus of settlement at the site would not have been truly visible almost until entering the enclosure itself.

By comparison, the low visibility approach towards Ebsbury from the north, along the valley of the River Till, depicted in *Fig 54* demonstrates the dominant visibility of Ebsbury in a northerly direction. The presence of the Winterbourne Stoke dyke (see Appendix 1.2) to the north may have directed people along the River Till in just such a direction and forced such a viewshed on any travellers from the north. Ebsbury's position at the far western spur of the Nadder-Wylye ridge, at the far end of Grim's Ditch, and with an approaching avenue that lines up with a modern field boundary may well have ensured that it controlled a high percentage of traffic both entering and exiting the complex.

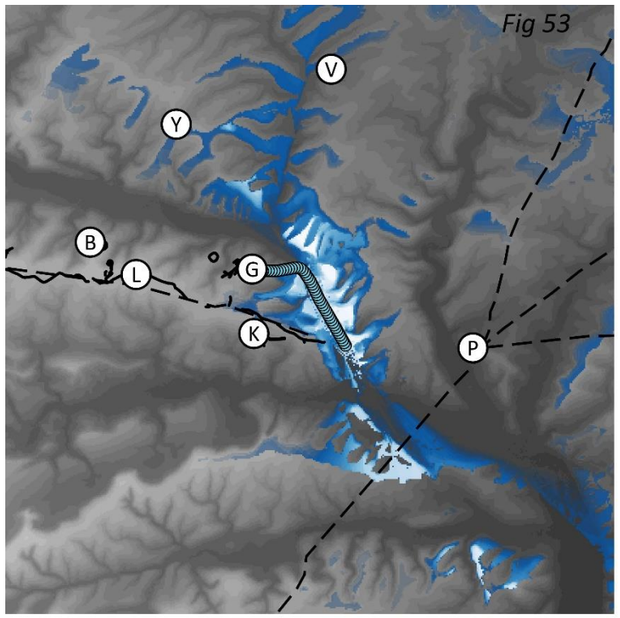
Figs 55-57 depict three low elevation approaches towards the foci at the Stockton Enclosures, Hamshill Ditches and Hanging Langford Camp, respectively. In each case the routes utilise dry river valleys, atop which each site sits, to ascend the ridgeline and enter the complex. *Fig 55,* relating to the Stockton Enclosures, shows that the more elaborate western system of enclosure would not have been visible from the Wylye Valley before a small headland had been rounded, at which point it would have been visible for much of the ascent towards the site. Even so the upper most enclosure, at the centre of the dyke system and linked to Grim's Ditch would have remained invisible until entering the enclosure system itself.

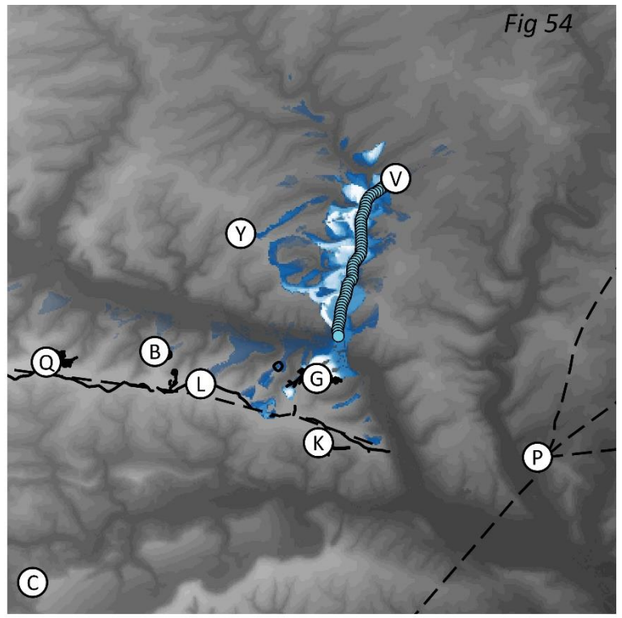
Fig 56 shows a southern approach towards Hamshill Ditches, across the Nadder Valley from which direction the pair of banjo enclosure are in one of the most highly visible areas, although Grim's Ditch itself remains almost entirely invisible. This route also happens to pass through, and align with, the system of lynchets and field boundaries that cover the slopes (see *Fig 7*). These may well have

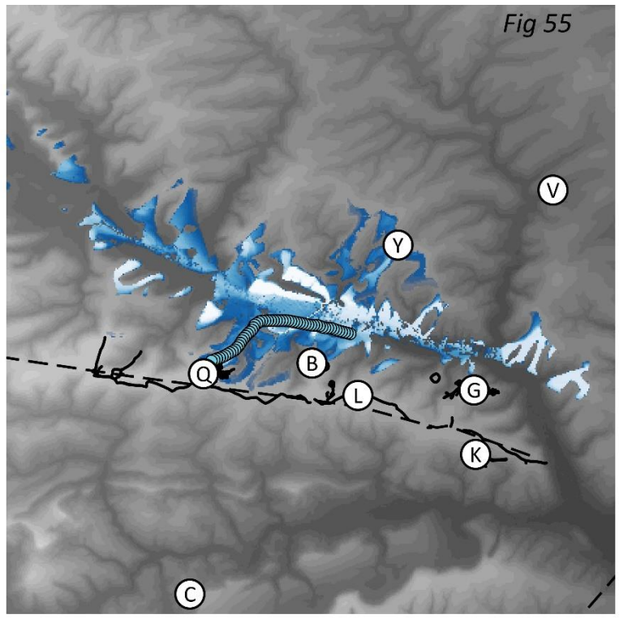
impacted the visibility of the enclosures at Hamshill Ditches, depending on their function and contemporaneity. Notably, the western most set of dykes at Hamshill Ditches remains invisible from this direction (although a drove-way evident on the LiDAR implies a separate eastern approach, similar to Ebsbury) and the intervening empty space between each set of dykes is also significantly less visible.

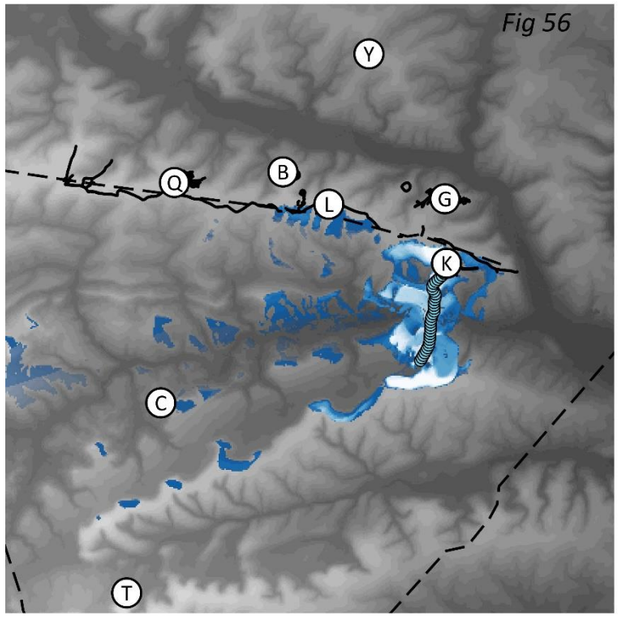
Fig 57 shows an approach towards Hanging Langford Camp from a similar direction to that approaching the Stockton enclosures. Once again Grim's Ditch remains largely invisible and in this instance the Hanging Langford Camp remains invisible for much of the route as well. This may be to do with the site's location set into the valley, rather than at the top. Because of this the valley itself becomes an extension of the banked avenue leading into the enclosure. Along this route it is notable that aspects of Bilbury rings to the northwest are also minimally visible, although the eastern rampart may have presented briefly as a skyline feature to those ascending the valley.

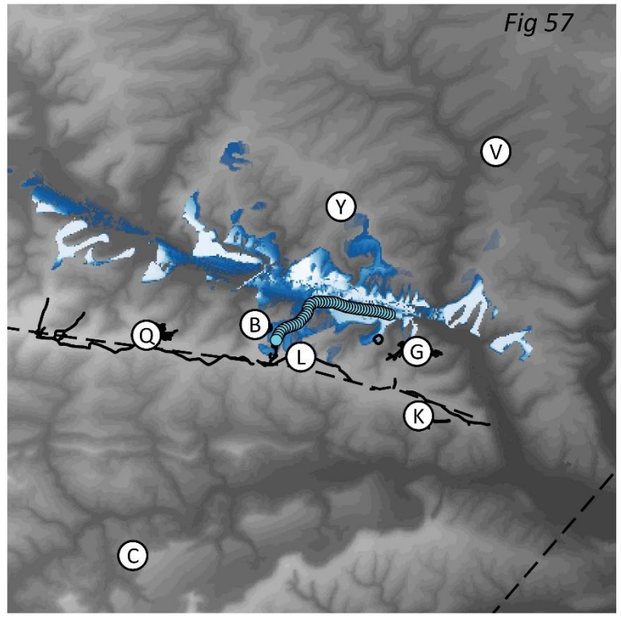
Fig 58 shows a high elevation route along the Nadder-Wylye Ridge itself, although while it roughly traces the route of Grim's Ditch and the subsequent Roman road it crosses both at multiple points and as such cannot be considered an exact indication of a genuine route along the ridge. Nonetheless it gives a good general indication of visibility from along the top of the ridge and the kinds of view that could be expected. While the viewshed along the ridge demonstrates relatively good long-distance visibility neither the valleys of the River Wylye or Nadder are visible and none of the foci of the complex are situated in highly visible areas either. This is a reflection of the fact that many of the approach routes towards foci along the ridge seen in *Figs 54-57* have little to no visibility of Grim's Ditch itself. The monument has therefore clearly been designed to impose itself on the local, rather than regional landscape.

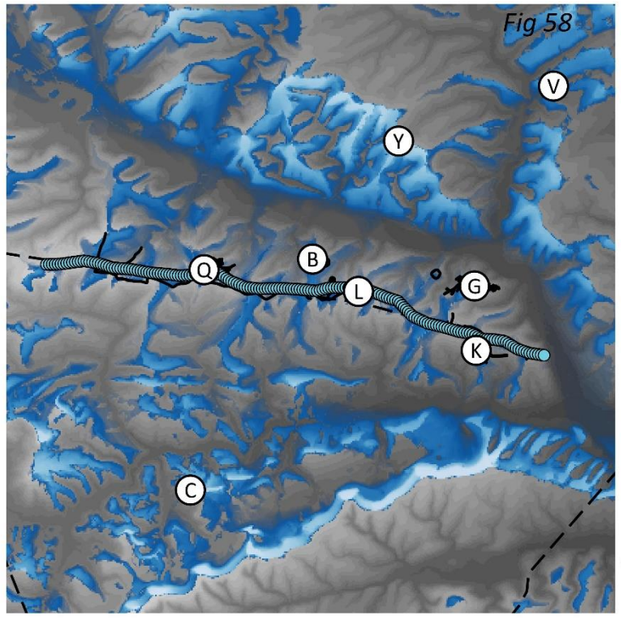


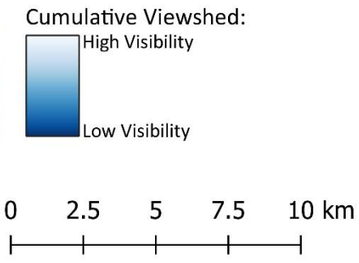












(A) Badbury Rings
(B) Bilbury Rings
(C) Castle Ditches Camp
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(T) Winkelbury Hillfort
(U) Winterbourne Stoke Dyke North
(V) Winterbourne Stoke Dyke South
(W) Woodcutts Common
(X) Wor Barrow Enclosures
(Y) Yarnbury Castle

Viewshed Points
Roman road network (Margary, 1955)
Earthworks

Fig 53 – Eastern approach route to Ebsbury along the route visible on LiDAR.

Fig 54 – Low visibility route approaching Ebsbury from the north, along the valley of the River Till.

Fig 55 – Low elevation route approaching the Stockton enclosures from the northeast.

Fig 56 – Low elevation route approaching Hamshill Ditches from the south.

Fig 57 – Low elevation route approaching Hanging Langford Camp from the north.

Fig 58 – High elevation route along the summit of the Nadder-Wylye Ridge.

5.2.5. Stanwick Viewshed Analysis

5.2.5.1. Total Viewshed

The total viewshed for the Stanwick landscape (*Fig 59*) illustrates neatly the topographical location of Stanwick at the junction between the Tees Valley, the Stainmore Pass, and the Vales of York and Mowbray. This topographical location is reflected in the total visibility of each area of the landscape. The Vales and Tees Lowlands are characterised by undulating visibility created by rolling hills and the occasional, more deeply incised river valley. The River Tees, in particular as it approaches the Stainmore Pass creates one of the least visible areas of such landscapes. Stanwick itself is located northeast of the uplands of the Yorkshire Dales which have generally higher, and more uniform, values of visibility. It surrounds a shallow bowl in the landscape created by the valley of the Mary Wild Beck and while this does create an area of low visibility, particularly around the Tofts, such landscape is not localised to Stanwick. The complex could have exploited similar visual landscapes if it had been placed anywhere for many kilometres to either the north or west, implying that its specific location must have reasons beyond the visual landscape. Immediately south of Stanwick is the ridge of Gatherley Moor, along which the modern A66 and its Roman precursor run from Scotch Corner, northwest towards

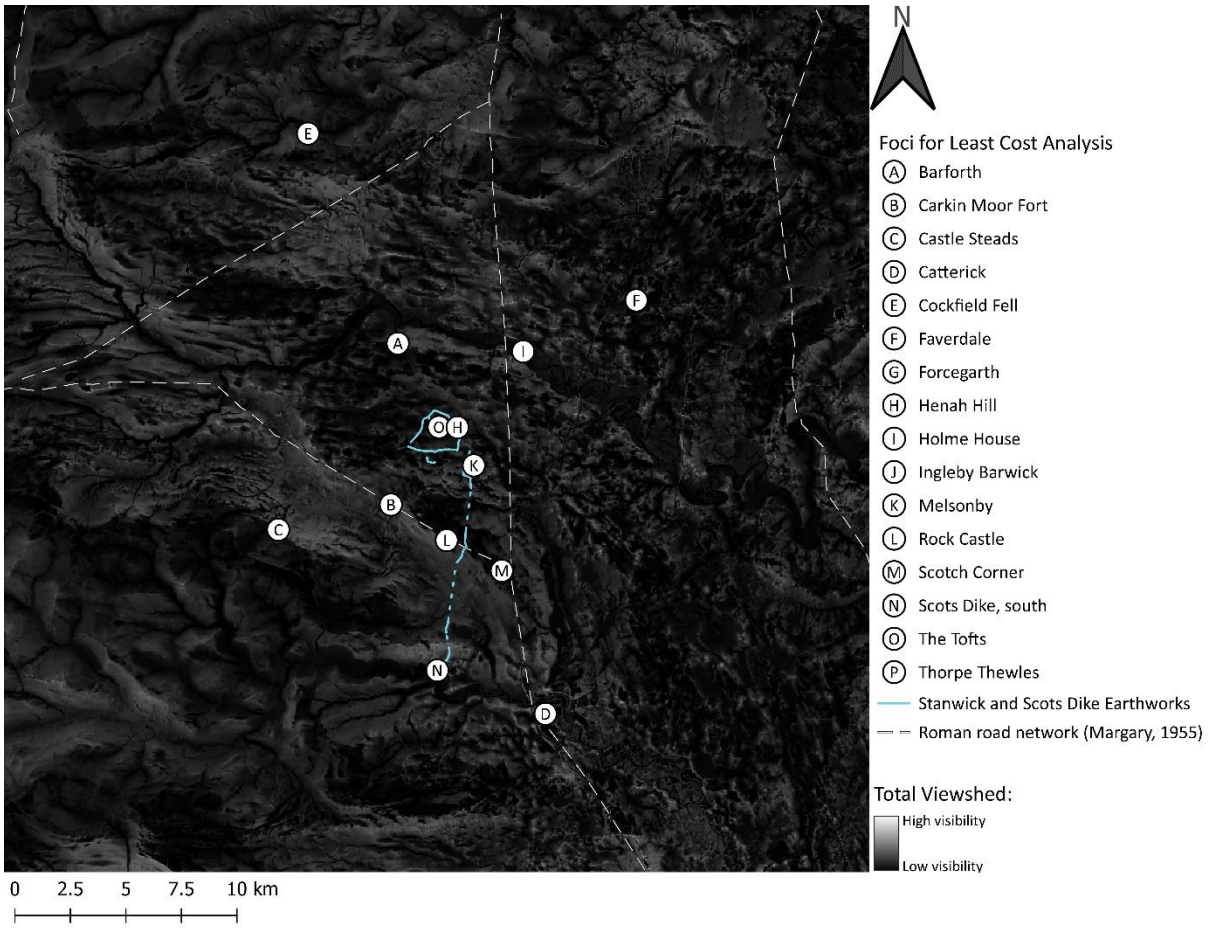


Fig 59 – Total viewshed for the Stanwick landscape

Greta Bridge. The Iron Age activity along this ridge is extensive and the Roman road quite probably follows an even earlier Iron Age precursor itself. It is notable that Gatherley Moor defines not only two distinct topographic landscapes (the Tees Valley and the Yorkshire Dales) but two entirely distinct visual landscapes. A few hundred metres difference to either the northeast or southwest for any route or settlement along this ridge would have completely changed the character of the experiences afforded to travellers and locals alike.

5.2.5.2. Cumulative Viewsheds

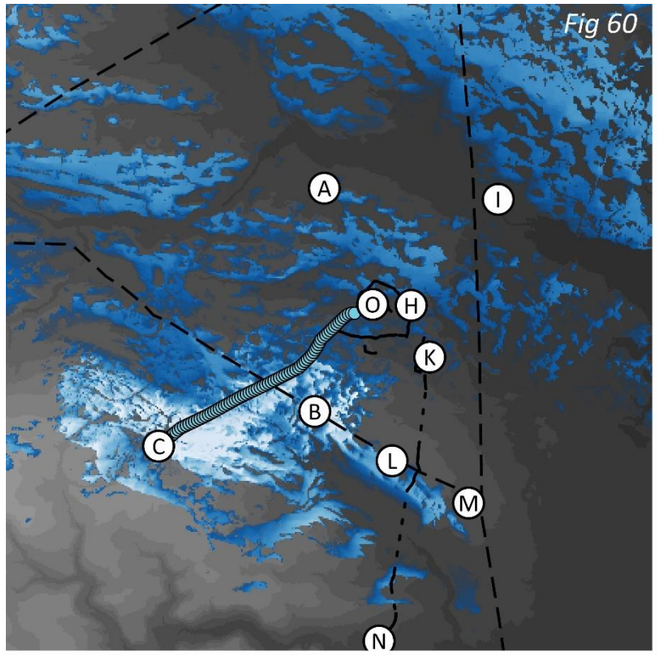
Figs 60-61 show two of the high elevation routes from Castle Steads to Stanwick and from Stanwick to Holme House. These two routes can be considered continuations of one another in that they cross Stanwick in a roughly straight line, from the southwest to the northeast. The difference in the viewsheds for each route is stark, but predictable through an understanding of the total viewshed. The two routes cross Gatherley Moor and it is evident that the ridge poses a significant obstacle to northeast looking visibility in *Fig 60*, hiding Stanwick and much of the Tees Valley from view for the majority of the route. By comparison *Fig 61* provides extensive views of the northern side of the Tees Valley while the Yorkshire Dales would have presented at the horizon. It is interesting that Stanwick occupies one of the least visible parts of the landscape for this route despite the close proximity.

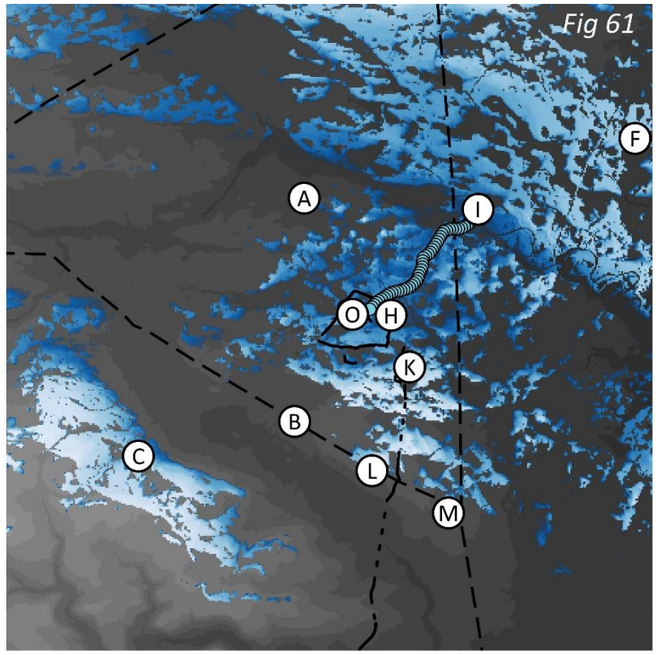
Fig 62 shows a high visibility route running from Scotch Corner to the northwest along Gatherley Moor, crossing Scots Dike and passing by both Rock Castle and the Carkin Moor Fort, roughly following the line of the Roman road to Greta Bridge. It is clear that this route sits just below the ridgeline on its southwest facing slope (unlike the Roman road, which traces the ridge exactly) and as such has much restricted view of everything to the northeast, including Stanwick. While such a route cannot be taken as a certainty it reiterates the point outlined above where the total viewshed shows a distinction in the visible landscape between the southwest and northeast of Gatherley Moor. A slight variation in route towards one side or the other could drastically have influenced any traveller's experience of the Stanwick landscape.

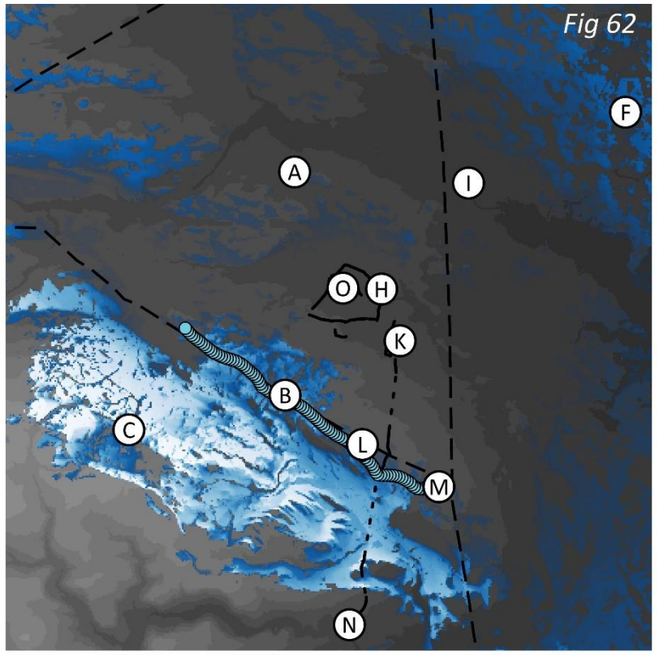
Fig 63 also shows a high visibility route, in this instance running from Melsonby and the northern point of Scots Dike, around the northeast side of Stanwick and towards Barforth. Relatively speaking there is significantly more of the interior of the enclosure visible along this route compared to most other routes presented here (except *Fig 65*), although the area around the Tofts remains largely invisible for much of the route. The northeast facing slope of the Yorkshire Dales is clearly visible for much of the route as well which is to be expected given the extreme difference in elevation between the Dales and the Tees Lowlands. As has been noted before Gatherley Moor blocks a certain amount of visibility

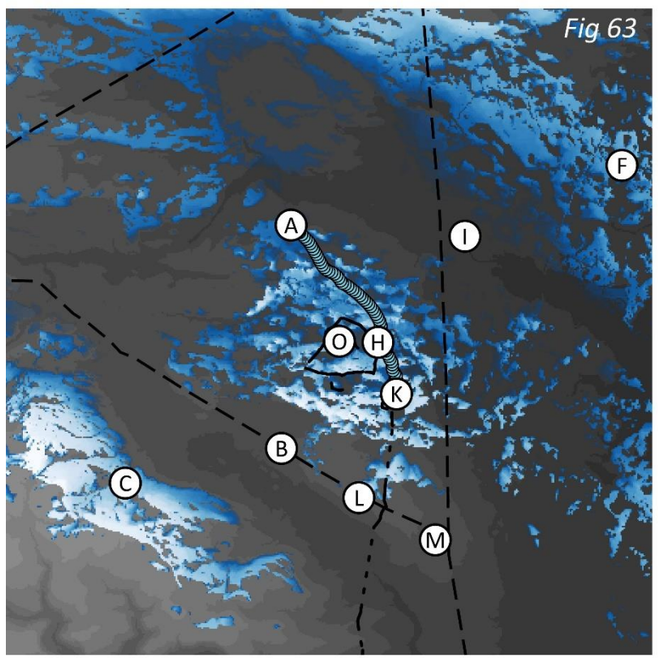
from the route to the southwest and obscures the low, wide valley to the southwest, occupied by the modern villages of Gilling West, Harforth and Ravensworth. It is interesting that the southern entrance to this valley corresponds with a gap in Scots Dike (although this may be due to differential preservation of the Dike), and the northern entrance to the valley lines up with the Roman river crossing at Greta Bridge and the source of the Aldbrough Beck which leads to Stanwick. Presuming favourable environmental conditions this valley would have allowed people arriving from the south to bypass, Stanwick

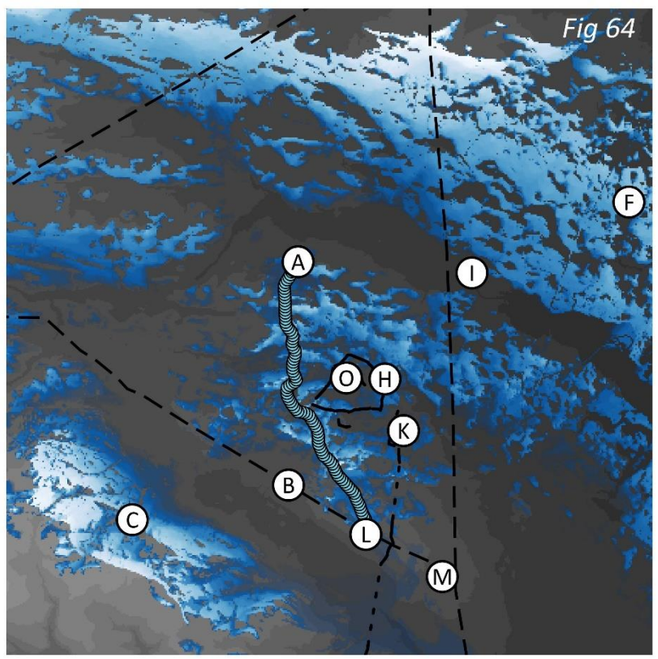
Figs 63- 65 show the cumulative viewsheds from two low visibility routes, passing Stanwick to the west and entering the complex from the east respectively. In both instances the slight topographic bowl in which Stanwick sits is evident. *Fig 64* shows this in the way that the interior of the complex is less visible from without the earthworks while *Fig 65* demonstrates that from within the complex visibility is highly restricted looking outwards. *Fig 64* also demonstrates the that the course of the River Tees itself is largely invisible which is also evident from the total viewshed. *Fig 65* illustrates the viewshed for a route directly approaching and entering the complex along the Aldbrough and Mary Wild Becks. The route passes by the southern slope of Henah Hill and approaches the Tofts from the south. It is notable that the southern rampart almost exactly defines a boundary in the viewshed, suggesting that it would have formed a skyline feature when viewed from the north, although it faces the south. The Tofts, as in every other case and the total viewshed, still clearly occupies the least visible part of the landscape. Henah Hill likely contributes to this invisibility by obscuring the Tofts during an approach from the east. Additionally, the northern portion of Scots Dike and the settlement at Melsonby are both largely invisible from this route. As such, anyone attempting to bypass Stanwick to the south would have suddenly been met with Scots Dike and Melsonby, before presumably being redirected to the north.

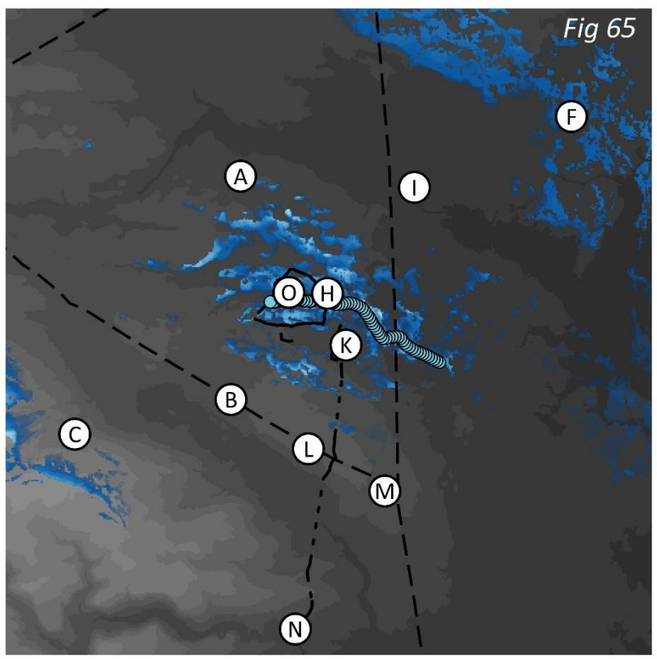


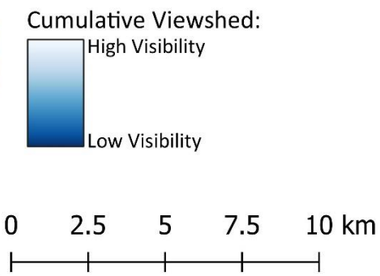












(A) Barforth
(B) Carkin Moor Fort
(C) Castle Steads
(D) Catterick
(E) Cockfield Fell
(F) Faverdale
(G) Forcegarth
(H) Henah Hill
(I) Holme House
(J) Ingleby Barwick
(K) Melsonby
(L) Rock Castle
(M) Scotch Corner
(N) Scots Dike, south
(O) The Tofts
(P) Thorpe Thewles

Viewshed Points

Roman road network (Margary, 1955)

Earthworks

Fig 60 – High elevation route from Stanwick to Castle Steads. *Fig 61 – High elevation route from Stanwick to Home House.* *Fig 62 –High visibility route from Scotch Corner to the northwest along Gatherley Moor.*

Fig 63 – High visibility route from Melsonby to Barforth, passing to the northeast of Stanwick. *Fig 64 – Low visibility route from Rock Castle to Barforth, passing to the southwest of Stanwick.*

Fig 65 – Low visibility route approaching Stanwick from the east, along the Aldbrough Beck and proceeding through the complex along the Mary Wild Beck.

5.2.6. Silchester Viewshed Analysis

5.2.6.1. Total Viewshed

The total viewshed for the Silchester landscape (*Fig 66*) serves to highlight the relative visibility of a number of landscape features that would otherwise not be apparent without ground truthing. Approximately 5km to the north of Silchester is the Kennet Valley. This wide, open valley has good local visibility compared to much of the surrounding landscape, as do the hillslopes on either side. Surrounding the inner enclosure at Silchester to the north and west is a wide plateau which stands out above the surrounding landscape and has restricted viewsheds from its summit. An observer standing atop the ridgeline approximately 7km to the southwest might be afforded views of the interior summit of the plateau but viewsheds of over 5km were not accounted for in this methodology (see section 4.3.3.4). To the east, south and west of Silchester the topography changes once again as rolling hills are cut by small rivers and streams, creating a landscape with both extremes of visibility in close proximity, similar to those at Bagendon or Gussage Cow-Down. The locations of the Silchester earthworks in relation to the total viewshed are interesting. Most obviously the inner enclosure is located at the southwestern side of the plateau on a significantly more highly visible, southeast facing

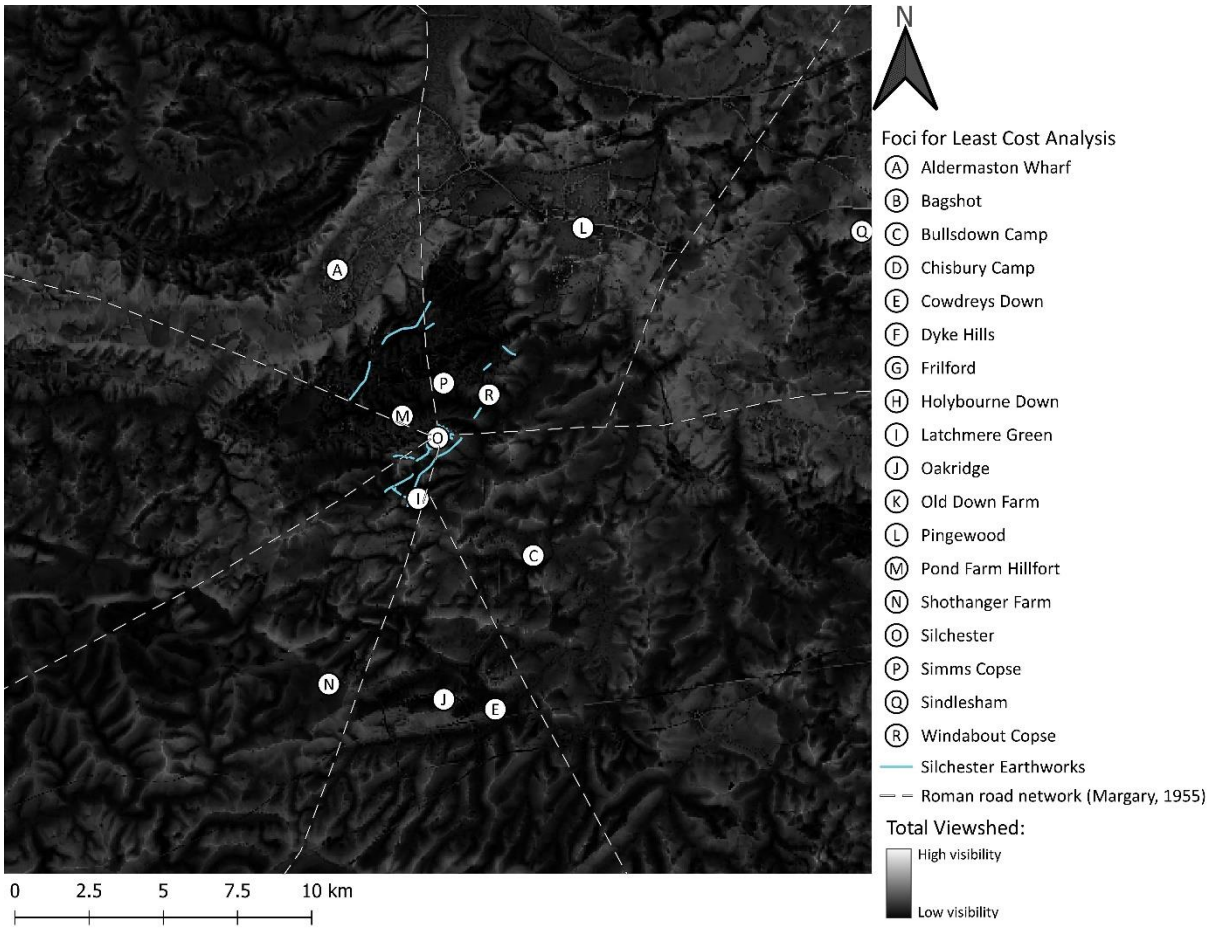


Fig 66 – Total viewshed for the Silchester landscape.

slope. Its location here means that views to and from the enclosure would have been blocked from the southwest, north and north east. The south-eastern outer earthworks skirt these more highly visible slopes as well, perhaps visibly demarcating the preferred route to access the complex. Grim's bank to the north-west, by comparison sits atop the less visible plateau which suggests either an alternate function for the earthwork, or else that in neither case was visibility, or lack thereof, a serious consideration, perhaps in contrast to the main enclosure. It is worth reiterating that research has suggested the foundation of the complex in a densely wooded environment which was rapidly cleared (see section 3.2.5.3). The total viewshed obviously shows a visible landscape void of vegetation but the land clearance following the establishment of Silchester would suddenly, and drastically, have altered the visual landscape.

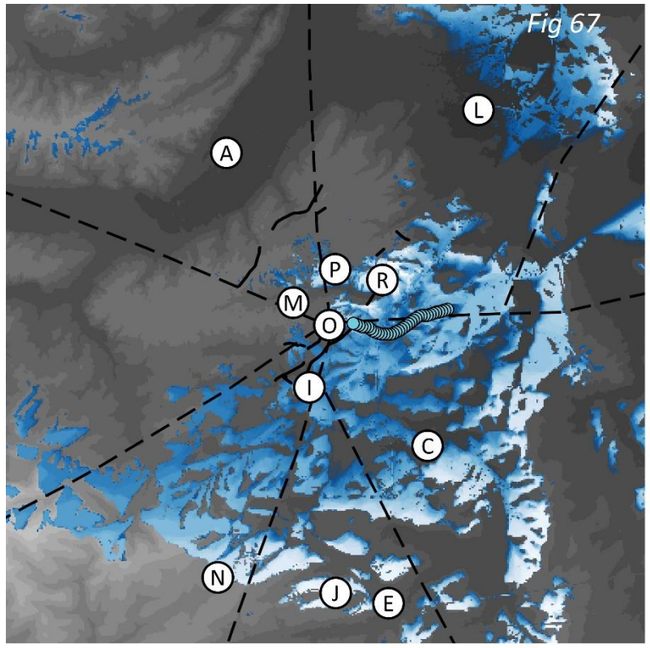
5.2.6.2. Cumulative Viewsheds

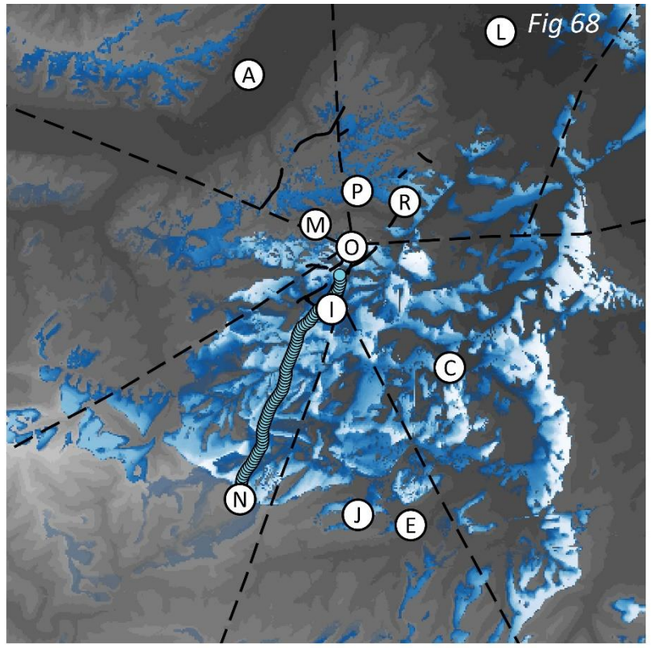
Figs 69-70 illustrate that approaches into the complex from the north would find it difficult to see the main enclosure, and even the foci at Pond Farm, Simms Copse and Windabout Copse are largely invisible. In addition, the plateau itself blocks visibility further to the south across the Loddon Valley, it would not have been until approaching Silchester itself that travellers from the north would have the complex revealed to them as well as the landscape beyond, into which Silchester would have controlled access. The presence of Grim's Bank at the northern edge of the plateau could have ensured that access and egress was controlled in such a way as to direct movement towards Silchester.

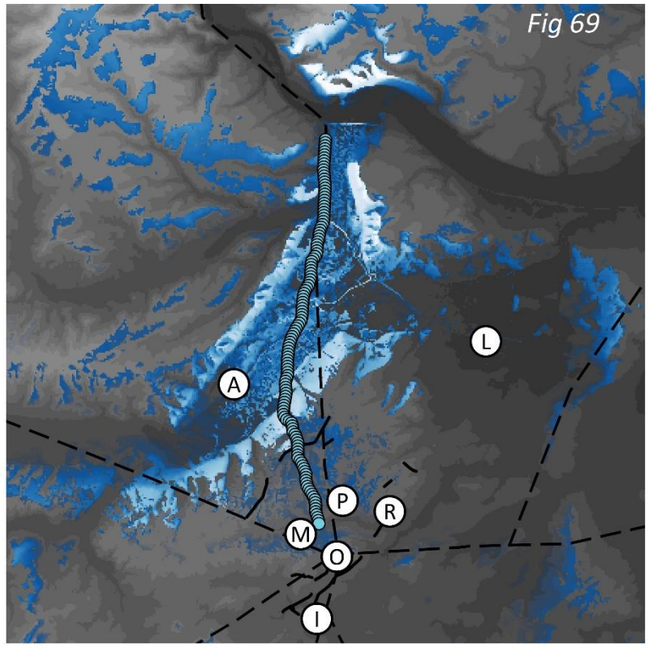
Figs 67&71 illustrate the viewsheds for two eastern approaches to the complex, regarding a high visibility and low visibility route respectively. It is interesting that in both cases (even the high visibility route) the main enclosure remains largely invisible, with the valley of the West End Brook obscuring much of the complex. An approach to Pond Farm along the West End Brook itself leaves the site almost totally invisible as well. A visual and topographic comparison could be drawn with similar situation at the Ditches enclosure in the Bagendon complex or Hanging Langford Camp at the Nadder-Wylye Ridge. *Figs 67&71* also illustrate an important point about the Loddon Valley, which comprises both extremes of visibility as demonstrated by the total viewshed, whereby drastically different visual landscapes are present for otherwise relatively close routes such as *Fig 67* and *Fig 71*.

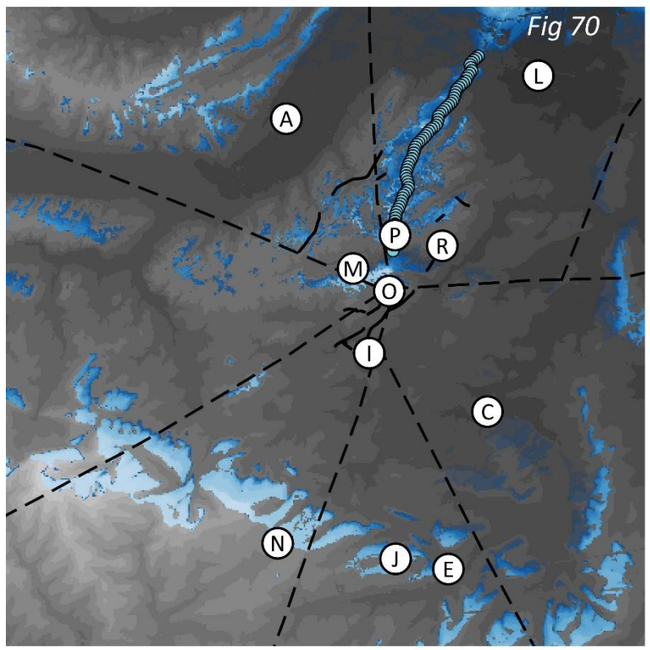
Figs 68&72 show two approaches towards Silchester from the west/southwest, being high visibility and high elevation routes respectively. It is notable in both cases that the top of the plateau to the north of Silchester is at least partially visible for some of each of the routes, especially in comparison to the majority of other routes. In both cases as well, much of the eastern half of the enclosure at Silchester is largely invisible, but the Rampiers Copse earthworks are situated in of the most highly

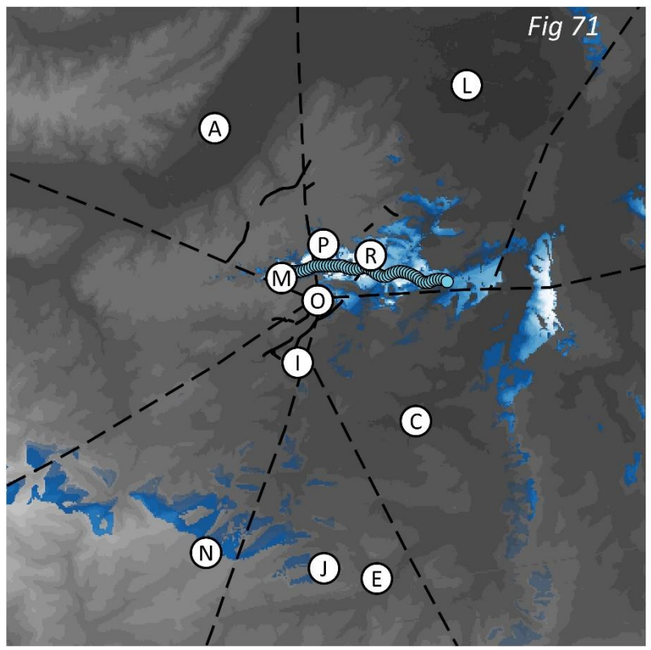
visible areas of the route. Both *Figs 68&72* also have extensive views across the Loddon Valley similarly to *Fig 67.* The open and relatively visible nature of the valley is reflected in the total viewshed as well and is in contrast to the northern plateau leading to Silchester's position ng two visually distinct landscapes.

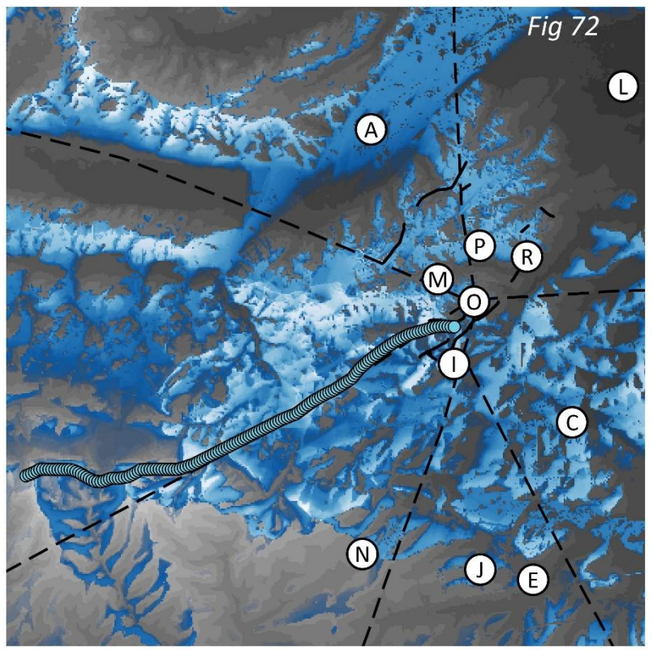


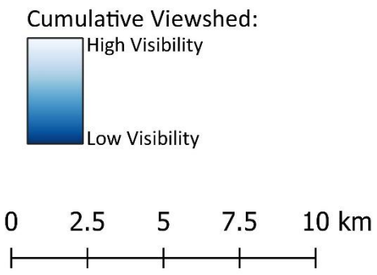












(A) Aldermaston Wharf
(B) Bagshot
(C) Bullsdown Camp
(D) Chisbury Camp
(E) Cowdreys Down
(F) Dyke Hills
(G) Frilford
(H) Holybourne Down
(I) Latchmere Green
(J) Oakridge
(K) Old Down Farm
(L) Pingewood
(M) Pond Farm Hillfort
(N) Shothanger Farm
(O) Silchester
(P) Simms Copse
(Q) Sindlesham
(R) Windabout Copse
Viewshed Points
Roman road network (Margary, 1955)
Earthworks

Fig 67 – High visibility approach route to Silchester from the east.

Fig 68 – High visibility approach route to Silchester from the southwest.

Fig 69 – Low elevation approach route to Silchester from the north.

Fig 70 – Low visibility approach route to Silchester from the northeast.

Fig 71 – Low visibility approach route to Silchester from the east.

Fig 72 –High elevation approach route to Silchester from the southwest.

Chapter 6

Discussion and Conclusions

6.1. Introduction

Through an analysis of the results presented and discussed in Chapter 5 two major themes are evident running through each of the five case studies. These themes relate to the scales of analysis outlined in section 4.2.3 and are discussed below in sections 6.2.2 and 6.2.3. The first theme is focussed at the local scale and to do with how the arrangement of the earthworks and foci for each complex, and how the arrangement of important foci and earthworks in relation to natural topographic features could have been designed to control the localised space and consequently the experience of movement. The second theme is concerned with how the placement at a regional scale of each of the complexes appears to have been designed in such a way as to exploit longer distance routes, which in turn has influenced the local arrangement of foci and earthworks. In both cases a phenomenological approach in addition to the consideration of affordances (Gibson, 1977; 1979 Llobera, 1996; Chemero, 2003 – see section 6.2.1) can be used to add depth and an experiential understanding of movement through these landscapes as outlined in Aim 2.3. Section 6.2 outlines these themes, compares the results from each case study, and places this research within the broader archaeological context discussed in Chapters 2-3, and with which Research Question 1 is concerned. Finally, section 6.3 concludes on the preceeding discussion and section 6.4 makes a number of recommendations for further research.

6.2. Landscapes of Movement and Theatre

6.2.1. Phenomenology and Affordances

Before delving too deep into the following discussion it is important to reiterate some of the main aims of this thesis and to understand why these are the focus. Research Question 2, and in particular Aim 2.3 concern the ability of the earthwork complexes being studied to exert control over or influence the experience of movement through their respective landscapes. Such an aim is not something that can be adequately answered through the use of GIS alone and requires an appropriate interpretive framework. Ingold (1993:156) expressed this indirectly in defining the concept of landscape as:

"*the world as it is known to those who dwell therein, who inhabit its places and journey along the paths connecting them.*"

While GIS can offer models and predict the "paths" connecting the "places" it cannot alone seek to understand the landscape as defined by Ingold (1993). The movement and viewshed models presented in this thesis are exploring the possible routeways and sights of real communities with real experiences. For this reason, as discussed in sections 4.2.2 & 4.2.4 the following discussion utilises an experiential phenomenological approach alongside the concept of affordances to help interpret the least cost and viewshed analysis presented in Chapter 5.

6.2.2. Theme 1: The Local Scale

6.2.2.1. The Utilisation of Topography

In all cases the layout of the complexes examined in this study make great use of natural topographic features to enhance the scale of earthworks and to restrict visibility during approaches to specific foci. The total viewshed of the landscape surrounding Bagendon indicates that only a short distance to the south there is a much more highly visible area that would have projected the presence of the earthworks much further afield. However, the decision to site Bagendon at its actual location makes sense in the context of the directions by which people could have approached the complex and with a desire for the theatrical in mind (Moore, 2017a:289-290). Least cost paths approaching from the south and east were shown to have highly restricted views of the entrance to the complex until incredibly close. A microcosm of this is reflected within the complex where the approaches to both the Ditches and the Duntisbourne enclosures from the valley bottom are highly restrictive. A similar phenomenon is evident at the Gussage Cow-Down complex which could have been located around a much more highly visible, yet equally well travelled set ridgelines to the north. Similar to Bagendon again, cumulative viewsheds from routes approaching the pairs of banjo enclosures at Gussage St. Michael indicate that the enclosures would have been relatively invisible until the last moment.

The Nadder-Wylye ridge complex is situated atop a prominent ridgeline and at first glance would be expected to contradict the findings at Bagendon and Gussage Cow-Down. However, while the Grim's Ditch roughly traces the summit of the ridgeline between the Nadder and Wylye valleys, the total viewshed indicates the presence of a false summit with relatively little localised visibility. This is notable given the numerous north-south routes predicted by the least cost analysis which would have been directly interrupted by Grim's Ditch. Given its scale it seems plausible (though it cannot be assumed) that people would have known that the monument was there and may well have planned

their routes accordingly. Any who were not aware would only have been confronted with it upon completing their ascent of the ridge. As such, while Grim's Ditch might not have directly prevented a large amount of this movement, the knowledge of its presence would have altered the way in which people traversed the landscape, funnelling them towards the various foci which frequent the ridge. Cumulative viewsheds for routes approaching the foci at Hanging Langford Camp, Stockton Wood and Ebsbury Copse demonstrate a similar phenomenon to that observed at Bagendon and Gussage Cow-Down, whereby the foci are largely invisible for the majority of the route until the final moments. An interesting exception to the rule evident at the Nadder-Wylye ridge complex is at Hamshill Ditches, where the double banjo enclosure is situated in one of the most highly visible parts of the landscape when considering a southern approach route. This is an interesting observation as Hamshill Ditches is also the only foci at the Nadder-Wylye ridge situated on the south facing slope of the ridge. The differing visibility and situation of Hamshill Ditches might therefore imply a different function, date or relationship to the wider complex. In a similar fashion the approach towards Ebsbury from the north, via the River Till provides a highly visible though inaccessible façade to the monument. Actual access to the main enclosure at Ebsbury would likely still have come from the east, defined by a considerably less visible approach.

It is notable that a Roman road overlies much of Grim's Ditch linking Old Sarum to Cold Kitchen Hill. Given the Iron Age origins of both sites (see Appendix 1.2) it is highly likely that the Nadder-Wylye Ridge acted as a similar routeway in the Late Iron Age. The fact that the sites along the Nadder-Wylye Ridge are relatively poorly excavated (see section 3.2.3) means there is currently no reason to believe that they fell out of use in the Roman period. Indeed the recovery of a late Roman coin hoard from Ebsbury (Hill, 1907), in addition to the presence of the road, indicates that it may have continued to be a settled landscape as late as the 5th century AD. LiDAR data consulted as part of this project from the Nadder-Wylye ridge also hints at a palimpsest of landscape features spanning the Late Iron Age to post-Roman period (see *Fig 7*).

This utilisation of topography is not as stark at either Silchester or Stanwick, whose respective landscapes are relatively undifferentiated in comparison to those of the Cotswolds, Cranborne Chase or the West Wiltshire Downs. As such it is interesting that in both cases there is still evidence for the utilisation of more subtle topographic features to a similar end. At Stanwick activity is centred on the Tofts where a slight valley is created by the course of the Mary Wild Beck which in turn creates a relatively invisible area of the landscape compared to the enclosed area to the north or the ridgeline of the southern-most dyke (*Fig 10*). It is interesting that Henah Hill would have acted as a significant obstacle to the visibility of the Tofts for those approaching from the east. Such an eastern access route

along the Mary Wild Beck might make more sense than through the gap in the eastern rampart, which is somewhat speculative as there are no definite traces of such an entrance (Haselgrove, 2016:17). Instead, an eastern access route may have skirted the northern bank of the Mary Wild Beck and thence the southern slope of Henah Hill. While a terrace excavated on the northern side of Henah Hill proves to be largely due to the presence of a later lynchet, this overlies an earlier potentially Iron Age bank sequence (Haselgrove, 2016:141-143). A similar sequence could be present along the southern slope of the hill, perhaps explaining the slight terracing apparent here (Haselgrove, 2016:13) as a deliberate definition of a particular route and even evidence of colluviation and erosion through foot traffic. Were this an access route along the Beck the rampart at the base of the western slope of Henah Hill would then have been suddenly revealed extending away to the north and preventing immediate access northwards to bypass the Tofts.

Meanwhile, the main enclosure at Silchester is situated on the crest of a southeast facing slope at the southern edge of a low plateau. The placement of Grim's Bank may have blocked access to the plateau from the Thames and Kennet valleys to the north – although the dating of this dyke is ambiguous, relying on an interpretation of excavated pollen evidence (Astill, 1980:62; Creighton and Fry, 2016:330-332) – and the plateau itself obscures Silchester entirely from all directions baring the south and east. In addition to its situation on the southeast scarp of this plateau, Silchester lies in the crook of the West End Brook to the north and the Silchester Brook to the south and east. The arrangement of these brooks, with their tributary valleys running down from the plateau, and the dykes themselves appears to force access to Silchester either via the West End Brook and Pond Farm Hillfort or from the Silchester Brook to the southwest and into the main enclosure via Rampiers Copse (which is thought to be an earlier enclosure – Creighton and Fry, 2016:322).

6.2.2.2. Chronological Depth

In considering the local scale routeways around the various case studies, and the experiences of people who may have traversed such routes, the reasons for their establishment constitute an important question. Such a question fits in to Aim 1.2 and the consideration of how pre-existing sites and routeways shaped the development of the complexes. With this in mind it is interesting to note that a number of the sites under study have recently been shown to have origins pre-dating the Late Iron Age. This is in contrast to the notion that such sites were established in previously uninhabited or under-utilised areas of the landscape (see Chapter 2 – Moore, 2007b:55; 2013; Hill, 2007:32; Creighton and Fry, 2016:339) and fits with newly emerging understandings of the character of "pre-*oppidum*" landscapes (Garland, 2020). Both the Cutham and Scrubditch enclosures at Bagendon date to the Middle Iron Age (Moore, 2020) and fell out of use by the peak of valley bottom activity at the site,

potentially following a single act of abandonment (Moore, 2014:20). Additionally, recent dating evidence suggests that aspects of the enclosing ramparts at Bagendon may also pre-date the valley bottom occupation (Moore, 2020) which reached its peak in the 1st century AD (Clifford, 1961; Swan, 1975; Trow; 1982; Moore, 2020). At Silchester there are a number of poorly dated features, such as Rampiers Copse and Flex Ditch (Creighton and Fry, 2016:340-341) which could potentially pre-date the main phase of Late Iron Age occupation. Rampiers Copse in particular must have been present due to the Late Iron Age burials cut into its bank (Creighton and Fry, 2016:341-342). The recent Silchester Environs project has also revealed earlier settlement evidence, in particular the Middle Iron Age enclosures at Pamber Forest (Fulford *et al.*, 2018:2-8), the likely pre-1st century BC enclosures at Simm's Copse (Fulford *et al.*, 2018:8-13) and the Early and Late Iron Age farmstead at Windabout Copse (Fulford, Barnett and Clarke, 2016). Excavation of the linear earthworks at Brocas Lands and Little London also revealed dates for construction in the Middle Iron Age (Fulford, Barnett and Clarke, 2016:8; Truscoe, 2019:69).

While the dating evidence for Gussage Cow-Down and the Nadder-Wylye ridge is comparatively sparse due in large part to a lack of excavation at these sites (see sections 3.2.2-3) the prevalence of banjo enclosures at the two complexes, which emerge from the Middle Iron Age (Lang, 2016), might suggest a degree of longevity. Excavations at Gussage All Saints (Wainwright, 1979) revealed a long life-span for the enclosure beginning in the Middle Iron Age which begins to corroborate such an idea. At the Nadder-Wylye Ridge a number of the foci have produced La Téne I brooches (Grinsell, 1957:107-Hanging Langford Camp; 129-Bilbury Rings) and some coarse pottery which may pre-date the Late Iron Age (Grinsell, 1957:107). Stanwick, by comparison to the other case studies, shows a relative lack of preceeding activity with the beginnings of settlement at the Tofts radiocarbon dated to sometime in the early to mid-1st century BC (Haselgrove, 2016:175). Although Stanwick's surrounding landscape contains a relative lack of excavated settlement evidence making assumptions about earlier Iron Age settlement patterns difficult (<20% of sites included in the Stanwick Environs survey had been subject to any kind of excavation, Haselgrove, 2016:364). These observations are not to challenge the prevailing opinion regarding preceeding occupation, rather to suggest a more complex picture than of establishments of grand complexes on virgin ground in the later 1st century BC and early 1st century AD. The suggestion that some territorial *oppida* may have been established in areas that were previously used for periodic assembly (E.g. Moore, 2017a:292-293) adds to such a picture.

In light of this information the routeways predicted by the least cost analysis, their respective cumulative viewsheds, and their relationships with the various complexes can be interpreted in a somewhat different manner. It becomes, to a certain degree, a chicken and egg question; was the

polyfocal nature of these complexes and the arrangement of the earthworks a product of pre-existing routes, an attempt to re-direct old routes, or a mixture of both? The results presented in Chapter 5 go some way to answering this question because the earthworks were not included in the underlying cost rasters (see sections 4.3.2.3). As such the routes between each landscape's foci often give an indication of what routes might have been present prior to construction of the earthworks, where they intersect there is a clear conflict but where they are compatible it suggests more of a formalisation of existing routeways. Fioccoprile argued for such a formalisation of pre-existing "*conceptual, socially fundamental boundaries*" through the use of linear earthworks in the North Yorkshire Wolds (2015:104) and how some such earthworks facilitated movement through the "*formalisation of socially or cosmologically acceptable routes, which would have channelled people and animals along and across them*" (Fioccoprile, 2015:274). Comparison to these case studies is probably best drawn with Grim's Ditch on the Nadder-Wylye ridge which may have permanently crystallised an already important route across the West Wiltshire Downs between sites such as Old Sarum and Cold Kitchen Hill.

At the other end of the spectrum one of the best examples of a conflict between an earthwork and routeway can be seen at Bagendon in the relationships between the Cutham and Scrubditch enclosures and Scrubditch dyke. The orientation of Scrubditch dyke (with the bank to the north and the ditch on the 'inside' of the complex) is somewhat confusing in relation to the wider complex and has been interpreted as meaning that it represents an earlier cross-ridge dyke (Moore, 2012:395). However, in the context of the high elevation least cost paths around the complex (see section 5.1.2.2) it would make sense if there was a north-south route along the ridge that was being exploited by the two enclosures. In a similar fashion to the Cutham enclosure's long boundary to its east, Scrubditch dyke could have acted to disrupt a pre-existing route to the north that had become undesirable, perhaps once the two enclosures were abandoned or following the increased importance of the Ditches and Duntisbourne enclosures, and the valley bottom occupation.

The arrangement of the dykes at Gussage Cow-Down could be interpreted in a similar manner. Here, the foci at Thickthorn Down and Gussage Cow-Down are arranged around a number of dry river valleys, but the dykes themselves are generally cross-ridge in nature. The use of the ridgelines predicted by the high elevation least cost analysis suggests that these dykes may have been designed to prevent exactly this kind of movement, or to facilitate the 'correct' approaches to the various foci of the complex. Similarly, at Stanwick such an interpretation might provide an answer to why the outer ramparts at Stanwick exclude Henah Hill. Placing a dyke on the inside of Henah Hill may have aided in guiding movement towards the right part of the complex, rather than allowing wider ranging access

int the northern enclosure, without first entering the Tofts. All of this leads to the conclusion that the development of the earthworks at each of the complexes may have been organic in nature and concurrent with either changes in established patterns of movement, or with the formalisation of that movement.

6.2.3. Theme 2: The Regional Scale

6.2.3.1. Routes and Roads

An enduring hypothesis for the placement and purpose of territorial *oppida* is the suggestion that they exploited long distance trade and exchange networks (see section 2.3.3). This is well borne out by the material evidence excavated at many sites where British coins and imported Gallo-Belgic and Roman pottery are common (E.g. *Camulodunum* – Hawkes and Crummy, 1995:6-7 (coins); 73 (Sheepen imported amphorae); Foster, 1986; Fitzpatrick, 2007 (Lexden Tumulus imports)), including sites not usually defined as *oppida* (E.g. imports from Italy at Braughing (Partridge, 1981:351-352); the coin hoard at Forest Hill complex (Corney, 1989:123; Allen, 1961:291)). It is notable that two of the case studies (Gussage Cow-Down and the Nadder-Wylye Ridge) lie within 50km of the contemporary port-of-trade at Hengistbury Head (Cunliffe, 1987) and appear to exploit major inland routes from the coast. It was in part this evidence that led Corney (1989;1991) to suggest that sites such as Gussage Cow-Down and the Nadder-Wylye Ridge represented a comparable set of landscapes to territorial *oppida*.

The locations of each case study on significant geographic or economic boundaries (see section 2.3.3 and Chapter 3) supports such an idea and this aspect of many polyfocal complexes is evident at each of the five case studies discussed here. For example, Bagendon is ideally placed to exploit potential movement between the Severn and Upper Thames Valleys and lies at the periphery of a number of regional exchange networks (Moore, 2007b:53-55). Meanwhile, Stanwick is located on major north-south and east-west highways that still exist to this day. At both Gussage Cow-Down and the Nadder-Wylye Ridge complex the exploitation of major river systems such as those of the Allen, Avon and Stour is evident. For example, the eastern end of Grim's ditch feeds directly into the confluence of the Nadder and Wylye rivers and from there towards Hengistbury Head via the River Avon. To the south of Gussage Cow-Down the River Stour extends from Hod Hill and Hambledon Hillfort in the west, past Badbury Rings and again towards Hengistbury Head. The Nadder-Wylye Ridge would have been ideally placed to exploit such traffic coming from Hengistbury Head in addition to east-west movement between Old Sarum Cold Kitchen Hill and beyond. Cunliffe (1973:438) suggests that the Wylye Valley was the northern territorial boundary of the *Durotriges* and while the concept of tribal boundaries

such as this is troublesome (Moore, 2011) it is interesting to think that the Nadder-Wylye ridge may have represented an important cultural boundary of some description. While the location of Gussage Cow-Down in Cranborne Chase is not directly exploiting such an obvious single route or topographic feature it is nonetheless ideally placed at the junction between a number of routes. Sites such as those at Bilbury Rings and Hod Hill could well have acted to divert traffic from the River Stour towards Gussage Cow-Down. The presence of a Roman Road (Ackling Dyke) linking Bilbury Rings with Old Sarum via Gussage Cow-Down reinforces such a notion.

The presence of Roman roads (sometimes several) in close proximity to every case study presented in this thesis reinforces the suggestion that many polyfocal complexes were situated on major, long distance routeways. As has been suggested above such routeways may well have preceded the complexes but their subsequent development created a feedback loop, influencing the course of these routes and leading to the development of new ones. It is not controversial to suggest that Roman roads in many instances formalised and imposed themselves upon pre-existing Iron Age routeways (Haselgrove, 2016:459), especially where they link sites with Iron Age origins. The Nadder-Wylye Ridge easily provides the starkest example of this among these case studies, where the Roman road cuts Grim's Ditch at a number of locations. By comparison, the course of Ermin Street to the west of Bagendon, which truncates the two enclosures at Middle Duntisbourne and Duntisbourne Grove (Mudd *et al.*, 1999:77-96), bypasses the main Bagendon complex perhaps symbolising its decline following the foundation of Cirencester (although the discovery of a number of Roman villas within the complex (Moore, 2020; Trow *et al.*, 2009) paints a more complex picture of Roman attitudes). While not of Roman origin it is notable that at Bagendon the 13th century Welsh Way (Copeland, 2009:49-52) proceeds from Barnsley and the northern most navigable point of the Thames (where there is both a banjo enclosure and a villa – Moore, 2006:143-147) to Bagendon, where it diverts up the southern slope of the valley towards the Duntisbournes. It has been suggested that the Welsh Way has origins in the Iron Age (Copeland, 2009:49-52) and if true it seems unlikely that the route would have originally bypassed the centre of occupation at the complex. Nonetheless the course of the Welsh Way may well be linked in some way to the use and development of the complex at Bagendon.

6.2.3.2. Least Cost Analysis

The least cost analysis presented in section 5.1 provides some of the first predictive models of regional movement patterns associated with some of the enigmatic earthwork complexes which emerged in Late Iron Age Britain. At Bagendon the least cost analysis indicated the presence of a possible western approach towards the Duntisbournes from Minchinhampton, for both the low elevation and low

visibility models in the Bagendon landscape. Such a potential route would not only add further reason for the location of the two Duntisbourne enclosures but would also help to explain the course of the Welsh Way, which may have Iron Age origins (Copeland, 2009:49-52), and would mean that the wider complex of Bagendon sat at a junction incorporating the River Frome to the west. Therefore, in addition to Bagendon's apparently prime location at the periphery of a number of trade and exchange networks (Moore, 2007b:53-55), it would also be situated at a major crossroads between both north-south and east-west routes.

A similarly well-travelled route is that predicted by the high elevation least cost analysis for Gussage Cow-Down and the Nadder-Wylye Ridge which runs from Hod Hill and Hambledon Hillfort in the southwest to the northeast along the ridgeline between the rivers Nadder and Ebble. Several other least cost paths join this route from both the north and the south of the ridge. Interestingly the ridge separating the River Ebble from the Gussage Cow-Down complex is also well travelled in this model and there is significant overlap with parts of the prehistoric Ox-Drove ridgeway (Wiltshire HER MWI3114; Tilley, 2016:101-105). It is notable that the landscape of Cranborne Chase and the West Wiltshire Downs is divided by three major ridgelines defined by the Rivers Wylye, Nadder and Ebble, but only one such ridge (that of the Nadder-Wylye) appears to have been extensively settled in the Late Iron Age. The Gussage Cow-Down complex by comparison does not appear to even attempt to exploit the southern most of these three ridges, instead being spread over a wide catchment spanning several smaller, north-south orientated valleys to the south. The vast difference in topography evident at Gussage Cow-Down compared to the Nadder-Wylye ridge would not only have afforded an entirely different atmosphere and set of experiences but may have led to (or been designed for) an entirely different function. The Nadder-Wylye ridge complex may exploit a well-established route along the ridgeline, by comparison the wide catchment of Gussage Cow-Down and its numerous dispersed foci and cross-ridge dykes may have been designed to capture travellers dispersed over a wide area, not traversing a major 'trunk' route like the River Allen, Stour, or the Nadder-Wylye Ridge. This could even be reflected in the lack of single, well-defined least cost paths predicted by any model towards Gussage Cow-Down from Hengistbury Head. Such an interpretation would also go some way to explaining the sheer quantity of linear earthworks present at Gussage-Cow-Down which would be necessary to funnel multiple approach routes down to specific foci.

Regional routeways predicted by the least cost analysis can be well evaluated in light of the recent research into this topic. Haselgrove (2016:459-461) has discussed a number of plausible routes around the Stanwick landscape which would correspond well with actual and presumed entrances to the enclosure and would place the complex at the centre of cross-roads of routes linking various crossing

points of the River Tees with southern and western routes. The least cost paths presented in section 5.1 unfortunately do not appear to correspond particularly well with those suggested by Haselgrove (2016:459-461) but such a contradiction could simply be a product of the dataset used during this work. By specifying the entrances as destinations in the least cost analysis Haselgrove's suggestions might have been corroborated and further research could focus on this. In a similar fashion, there is little by way of overlap between the least cost paths of any model and the course of Scots Dike. Once again it may be that this is a product of the locations of for analysis, however the incomplete nature of Scots Dike in the present day means that it is hard to actually predict its function, or to model movement along it. Again, further research could focus more closely on Scots Dike using finer resolution data. Throughout all least cost models for the Stanwick landscape there is only really one route which truly stands out, that being the River Tees, in particular from Forcegarth towards Stanwick in the low elevation, low visibility and high visibility models, and from Ingleby Barwick towards Stanwick in the low elevation and low visibility routes. It could probably have been assumed that such a major watercourse would have comprised a major route in the Iron Age (Sherratt, 1996) but the overlap of such a route with the high visibility least cost model is interesting from an experiential perspective. This is especially true compared to the steep sided river valleys of the Cotswolds, Cranborne Chase and the West Wiltshire Downs which afford significantly more restrictive viewsheds. Notably the high visibility model at Silchester also has the highest concentration of overlapping least cost paths within the wide, low valley of the River Loddon, compared to the other models in the same landscape. Such an observation demonstrates that many well-travelled riverine routes (Sherratt, 1996) would have frequently afforded vastly different visual experiences from one another.

Within the Silchester landscape it has already been mentioned that the Loddon Valley would have provided various relatively visible routes in the immediate vicinity of Silchester. At a wider scale, the high visibility route from Chisbury Camp towards Aldermaston Wharf skirts the north facing slope of the valley of the River Kennet, again highlighting that wide valleys can provide extensive viewsheds. Low elevation routes from Chisbury Camp, Frilford and Dyke Hills make unsurprising use of the Rivers Kennet and Thames in heading to/from Aldermaston Wharf. From there it is notable that Grim's Bank essentially prohibits access further south towards Silchester which also has a clear focus to the south and east. While the dating of this earthwork is unclear (Creighton and Fry, 2016:330-332) – although maybe Late Iron Age in date (Astill 1980:62) – its correlation with the multiple linear earthworks southeast of Silchester in cutting off the plateau is suspicious and appears to suggest that access to Silchester from the north and the River Kennet was either undesirable or highly controlled. Another well-travelled route from Chisbury Camp and Old Down Farm towards Silchester utilises one of the

highest points of the regional landscape, along a ridgeline that runs parallel to and between 5-7.5km south of the River Kennet.

6.3. Conclusions

To conclude on Theme 1 and the local scale, it is apparent at all case studies that the foci and earthworks have been arranged to exploit their respective topographies. This is not to suggest that these are the only reasons for location and layout of each complex, other reasons such as a veneration of watery places (Rogers, 2008:42-51; Crease, 2015) or the presence of pre-existing activity (Garland, 2020; Scrubditch and Cutham enclosures at Bagendon (Moore, 2012; 2014), the Pamber Forest enclosures at Silchester (Fulford *et al.*, 2018), or Gussage All Saints (Wainwright, 1979)) certainly have their part to play as well. However, when it comes to the experience of movement around each landscape, and what each landscape afforded to the communities who inhabited it, the arrangement of earthworks and foci would have been paramount. Restricted and directional viewsheds upon approaching various foci are common, often making use of steep, dry rivers valleys where the terrain allowed, but frequently utilising more subtle folds in the landscape as well, such as the Mary Wild Beck at Stanwick or the false summit along the Nadder-Wylye Ridge. The idea of controlling movement and visibility around these landscapes is not a new one and has been considered in relation to Late Iron Age British *oppida* in several cases. Notably, Moore (2012; 2017a) has discussed the notions of choreographed landscapes and powerscapes with regard to Bagendon. Creighton (2006:124-130) has likewise discussed the layout and development of pre-Roman and Roman *Verulamium* with relation to patterns of movement and visibility between the Folly Lane burial enclosure and St Michael's enclosure. At *Verulamium* Bryant (2007:72) has also considered how the arrangement of the dykes of the wider complex (E.g. at Prae Wood, Gorhambury and the Devil's Dyke) could have acted to block access to particular routes in and around the complex, pre-determining the viewsheds, routes and experiences of those traversing the *oppidum*.

To conclude on Theme 2 it is clear that regional scale topographies and routeways very likely affected the locations of each of the case studies. This is perhaps unsurprising given that such a theory has long been considered for territorial *oppida* given their strong association with trade and exchange networks (see section 2.3.3). This research indicates that a similar phenomenon is likely at both Gussage Cow-Down and the Nadder-Wylye ridge, which have seen limited fieldwork to recover material culture that would otherwise have proven their association with regional networks. However, this research has also demonstrated that regional scale movement patterns may have played a part in the local scale layout of this kind of earthwork complex. At Bagendon for example, the least cost

paths from Minchinhampton to the Duntisbournes (via the River Frome) and from there towards Barnsley (and via the Welsh Way) place Bagendon at a potentially more significant crossroads than if it were just exerting influence over movement between the Upper Thames and Severn Valleys along the River Churn. Similarly, the stretched-out nature of the Nadder-Wylye ridge complex can be explained through its exploitation of a possibly pre-existing route across the West Wiltshire Downs. Meanwhile, the multiple cross-ridge dykes and more isolated foci of Gussage Cow-Down could have been designed to catch as much north-south movement across Cranborne Chase as was possible. One of the most interesting observations to come out of this research is that while many earthwork complexes appear to have exerted influence over regional (sometimes international) exchange networks, such networks may have relied as much on the complexes as the complexes did on them. The least cost analyses presented here rely on setting definitive foci for analysis throughout the landscape, but the settlement patterns around these complexes were not static entities. While there are some areas of each landscape traversed by multiple different least cost paths, suggesting a higher degree of confidence in their accuracy, the organic and evolving nature of the landscape and settlement patterns would have led to an organic and evolving set of routeways. While this thesis has outlined the reasons for choosing each foci (see Appendix 1) this does not necessarily mean that people were choosing to move between those sites, or that there were not fluctuations in the frequency of that movement. Seasonal gatherings (as has been suggested at *oppida* – Moore, 2017a:291-293) would have necessitated seasonal movement which in turn would have affected the views and experiences afforded to travellers. Excavations at Silchester have revealed that while it was at least a partially settled landscape during the Middle Iron Age (Creighton and Fry, 2016:340) the main enclosure was founded in a heavily wooded area that within a matter of decades was much more open (Wooders and Keith-Lucas, 2000; Lodwick, 2014a:176; Creighton and Fry, 2016:343) and following the Roman conquest became a transport hub for the region. In this particular instance the imposition of Silchester on the landscape could drastically have changed both local and regional movement patterns. As such, the fluid nature of earthwork complexes, settlement patterns and routeways will have led to a fluidity in the nature of trade and exchange throughout the Late Iron Age.

In conclusion, this thesis has utilised the combined methods of least cost and cumulative viewshed analysis, in addition to a consideration of phenomenology and affordances, to explore the ways in which Late Iron Age, landscape-scale earthwork complexes manipulated and exerted control over the experience of movement. It has shown how the placement of earthworks and foci, in relation to their topographic setting, was frequently used to impose a sense of theatre (Moore, 2017a:289) or to enhance the grandeur and scale of individual foci or earthworks. This involved the enhancement of natural landscape features such as Scrubditch dyke at Bagendon which increases the scale of a natural

valley leading to the plateau central to the main complex. It also involved the use of highly directional visibility, for example Ebsbury along the Nadder-Wylye Ridge is highly visible when approach along the River Till from the north but nigh-on invisible when approaching along the ridge from the east. Such utilisation of topography is even evident in less differentiated landscapes such as at Stanwick where Henah Hill and the valley of the Mary Wild Beck act to obscure lines of sight to and from the Tofts. On a wider scale it has shown how the arrangement of earthworks and foci at these complexes may have had a reflexive relationship with movement whereby pre-existing routes influenced the development of the complexes, which in turn influenced the development of routeways. The results of this research therefore have wide-ranging implications for our understanding of how movement was both controlled and experienced during the Late Iron Age in Britain. The results fit well within Moore's (2017a:289-291) discussion of "powerscapes" whereby *oppida*, and similar complexes such as Gussage Cow-Down and the Nadder-Wylye Ridge were arranged in order to "*communicate the status of the community and the power of the place itself*" (Moore, 2017a:290).

6.4. Avenues for Further Research

This thesis has demonstrated the potential for using mixed GIS and experiential analysis in helping to understand the ways in which Late Iron Age polyfocal earthwork complexes functioned as landscape scale constructs. The simplest recommendation for future research is therefore to apply the same methods of analysis and interpretation to other similar sites, in particular those discussed by Corney (1989) and Moore (2012) beyond the complexes at Gussage Cow-Down and the Nadder-Wylye Ridge. This should form part of an integrated and comparative analysis of such sites alongside those traditionally defined as *oppida*, in a similar fashion to the comparative analysis presented here. The terminological issues highlighted in section 2.2 relating to the use of the term *oppida* have proven to be superfluous to the actualities of conducting research such as this which can indirectly aid in breaking down such barriers and opening up new avenues for research. A downside demonstrated through comparison of traditionally classified territorial *oppida* and similar complexes such as Gussage Cow-Down and the Nadder-Wylye Ridge is the disparity in modern research into the complexes. Bagendon, Stanwick and Silchester have all been subject to long running and in-depth programs of fieldwork in recent decades, much of which has focused on the environs and environment the complexes (Barnett, 2019; Fulford, Barnett and Clarke, 2016; Fulford *et al.*, 2017; Haselgrove, 2016; Moore, 2020; Truscoe, 2019). By comparison, Gussage Cow-Down and the Nadder-Wylye Ridge have seen little by way of excavation, let alone in-depth landscape studies, which has led to a lack of understanding of chronology and environment compared to territorial *oppida*. Geophysics on the scale of that conducted at Bagendon (Moore, 2012; 2020) and Silchester (Creighton and Fry, 2016;

Linford, Linford and Payne, 2016a; 2016b; 2017; 2019a; 2019b; 2019c; Linford *et al.*, 2019a; 2019b) would be a good starting point at sites such as Gussage Cow-Down where there is comparatively little modern development or large amounts of tree cover. The discovery of 5th-4th century BC activity along the Nadder-Wylye ridge (Saunders, 1997:23) suggests that the chronology of settlement along the ridge is more complex than aerial or earthwork survey alone suggests, and the same could well be the case for Gussage Cow-Down. As such, keyhole excavation, trial trenching or test pitting of the wider complexes such as undertaken at Bagendon, Stanwick and Silchester could help in understanding the sequence of development at otherwise poorly understood complexes. A development of better chronologies at understudied sites would complement the research and methods presented as part of this thesis by helping to understand the ways in which the complexes grew and consequently how their influence over the experience of movement developed as well.

The ability of least cost and viewshed analysis to contribute to an experiential understanding of Late Iron Age earthwork complexes also opens up the potential for similar methods to be applied elsewhere. For example, several polyfocal complexes in Britain do not incorporate long linear earthworks into their landscapes, however the utilisation of natural topographic features identified as part of this thesis need not be exclusive to earthwork complexes. For example, the open polyfocal settlements identified at Baldock and Braughing (Bryant, 2007) could be subject to similar analysis. While earthworks provide physical and visual barriers to manipulate movement around landscapes, there is no reason to believe that in other landscapes the same role could not have been filled by more permeable or ephemeral barriers such as pit alignments (Rylatt and Bevan, 2007) and hedgerows, or even social boundaries existing only in the minds of the landscapes' inhabitants. When viewed in such a way the designation of 'open' settlements and landscapes prejudices us towards thinking of movement through such landscapes as being unrestricted, which is not necessarily the case.

Methodologically there are a number of things that future research could take into account that were not practical as part of this research. Most obviously the resolution of the Digital Terrain Models (DTMs) and derived rasters (specifically cost rasters and total viewsheds) has restricted the scale at which analysis of the case studies could take place. For example, the use of a DTM with a resolution of 50m does not allow inclusion of the earthworks themselves, or the presence of rivers. While this does mean that the modelled routes essentially predict movement patterns prior to establishment of the earthworks, which is an interesting question in itself, it would also have been interesting to compare these results to a set of results where the earthworks had been included. Future research might therefore require increased computing power in order to conduct similarly detailed research at a finer scale and assess to what degree the inclusion of earthworks affects the results.

It is clear in a number of instances that the routes predicted by the least cost analysis are a product of the arrangement of start and destination points for each model. This is not to say that the least cost paths are not useful predictions of routes between various sites, however it is also clear that selection of a different set of destinations at each site could have produced a vastly different set of least cost paths. For pragmatic reasons, the number of sites chosen within each landscape was kept relatively low so as to reduce the quantity of outputs for each site. Even so, the landscape with the fewest destination points (15 at Bagendon) produced 1,125 least cost paths to be processed. The highest number of destination points was 25 at Gussage Cow-Down and the Nadder-Wylye Ridge which produced 3,125 individual least cost paths. This was in large part the reason for using heatmaps to depict the data in section 5.1 as it was an easily visualised tool for representing frequently travelled routes. Similarly, the frequency analysis presented throughout section 5.1 goes some way towards mitigating the issue by defining the most frequently predicted routes. Nonetheless, an increase in the number of destination points throughout a landscape would increase the accuracy of the predicted routeways by virtue of better modelling the wider landscape settlement patterns. Future research might attempt to focus in on a single landscape using significantly more individual sites to predict more accurate routes.

Appendices 1-3

Appendix 1 – Foci for Least Cost Analysis:

Appendix 1.1 – Foci for least cost analysis in the Bagendon landscape:

FIG 3 REFERENCE	SITE/FOCI	GRID REFERENCE	DESCRIPTION	REFERENCES
A	Andoversford	402000, 219000	A Roman 'small town' known as Wycomb including a Romano-Celtic temple, located to the northeast of the modern village of Andoversford in the valley of the River Colne. Late Iron Age evidence in the area includes coins and there is tentative evidence for an Iron Age precursor to the Romano-Celtic Temple. It provides a good point for assessing movement to the north of Bagendon and along the valley of the River Churn.	Lawrence, 1863; 1864a; 1864b; 1864c; Timby, 1998
B	Bagendon	401800, 206200	The main southeast facing entrance of the Bagendon complex, northwest of the confluence of the Bagendon Brook and the River Churn. A trackway revealed by excavation and geophysics extends from this point into the interior of the complex.	Clifford, 1961; Trow, 1988; Moore, 2012; 2014; 2020
C	Barnsley	408850, 204810	The site at Barnsley is located just over 7km southeast of Bagendon and occupies the northernmost navigable point of the River Thames. The site consists of a banjo enclosure evident from aerial photographs and a possible associated Roman villa. The cattle drove route of the Welsh Way proceeds from Barnsley towards Bagendon and ascends the slopes Perrott's Brook valley, between the earthworks, to arrive at the mid-point of the two Duntisbourne Enclosures. It therefore provides an excellent point for assessing movement to the east of Bagendon, in association with a route suspected of having Late Iron Age origins.	Copeland, 2009:49-52; Moore, 2006:134-147
D	Birdlip Quarry	394900, 213400	A Romano-British settlement that would have post-dated Bagendon by at least a few decades, the earliest occupation appears to have been 2nd century AD. However the Birdlip Quarry settlement sits adjacent to Roman Ermine Street and the earliest feature consisted of a hollow way indicating the presence of a routeway in the area pre-dating Ermin Street.	Mudd *et al.*, 1999

			A Middle Iron Age settlement enclosure is present a few hundred metres southwest at Highgate House. Despite the later date of the occupation the site at Birdlip quarry provides a good point for assessing movement from Bagendon along Roman Ermin Street in the direction of the Severn Valley and the earlier settlement evidence in the immediate vicinity suggests that people would very likely have been travelling in this direction from the vicinity of Bagendon during the Iron Age as well.	
E	Cotswold Community	403290, 196300	A Middle-Late Iron Age and Roman farmstead set in a system of complex fields and trackways. The settlement became increasingly complex over time especially after the early 2nd century AD (after the decline of Bagendon) when zoning of specific activities began to take place, including potential ritual activity and inhumations. Even though the settlement at Cotswold community is not particularly high-status it nonetheless provides a good starting point for assessing movement between across the Cotswolds and between the Severn and Upper Thames Valleys via Bagendon.	Powell *et al.*, 2010
F	Cutham Enclosure	401520, 206570	A Middle Iron Age banjo-type enclosure to the north of Clifford's excavations in the valley bottom, occupation evidence lasted right up until the foundation of the *oppidum* itself. Recent evidence suggests that, along with Scrubditch and potentially dyke 'e', this represents part of 'pre-*oppidum*' integrated complex. An inhumation was recovered from one of the infilled enclosure ditches, one of only four recorded in and around the complex.	Moore, 2012; 2014; 2020
G	The Ditches	399590, 209380	The northernmost focus of the Bagendon complex, a sub-circular enclosure with antennae ditches flanking the main entrance and another gated entrance opposite. The excavated assemblage indicated a high-status settlement which reached its height at the same time at the occupation in Perrott's Brook Valley. A Roman villa was constructed in the interior of the enclosure.	Trow *et al.*, 2009
H	Duntisbourne Grove	399160, 206980	The southern-most of two Late Iron Age to Romano-British enclosures (the other being Middle Duntisbourne) forming the westernmost foci of the Bagendon complex, north of Daglingworth Quarry and truncated by the construction of Roman Ermin Street. The Welsh	Mudd *et al.*, 1999

			Way (which runs from Barnsley to Bagendon) proceeds between the Bagendon dykes and meets Ermin street exactly halfway between the two enclosures.	
I	Kingshill North	403570, 202490	A Middle-Late Iron Age farmstead located on the north-eastern boundary of modern Cirencester and approximately 5km southeast of the Bagendon complex. Kingshill North represents a much more typical Late Iron Age settlement than the high-status occupation at Bagendon Along with the Tar Barrows it provides a starting point for assessing movement between Bagendon and Cirencester, along the river Churn.	Biddulph and Walsh, 2011
J	Kingsholm	383340, 218630	An early Roman fort is present at a crossing point of the River Severn near Gloucester, from which Ermin Street heads southeast towards *Corinium,* and which precedes the settlement at *Glevum* (Hurst, 1985; 2005). It has been suggested that Iron Age material from Kingsholm indicates the presence of a pre-Roman centre and river crossing at the site pre-dating the fort (Hurst, 2005:299), which would partially explain the alignment of Ermin Street on Kingsholm rather than Gloucester. Pottery evidence from just north of Kingsholm at Coppice Corner could be contemporary with the earliest phases of the fort (Timby, 1999:38) but Dobunnic coins may indicate an earlier date (Hurst, 2005:299). The presence of a pre-existing Iron Age centre at Kingsholm/Coppice Corner would explain the siting of the Roman fort which was later move to *Glevum*.	Hurst, 1985; 2005; Timby, 1999
K	Lynches Trackway burial	402240, 205050	A crouched inhumation burial excavated during the A419/A417 road scheme, located southeast of the entrance to the Bagendon complex and radiocarbon dated to the 1st-2nd centuries BC. While it might not be considered part of the Bagendon complex itself its location beside the River Churn and contemporary date with the Scrubditch and Cutham enclosures means that it merits inclusion. It also provides a good point for further assessing movement to the south of the complex, along the River Churn.	Mudd *et al.*, 1999

L	Middle Duntisbourne	398900, 207300	The northern-most of two Late Iron Age to Romano-British enclosures (the other being Duntisbourne Grove) at the western extent of the Bagendon complex, north of modern Daglingworth Quarry and truncated by the construction of Roman Ermin Street. The Welsh Way (which runs from Barnsley to Bagendon) proceeds between the Bagendon dykes and meets Ermin street exactly halfway between the two enclosures.	Mudd *et al.*, 1999
M	Minchinhampton Common	385700, 200400	A series of earthworks in the vicinity of Minchinhampton Common, including the Bulwarks, Rodborough and Amberley Camp. Limited investigation in the early 20th century by Clifford revealed an Iron Age date to some of the earthworks and she likened the complex to a Belgic style *oppidum*. More recent excavation in the 1970s revealed no further conclusive dating evidence. While the site is poorly understood comparisons could be drawn with Bagendon which lies not too far to the east and it provides a good point for assessing movement to the west of Bagendon, along the River Frome.	Clifford (1937); Bruce and Wilkinson (1978)
N	Salmonsbury	417390, 220820	A so-called enclosed *oppidum* located in the village of Bourton-on-the-Water. Excavations in the 1930s revealed evidence for occupation dating to the Middle Iron Age and continuing into the Late Iron Age and Roman periods with the ramparts likely being of Mid-Late Iron Age date. Settlement continued throughout the Roman period as well. Several programs of geophysics at Salmonsbury, in addition to targeted, yet small-scale, trial trenching has since revealed further evidence for Late Iron Age to Roman occupation.	Dunning, 1976; Willis, 1989; Cotswold Archaeological Trust, 1998a; 1998b
O	Scrubditch Enclosure	400930, 207480	A Middle Iron Age enclosure to the south of Scrubditch dyke at the northern limit of the Bagendon complex. Fell out of use by the hey-day of the wider complex but the arrangement of Bagendon's dykes around it indicates it may still have been an important area.	Moore, 2012; 2014; 2020
P	The Tar Barrows	403120, 202500	Three round barrows located to the northwest of Cirencester, which may represent Late Iron Age tumulus burials (Holbrook, 2008:310). Cropmarks in the immediate vicinity suggest a wider ritual complex which may have influenced the alignment of Roman roads approaching *Corinium* in addition to the placement of the town itself (Reece, 2003;	Holbrook, 2008; Reece, 2003. Moore, 2020

			Holbrook, 2008:310). Moore (2020 *forthcoming*) suggests the barrows may form part of an extended landscape connected to the complex at Bagendon.	

Appendix 1.2 – Foci for least cost analysis in the Gussage Cow-Down and Nadder-Wylye Ridge landscapes:

Fig 5 reference	Site/Foci	Grid Reference	Description	References
A	Badbury Rings	396410, 102975	Badbury Rings is a multivallate hillfort located approximately 10km south of Gussage Cow-Down, at a crossroads between four Roman roads, two of which (towards Kingston Deverill and Old Sarum) bracket the Gussage Cow-Down complex to the west and east respectively. While the site itself has not been excavated evidence from the immediate vicinity (including the junction of Roman roads at the site) strongly indicates the importance of the locality in the Late Iron Age. The discovery of the Roman fort and small town at Shapwick (immediately southwest of Badbury Rings) has led to the site's identification as the town of *Vinocladia* defined in the *Antonine* itineraries. Additionally, there is the presence of a Romano-British temple adjacent to the hillfort and the discovery of a hoard of roughly 850 gold and silver *Durotrigan* coins. In addition to its obvious importance, Badbury Rings provides the opportunity to study movement to the south of Gussage Cow-Down, not only towards Hengistbury Head but also to the north west along the River Stour.	Wallace, 1932; Rudd, 1953; Field, 1976; van Arsdell, 1989; Papworth, 1997; 2014
B	Bilbury Rings	400965, 136195	The hillfort at Bilbury Rings forms one of the foci for the Nadder-Wylye Ridge complex and lies on a spur to the north of the main ridge, just to the northwest of Hanging Langford Camp. Excavation of the ramparts in the early 1960s sectioned the ramparts of the hillfort and determined that construction of the site likely took place in the Late Iron Age and there may have been some minor embellishment of the earthworks in the very early Roman period. In addition to forming part of the Nadder-Wylye Ridge complex, the proximity of Bilbury Rings to Hanging Langford Camp provides an opportunity for least cost analysis between two very close but topographically distinct monuments (Bilbury Rings overlooks the valley in which Hanging Langford Camp is located).	Steele, 1963

C	Castle Ditches Camp	396370, 128350	Castle Ditches Camp is a multivallate promontory fort located in the valley of the River Nadder, just to the south of the river itself, 7km south of the Stockton Wood enclosures and roughly 15km north of the Gussage Cow-Down complex. While no dedicated excavation has taken place within the hillfort (excepting partial record of the southern earthwork following a landslip) extensive geophysical survey across the interior has revealed a remarkable degree of preservation including numerous evident structures and Late Iron Age to Romano-British pottery has been noted in plough soil. Besides being an impressive and probably Late Iron Age monument Castle Ditches Camp provides a good point for studying movement along the River Nadder itself as well as between the two complexes of Gussage Cow-Dow and the Nadder-Wylye Ridge, which it sits roughly halfway between.	Payne, Corney and Cunliffe, 2006:103-107
D	Chapel Farm	398840, 116080	Located just to the southeast of Humby's Stock Coppice the foci at Chapel Down comprises a number of curvilinear earthworks extending northwards from a banjo enclosure. Surface finds from the site have included Late Iron Age and Roman coins. Along with Humby's Stock Coppice this foci is one of the most northerly of the Gussage Cow-Down complex.	Bowen, 1990; Dorset HER MDO40091
E	Cold Kitchen Hill	383335, 138725	The activity at Cold Kitchen Hill is located approximately 13km straight west of the Stockton Enclosures. A fuller discussion of the site is given in 3.1.4.4. but in brief it comprises activity spread over a wide area with occupation layers a Romano-British temple comprise and a linear earthwork downslope to the south. Numerous Iron Age coins have been recovered from the site and it is clear that it was of some importance. It has not previously been considered as part of the Nadder-Wylye Ridge complex due to its distance, however it's alignment and contemporaneity with Grim's Ditch and evident importance suggest a direct relationship. It is also connected to Old Sarum and Badbury Rings via later Roman roads and provides a useful foci for assessing movement to the west of the Nadder-Wylye Ridge complex.	Nan Kivell, 1926b; 1928; *WANHM,* 1968:118, 1982:158; 1986:241

F	Danebury	432305, 137595	Danebury Hillfort is located approximately 25km east of the foci at Ebsbury and comprises a developed hillfort with the main phases of occupation beginning in the 6th century BC and lasting until the 1st century BC, with less intense activity continuing into the 1st century AD. The hillfort covers an area of roughly 5ha, with 3ha of the interior having been excavated. Following the excavations the Danebury Environs Project sought to contextualise the monument through both remote sensing and targeted excavations in the surrounding landscape. Given the lack of dating evidence ascribed to the Nadder-Wylye Ridge complex it seemed prudent to include Danbury, despite the earlier date of its main phases. Danebury also provides a useful point for assessing movement further to the east of Old Sarum.	Cunliffe, 1984a; 1984b; 1995; Cunliffe and Bewley, 2000; Palmer, 1984; Cunliffe and Poole; 1991a; 1991b; 2000; 2008a; 2008b
G	Ebsbury	406165, 135340	Ebsbury Copse is the eastern-most foci of the Nadder-Wylye Ridge complex, situated 2km north of Hamshill Ditches, atop of a promontory jutting out into valley of the River Wylye. A fuller discussion of the remains at Ebsbury is found in section 3.1.4.4. The site covers an area of roughly 45ha of upstanding earthworks of banks, ditches, enclosures and trackways. The site is dated to the Late Iron Age to Romano-British period on the basis of surface finds and may continue into the late Roman period as a coin hoard dated to this period has been recovered from the settlement.	Hill, 1907; Corney, 1989; Moore, 2012
H	Gussage All Saints	399870, 110230	The enclosure at Gussage All Saints is located at the southern edge of the Gussage Cow-Down complex, overlooking the River Allen to the southeast and a few hundred metres southeast of the Roman road of Ackling Dyke. A full discussion of the remains at Gussage All Saints is found in section 3.1.4.4. It is one of the only extensively excavated foci in the Gussage Cow-Down complex and comprises activity dating from the Early to Late Iron Age, including evidence of high-status goods and metal-working.	Wainwright, 1979
I	Gussage Cow-Down	399785, 114155	The foci for least cost analysis at Gussage Cow-Down is located at the centre of the main enclosure on the Down near Gussage St. Michael. Due to the large number of potential foci in this area a central point was deemed appropriate to assess movement to the general area. In addition to the wider earthwork complex two pairs of double banjo	Corney, 1989; 1991; Greene, 2000; White, 1970; Moore, 2012

			enclosures are present in the vicinity and a square ditched barrow is present to the north. Late Iron Age to Roman-British pottery and coins have been recovered from surface survey and there has been the suggestion of high-status buildings including a temple.	
J	Hambledon Hill	384515, 112570	Hambledon Hill is located roughly 10km west of Thickthorn Down and 2km northwest of Hod Hill. It is a large, multivallate hillfort with origins in the Neolithic period. Excavated Late Iron Age and early Roman activity at the site is fairly limited but nonetheless present and there may have been a relationship of some kind with Hod Hill during this period. The only excavated Iron Age structure from the site is significantly earlier, although the limited scope of the excavations (compared to the size of the site) means that more extensive Late Iron Age occupation could still be present. Given the possibility of a relationship with Hod Hill it made sense to conduct least cost analysis for both sites rather than just Hod Hill (which has more secure dating to the Late Iron Age). They provide good opportunity for assessing movement to the west of Gussage Cow-Down, in addition to routes along the River Stour to the southeast.	Mercer, 1980; Mercer and Healy, 2008.
K	Hamshill Ditches	406225, 133170	Hamshill Ditches is located at the eastern end of Grim's Ditch, 2km south of Ebsbury and is the only major foci of the Nadder-Wylye Ridge complex situated to the south of Grim's Ditch. For a full discussion of the site see section 3.1.4.4. The site comprises a series of upstanding earthworks set in a wider field system, which several trackways emanating from the main enclosures. A pair of double banjos is a main focus on the site. Excavations in 1934 led to the discovery of a Roman corn-drying oven and finds ranging from the 1st century BC to the late Roman period have been recovered from the site.	Bonney and Moore, 1967; Corney, 1989; Moore, 2012.
L	Hanging Langford Camp	401275, 135675	Hanging Langford Camp is situated centrally to the line of Grim's Ditch, on its northern side and just to the south of Bilbury Rings. For a full discussion of the site see section 3.1.4.4. The site comprises a banjo enclosure and curvilinear dyke extending to the north and Late Iron Age finds have been recovered from the site including pottery, fibulae and Durotrigian coins.	Corney, 1989

M	Hengistbury Head	417365, 090660	Hengistbury Head is located approximately 25km southeast of the Gussage Cow-Down complex, where the River Avon enters the English Channel. The Iron Age occupation at the site is extensive and has been discussed as an *oppidum* of sorts in its own right, although the term 'port-of-trade' is generally more fitting and popular as a description. The site demonstrates evidence for extensive occupation, industrial and high-status activity and extensive contact with the continent. Its position at the mouth of the Avon and near the confluence of the Rivers Avon and Stour make it ideally located to control access to resources both entering and leaving mainland Britain. It therefore provides an excellent location to assess movement between the Gussage Cow-Down and Nadder-Wylye Ridge complexes towards the coast, and along the Rivers Avon and Stour.	Cunliffe, 1987
N	Hod Hill	385620, 110730	Located roughly 2km southeast of Hambledon Hill Hod Hill is an Iron Age hillfort with the unusual quirk of having a Roman fort occupying one corner of the enclosure. Excavations by the British Museum took place at the site took place in the 1950s and led to the interpretation that the site had seen violence at the hands of the Roman army during the Claudian conquest (although this may not be the case in actuality). Recent geophysical survey revealed the remains of upwards of 200 roundhouses and an organised layout (although the degree to which the roundhouses are contemporary cannot be determined from the survey alone). Along with Hambledon Hill the site represents a good location for assessing movement to the west of Gussage Cow-Down and along the River Stour towards Badbury Rings and Hengistbury Head.	Brailsford and Richmond, 1952; Brailsford, 1962; Richmond, 1962; Stewart and Russell, 2017;
O	Humby's Stock Coppice	398235, 116780	The foci at Humby's Stock Coppice lies just under 1km northwest of the foci at Chapel Down and comprises cropmarks of a banjo enclosure and a few wider linear earthworks. While there has been no structured excavation of the site labourers excavating at the site in 1951 recovered 11 Roman coins and some Romano-British pottery from a "dark occupation earth". The finds ranged from the 2nd-4th centuries AD, which may seem late, but comparison with Gussage All Saints suggests that many sites in the surrounding landscape may have survived into this period from the Iron Age. Along with Chapel Down	Wilson, 1952; Bowen, 1990; Dorset HER MDO6061

			the banjo enclosure at Humby's Stock Coppice allows for assessment of movement to the immediate north of the Gussage Cow-Down complex.	
P	Old Sarum	413780, 132670	Old Sarum lies 5km straight east of the eastern end of Grim's Ditch and comprises a multivallate hillfort with origins in the early Iron Age and occupation evidence from the Late Iron Age into the Roman period, although much of this evidence has been truncated by later Saxon and medieval activity within the hillfort. Old Sarum sits at the junction of several Roman roads (two of which head towards Cold Kitchen Hill and Badbury Rings) and has been associated with the Roman town of *Sorviodunum* of the Antonine Itineraries. In actuality evidence suggests that Roman activity at *Sorviodunum* comprised activity spread between Old Sarum, Stratford-sub-castle and Bishopsdown, with some evidence of Late Iron Age activity at Old Sarum itself. In addition to its location at the hub of Roman roads connected to both the Nadder-Wylye Ridge and Gussage Cow-Down, the site at Old Sarum provides a focus for analysing movement to the east of the Nadder-Wylye Ridge to the east.	Stone and Algar, 1955; Corney, 2001; James, 2002
Q	Stockton Enclosures	396975, 136090	Stockton Wood is the furthest west foci of the Nadder-Wylye Ridge complex, 1.5km west of Hanging Langford Camp and Bilbury Rings. A full discussion of the evidence at Stockton Wood is found in section 3.1.4.4. The foci comprises well preserved earthworks and enclosures covering an area of roughly 70ha and is dated to the Late Iron Age, with occupation continuing into the Roman period and the suggestion of a Roman villa in the vicinity.	Nan Kivell, 1926a; Baggs, *et al.*, 1980; Corney, 1989; Scott, 1993
R	Thickthorn Down	395184, 111413	The focus at Thickthorn down is located on the western edge of the Gussage Cow-Down complex and comprises a number of earthworks, with the main focus being a large enclosure surrounding the top of a dry valley. Immediately to the northwest a number of cross-ridge dykes occupy the ridgeline separating the Gussage Cow-Down earthworks from those on Thickthorn Down. The earthworks on Thickthorn Down, despite a lack of dating evidence, are highly likely to form part of the same, interrelated earthwork complex as those on Gussage Cow-Down and is considered as such throughout this	Corney, 1991; Harding, 1959

			thesis. Limited excavation of the banks at Thickthorn Down in the mid-20th century did not provide direct dating evidence, but a Beaker pottery sherd from an underlying land surface and medieval pottery from upper levels led to the assumption of a Roman date. Additionally the Thickthorn Down earthworks occupy the same ridge at the Roman road from Badbury Rings to Cold Kitchen Hill and thus provide an opportunity to further assess between these sites and the wider Gussage Cow-Down complex.	
S	Whitsbury Castle Ditches	412810, 119685	Whitsbury Castle Ditches lies roughly 10km east of the Wor Barrow enclosures and comprises a hillfort with origins in the early Iron Age. Small scale excavation indicated the presence of a Middle Iron Age roundhouse and further occupation and re-use during the Roman and Saxon periods. While the dating evidence is fairly limited (due to the small-scale nature of the excavations) occupation during the Roman period is intriguing. Whitsbury Castle Ditches provides a useful point for assessing movement directly to the east of the Gussage Cow-Down complex.	Ellison and Rahtz, 1987
T	Winkelbury Hillfort	395192, 121815	Winkelbury Hillfort lies approximately 4km north of Woodcutts common and 6.5km south of Castle Ditches Camp. It comprises a hillfort of approximately 6ha in area with at least two phases of earthwork construction and an earlier field system. There has been no modern excavation but Pitt Rivers excavated several trenches throughout the hillfort and recovered finds dating to between the Late Bronze Age and Romano-British periods. It has also been suggested that Winkelbury was unfinished in its construction. While research into Winkelbury Hillfort is limited it nonetheless provides a good starting point for assessing patterns of movement both to the east of Gussage Cow-Down and as a staging point for movement along the River Avon from Hengistbury Head in the south, towards Old Sarum and the Nadder-Wylye Ridge in the north.	Pitt Rivers, 1888:233; Grinsell, 1957:39; Corney, 1991; NMR, ST 92 SE 31
U	Winterbourne Stoke Dyke North	405345, 149080	The southern point of a northwest-southeast orientated dyke running between Winterbourne Stoke Crossroads in the north and Winterbourne Stoke Down in the south. The northern terminus of the dyke lies just under 9km north-northeast of Yarnbury Castle. The dyke itself, for sections of its length, can be seen to overly pre-existing	Wiltshire HER: MWI6752, MWI6780, MWI7101

			Bronze-Age field systems (although respects a number of Bronze Age barrows) but is truncated in places by Roman field systems, suggesting a date between the Late Bronze Age and Iron Age. In bounding the course of the River Till to the southwest it may have acted to facilitate movement along the river valley (or prevent movement to the northeast). Both the northern and southern points of the monument present good opportunities for studying movement from the Nadder-Wylye Ridge complex to the north, along the River Till.	
V	Winterbourne Stoke Dyke South	408900, 1422955	The southern point of a northwest-southeast orientated dyke running between Winterbourne Stoke Crossroads in the north and Winterbourne Stoke Down in the south. The southern terminus is located roughly 7.5km northeast of Ebsbury at which point a Romano-British settlement is associated with the dyke. The settlement survives as earthworks and its known primarily from aerial photographs and surface survey but is considered of Romano-British or Roman date. Given the association with the linear monument, which bounds the River Till to the southwest (which in turn points directly towards Ebsbury) there are marked similarities with the Nadder-Wylye Ridge complex. The linear monument itself may well have been contemporary with the Nadder-Wylye Ridge complex and as such both the southern and northern points are worthy of study. Additionally they provide good points for assessment of movement along the River Till, to the north of the focus at Ebsbury.	Wiltshire HER: Linear Monument – MWI6752, MWI6780, MWI7101; Romano-British Settlement – MWI7097
W	Woodcutts Common	396295, 118107	The site at Woodcutts common lies just over 2km northwest of Humby's Stock Coppice and could potentially be considered part of the wider Gussage Cow-Down complex, although there does not appear to be a direct relationship (but earthworks for example) between the site and the complex further south. The site was excavation by Pitt Rivers and has since been reinterpreted as including a banjo enclosure during its first phase. Finds recovered from the site include *Durotrigian* coins, Late Iron Age fibulae and Gallo-Belgic imported pottery. In addition to the apparent status of the settlement during the	Pitt Rivers, 1887; Hawkes and Piggott, 1947; Corney, 1991

			late Iron Age it presents a good location for assessing movement further north of Gussage Cow-Down towards the Rivers Ebble and Nadder.	
X	Wor Barrow Enclosures	401208, 117800	A series of earthworks located 3.5km north of the earthworks on Gussage Cow-Down and a few hundred metres to the west of Ackling Dyke Roman road. Given the association with Ackling Dyke and relative proximity to Gussage Cow-Down (occupying the adjacent ridge to the northwest) the Wor Barrow activity might be considered part of the wider complex, in a similar manner to Thickthorn Down. One of the enclosures centres on the Neolithic Wor Barrow. A Bronze Age barrow cemetery is present to the south of Ackling Dyke on Oakley Down. Excavation of a rectilinear enclosure revealed associated with the wider landscape revealed evidence of Late iron Age to early Roman occupation and the infilled ditched was re-purposed as a cemetery in the later Roman period.	Montagu-Puckle, 1952; Brown, Corney and Woodward, 1996; Barrett, Bradley and Green, 1991
Y	Yarnbury Castle	403550, 140385	A large, multivallate hillfort covering 11ha in area and located 5km northeast of Bilbury Rings. It sits at the termini of two dry river valleys which descend into the valley of the River Wylye to the south. Excavations in the early 20th century revealed evidence of occupation into the Late Iron Age and Roman periods with three of inhumations (in addition to the remains of several infants in the infill of one of the enclosing ditches) of likely Late Iron Age date, Samian ware and an Iron Age coin. There is extensive evidence throughout the enclosure of surviving structural remains. It provides a good point for assessing movement from the Nadder-Wylye Ridge complex to the north or the River Wylye.	Cunnington, 1932; Tildesley, 1932

Appendix 1.3 – Foci for least cost analysis in the Stanwick landscape:

Fig 9 reference	Site/Foci	Grid Reference	Description	References
A	Barforth	416500, 515600	A number of cropmarks are visible in the region of Barforth roughly 4km northwest of Stanwick. These sites sits just to the south of a northwards meander of the River Tees at its confluence with the Alwent Beck. None of these sites have been excavated and the only nearby excavations by NAA recorded low-level medieval agricultural activity. Nonetheless many of these earthworks are considered to be Iron Age or Roman in date and MacLauchlan (1849:335) considered Barforth to be the northernmost continuation of Scots Dike (although this is unlikely). The southern most of these cropmarks at Barforth Grange is recorded in the Durham HER as being a rectangular enclosure with two circular features visible internally. This feature is roughly central to the others at Barforth recorded by Haselgrove (2016:359-362) hence the choice to use it for least cost analysis.	MacLauchlan, 1849; NAA, 2012; Haselgrove, 2016:359-362; Durham HER No. D366.
S	Carkin Moor Fort	416140, 508310	A rectangular cropmark enclosure bisected by the modern A66, 4km southwest of Stanwick, is presumed to be a small Roman fort. An enclosure just to the northwest is considered to be Late prehistoric, probably Iron Age. Small scale excavations at the fort proved inconclusive, and Horne and MacLeod (1995:44) considered it unlikely to be of Roman military origin. Haselgrove, (2016:374) considers the possibility that the two enclosures at Carkin Moor actually form a pair with the smaller enclosure to the north being subsidiary in some way. While the dating evidence is inconclusive the Carkin Moor enclosures, along with Rock Castle and Scotch Corner, provide evenly spaced starting points for assessing movement along the ridgeline south of Stanwick, along the route of the Roman road.	Horne and Macleod, 1995; Zant and Howard-Davies, 2013; Haselgrove, 2016

C	Castle Steads	411065, 507185	Castle Steads is situated 8km southwest of Stanwick, just to the north of Swale Dale. Despite the name it like not likely to be a defensive hillfort given its situation at the bottom of a steep slope, although MacLauchlan (1849:342) considered it a defensive position. Although nothing has been found associated with the hillfort to confirm an Iron Age, let alone Late Iron Age date, it is generally considered to be Late Prehistoric in date. It also provides a good point to assess cross-ridge access from Stanwick to the southwest and into Swale Dale from the north, rather than via the mouth of the Dale further east.	MacLauchlan, 1849:342-343; Horne and Macleod, 1995:51; Haselgrove,2016:362; N. Yorks Mon. No. NZ 10 NW 9
D	Catterick	423110, 498905	Excavations at Catterick Racecourse, just south of the Roman town of *Cateractonium*, adjacent to Dere Street and 13km southeast of Stanwick revealed evidence for a multi-period site from the Neolithic to Saxon periods. The site comprised a large enclosure and four roundhouses, two of them with partially *in situ* floors and evidence for hearths. Dating evidence was inconclusive with archaeomagnetic dating of hearth material suggesting a date of c. AD300-450, however pottery was more indicative of a late pre-Roman date. Excavation to the south at Marne Barracks also produced evidence of Iron Age to Roman transitional activity with more conclusive radiocarbon dates. While the dating evidence is not good enough to suggest a contemporaneity with Stanwick, the location of the site and, subsequently *Cateractonium*, along a major north-south route such as Dere Street might suggest the presence of a Late Iron Age precursor to both the road and the town. The site at Catterick Racecourse therefore provides a good point for assessing movement from Stanwick to the south along what was very probably a major routeway in the Iron Age.	WYAS, 1996; Moloney *et al.* 2003; Wilson, 2002; ASUD, 2006; Sherlock, 2013

E	Cockfield Fell	412405, 524995	As with many sites in the Stanwick landscape the evidence from Cockfield Fell, which lies 15km northwest of Stanwick, comprises unexcavated cropmarks and earthworks. While much of the activity on the fell is more recent (such as from post-medieval coal mining) four enclosures (a1-a4 – Roberts, 1975:*Plate V*) have been identified as late prehistoric in origin. The activity on Cockfield Fell provides a good starting point for assessing movement from Stanwick to the north of the Tees where there might have been a crossing either at Barforth or near Holme House/Piercebridge, in addition to assessing movement into the foothills of the Pennines.	Roberts, 1975; Haselgrove, 2016:359-361; Fairburn, 2017
F	Faverdale	427200, 517500	Excavations in advance of development at Faverdale, 10km northeast of Stanwick, in 2004 revealed extensive occupation covering an area of 36ha and dating to the Late Iron Age to Roman periods, with little activity thereafter. The initial phase of activity comprises three Late Iron Age cist burials, although the confidence of this date has been questions (Petts, 2013:423). A significant quantity of Late Iron Age/Romano-British pottery was recovered alongside Roman potter; Samian ware was arriving on the site from c. AD70. Occupational activity therefore appears to have begun in the late 1st century AD with evidence for occupation in the form of pits and gullies, making the occupation at Faverdale contemporary with the later phases of occupation at the Tofts (Site 9, Period 5 – Haselgrove, 2016:48). A late 2nd century bath-house and hypocaust was excavated at the site suggesting it gained a degree of importance in this period. Direct movement between Stanwick and Faverdale would draw a near straight line over any potential crossing point of the River Tees near Holme House/Piercebridge.	PCA, 2007; Sherlock, 2010; Proctor, 2012; Petts, 2013
G	Forcegarth	387825, 528530	The Iron Age to Romano-British enclosed settlement at Forcegarth lies roughly 35km northwest of Stanwick, near the origin of the River Tees in the Pennines. Excavations in the 1970s revealed evidence of roundhouses and earthworks with a radiocarbon date placing the settlement in the 1st century AD. A second site to the south replaced the former during the roman period. At both sites there was evidence of domestic scale iron working but material culture evidence was sparse. A contemporary field systems is associated with the site as well. The Forcegarth	Fairless and Coggins, 1980; 1986

			settlement therefore appears to be contemporary with at least the latter stages of settlement at Stanwick, in addition to providing a useful point for assessing movement up the Tees and further into the Pennines.	
H	Henah Hill	418955, 511790	Henah Hill lies directly east of the Tofts enclosure at Stanwick, approximately 500m distant. It is excluded from the Stanwick ramparts in a slightly odd fashion where by the dyke and rampart approaching from the north take an abrupt turn to the west and skirt the base of the hill to meet the Mary Wild Beck to the south. Excavations at the summit and on the northern slope of the hill revealed little more than evidence for lynchet formation and medieval agriculture. The function of Henah Hill within the Stanwick complex therefore remains something of a mystery, but its association with the earthworks and the Mary Wild Beck merit its inclusion in the least cost analysis.	Haselgrove, 2016:140-143
I	Holme House	422100, 515200	The site at Holme house is located in a meander of the River Tees, just under 1km east of the Roman fort at Piercebridge and 5km northeast of Stanwick and has been destroyed since the excavations by gravel quarrying. The site was excavated in 1969-70 and revealed evidence of a Roman villa complex with its origins in the Late Iron Age. The first phases of the site comprise a sub-rectangular enclosure, approached from the east by a trackway, enclosing a successive sequence of large post-built roundhouses. These were eventually replaced by a circular, stone-built structure (although this sequence has been challenged by Willis:232-233) which was contemporary with a small 2nd century AD villa just to the north. Holme House provides a good point for assessing potential Iron Age occupation around the subsequent Roman crossing point of the Tees at Piercebridge, without assuming that the Piercebridge crossing had an Iron Age precursor (although 1st century AD piles have been recorded to the west of the stone-built Roman bridge (Wessex Archaeology, 2010).	Harding, 2008; Willis 2010; Wessex Archaeology, 2010

J	Ingleby Barwick	445000, 512500	The site at Ingleby Barwick is located 26km straight east of Stanwick, just to the east of the confluence between the River Leven and he River Tees. It was excavated prior to construction of a school comprised an Iron Age roundhouse and a series of late prehistoric enclosures in addition to an Anglo-Saxon cremation cemetery. Later occupation is also present roughly 2km to the north comprising a series of Romano-British field systems and enclosures as well as a villa complex. As the majority of occupation at the northern site at Ingleby Barwick was of Roman date (there was minimal Late Iron Age evidence) the southern site was chosen as a starting point for least cost analysis. Nonetheless continuous occupation between the two sites sans the Late Iron Age to Saxon periods, the nature of which suggests the area held a degree of importance in the surrounding landscape. This site makes an ideal starting point for assessing movement between Stanwick to the east along the River Tees.	Heslop, 1983; ASUD, 2005b; 2008; Sherlock, 2010
K	Melsonby	419875, 510075	The Iron Age activity at Melsonby lies just over 1km southeast of Stanwick, on the opposite side of Scots Dike. Excavations and geophysics have defined occupation comprising a high-status ladder settlement and trackway orientated on Stanwick. The Melsonby hoard was recovered from this location. For a full discussion of Melsonby as it relates to Stanwick see section 3.1.4.4.	Fitts *et al.*, 1999; ASUD, 2005a; Haselgrove, 2016
L	Rock Castle	418655, 506710	The site at Rock Castle, Gilling West, is located 4km south of Stanwick, just south of the Roman road from Scotch Corner to great Bridge and was partially excavated in 1987. It comprises a rectilinear palisaded enclosure dating to the Early Iron Age which was succeeded by a ditched enclosure of similar proportions which lasted until the Roman conquest, alongside an associated field system. A sequence of two roundhouses was excavated in the interior of the enclosure and radiocarbon date showed that the enclosure was long lived and would have been contemporary with occupation at Stanwick.	Fitts *et al.*, 1994; Haselgrove, 2016

M	Scotch Corner	421140, 505340	The Late Iron Age settlement at Scotch corner is located 6km southeast of Stanwick at the junction between Dere street and the Roman running towards Greta Bridge (the modern A66). The occupation comprised enclosures and structures in addition to an extensive field systems dated to the Late Iron Age and with evidence for high-status occupation, light industrial activity and even coin manufacture. The site at Scotch Corner provides an excellent point for assessing movement from Stanwick towards Catterick and further south still.	Abramson, 1995; Zant and Howard-Davies, 2013; Highways England, 2018
N	Scots Dike, south	418230, 500855	The enigmatic monument of Scots Dike runs from the southeast corner of the Stanwick earthworks in an interrupted and often irregular line straight south, towards the mouth of Swale Dale and modern Richmond. In terms of least cost analysis this thesis utilises the southern end of the monument which has been radiocarbon dated to the Late Iron Age in order to assess the likelihood of the monument as having acted to facilitate movement between Swale Dale and Stanwick itself. For a full discussion of Scots Dike in relation to Stanwick see section 3.1.4.4.	MacLauchlan, 1849; Zant and Howard-Davies, 2013; Haselgrove, 2016
O	The Tofts	418405, 511750	The Tofts enclosure lies at the centre of the Stanwick earthworks, in the low valley of the Mary Wild Beck, and comprises the earliest settlement at the complex. The Tofts has seen considerable research, starting with excavations by Mortimer Wheeler and continuing interest as part of the Stanwick Research Project. Excavations at the Tofts (Site 9) as part of this project recovered large quantities of high status imported goods, including Roman pottery and glassware, attesting to the importance of the settlement. Alongside the focus for least cost analysis at Henah Hill, the Tofts provides the central point for assessing movement around the Stanwick landscape. For further discussion of Site 9 and the Tofts see section 3.1.4.4.	Wheeler, 1952; 1954; 1956; Haselgrove, 2016

P	Thorpe Thewles	439700, 524500	The settlement at Thorpe Thewles is located 25km northeast of Stanwick to the north of the Tees Valley. Activity comprised a Middle Iron Age enclosed settlement which developed into an open settlement in the Late iron Age. The site was excavated in the early 1980s and produced significant quantities of pottery and evidence for metalworking and agriculture, in addition to the remains of 18 roundhouses. Geophysics and aerial photography suggest that activity is spread over a wider area, with more enclosures to the north and south. Thorpe Thewles provides an opportunity to assess movement along the River Tees, on the opposite side of the valley from Ingleby Barwick.	Heslop, 1987; Sherlock, 2010

Appendix 1.3 – Foci for least cost analysis in the Silchester landscape:

Fig 11 reference	Site/Foci	Grid Reference	Description	References
A	Aldermaston Wharf	460500, 168100	Rescue excavation prior to gravel extraction in 1976-77 produced settlement evidence dating from the Late Bronze Age through to the Roman period. Late Iron Age settlement comprised a re-used Middle Iron Age field system and a partially revealed early first century AD enclosure. A Late Iron Age cremation is also recorded at the site and the remainder of the settlement (which was considered to cover a reasonable area) was lost to gravel extraction prior to the rescues excavation. Continued Roman presence on the site, including a bathhouse and evidence of other stone structures in the surrounding area may attest to it having been of some importance.	Anon. 1963-64:102-103; Cowell, Fulford and Lobb, 1978; Bradley et al., 1980.
B	Bagshot	491200, 163450	Excavations in Bagshot and Windlesham arboretum in the late-1980s to mid-1990s revealed an extensive Late Iron Age iron working industrial site focussed on the boggy valley of the Windle Brook. An interrupted ditched enclosure was excavated at 42 London Road, Bagshot in association with metal working evidence and Late Iron Age pottery. A second interrupted ditch was added to the first as a 2nd phase and a post-built structure was constructed internally. As the enclosure ditches silted up in the late 1st century AD two urned cremations were cut into infilling ditches. The Iron Age evidence was overlain by Romano-British and Roman occupation until the 5th century AD.	Cole, 1996.
C	Bullsdown Camp	467080, 158385	A small multivallate hillfort (4ha) located 5km southeast of Silchester at the confluence of the River Loddon and the Bow Brook. G.C. Boon is quoted as suggesting that it may have been a pre-cursor to the oppidum at Silchester (Truscoe, 2019:58) although there is no evidence for this. The site was surveyed by Williams-Freeman (1915) and has been considered as part of the Silchester Environs Project, including earthwork survey although it has seen no excavation and is undated. Nonetheless Bullsdown Camp represents a good location for assessing movement in and around the valley of the River Loddon from various directions.	Williams-Freeman, 1915; Bayer, 2017; Truscoe, 2019:58-60

D	Chisbury Camp	427885, 165952	Multivallate hillfort covering an area of 14 hectares overlooking the River Dun to the east, a tributary of the River Kennet approximately 35km west of Silchester. A number of storage pits were uncovered during the laying of a water pipe in 1931 which contained Iron Age and early Roman pottery, including Samian ware. Excavations prior to building work in 1988 revealed only post-medieval deposits related to extensive disturbance. Though poorly investigated the material evidence suggests a degree of contemporaneity with Silchester and it represents a good starting point for movement along the River Kennet, to and from Silchester.	Grinsell, 1957; WANHM, 1988
E	Cowdreys Down	465800, 153215	Excavations at Cowdery's Down between 1978-81 in advance of housing development on the northeast outskirt of Basingstoke revealed evidence for multi-period occupation spanning the Bronze Age to Post-medieval periods. Late Iron Age activity appears to have begun in the mid-1st century AD, contemporary with that at Silchester, and comprised an enclosure and pits containing domestic waste. A second, fenced rectilinear enclosure replaced the earlier feature in the mid-late 1st century AD incorporating a droveway leading to an entrance gate. The material evidence recovered is indicative of high-status activity. This enclosure lasted until the 3rd century AD when it was replaced by a series of linear features, probably representing a major land boundary. A number of burials near the boundary of the excavations area to the east may be indicative of a larger Roman cemetery.	Millett and James, 1983
F	Dyke Hills	457385, 193580	Set in the crook of the confluence between the Rivers Thames and Thame, approximately 30km north of Silchester Dyke Hills is generally considered to represent a Late Iron Age enclosed oppidum, although dating evidence is sparse. A series of dykes to the north enclose dense settlement visible as cropmarks covering an area of some 25ha, it is enclosed to the east, south and west by the Rivers Thames and Thames. The Roman town of Dorchester lies just to the north and while no structured excavation has taken place at the site (meaning little dating evidence) Dyke Hills may be a pre-cursor to the Roman settlement. Some Late Iron Age coins have been recovered from the site indicating such a date (Allen, 2000:22; Crook, 1985:16-17). The Roman road between Dorchester and Silchester presumably makes use of approximately the same river crossing as that which Dyke Hills exploited. Along with Frilford	Booth, 2014; Welch, 2014; Allen, 2000:22-27; Cook, 1985

			it makes a good starting point for assessing routes to and from Silchester along the River Thames.	
G	Frilford	443890, 196235	Located by the River Ock (a tributary of the Thames) and 15km west of Dyke Hills, is the Romano-British temple complex at Frilford. Excavations in the 1930s revealed evidence of a Romano-British temple complex and preceding Iron Age occupation. While Harding (1987) argued that the iron age occupation may have ceased in the Middle Iron Age prior to the establishment of the temple complex a degree of continuity in ritual and religious practice at the site is suggested by recent research (Kamash, Gosden and Lock, 2010). The extent of the importance at the site is evident not only through the presence of the Romano-British temple but also an amphitheatre and other associated buildings forming part of a wider religious complex (Hingley, 1985), a villa is also located just 1.5km northwest of the complex (Evans and Haverfield, 1897). Along with Dyke Hills the Roman religious complex at Frilford, which likely has origins.in the Iron Age provides a good starting point for assessing routes to and from Silchester along the River Thames.	Evans and Haverfield, 1897; Bradford and Goodchild, 1939; Hingley, 1982; 1985; Harding, 1987; Kamash, Gosden and Lock, 2010
H	Holybourne Down	472320, 143435	A D-shaped enclosure covering an area of 5.4ha is located on Holybourne Down, 20km southeast of Silchester and adjacent to the road between Silchester and Chichester. An evaluation trench placed through the ditch discerned a number of re-cutting episodes followed by backfilling in the Late Iron Age, possibly as late as the 1st century AD. The excavator suggested that the site may have been an Iron Age precursor to the Roman small town at Neatham approximately 3km to the south. Its proximity to both the small town at Neatham and a Roman road leading to Silchester might suggest the present of a relationship between the Iron Age precursors to both Roman towns.	Millett, 1981; Millett and Graham, 1986; Graham, 1992; Powell, 2014
I	Latchmere Green	463200, 160305	Latchmere Green is located just 2km south-southwest of Silchester, just southwest the bifurcation of the Roman roads from Silchester towards Winchester and Chichester and just east of the Wood Farm Dyke. The most impressive find from the site is that of a Late Iron Age mirror burial, containing the cremated remains of both an adult and a child, which is relatively uncommon and has been likened to a small proportion of burials at King Harry Lane,	Corney, 1984:283-285; Fulford and Creighton, 1998; SAS, 2001

			Verulamium. In the vicinity of the Latchmere Green burial is also known a Roman settlement associated with the Roman roads and a Gaulish coin has also been found through metal detecting in an adjacent field. A watching brief along the line of a high voltage cable route revealed evidence for a Late Iron Age to Roman settlement at Latchmere Green that was previously only known from artefact scatters (Corney, 1984:83-285). Speculated Late Iron Age origins of the Roman settlement and the presence of a high-status Late Iron Age burial suggests that Latchmere Green may have formed part of the wider Silchester complex in the Iron Age.	
J	Oakridge	464065, 153550	The settlement at Oakridge lies approximately 9km south of Silchester and 2km west of the occupation at Cowdreys Down and was revealed as part of a rescue excavation prior to housing development. The site appears to have begun in the Early-Middle Iron Age with a sub-circular enclosure that was originally likened to a banjo enclosure (though the excavators deemed this implausible). In the Late Iron Age to Roman periods the site expanded greatly with an enclosure system covering more than four times the original extent of the site in addition to the establishment of a field system. A well measuring 26.6m deep was also excavated as part of this phase which appeared to have been, partially deliberately, infilled during the later Roman and post-Roman periods as the site fell into disuse. Along with Cowdery's Down and Shothanger Farm this provides starting points to assess movement from the ridgeline that defines the southern limit of the River Loddon.	Oliver, 1992; Maltby, 1994
K	Old Down Farm	435600, 146515	The Iron Age enclosure at Old Down farm is located just over 30km southwest of Silchester, on the outskirts of Andover and adjacent to the Old Sarum-Silchester Roman road. This forms a cross-roads with the Winchester-Mildenhall Roman road, where they meet at Andover. The settlement at Old Down farm consists of a sub-circular enclosure of roughly 150m diameter containing continuous occupation from the early Iron Age to Saxon periods, including a number of sunken feature buildings. Occupation within the enclosure is extensive and indicative of a domestic and agricultural function. It provides a good starting point for	Davies, 1980; 1981

			movement between Silchester and the southwest, towards Danebury and Old Sarum, being along the same Roman road and possibly an Iron Age antecedent route.	
L	Pingewood	468755, 169420	The site at Pingewood lies 8km northeast of Silchester just south of the River Kennet on the outskirts of Reading. Excavations there revealed extensive Bronze Age occupation in the form of field boundaries and enclosures but the chronology is more complicated than this. Two cremation burials were dated to the Iron Age while a number of features were dated to the Roman period. Overlaying the excavated and surveyed field system on 19th century OS mapping demonstrates a degree of continuity in the landscape even until the present day, suggesting a long running continuity in the use of the landscape. The presence of Roman occupation and continuity in land-use suggests a degree of contemporaneity with Silchester and provides a starting point for assessing movement directly to the north east of Silchester and in the direction of the confluence between the Kennet and the Thames to the northern side of modern Reading.	Johnston, 1983; Truscoe, 2019:41-42
M	Pond Farm Hillfort	462645, 163095	The site at Pond Farm (otherwise known as The Frith) is located just 1km northwest of the main Silchester enclosure, to the south of the West End Brook. It comprises a bank and ditched enclosure circling 2.1ha and until recently was undated, though assumed to be contemporary with the Iron Age occupation at Silchester. Excavation of 10% of the interior of the site as part of the Silchester Environs Project provided charcoal that was radiocarbon dated to the Late Iron Age (200-30 calBC) and slightly preceeding the establishment of the oppidum enclosure to the southeast.	Fulford, Barnett and Clarke, 2016; Olaf and Bowden, 2016; Barnett, 2019
N	Shothanger Farm	460190, 154060	The land at Shothanger Farm is located roughly 9km south-southwest of Silchester and 1km west of the Roman road from Silchester to Winchester. While the site remains undated geophysical survey revealed evidence of relatively extensive occupation including two banjo enclosure of stereotypical form. To the west of the banjo enclosures (and linked to one of them via a ditch) is an area of rectilinear enclosures including one with a triplet of parallel ditches on the entrance facing side of the enclosure. The lack of dating evidence is	ASUD, 2013; AECOM, 2015

			problematic, however the frequent association of banjo enclosures with polyfocal complexes and the proximity to a subsequent Roman road merits this site's inclusion in the analysis.	
O	Silchester	463860, 162350	The central point of the inner enclosure of the Silchester *oppidum*. For a full discussion of the history of the research context relating to the site see section 3.1.5.	Creighton and Fry, 2016; Fulford *et al.*, 2018
P	Simm's Copse	464340, 164170	Geophysics and excavation confirmed the presence of a series of enclosures originally identified through aerial photographs, 1.5km north of Silchester at Simm's Copse, on the opposite side of the West End Brook. The majority of the enclosures were ploughed flat but a 200m section of earthwork survives in woodland. Excavation recovered artefacts dating to the mid-Late Iron Age, notably the artefactual evidence suggests that the enclosures pre-date the first century BC. Comparison could be drawn (alongside Pond Farm Hillfort) with the Cutham and Scrubditch enclosures, which pre-date the complex at Bagendon. Alongside the Windabout Copse site this provides a good point for assessing movement over and around the plateau north of Silchester.	Wheeler, Pankhurst and Barnett, 2017; Linford, Linford and Payne, 2019c
Q	Sindlesham	478155, 169300	Located 16km northeast of Silchester and 2km east of the River Loddon the site at Sindlesham represents a major Mid-Late Iron Age iron working site with multiple furnaces and continued use across several centuries. The first furnace was established in the 5th century BC and production continued until at least the mid-1st century BC although the site appears not to have been re-used in the Roman period. Notably the raw material used in the smelting process at the site appears not have been local, suggesting that it was being transported from further afield. Sindlesham's location in proximity to a number of major river systems (namely the Thames, Kennet and Loddon) would have allowed easy transport of both raw material to the site and product away from the site. It is interesting that activity at Sindlesham appears to have ceased in the decades leading up to the explosion of activity at nearby Silchester, which appears to exploit much the same river systems.	TVAS, 2010; Lewis, Crabb and Ford, 2013

R	Windabout Copse	465330, 163950	The Windabout Copse site is located just 2km northeast of Silchester and 1km east of Simm's Copse. It comprises an Iron Age farmstead made up of a number of enclosures that was occupied from the Early to Late Iron Age, including during the lifetime of the *oppidum* itself. In addition to the farmstead a Late Iron Age Stanway-type, chambered cremation burial incorporating several imported Gallic pots and smashed Spanish amphorae. Such a burial is comparable to those excavated at *Verulamium* and *Camulodunum*. The location of the Windabout Copse settlement and burial on the crest of a slope and the east end of the West End Brook, to the northeast of Silchester makes it an interesting focus for studying access into and around the northern side of the complex.	Fulford, Barnett and Clarke, 2016; Linford, Linford and Payne, 2017; Truscoe, 2019:52-54

Appendix 2 – Historic Environment Record (HER) Data

This data has been kindly provided by the relevant HERs stipulated at the beginning of each of the following tables. The searches were restricted to records where the date range either started or ended between the Late Bronze Age to Late Iron Age (for example, a site may start in the Neolithic if it ends in the Late Bronze Age, or may end in the Roman period if it starts in the Late Iron Age). In each case a search was undertaken for a 5km radius around the central point of each landscape (in the case of the Nadder-Wylye Ridge this was a 5km buffer around Grim's Ditch). Due to the nature of the evidence many of the date ranges provided (which are based on the definitions provided by Heritage Gateway – https://www.heritagegateway.org.uk/Gateway/) are often highly provisional and where there is no dateable evidence as highlighted by the evidence field (excavated sites will be more reliable than cropmarks). This also means that some sites cannot be narrowed down to a period as specific as 'Late Bronze Age' so are labelled simply as 'Bronze Age' (or similar) instead. In each case the data has been processed by the author in order to remove duplicate or erroneous entries and present the data in a consistent manner to allow for comparison between different HERs. However, different HERs often record the same data in different ways and some record certain types of data and not others, making direct comparisons between HERS difficult. With this in mind the summaries of the following data presented in Chapter 3 should be understood in the context of an incomplete archaeological record and differential recording methods used by each HER. Nonetheless, and for the sake of clarity the "Site Type" "Date From", "Date To" and "Evidence" fields have been standardised in the following manner:

Site Type	
Agriculture	Archaeological evidence, sites and features relating agricultural activity. Field boundaries and lynchets for example.
Enclosed Settlement	Evidence of settlement activity within or defined by and enclosure of so.me description
Unenclosed Settlement	Evidence of spread out settlement activity without any enclosing features.
Miscellaneous Settlement	Settlement evidence that may be out of context or poorly understood, isolated pits for example.
Enclosure	An enclosure that may not be related to settlement, or for which there is not enough evidence to tie it to settlement activity, stock enclosures for example.
Ring Ditch	As described, maybe an enclosure or barrow but as usually defined through aerial imagery little interpretation can be applied as regards function.

Barrow	A burial mound of which several different types are described.
Industrial	Evidence of industrial activity such as metalworking, quarrying or pottery manufacture .
Inhumation	A burial, perhaps isolated or part of a wider cemetery.
Cremation	A cremation burial, perhaps isolated or part of a wider cemetery.
Cemetery	A cemetery comprised of multiple cremation, inhumations or barrows.
Findspot	An isolated find, unrelated to contextual data.
Trackway	A hollow way, droveway or other track of some kind
Earthwork	A dug or constructed feature, perhaps still upstanding, generally of a larger scale than field boundary ditches or other smaller features.
Boundary	A boundary feature such as a dyke or bank, implying something of its function to divide parts of the landscape for any number of reasons.
Hillfort	An enclosed settlement generally situated atop a hill (though not necessarily). Where this term is used it is general due to its use in the particular HER database
Villa	A Roman villa, they often appear in the later phases of pre-existing Late Iron Age settlements
Polyfocal complex	A polyfocal complex such as those discussed throughout the thesis. Often spread over a wide area and necessarily made up of multiple constituent sites.
Ritual	Sites such as shrines or temples that do not have an obvious domestic or economic function.

Date Range (as defined by the HER databases)		**Evidence**
Neolithic	4000-2600BC	Cropmark
Bronze Age	2600-700BC	Earthwork
Late Bronze Age	1200-800BC	Documentary
Iron Age	800BC-AD43	Geophysics
Early Iron Age	800BC-300BC	Find Spot
Middle Iron Age	300BC-100BC	Field Walking
Late Iron Age	100BC-AD43	Watching Brief
Roman	AD43-AD410	Evaluation
		Excavation

Appendix 2.1 – HER data for a 5km radius around Bagendon

The following data relates to the 5km radius search of Gloucestershire HER undertaken at Bagendon and summarised in *Table 1* in Section 3.2.

Gloucestershire HER Number	Site Type	HER Description	Period From	Period To	Evidence	Easting	Northing
36290	Unenclosed Settlement	Pair of ring ditches, interpreted as roundhouses upon evaluation - Siddington Road, Siddington	Late Bronze Age	Early Iron Age	Geophysics, Evaluation	403241	200491
36292	Miscellaneous Settlement	Pits recorded during geophysics and evaluation - Siddington Road, Siddington	Late Bronze Age	Early Iron Age	Geophysics, Evaluation	403236	200496
36357	Agricultural	Possible Late Bronze Age to Early Iron Age period lynchet partially excavated in 2010 evaluation work by AC Archaeology in land off Siddington Lane, Siddington.	Late Bronze Age	Early Iron Age	Evaluation	403260	200440
44564	Unenclosed Settlement	Late Bronze Age/Early Iron Age to middle Iron Age settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Post excavation assessment 2012.	Late Bronze Age	Middle Iron Age	Excavation	405180	236790
44564	Industrial	Late Bronze Age/Early Iron Age to middle Iron Age settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Post excavation assessment 2012.	Late Bronze Age	Middle Iron Age	Excavation	405180	236790
48565	Unenclosed Settlement	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline.	Late Bronze Age	Late Bronze Age	Excavation	396840	209190
48565	Agricultural	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline.	Late Bronze Age	Late Bronze Age	Excavation	396840	209190
48565	Inhumation	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline.	Late Bronze Age	Late Bronze Age	Excavation	396840	209190
49137	Miscellaneous Settlement	Late Bronze Age - early Iron Age settlement including roundhouses, posthole alignments and a possible boundary or enclosure ditch located by excavations at Kingshill South, Cirencester.	Late Bronze Age	Early Iron Age	Excavation	403632	201207
48565	Inhumation	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline. Radiocarbon dates from the late bronze age and middle iron age indicate a possible gap in settlement	Late Bronze Age	Late Bronze Age	Excavation	396840	209190
48565	Enclosed Settlement	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline. Middle Iron Age settlement evidence was also recorded.	Late Bronze Age	Middle Iron Age	Excavation	396840	209190
48565	Inhumation	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline. Middle Iron Age settlement evidence was also recorded.	Late Bronze Age	Late Bronze Age	Excavation	396840	209190
2	Barrow	Bowl barrow 220m north west of Oxwold House	Bronze Age	Bronze Age	Earthwork	407240	206930
3	Barrow	Round barrow 250yds (230m) N of Colnpen Barn; Coln St Dennis 5	Bronze Age	Bronze Age	Earthwork	406910	208280
5	Barrow	Round barrows adjacent to Colnpen Long Barrow, Coln St Dennis 3	Bronze Age	Bronze Age	Earthwork	406840	208500
6	Barrow	Round barrows adjacent to Colnpen Long Barrow, Coln St Dennis 2	Bronze Age	Bronze Age	Earthwork	406860	208540
7	Barrow	Round barrows adjacent to Colnpen Long Barrow, Coln St Dennis I	Bronze Age	Bronze Age	Earthwork	406880	203560
10	Barrow	Bowl barrow, known as Rendcomb Old Park round barrow, 300m north east of Old Park Farm, North Cerney.	Bronze Age	Bronze Age	Earthwork	400780	209180
10	Barrow	Bowl barrow, known as Rendcomb Old Park round barrow, 300m north east of Old Park Farm, North Cerney.	Bronze Age	Bronze Age	Earthwork	400780	209180
80	Barrow	Round barrow (D) adjacent to Colnpen long barrow	Bronze Age	Bronze Age	Earthwork	406840	208330
157	Barrow	Royal Oak round barrow (350yds (310m) N of Listercombe Bottom)	Bronze Age	Bronze Age	Earthwork	406640	212350
161	Barrow	Wellhill Copse round barrow	Bronze Age	Bronze Age	Earthwork	399750	203880
180	Barrow	Round barrow 830m north east of Combend Farm	Bronze Age	Bronze Age	Earthwork	397400	211600

286	Barrow Cemetery	Barrow cemetery at College Plantation	Bronze Age	Bronze Age	Earthwork	395920	205950
286	Barrow	Round barrow located to the north of the plantation but within the barrow cemetery at College Plantation, Duntisbourne Rouse.	Bronze Age	Bronze Age	Earthwork	395910	206080
2060	Barrow	A possible roundbarrow north west of Rendcomb Old Park Roundbarrow, however the Cotswold Hills NMP suggests more likley created by agricultural processes	Bronze Age	Bronze Age	Cropmark	400790	209190
2066	Barrow	Site of barrows and spearheads (and other weaponry) recorded at Bagendon in the 18th-19th centuries, possibly evident on aerial photographs from the 1940s	Bronze Age	Bronze Age	Cropmark, Documentary	401500	205800
2066	Findspot	Site of barrows and spearheads (and other weaponry) recorded at Bagendon in the 18th-19th centuries, possibly evident on aerial photographs from the 1940s	Bronze Age	Bronze Age	Cropmark, Documentary	401500	205800
2072	Barrow	Cropmark of probable roundbarrow ring-ditch NW Scrubditch Farm North Cerney	Bronze Age	Bronze Age	Cropmark	401080	208160
2073	Barrow	A probable Bronze Age round barrow is partly visible as a cropmark on aerial photographs. Bagendon	Bronze Age	Bronze Age	Cropmark	401600	206900
2074	Barrow	Bronze Age probable round barrow at Bagendon	Bronze Age	Bronze Age	Cropmark	401480	207200
2075	Barrow	Ring-ditch North Cerney	Bronze Age	Bronze Age	Cropmark	400960	207690
2125	Barrow	Possible round barrow in line with Tar Barrows	Bronze Age	Bronze Age	Cropmark	403450	202230
2375	Barrow	A probable roundbarrow at Siddington	Bronze Age	Bronze Age	Cropmark	404270	199740
3068	Barrow Cemetery	A Bronze Age dispersed barrow cemetery and linear features are visible as cropmarks over an area 833m N-S by 374m E-W. Preston. Excavation of two nearby ring ditches provided a middle bronze age date	Bronze Age	Bronze Age	Cropmark	405300	200500
3068	Enclosure	Enclosures and Other Features SW of St Augustine Farm associated with the barrow cemetery	Bronze Age	Bronze Age	Cropmark	405478	200507
3081	Barrow	A probable Bronze Age round barrow is visible as a cropmark in Harnhill Park, Driffield.	Bronze Age	Bronze Age	Cropmark	407650	200800
3677	Barrow	Heavily truncated barrow recorded in a Saxon Charter of AD852, visible as a slight stony mound	Bronze Age	Bronze Age	Earthwork, Documentary	399020	209720
3683	Barrow	Heavily ploughed round barrow, only visible now as a slight undulation. Other slight undulations may be other ploughed out barrows in the vicinity	Bronze Age	Bronze Age	Earthwork, Documentary	395690	207600
4123	Barrow	A pair of Bronze Age round barrows are visible as cropmarks to the north of Lightend Barn, Daglingworth.	Bronze Age	Bronze Age	Cropmark	399380	206150
4123	Barrow	A pair of Bronze Age round barrows are visible as cropmarks to the north of Lightend Barn, Daglingworth.	Bronze Age	Bronze Age	Cropmark	399390	206190
4485	Barrow	Two probable Bronze Age round barrows	Bronze Age	Bronze Age	Cropmark	403900	208600
4485	Barrow	Two probable Bronze Age round barrows	Bronze Age	Bronze Age	Cropmark	403900	208600
4948	Barrow	Round Barrow at Stratton Field, excavated in 1868	Bronze Age	Bronze Age	Earthwork, Excavation	401000	203000
5780	Barrow	Heaviy ploughed round barrow at Park Corner	Bronze Age	Bronze Age	Earthwork	395700	204500
5930	Barrow	Possible Round Barrow in Winson Parish	Bronze Age	Bronze Age	Earthwork	407470	207000
6602	Barrow	Cropmark of a ring-ditch, Chedworth.	Bronze Age	Bronze Age	Cropmark	406370	212350
6980	Barrow	Round Barrow at Syde, destroyed in 1968 but documentary sources suggest it was standing to around 2m prior to this	Bronze Age	Bronze Age	Earthwork, Documentary	395200	211600
7176	Ring Ditch	A ring ditch close to the roman settlement (HER 2025) at Ampney Crucis, may be a bronze age round barrow?	Bronze Age	Bronze Age	Cropmark	406890	202960
9233	Barrow	A possible Bronze Age round barrow is visible as a cropmark to the north of Hilcot End. Ampnet Crucis.	Bronze Age	Bronze Age	Cropmark	407700	202900
10990	Barrow	A Bronze Age round barrow at Hollow Fosse Farm, Coln St Dennis.	Bronze Age	Bronze Age	Earthwork	405700	207300
11063	Barrow Cemetery	Colnpen barrow cemetery comprising Colnpen long barrow and six round barrows. Roman coins found in the 19th century in the vicinity.	Bronze Age	Bronze Age	Earthwork	406900	208380
13826	Barrow	Site of two probably ploughed out round barrows, South Of Hollow Foss Farm	Bronze Age	Bronze Age	Earthwork, Documentary	405700	207100
13826	Barrow	Site of two probably ploughed out round barrows, South Of Hollow Foss Farm	Bronze Age	Bronze Age	Earthwork, Documentary	405700	207100

29474	Enclosed Settlement	A partly enclosed Bronze Age settlement identified by the South Cotswold NMP survey in 2008 at Wiggold, Baunton. Fieldwalking, Geophysics, Trial Trenching and Excavation by Bournmouth University revealed neolithic and bronze age settlement and ritual activity	Neolithic	Bronze Age	Cropmark, Fieldwalking, Geophysics, Evaluation, Excavation	403640	205348
32808	Barrow	A possible Bronze Age round barrow is visible as a cropmark on aerial photographs. Bagendon	Bronze Age	Bronze Age	Cropmark	400767	206376
33198	Barrow	A possible Bronze Age round barrow visible as a cropmark on aerial photographs. Defined by a penanular ditch with the open side facing east.	Bronze Age	Bronze Age	Cropmark	401276	203045
34224	Agricultural	Possible Bronze Age field system underlying Ranbury Ring, Poulton.	Bronze Age	Bronze Age	Cropmark, Geophysics	409096	200646
37902	Barrow	A possible small ring ditch is visible as a cropmark to the east of St Augustine's Farm. It is possibly that of a Bronze Age round barrow. Preston.	Bronze Age	Bronze Age	Cropmark	405940	200840
42871	Unenclosed Settlement	Remains of a round house recorded as a geophysical survey anomaly during 2011 and evaluated in 2014, Chesterton Farm, Cirencester. Originally identified as a round barrow by the geophysical survey report	Bronze Age	Iron Age	Geophysics, Evaluation	401644	200353
44564	Cremation	Bronze Age cremations from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Post excavation assessment 2012.	Bronze Age	Bronze Age	Excavation	405180	236790
44564	Inhumation	Bronze Age burial from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Post excavation assessment 2012.	Bronze Age	Bronze Age	Excavation	405180	236790
44564	Enclosure	Bronze Age ring ditches from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Post excavation assessment 2012.	Bronze Age	Bronze Age	Excavation	405180	236790
46807	Barrow	Possible barrow indicated by a bank and ditch in Trench 28 of the 2013 evaluation of land at Crucis Park Farm, Ampney Crucis.	Bronze Age	Bronze Age	Geophysics, Evaluation	405905	203139
2024	Cremation	Late Iron Age field boundaries, enclosures and pits, bronze age and romano-british cremations, probably earlier settlement activity, and a Roman villa at Driffield.	Bronze Age	Bronze Age	Excavation	408000	200700
17205	Enclosed Settlement	Early Iron Age ditched enclosure from Area B of the 1999 excavation at The Beeches, Cirencester.	Early Iron Age	Early Iron Age	Geophysics, Evaluation, Excavation	403700	202100
22444	Miscellaneous Settlement	Pit containing Early Iron Age pottery from Area 2 from Cherry Tree Lane excavated as part of the A417/A419 DBFO road improvement scheme. Prehistoric pits and medieval and post medieval activity recorded.	Early Iron Age	Early Iron Age	Excavation	403800	202600
42864	Enclosed Settlement	Large enclosure with partially reserved bank recorded as a geophysical survey anomaly 350m and excavated in 2013 southeast of Dairy Cottage, southwest of Cirencester on the Foss Way, Cirencester.	Early Iron Age	Middle Iron Age	Geophysics , Evaluation	400951	200596
48565	Miscellaneous Settlement	Late Bronze Age segmented boundary, post holes, inhumation burial, storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline. Radiocarbon dates from the late bronze age and middle iron age indicate a possible gap in settlement	Late Bronze Age	Middle Iron Age	Excavation	396840	209190
2129	Enclosed Settlement	Early Iron Age enclosure partially excavated in 1975 at The Beeches Nursery Field	Early Iron Age	Early Iron Age	Excavation	403700	202000
4245	Enclosed Settlement	Middle Iron Age Banjo-type enclosure at Cutham lane, Bagendon. Elderly female inhumation from enclosure ditch from 2012-2014 excavations.	Middle Iron Age	Late Iron Age	Cropmark, Geophysics, Excavation	400950	207480
4245	Inhumation	Middle Iron Age Banjo-type enclosure at Cutham lane, Bagendon. Elderly female inhumation from enclosure ditch from 2012-2014 excavations.	Middle Iron Age	Middle Iron Age	Cropmark, Geophysics, Excavation	400950	207480
14063	Inhumation	Human remains from The Old Rectory, Edgeworth, associated with middle iron pottery	Middle Iron Age	Middle Iron Age	Watching Brief	394750	206350
14063	Findspot	Human remains from The Old Rectory, Edgeworth, associated with middle iron pottery	Middle Iron Age	Middle Iron Age	Watching Brief	394750	206350
22350	Miscellaneous Settlement	Pits radiocarbon dated to the middle iron age from Area O of the St Augustine's Farm South excavations along the A417, Preston. Postholes produced iron age pottery and a poorly dated segmented ditch was recorded during the same excavation which can be considered of a similar date by association	Middle Iron Age	Middle Iron Age	Excavation	405449	200341

22349	Boundary	Poorly dated segmented boundary ditch within Area O of the St Augustine's Farm South excavations along the route of the A417. Considered to be middle iron age by association with nearby features	Middle Iron Age	Middle Iron Age	Excavation	405449	200341
22353	Enclosed settlement	Middle Iron Age hexagonal settlement enclosure identified during the A417 road improvement scheme, Preston.	Middle Iron Age	Middle Iron Age	Excavation	405150	200900
22354	Enclosed Settlement	Middle Iron Age enclosures identified at Ermin Farm during the A417 road improvement scheme, no vidence of structures	Middle Iron Age	Middle Iron Age	Excavation	405726	199869
28781	Enclosed Settlement	Middle Iron Age settlement enclosure ditches, pits and field boundaries recorded during geophysical survey and evaluation on land at Siddington Park Farm, Preston.	Middle Iron Age	Middle Iron Age	Geophysics, Evaluation	404015	200330
28782	Agricultural	Middle Iron Age settlement enclosure ditches, pits and field boundaries recorded during geophysical survey and evaluation on land at Siddington Park Farm, Preston.	Middle Iron Age	Middle Iron Age	Geophysics, Evaluation	404015	200330
30524	Inhumation	Iron Age crouched burial recorded during an excavation at Lynches Trackway undertaken as part of the A417/A419 DBFO road improvement scheme. Radiocarbon dates suggested dates between 4th-1st centuries BC	Middle Iron Age	Late Iron Age	Excavation	402238	205050
33788	Miscellaneous Settlement	Middle Iron Age pits, with no other associated features, excavated between April and August 2008 by Oxford Archaeology at Kingshill North, Cirencester.	Middle Iron Age	Middle Iron Age	Excavation	403565	202490
48293	Agricultural	2016 evaluation at land off Bowling Green Lane, Cirencester. Body sherds of probable mid-late iron age date recovered from a ditch	Middle Iron Age	Late Iron Age	Geophysics, Evaluation	402275	203135
48565	Miscellaneous Settlement	Middle Iron Age storage pits, four-post structure and pits from Site 15 (plot 31.02) Wormington to Sapperton gas pipeline.	Middle Iron Age	Middle Iron Age	Excavation	396840	209190
2024	Enclosed Settlement	Late Iron Age field boundaries, enclosures and pits, bronze age and romano-british cremations, probably earlier settlement activity, a Roman villa and a probable Romano-British temple at Driffield.	Late Iron Age	Roman	Cropmark, Fieldwalking, Geophysics, Excavation	408000	200700
2024	Agriculture	Late Iron Age field boundaries, enclosures and pits, bronze age and romano-british cremations, probably earlier settlement activity, a Roman villa and a probable Romano-British temple at Driffield.	Late Iron Age	Roman	Cropmark, Fieldwalking, Geophysics, Excavation	408000	200700
2129	Enclosed Settlement	Numerous cropmarks of probable Late Iron and Roman settlement and stock enclosures, and field boundaries. Partial excavation in 1975/6 at The Beeches Nursery Field revealed Late Iron Age to Roman settlement with Roman pottery in ploughsoil overlying Iron Age ditches	Late Iron Age	Roman	Cropmark, Excavation	403700	202000
2129	Agricultural	Numerous cropmarks of probable Late Iron and Roman settlement and stock enclosures, and field boundaries. Partial excavation in 1975/6 at The Beeches Nursery Field revealed Late Iron Age to Roman settlement with Roman pottery in ploughsoil overlying Iron Age ditches	Late Iron Age	Roman	Cropmark, Excavation	403700	202000
4420	Enclosed Settlement	Cropmarks of an extensive Late Iron Age to Romano-British settlement to the west of Cirencester Golf Course.	Late Iron Age	Roman	Cropmark, Fieldwalking	400970	204850
4420	Agricultural	Cropmarks of an extensive Late Iron Age to Romano-British settlement to the west of Cirencester Golf Course.	Late Iron Age	Roman	Cropmark, Fieldwalking	400970	204850
4678	Enclosed Settlement	Late Iron Age/early Romano-British enclosure settlement identified by enclosure ditches at Middle Duntisbourne. Excavated as part of the A417/A419 DBFO road improvement scheme.	Late Iron Age	Late Iron Age	Cropmark, Evaluation, Excavation	398900	207300
4684	Enclosed Settlement	The Ditches is a scheduled Iron Age enclosure, and Romano-British Villa and settlement site. It is loacted to the northwest of Burcombe village and is visible as an earthwork, North Cerney. Part of the late iron age polyfocal complex of Bagendon	Late Iron Age	Roman	Cropmark, Earthwork, Excavation	399590	209380
4766	Enclosure	A late prehistoric or Roman settlement visible on aerial photographs as a cropmark enclosure south west of The Grange Farm, Cirencester.	Late Iron Age	Roman	Cropmark	400250	203660
4766	Agriculture	A late prehistoric or Roman settlement visible on aerial photographs as a cropmark enclosure south west of The Grange Farm, Cirencester.	Late Iron Age	Roman	Cropmark	400250	203660
12745	Enclosed Settlement	Late Iron Age/Romano-British settlement enclosure from investigations at Duntisbourne Grove as part of the A417 road improvement scheme.	Late Iron Age	Roman	Cropmark, Excavation	399160	206980
12745	Agriculture	Late Iron Age/Romano-British settlement enclosure from investigations at Duntisbourne Grove as part of the A417 road improvement scheme.	Late Iron Age	Roman	Cropmark, Excavation	399160	206980

33776	Enclosed Settlement	Late Iron Age to early roman farmstead at Kingshill North, two late iron age burials were also recorded	Late Iron Age	Roman	Excavation	403650	202500
33776	Inhumation	Late Iron Age to early roman farmstead at Kingshill North, two late iron age burials were also recorded	Late Iron Age	Roman	Excavation	403650	202500
33776	Agriculture	Late Iron Age to early roman farmstead at Kingshill North, two late iron age burials were also recorded	Late Iron Age	Roman	Excavation	403650	202500
32728	Enclosure	Late Prehistoric or Roman rectilinear enclosure visible as a cropmark at north Cerney	Late Iron Age	Roman	Cropmark	400801	208338
32822	Polyfocal Settlement	Bagendon oppidum or polyfocal settlement, excavated during the 1950s, 1980s and 2010s, soon to be published (Moore, 2020 *forthcoming*)	Late Iron Age	Roman	Cropmark, Earthwork, Geophysics, Watching Brief, Excavation	401500	206500
33203	Enclosure	A later prehistoric or Roman curvilinear trackway is located to the east of SMR 2104, Cirencester.	Late Iron Age	Roman	Cropmark	400346	203843
33203	Trackway	A later prehistoric or Roman curvilinear trackway is located to the east of SMR 2104, Cirencester.	Late Iron Age	Roman	Cropmark	400346	203843
33210	Enclosed Settlement	A Later Prehistoric or Roman enclosed settlement and field boundaries visible as cropmarks on aerial photographs, Cirencester.	Late Iron Age	Roman	Cropmark	400472	200111
33210	Agriculture	A Later Prehistoric or Roman enclosed settlement and field boundaries visible as cropmarks on aerial photographs, Cirencester.	Late Iron Age	Roman	Cropmark	400472	200111
33211	Enclosure	A possible Late Iron Age or Roman enclosure visible as cropmarks on aerial photographs, Cirencester.	Late Iron Age	Roman	Cropmark	401143	202719
33213	Boundary ditch	A possible Later Prehistoric or Roman boundary ditch visible as a cropmark on aerial photographs, Cirencester associated with an Iron Age or Roman settlement to the north	Late Iron Age	Roman	Cropmark	401312	202624
33313	Miscellaneous Settlement	An archaeological excavation was undertaken by Cotswold Archaeological Trust in November 1999 at Queen Elizabeth Road, Cirencester. It found a late Iron Age pit.	Late Iron Age	Late Iron Age	Excavation	403246	201592
42875	Agricultural	Late Iron Age to early Roman stock enclosure and trackway about 420m north of Chesterton Farm, Cirencester. The enclosure ditch was dated to the late irn age during an evaluation	Late Iron Age	Late Iron Age	Geophysics, Evaluation	401248	200746
42875	Trackway	Late Iron Age to early Roman trackway evaluated by the 2014 evaluation at Chesterton Farm, Cirencester.	Late Iron Age	Late Iron Age	Geophysics, Evaluation	401052	200785
44564	Enclosed Settlement	Late Iron Age/Roman enclosed settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Post excavation assessment 2012.	Late Iron Age	Roman	Excavation	405180	236790
44877	Enclosed settlement	Late prehistoric or Roman enclosures located during a 2013 geophysical survey and evaluation of land at Crucis Park Farm, Ampney Crucis.	Late Iron Age	Roman	Geophysics, Evaluation	405767	202880
44877	Agriculture	Late prehistoric or Roman field boundaries located during a 2013 geophysical survey and evaluation of land at Crucis Park Farm, Ampney Crucis.	Late Iron Age	Roman	Geophysics, Evaluation	405767	202880
49138	Miscellaneous Settlement	Late Iron Age activity partially revealed in a machine sondage underlying colluvium, the remainder of the activity was preserved *in situ* beneath the colluvium	Late Iron Age	Late Iron Age	Excavation	403523	201079
49138	Enclosed Settlement	Late 1st century AD enclosed settlement excavated at Kingshill South. The settlement character chaged drastically in the 2nd century AD with the construction of a number of stone build structures	Late Iron Age	Roman	Excavation	403523	201079
49138	Industrial	Potenital metalworking activity associated with the Late 1st century AD settlement at Kingshill South	Late Iron Age	Roman	Excavation	403523	201079
34676	Enclosed Settlement	Later Prehistoric-Roman enclosed settlement recorded in geophysical and excavation work close to Worm's Farm, Siddington, in advance of proposed developments, Preston.	Late Iron Age	Roman	Geophysics, Excavation	404110	200265
34677	Agricultural	Later Prehistoric-Roman enclosed settlement recorded in geophysical and excavation work close to Worm's Farm, Siddington, in advance of proposed developments, Preston.	Late Iron Age	Roman	Geophysics, Excavation	404110	200265
12	Earthwork	Perrots Brook Dyke, part of the Bagendon Dyke group. Known as Dyke F under the RCHME's naming convention. Bagendon. Uncertain dating evidence but likely Late Iron Age given the association with Bagendon	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401700	206000
81	Earthwork	Perrots Brook Dyke, part of the Bagendon Dyke group. Known as Dyke A under the RCHME's naming convention. Bagendon.Uncertain dating evidence but likely Late Iron Age given the association with Bagendon	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401820	206250
4125	Earthwork	Possible course of Dyke 'h' of the Bagendon complex to the east of Lightend Barn	Late Iron Age	Late Iron Age	Earthwork, Documentary	399300	205600

4127	Earthwork	Known as Dyke G under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. Bagendon. Undated but likely Late Iron Age given association with Bagendon occupation	Late Iron Age	Late Iron Age	Earthwork, Geophysics	400300	206930
4129	Earthwork	Known as Dyke E under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. Bagendon. Undated but likely Late Iron Age given association with Bagendon occupation	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401600	206000
4130	Earthwork	Known as Dyke D under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. Bagendon. Undated but likely Late Iron Age given association with Bagendon occupation	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401650	206130
4131	Earthwork	Known as Dyke C under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. North Cerney. Undated but likely Late Iron Age given association with Bagendon occupation	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401940	206400
4133	Earthwork	Known as Dyke B under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. Bagendon. Undated but likely Late Iron Age given association with Bagendon occupation	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401990	206650
4135	Earthwork	Known as Dyke J under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. North Cerney. Undated but likely Late Iron Age given association with Bagendon occupation	Late Iron Age	Late Iron Age	Earthwork, Geophysics	401790	207120
4132	Earthwork	Linear feature N of York House	Late Iron Age	Late Iron Age	Earthwork	401980	206420
4136	Earthwork	Ploughed out bank and ditch associated with Bagendon complex, Cutham Hill. Slight earthwork stil visible but heavily ploughed	Late Iron Age	Late Iron Age	Cropmark, Earthwork, Geophysics	401600	207230
4773	Agriculture	Late Iron Age to Roman co-axial field system to the west of Kingshill Lane, Preston.	Late Iron Age	Roman	Cropmark, geophysics, Evaluation	403800	201100
4773	Enclosed settlement	Undated polygonal enclosure evaluated in 2016 associated with a Late Iron Age to Roman co-axial field system to the west of Kingshill Lane, Preston.	Late Iron Age	Roman	Cropmark, geophysics, Evaluation	403800	201100
6797	Earthwork	Dyke 'x' of the Bagendon complex, largely ploughed out and veryconjectural, may be remnants of a medieval or port-medieval field boundary	Late Iron Age	Late Iron Age	Earthwork	400200	207450
9441	Earthwork	Bank excavated during 1954-56 excavations by E. M. Clifford on Perrots Brook Dyke. Known as Dyke A under the RCHME's naming convention. Bagendon.	Late Iron Age	Late Iron Age	Earthwork, Excavation	401740	206260
9775	Earthwork	Ploughed out double bank and ditch, part of the Bagendon cmplex	Late Iron Age	Late Iron Age	Cropmark, Geophysics	401650	207100
32845	Trackway	Part of a Late Iron Age or Roman trackway near Bagendon. May be part of the line of the White Way or Salt Way Roman road	Late Iron Age	Roman	Cropmark	401815	207151
32798	Earthwork	An earthwork visible on aerial photographs taken in 1931, but has since been both quarried out and built over in aerial photographs taken in 1946 and 1969. Part of the Bagendon complex	Late Iron Age	Late Iron Age	Earthwork, Documentary	401611	205945
32811	Earthwork	Limestone rubble bank examined at Perrots Brook Dyke during 1983 Watching Brief Exercise, Bagendon. Some flints were recovered from the topsoil. Examined alongside HER 32812, the corresponding ditch	Late Iron Age	Late Iron Age	Earthwork, Watching Brief	401553	205849
32812	Earthwork	Ditch examined at Perrots Brook Dyke during 1983 Watching Brief Exercise, Bagendon. No dating evidence was recovered and the ditch was seen to be of one phase. Examined alongside HER 32811, the corresponding bank.	Late Iron Age	Late Iron Age	Earthwork, Watching Brief	401553	205849
32816	Earthwork	Ditch excavated during 1954-56 excavations by E. M. Clifford on Perrots Brook Dyke. Known as Dyke A under the RCHME's naming convention. Bagendon.	Late Iron Age	Late Iron Age	Earthwork, Excavation	401900	206657
32821	Earthwork	Known as Dyke H under the RCHME's naming convention. Part of the Bagendon Dyke group also known as Perrotts Brook Dykes. Daglingworth.	Late Iron Age	Late Iron Age	Earthwork	399900	206370
32817	Polyfocal Settlement	Excavations of E. M. Clifford between 1954-1956 at Bagendon. Revealed evidence of high status late iron age activity leading to the interpretation as a 'Belgic Oppidum'	Late Iron Age	Late Iron Age	Excavation	401740	206267
32818	Polyfocal Settlement	Excavations of E. M. Clifford between 1954-1956 at Bagendon. Revealed evidence of high status late iron age activity leading to the interpretation as a 'Belgic Oppidum'	Late Iron Age	Late Iron Age	Excavation	401756	206275

32819	Polyfocal Settlement	Excavations of E. M. Clifford between 1954-1956 at Bagendon. Revealed evidence of high status late iron age activity leading to the interpretation as a 'Belgic Oppidum'	Late Iron Age	Late Iron Age	Excavation	401771	206234
4683	Enclosed Settlement	Late Iron Age and Roman features excavated south of Fields Farm during the A417 road improvement scheme, including a possible roman cremation. Associated with HER 4862 just to the north.	Late Iron Age	Roman	Cropmarks, Field walking, Excavation	398300	203500
13	Barrow	Tar Barrows (one of two)	Late Iron Age	Roman	Earthwork, cropmark	402960	202660
14	Barrow	Tar Barrrows (one of two)	Late Iron Age	Roman	Earthwork, cropmark	403110	202520
2024	Enclosed Settlement	Late Iron Age field boundaries, enclosures and pits, bronze age and romano-british cremations, probably earlier settlement activity, a Roman villa and a probable Romano-British temple at Driffield.	Late Iron Age	Roman	Excavation	408000	200700
2024	Cremation	Late Iron Age field boundaries, enclosures and pits, bronze age and romano-british cremations, probably earlier settlement activity, a Roman villa and a probable Romano-British temple at Driffield.	Late Iron Age	Roman	Excavation	408000	200700
2024	Inhumation	Late Iron Age field boundaries, enclosures and pits, bronze age and romano-british cremations, probably earlier settlement activity, a Roman villa and a probable Romano-British temple at Driffield.	Late Iron Age	Roman	Excavation	408000	200700
44068	Boundary	Late Iron Age-early Roman ditch on land at 2 St John's Road, Cirencester	Late Iron Age	Roman	Excavation	402312	202616
8	Hillfort	Ranbury Ring, scheduled bivallate hillfort. A 2007 evaluation sampled an outer ditch associated with the hillfort	Iron Age	Iron Age	Earthwork, Evaluation	409000	200900
11	Earthwork	Scrubditch Dyke, part of the Bagendon Dyke group or Perrotts Brook Dykes. Known as Dyke I under the RCHME's naming convention. North Cerney. The dating of the ditch is uncertain and has been suggested as a cross ridge dyke pre-dating the rest of the Bagendon Oppidum	Iron Age	Iron Age	Earthwork	400880	207730
2027	Enclosed Settlement	A possible Iron Age or Roman rectilinear enclosure and field boundaries are visible as cropmarks and on geophysics to the north of St Augustine's Farm, finds have also been recovered from this area. Preston.	Iron Age	Roman	Cropmark, Geophysics, Field walking	405700	201150
2027	Agriculture	A possible Iron Age or Roman enclosures and field boundaries are visible as cropmarks and on geophysics to the north of St Augustine's Farm, finds have also been recovered from this area. Preston.	Iron Age	Roman	Cropmark, Geophysics, Field walking	405700	201150
2077	Agriculture	An Iron Age or Roman field system is visible as earthworks on aerial photographs. Bagendon	Iron Age	Iron Age	Cropmark, Earthwork	400700	206200
2104	Enclosed Settlement	Cropmark rectangular enclosure and field boundary south east of Wellhill Copse, Cirencester.	Iron Age	Roman	Cropmark	400150	203870
2104	Agriculture	Cropmark rectangular enclosure and field boundary south east of Wellhill Copse, Cirencester.	Iron Age	Roman	Cropmark	400150	203870
2107	Hillfort	Trewsbury Hillfort is a multivallate Iron Age Hillfort, which encloses six hectares. Coates. A Late Iron Age and Roman coins have been recovered from within the hillfort	Iron Age	Iron Age	Earthwork	392100	199800
2108	Findspot	A Late Iron Age coin and roman coins recovered from the interior of Trewsbury Hillfort	Iron Age	Iron Age	Findspot	392100	199800
2128	Enclosed Settlement	Iron Age or Roman enclosure shown as cropmarks to the east of Whiteway Farm, Baunton.	Iron Age	Roman	Cropmark	402900	203200
2128	Agriculture	Iron Age or Roman linear features shown as cropmarks to the east of Whiteway Farm, Baunton.	Iron Age	Roman	Cropmark	402900	203200
2358	Enclosed Settlement	Iron Age to Roman settlement - cropmarks and finds on Worms Farm. Mostly dating to the Roman period. A banjo enclosure is visible on aerial photographs	Iron Age	Roman	Cropmark, Field walking	404700	199700
2358	Agriculture	Possible banjo enclosure visible on 1986 aerial photographs at Worms Farm, Siddington.	Iron Age	Roman	Cropmark, Field walking	404700	199700
2358	Trackway	Trackway which may be associated with the Iron Age/ Romano-British settlement at Worms Farm, Siddington.	Iron Age	Roman	Cropmark, Field walking	404570	199400
3067	Enclosed Settlement	A possible Iron Age polygonal enclosure is visible as a cropmark to the west of St Augustine's Farm, Preston. May be associated with the nearby hexagonal enclosure	Iron Age	Iron Age	Cropmark	405280	200700
3077	Enclosed settlement	The smaller of two rectilinear enclosures, with possible entrances in the middle of the northwest and southeast sides, visible as cropmark, Driffield	Iron Age	Roman	Cropmark	406343	201040
3077	Enclosed settlement	Larger of the two enclosures with a possible entrance in the middle of the northwest side. Also has a possible internal enclosure. Visible as cropmarks, Driffield	Iron Age	Roman	Cropmark	406411	200805

4196	Hillfort	Pinbury Camp Hill Fort is an Iron Age univallate hillfort. It is visible as cropmark to the north of Pinbury Park. Findspots of a late iron age coin, a gold torque and romano-british pottery are recorded from within the hillfort	Iron Age	Iron Age	Earthwork	395500	205000
4196	Findspot	Findspot romano-british pottery recorded within Pinbury Camp	Iron Age	Iron Age	Findspot	395500	205000
4197	Findspot	Findspots of a late iron age coin, a gold torque and romano-british pottery recorded within Pinbury Camp	Iron Age	Iron Age	Findspot	395800	205300
4664	Enclosure	A pair of probable Iron Age or Roman enclosures are visible as cropmarks to the east of Pinbury Park. Duntisbourne Rouse.	Iron Age	Roman	Cropmark	396200	204900
4668	Enclosure	An Iron Age or Roman rectilinear enclosure is visible as a cropmark on the Polo Ground to the southwest of Upper Field Barn. Daglingworth.	Iron Age	Roman	Cropmark	399400	203100
4682	Enclosure	Cropmarks of a probable Iron Age or Roman trackway and a rectilinear enclosure. The trackway appears to link the enclosure with Ermin street to and a roman building to the southwest	Iron Age	Roman	Cropmark, Fieldwalking	398250	208410
4682	Trackway	Cropmarks of a probable Iron Age or Roman trackway and a rectilinear enclosure. The trackway appears to link the enclosure with Ermin street to and a roman building to the southwest	Iron Age	Roman	Cropmark, Fieldwalking	398250	208410
4699	Enclosure	An Iron Age or Roman rectilinear enclosure and associated linear feature are located to the southwest of Elkstone Farm, Elkstone.	Iron Age	Roman	Cropmark	396450	211500
22292	Miscellaneous Settlement	Poorly dated iron age settlement evidence in the form of pits and post holes revealed during an evaluation at Daglingworth. Neolithic and early bronze age settlement evidence was also present	Iron Age	Iron Age	Cropmark, Evaluation	398990	203500
22444	Miscellaneous Settlement	Five poorly dated but likely Iron Age its from the Cherry Tree Lane excavations as part of the A417 road improvement scheme	Iron Age	Iron Age	Excavation	403800	202600
26799	Enclosed settlement	Extensive iron age or roman settlement complex visible as cropmarks, Ampney St. Peter. Cropmarks show evidence of intercutting enclosures of various forms (square, D-shaped, polygonal), field boundaries, roundhouses, and trackways	Iron Age	Roman	Cropmark	408700	199790
26799	Agriculture	Extensive iron age or roman settlement complex visible as cropmarks, Ampney St. Peter. Cropmarks show evidence of intercutting enclosures of various forms (square, D-shaped, polygonal), field boundaries, roundhouses, and trackways	Iron Age	Roman	Cropmark	408700	199790
26799	Trackway	Extensive iron age or roman settlement complex visible as cropmarks, Ampney St. Peter. Cropmarks show evidence of intercutting enclosures of various forms (square, D-shaped, polygonal), field boundaries, roundhouses, and trackways	Iron Age	Roman	Cropmark	408680	199820
27026	Agriculture	The earthworks of possible Late Prehistoric or Roman field boundaries which are visible on 1946 aerial photographs, Brimpsfield.	Iron Age	Roman	Cropmark, Earthwork	394480	212700
32748	Agriculture	A possible Iron Age or Roman settlement at North Cerney adjacent to Dyke 'a' of the Bagendon complex. Some of the features appear to form a rectilinear enclosure	Iron Age	Iron Age	Cropmark	401604	207258
32791	Boundary	A possible Iron Age or Roman sinuous curving ditch is visible as a cropmark on aerial photographs. Bagendon	Iron Age	Roman	Cropmark	401940	206941
32952	Trackway	Part of a poorly dated road or track visible as cropmarks and recorded by the Cotswold Hills NMP project, North Cerney. It appears to underly the current field pattern and is therefore likely to be Iron Age or Roman	Iron Age	Roman	Cropmark	401261	208020
33138	Miscellaneous Settlement	Late prehistoric or early Roman settlement site, Ampney Crucis. Including a possible Roman villa, hollow way and boundary ditch.	Iron Age	Roman	Cropmark	404543	204675
33141	Trackway	A later prehistoric or Roman road or trackway visible as cropmarks on aerial photographs, Cirencester.	Iron Age	Roman	Cropmark	401318	202862
33142	Trackway	A probable later Prehistoric or Roman road or trackway visible as cropmarks on aerial photographs, Cirencester.	Iron Age	Roman	Cropmark	401103	203098
33201	Miscellaneous Settlement	A group of probable Iron Age or Roman storage or rubbish pits, Cirencester.	Iron Age	Iron Age	Cropmark	400213	203837
33212	Enclosed Settlement	A probable Iron Age or Roman square enclosure, boundary ditch and pits are visible as a cropmarks on aerial photographs, Cirencester.	Iron Age	Iron Age	Cropmark	401398	202696
33468	Enclosed Settlement	A possible Iron Age farmstead enclosure visible as a cropmark and mapped from aerial photographs, Driffield	Iron Age	Iron Age	Cropmark	408050	200519

35096	Enclosed Settlement	A possible Iron Age enclosure is visible as a cropmark to the northeast of Woodside Cottage, Winstone.	Iron Age	Iron Age	Cropmark	394776	209874
37817	Enclosed Settlement	A possible Iron Age Banjo Enclosure and curvilinear enclosure are visible as cropmarks to the SE of Roultmoor Copse, Barnsley.	Iron Age	Roman	Cropmark	408800	204700
37819	Villa	A probable Roman villa site in addition to a rectilinear enclosure which may bean Iron Age or Roman farmstead	Iron Age	Roman	Cropmark	409100	204700
37819	Enclosed Settlement	A probable Roman villa site in addition to a rectilinear enclosure which may bean Iron Age or Roman farmstead	Iron Age	Roman	Cropmark	409100	204700
37900	Enclosure	A possible Iron Age rectilinear enclosure is visible as a cropmark to the southwest of St Augustine's Farm. Preston.	Iron Age	Iron Age	Cropmark	405640	200240
38009	Enclosed Settlement	Iron Age to Roman features are visible as cropmarks to the southwest of Sapperton village. Sapperton. Including a banjo enclosure, two possible rectilinear enclosures, a possible ring ditch, linear features and pits	Iron Age	Roman	Cropmark	394520	203100
38020	Enclosure	An Iron Age to Roman rectilinear enclosure is visible as cropmarks to the west of Kembleview Plantation. Coates	Iron Age	Roman	Cropmark	398800	201340
44564	Enclosed Settlement	Iron Age to Roman settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Including evidence of encosed settlement, an inhumation, a trackway and boundary/drainage ditches.	Iron Age	Iron Age	Excavation	405180	236790
44564	Inhumation	Iron Age to Roman settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Including evidence of encosed settlement, an inhumation, a trackway and boundary/drainage ditches.	Iron Age	Iron Age	Excavation	405180	236790
44564	Trackway	Iron Age to Roman settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Including evidence of encosed settlement, an inhumation, a trackway and boundary/drainage ditches.	Iron Age	Iron Age	Excavation	405180	236790
44564	Boundary	Iron Age to Roman settlement from the archaeological investigations undertaken by Cotswold Archaeology (April - September 2010) on the route of the Wormington to Sapperton gas pipeline, Gloucestershire. Including evidence of encosed settlement, an inhumation, a trackway and boundary/drainage ditches.	Iron Age	Roman	Excavation	405180	236790
4802	Agriculture	Site of recorded celtic field system, no longer extant	Iron Age	Iron Age	Documentary	402100	211050
26731	Agriculture	An undated ditch, gully and pit recorded at Norcote Farm, the ditch was cut at right angles by several presumed Roman ditches. Excavated as part of the A417/419 DBFO road improvement scheme.	Iron Age	Roman	Geophysics, Excavation	404328	202026
32682	Agriculture	Poorly dated Iron Age, Roman or Medieval field system at Woodmancote	Iron Age	Medieval	Earthwork	400896	209570

Appendix 2.2 – HER data for a 5km radius around Gussage Cow-Down

The following data relates to the 5km radius search of Dorset HER undertaken at Gussage Cow-Down and summarised in *Table 2* in Section 3.3.

Dorset HER Number	Site Type	Dorset HER description	Period From	Period To	Evidence	Easting	Northing
MDO3796	Agriculture	Prehistoric field system on Chettle Down and Hookswood Common, Farnham	Iron Age	Iron Age	Cropmark	395500	116200
MDO3797	Round Barrow	Round barrow, Farnham	Bronze Age	Bronze Age	Earthwork, Cropmark	395850	114320
MDO3798	Round Barrow	Round barrow, Farnham	Bronze Age	Bronze Age	Earthwork, Cropmark	395900	114490
MDO3800	Enclosure	Iron Age enclosure, Farnham	Iron Age	Iron Age	Cropmark	395300	115300
MDO4993	Round Barrow	Round barrow, Tarrant Hinton	Bronze Age	Bronze Age	Earthwork, Cropmark	396170	112930
MDO5043	Earthwork	Dyke, Tarrant Launceston	Bronze Age	Iron Age	Earthwork, Cropmark	396280	111520
MDO5074	Bowl Barrow	Bowl barrow, Tarrant Launceston	Bronze Age	Bronze Age	Earthwork, Cropmark	395820	111320
MDO5075	Disc Barrow	Disc barrow, Tarrant Launceston	Bronze Age	Bronze Age	Earthwork, Cropmark	395880	111330
MDO5076	Bowl Barrow	Bowl barrow, Tarrant Launceston	Bronze Age	Bronze Age	Earthwork, Cropmark	395730	111500
MDO5077	Bowl Barrow	Bowl barrow on Parish Boundary,Tarrant Launceston	Bronze Age	Bronze Age	Earthwork, Cropmark	395770	111530
MDO5078	Bowl Barrow	Bowl barrow, Tarrant Launceston	Bronze Age	Bronze Age	Earthwork, Cropmark	395590	111900
MDO5092	Round Barrow	Ring ditch, Tarrant Launceston. A ring-ditch visible as a crop mark on oblique aerial photographs taken by Francesca Radcliffe. Interpreted as being the probable remains of a Bronze Age round barrow.	Bronze Age	Bronze Age	Cropmark	395720	111610
MDO5093	Round Barrow	Ring ditch, Tarrant Launceston. A ring-ditch visible as a crop mark on oblique aerial photographs taken by Francesca Radcliffe. Interpreted as being the probable remains of a Bronze Age round barrow.	Bronze Age	Bronze Age	Cropmark	395790	111240
MDO5497	Bowl Barrow	Bowl barrow, Cranborne	Bronze Age	Bronze Age	Earthwork, Cropmark	404010	115690
MDO5498	Bowl Barrow	Bowl barrow north of Cranborne Farm, Cranborne	Bronze Age	Bronze Age	Earthwork, Cropmark	404130	114800
MDO5544	Enclosed Settlement	Iron Age settlement, Gussage All Saints.	Middle Iron Age	Late Iron Age	Cropmark	399800	110100
MDO5545	Earthwork	Linear dyke running towards Tenantry Down, Gussage All Saints. A linear dyke was almost totally levelled by ploughing it is still visible on air photographs.	Bronze Age	Iron Age	Cropmark	399800	111900
MDO5546	Bowl Barrow	Bowl barrow west of Harley Wood, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400130	112910
MDO5547	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401010	114610
MDO5548	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401100	114600
MDO5549	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401080	114630
MDO5550	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401110	114670

MDO5551	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401140	114640
MDO5552	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401190	114690
MDO5553	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401250	114550
MDO5554	Round Barrow	Round barrow, one of the Drive Plantation Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401320	114630
MDO5555	Bowl Barrow	Bowl barrow, one of The Cursus Group of round barrows, Wyke Down, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400890	114900
MDO5556	Round Barrow	Round barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400960	114980
MDO5557	Bowl Barrow	Bowl barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401170	114980
MDO5558	Bowl Barrow	Bowl barrow, north of the Dorset Cursus, one of The Cursus Group of round barrows, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400800	115120
MDO5559	Round Barrow	Round Barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400960	115140
MDO5560	Round Barrow	Bowl barrow, immediately north of the Dorset Cursus, one of The Cursus Group of round barrows, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400920	115190
MDO5561	Bowl Barrow	Round barrow within the Dorset Cursus, one of The Cursus Group of round barrows, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401020	115190
MDO5562	Bowl Barrow	Bowl barrow in Drive Plantation, one of The Cursus Group of round barrows, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401180	115180
MDO5563	Bowl Barrow	Bowl barrow in Drive Plantation, one of The Cursus Group of round barrows, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401240	115230
MDO5564	Bowl Barrow	Bowl barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401250	115190
MDO5565	Bowl Barrow	Bowl barrow, one of the Wyke Down Group of round barrows, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400730	115290
MDO5566	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400780	115370
MDO5567	Disc Barrow	Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400740	115370
MDO5568	Bell Barrow	Bell barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400730	115410
MDO5569	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400790	115420
MDO5570	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400710	115460
MDO5571	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400710	115500
MDO5572	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400750	115480
MDO5573	Disc Barrow	Disc barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400800	115480
MDO5574	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400830	115500
MDO5575	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400860	115510

MDO5576	Bowl Barrow	Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400690	115540
MDO5577	Bowl Barrow	Bowl barrow, one of the Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400710	115560
MDO5578	Bowl Barrow	Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400740	115550
MDO5579	Bowl Barrow	Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400650	115540
MDO5580	Bowl Barrow	Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400660	115560
MDO5581	Bowl Barrow	Wyke Down Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400680	115580
MDO5582	Bowl Barrow	Bowl barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400850	115740
MDO5583	Bowl Barrow	Bowl barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400860	115760
MDO5584	Bowl Barrow	Bowl barrow, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	400880	115770
MDO5585	Bowl Barrow	Bowl barrow, one of the Handley Hill Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401360	116230
MDO5586	Bowl Barrow	Bowl barrow, one of the Handley Hill Group, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401390	116260
MDO5593	Agriculture	Field system at Sovell Down, Gussage All Saints. Celtic Fields at Sovell Down, Gussage All Saints, Gussage St Michael, Moor Crichel	Iron Age	Iron Age	Cropmark	399350	110450
MDO5594	Agriculture	Prehistoric field system, Gussage All Saints. Celtic Fields at Thorney Down, Gussage Down, Harley Down, Tenantry Down, Brockington Down.	Iron Age	Iron Age	Cropmark	400500	112500
MDO5603	Enclosure	Prehistoric enclosure, Gussage All Saints	Iron Age	Iron Age	Cropmark	399600	111270
MDO5606	Polyfocal complex	An Iron Age and Romano British Settlement on Gussage Hill, Gussage St Michael	Late Iron Age	Roman	Cropmark	399100	114300
MDO5607	Enclosure	Iron Age enclosure east of Gussage Down, Gussage St Michael	Iron Age	Iron Age	Cropmark	400600	114200
MDO5617	Bowl Barrow	Bowl barrow, one of the Thickthorn Down Group, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	397220	112240
MDO5618	Bowl Barrow	Bowl barrow, one of the Thickthorn Down Group, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	397220	112260
MDO5619	Round Barrow	Round barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396810	112730
MDO5620	Bowl Barrow	Bowl barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396830	112920
MDO5621	Bowl Barrow	Bowl Barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396630	113040
MDO5622	Bowl Barrow	Bowl Barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396620	113110
MDO5623	Bowl Barrow	Bowl Barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396950	113230
MDO5624	Bowl Barrow	Bowl Barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396960	113240
MDO5625	Bowl Barrow	Bowl Barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	396980	113260
MDO5626	Bowl Barrow	Bowl barrow on Week Street Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	397120	113130

MDO5627	Bowl Barrow	Bowl Barrow on Gussage Hill, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	398360	113900
MDO5628	Bowl Barrow	Bowl Barrow on Gussage Hill, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	398580	114040
MDO5629	Bowl Barrow	Bowl Barrow on Gussage Hill, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	398770	114020
MDO5630	Bowl Barrow	Bowl barrow, one of the Gussage Hill Group, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	399480	113720
MDO5631	Bowl Barrow	Bowl barrow, one of the Gussage Hill Group, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	399480	113690
MDO5632	Bowl Barrow	Bowl barrow, one of the Gussage Hill Group, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	399490	113680
MDO5633	Bowl Barrow	Bowl Barrow, one of the Gussage Hill Group, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	399690	113720
MDO5634	Disc Barrow	Disc Barrow on Gussage Down, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	400140	113590
MDO5635	Bowl Barrow	Bowl Barrow west of Ackling Dyke	Bronze Age	Bronze Age	Earthwork, Cropmark	400600	114300
MDO5636	Bowl Barrow	Bowl Barrow west of Ackling Dyke	Bronze Age	Bronze Age	Earthwork, Cropmark	400630	114300
MDO5643	Enclosed Settlement	Neolithic/Bronze Age settlement at Down Farm, Gussage St Michael. Excavations on Down Farm (A)	Neolithic	Late Bronze Age	Excavation	399960	114650
MDO5645	Cemetery	Excavation of a ring ditch at Down Farm, Gussage St Michael. Comprising a Neolithic to Bronze Age cemetery	Neolithic	Bronze Age	Excavation	399900	114550
MDO5647	Pond Barrow	Pond barrow, Gussage St Michael	Bronze Age	Bronze Age	Cropmark	400060	114540
MDO5648	Cremation Cemetery	Cremation cemetery, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	400060	114540
MDO5649	Findspot	Roman pottery from Gussage Cow Down, Gussage St Michael. Pieces of Roman pottery found near a banjo enclosure included samian ware and pottery described as 'Durotrigian derived types'.	Late Iron Age	Roman	Fieldwalking	399200	114200
MDO5650	Findspot	Iron Age pottery from Gussage Cow Down, Gussage St Michael. Three sherds of Early Iron Age A Haematite ware was found on Gussage Cow Down.	Early Iron Age	Early Iron Age	Fieldwalking	399000	114300
MDO5651	Agriculture	Prehistoric field system, Gussage St Michael	Iron Age	Iron Age	Cropmark	399000	111000
MDO5652	Agriculture	Prehistoric field system, Gussage St Michael. Celtic Fields at Thorney Down, Gussage Down, Harley Down, Tenantry Down, Brockington Down.	Iron Age	Iron Age	Cropmark	399500	112500
MDO5653	Round Barrow	Ring-ditch, Down Farm, Gussage St Michael. A ring-ditch reported as being around twenty paces in diameter. Interpreted as the probable remains of a round barrow.	Bronze Age	Bronze Age	Cropmark	399980	114380
MDO5654	Round Barrow	Round barrow, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	398800	114230
MDO5655	Disc Barrow	Double disc barrow, Gussage St Michael	Bronze Age	Bronze Age	Earthwork, Cropmark	400080	114360
MDO5658	Miscellaneous Settlement	Excavations in Home field, Down Farm	Iron Age	Iron Age	Excavation	399800	114610
MDO5662	Enclosed settlement	Double banjo enclosure, finds including Durotrigian Stater MACK 319. An enclosure visible as a cropmark on air photographs. It appears to be attached to the southern end of a linear feature. The enclosure appears to have two entrance gaps.	Late Iron Age	Roman	Cropmark, Findspot	399900	113100
MDO5663	Enclosed settlement	Double banjo enclosure, finds including Samian ware	Late Iron Age	Roman	Cropmark, Findspot	399900	113100
MDO5668	Enclosure	Prehistoric enclosure at Down Farm, Gussage St Michael	Bronze Age	Iron Age	Cropmark	399750	114770
MDO5806	Earthwork	Dyke on Thickthorn Down, Long Crichel	Late Iron Age	Roman	Cropmark	396000	112000
MDO5807	Earthwork	Dyke on Thickthorn Down, Long Crichel	Late Iron Age	Roman	Cropmark	396420	112200
MDO5814	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396190	111090

MDO5815	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396180	111110
MDO5816	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396240	111090
MDO5817	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	395960	111350
MDO5818	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396170	111490
MDO5819	Bell Barrow	Bell barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	395880	111570
MDO5820	Bell Barrow	Bell Barrow west of Veiny Cheese Pond, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396040	111590
MDO5822	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396160	111710
MDO5823	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396230	111680
MDO5824	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396260	111650
MDO5825	Bowl Barrow	Bowl barrow, one of the Veiny Cheese Pond Barrow Group, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396670	111750
MDO5826	Bowl Barrow	Bowl barrow, one of the Veiny Cheese Pond Barrow Group, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396690	111730
MDO5827	Bowl Barrow	Bowl barrow, one of the Veiny Cheese Pond Barrow Group, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396710	111710
MDO5828	Bowl Barrow	Bowl barrow, one of the Veiny Cheese Pond Barrow Group, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396720	111690
MDO5829	Bowl Barrow	Bowl barrow, one of the Veiny Cheese Pond Barrow Group, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	396740	111660
MDO5830	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	395680	112210
MDO5831	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	395680	112260
MDO5832	Bowl Barrow	Bowl barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	395700	112290
MDO5834	Boundary	Linear ditch near Sovell Plantation, Long Crichel	Bronze Age	Iron Age	Cropmark	398530	111100
MDO5836	Bowl Barrow	Round barrow, Long Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	395880	111480
MDO5847	Agriculture	Prehistoric field system on Sovell Down	Iron Age	Iron Age	Cropmark	399000	110000
MDO5848	Round Barrow	Round barrow, Moor Crichel	Bronze Age	Bronze Age	Earthwork, Cropmark	399010	110300
MDO5948	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Pentridge	Bronze Age	Bronze Age	Earthwork, Cropmark	402510	116200
MDO6063	Enclosed Settlement	Romano-British settlement at Oakley Farm, Sixpenny Handley.	Late Iron Age	Roman	Cropmark, Fieldwalking	400800	118100
MDO6072	Earthwork	The Angle Ditch, Handley Down, Sixpenny Handley. Bronze Age ditch excavated by Pitt-Rivers. This feature has been interpreted as two sides of the boundary of a settlement.	Bronze Age	Bronze Age	Excavation	401170	117300
MDO6075	Inhumation	Romano British burials, some decapitated, Wor Barrow, Sixpenny Handley	Late Iron Age	Roman	Excavation	401240	117280
MDO6077	Round Barrow	Round barrow on Gussage Hill, Sixpenny Handley	Iron Age	Iron Age	Earthwork, Cropmark	398900	114430

MDO6078	Bowl Barrow	Barrow in the Thorney Down Farm Group, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	399890	115330
MDO6079	Inhumation	Romano British burials from a barrow in the Thorney Down Farm Group, Sixpenny Handley. Barrow excavated by Pitt-Rivers in 1898, primary cremation with bone needle, burnt flint flakes, and burnt flint knife, beneath inverted Early/Middle Bronze Age collared urn in central cist, three intrusive contracted skeletons (Romano-British?) in upper levels of ditch silting	Bronze Age	Roman	Excavation	399890	115330
MDO6080	Round Barrow	Thorney Down Farm Group, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	399780	115410
MDO6081	Round Barrow	Round barrow, one of the Thorney Down Group, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	399820	115450
MDO6082	Round Barrow	Thorney Down Farm Group, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	399810	115500
MDO6083	Bowl Barrow	Bowl barrow on Wyke Down, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	400460	115860
MDO6084	Bowl Barrow	Bowl barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	401020	116530
MDO6085	Bowl Barrow	Bowl barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	400990	116550
MDO6086	Cremation Cemetery	Bronze Age cremation cemetery, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	400990	116550
MDO6087	Bowl Barrow	Bowl barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	401130	116590
MDO6088	Bowl Barrow	Bowl Barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	401280	117260
MDO6089	Bowl Barrow	Bowl Barrow north of Wor Barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	401220	117380
MDO6091	Bowl Barrow	Bowl barrow in Barrow Coppice, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	396870	117930
MDO6092	Bowl Barrow	Bowl Barrow, one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397250	117880
MDO6093	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397230	117900
MDO6094	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397220	117870
MDO6095	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397210	117880
MDO6096	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397210	117890
MDO6097	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397250	117870
MDO6098	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397170	117900
MDO6099	Bowl Barrow	Bowl Barrow one of the Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397170	117890
MDO6100	Bowl Barrow	Barrow on Handley Common, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397580	118610
MDO6101	Bowl Barrow	Barrow on Handley Common, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397600	118620
MDO6102	Bowl Barrow	Barrow on Handley Common, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397970	117930

MDO6103	Bowl Barrow	Barrow on Handley Common, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397980	117910
MDO6104	Bowl Barrow	Barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	398340	116990
MDO6105	Bowl Barrow	Barrow, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	398320	117000
MDO6111	Earthwork	Part of earthworks on Gussage Hill	Late Iron Age	Roman	Cropmark	398910	115100
MDO6114	Agriculture	Prehistoric field system on Minchington Down and Woodcutts Common, Sixpenny Handley. An extensive field system covering Minchington Down and Woodcutts Common.	Iron Age	Iron Age	Cropmark	396000	117000
MDO6115	Agriculture	Prehistoric field system on Handley Common and Chapel Down, Sixpenny Handley. An extensive field system covering the ridge from Handley Common to Chapel Down.	Iron Age	Iron Age	Cropmark	399000	116000
MDO6116	Agriculture	Prehistoric field system, Sixpenny Handley. An extensive prehistoric field system.	Iron Age	Iron Age	Cropmark	402500	117500
MDO6117	Agriculture	Prehistoric field system, Sixpenny Handley	Iron Age	Iron Age	Cropmark	399000	116000
MDO6118	Round Barrow	Round barrow at Scrubbity Barrows, Sixpenny Handley	Bronze Age	Bronze Age	Earthwork, Cropmark	397200	117860
MDO6119	Findspot	Prehistoric pottery, Sixpenny Handley. Pottery of probable Bronze Age date recovered from the surface after ploughing of an Iron Age/Romano-British enclosure.	Bronze Age	Bronze Age	Fieldwalking	396100	115900
MDO6132	Enclosure	Enclosure on Woodcutts Common, Sixpenny Handley	Iron Age	Iron Age	Cropmark	396750	117380
MDO6133	Findspot	Bronze Age axe, Sixpenny Handley	Bronze Age	Bronze Age	Fieldwalking	398980	115230
MDO6284	Polyfocal complex	Iron Age and Romano-British settlement on Oakley Down, Wimborne St Giles. Iron Age and Romano-British Settlement associated with a track-way and lying among 'Celtic' fields lies, at about 340 ft. above O.D., on a low ridge some 500 yds. W. of the Roman road from Old Sarum to Badbury Rings.	Late Iron Age	Roman	Cropmark	401600	117750
MDO6285	Unenclosed settlement	Iron Age/Romano-British settlement at Bowldish Pond, Wimborne St Giles	Iron Age	Roman	Cropmark	403270	115150
MDO6287	Round Barrow	Round barrow, one of the Knowlton Circles Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402970	110720
MDO6288	Round Barrow	Round barrow, one of the Knowlton Circles Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403030	110740
MDO6289	Round Barrow	Round barrow, one of the Knowlton Circles Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403040	110780
MDO6290	Round Barrow	Round barrow, one of the Knowlton Circles Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403070	110670
MDO6291	Enclosure	Enclosure, Wimborne St Giles. An enclosure, likely to be prehistoric in date, identified from crop marks on oblique aerial photographs.	Bronze Age	Iron Age	Cropmark	403100	110750
MDO6296	Bowl Barrow	Bowl barrow north of St Giles' Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403780	112170
MDO6297	Bowl Barrow	Bowl barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403940	112170
MDO6298	Bowl Barrow	Bowl barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404080	112300
MDO6299	Bowl Barrow	Bowl barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404100	112290
MDO6300	Bowl Barrow	Bowl barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404120	112280
MDO6301	Bowl Barrow	Bowl barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404160	112270
MDO6302	Bowl Barrow	Bowl barrow north east of Bottlebush Clump, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403510	114330
MDO6303	Bowl Barrow	Bowl barrow north of Nine Yews, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403680	114390

MDO6304	Bowl Barrow	Bowl barrow north of Nine Yews, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404060	114110
MDO6305	Bowl Barrow	Bowl barrow north of Nine Yews, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404120	114120
MDO6306	Bowl Barrow	Bowl barrow south of Cranborne Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404130	114340
MDO6307	Bowl Barrow	Bowl barrow, one of the Drive Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401280	114680
MDO6308	Bowl Barrow	Bowl barrow, one of the Drive Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401390	114680
MDO6309	Round Barrow	Bowl barrow, one of the Drive Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401420	114660
MDO6310	Bowl Barrow	Bowl barrow near Drive Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401450	114910
MDO6311	Round Barrow	Round barrow south of The Warren, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401510	115140
MDO6312	Bowl Barrow	Bowl barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401550	115140
MDO6313	Bowl Barrow	Bowl barrow in The Warren, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401640	115220
MDO6314	Bowl Barrow	Bowl barrow near Drive Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401290	115210
MDO6315	Bowl Barrow	Bowl barrow in Drive Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401290	115280
MDO6316	Bowl Barrow	Bowl barrow near the Dorset Cursus, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401370	115570
MDO6317	Bowl Barrow	Bowl barrow south of Bowldish Pond, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403240	115020
MDO6318	Bowl Barrow	Bowl barrow in Blackbush Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403120	115710
MDO6319	Bowl Barrow	Bowl barrow, in Blackbush Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403130	115750
MDO6320	Bowl Barrow	Bowl barrow in Blackbush Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403130	115800
MDO6321	Bowl Barrow	Bowl barrow in Blackbush Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403140	115870
MDO6322	Bowl Barrow	Bowl barrow at the northern end of Blackbush Plantation, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403480	116290
MDO6323	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402840	116070
MDO6324	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402850	116110
MDO6325	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402800	116110
MDO6326	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402770	116170
MDO6327	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402640	116210
MDO6328	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402660	116240

MDO6329	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402740	116250
MDO6330	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402810	116300
MDO6331	Bowl Barrow	Bowl barrow, one of the Salisbury Plantation Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402640	116820
MDO6332	Bowl Barrow	Bowl barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401910	115910
MDO6333	Bowl Barrow	Bowl barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401940	115930
MDO6334	Bowl Barrow	Bowl barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401760	116040
MDO6335	Bowl Barrow	Bowl barrow, one of the Handley Hill Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401490	116260
MDO6336	Bowl Barrow	Bowl barrow, one of the Handley Hill Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401410	116280
MDO6337	Bowl Barrow	Bowl barrow, one of the Handley Hill Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401530	116320
MDO6338	Bowl Barrow	Bowl barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401900	116420
MDO6339	Bell Barrow	Bell barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401910	116450
MDO6340	Bowl Barrow	Bowl barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401950	116480
MDO6341	Bowl Barrow	Bowl barrow on Bottlebush Down, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401810	116560
MDO6342	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401480	116980
MDO6343	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401590	117040
MDO6345	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401660	117040
MDO6346	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401700	117040
MDO6347	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401760	117040
MDO6348	Bowl Barrow	Mound, perhaps three small bowl barrows, part of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401610	117080
MDO6349	Bowl Barrow	Bowl Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401670	117080
MDO6350	Disc Barrow	Disc Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401680	117110
MDO6351	Bell Barrow	Bell Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401730	117130
MDO6352	Disc Barrow	Disc Barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401780	117130
MDO6353	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401840	117090
MDO6354	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401880	117070

MDO6355	Disc Barrow	Disc Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401930	117010
MDO6356	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401770	117180
MDO6357	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401760	117210
MDO6358	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401780	117240
MDO6359	Bowl Barrow	Bowl barrow, one of the Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401840	117180
MDO6360	Disc Barrow	Disc Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401910	117150
MDO6361	Disc Barrow	Disc Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401820	117300
MDO6362	Disc Barrow	Disc Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401880	117240
MDO6363	Saucer Barrow	Saucer Barrow, Oakley Down Group, Wimborne St Giles. Saucer barrow almost levelled by ploughing, formally consisted of a low mound 60 ft in diameter, surrounded by a shallow ditch and a very low outer bank, both a round 15ft across. The barrow appears to lie over a 'Celtic' field lynchet	Bronze Age	Bronze Age	Cropmark	401800	117530
MDO6364	Bowl Barrow	Bowl Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401830	117540
MDO6365	Bowl Barrow	Bowl Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401850	117750
MDO6366	Bowl Barrow	Bowl Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401930	117550
MDO6367	Bowl Barrow	Bowl barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	401990	117560
MDO6368	Bowl Barrow	Bowl barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402000	117550
MDO6369	Bowl Barrow	Bowl barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402020	117560
MDO6371	Bell Barrow	Bell barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402010	117520
MDO6372	Bowl Barrow	Bowl barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402030	117510
MDO6373	Bowl Barrow	Bowl barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402000	117630
MDO6374	Barrow	Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402030	117610
MDO6376	Bowl Barrow	Possible Bowl Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402060	117400
MDO6381	Agriculture	Prehistoric field system, Wimborne St Giles. Soilmarks on aerial photographs suggest a possible settlement, associated with prehistoric field system and trackway.	Iron Age	Iron Age	Cropmark	402500	115500
MDO6383	Round Barrow	Round barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403200	111900
MDO6385	Bowl Barrow	Ring ditch on the edge of Harley Down, Wimborne St Giles. A circular cropmark seen and photographed from the air in 1984 by Martin Green, who interpreted it as a ring ditch and probably the remains of a bowl barrow.	Bronze Age	Bronze Age	Cropmark	401596	112903
MDO6386	Bowl Barrow	Bowl Barrow, Oakley Down Group, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402070	117690

MDO6436	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402300	110130
MDO6437	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402290	110230
MDO6438	Round Barrow	Bowl barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402310	110310
MDO6439	Bowl Barrow	Bowl barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402400	110190
MDO6440	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402590	110150
MDO6441	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402620	110100
MDO6442	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402650	110110
MDO6443	Round Barrow	Great Barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402540	110280
MDO6444	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402660	110260
MDO6445	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402420	110360
MDO6446	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402510	110420
MDO6447	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402960	110490
MDO6448	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402950	110490
MDO6449	Round Barrow	Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402940	110500
MDO6450	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402930	110530
MDO6451	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	403010	110530
MDO6452	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402990	110530
MDO6453	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402950	110590
MDO6454	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402880	110640
MDO6455	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402960	110650
MDO6456	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402930	110640
MDO6457	Round Barrow	Round barrow, one of the Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402950	110630
MDO6458	Round Barrow	Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402940	110660
MDO6459	Round Barrow	Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402950	110680
MDO6460	Round Barrow	Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402960	110650

MDO6461	Round Barrow	Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402980	110640
MDO6462	Round Barrow	Knowlton Barrow Group, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	403040	110610
MDO6464	Round Barrow	Ring ditch at Knowlton, Woodlands. A double ring-ditch. The ring ditch is visible as a cropmark on 1950s aerial photographs. The feature is probably a barrow of Bronze Age in origin and part of the Knowlton Barrow Group.	Bronze Age	Bronze Age	Cropmark	402890	110630
MDO6465	Round Barrow	Round barrow, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402160	109910
MDO6477	Barrow	A ring ditch at Knowlton, Woodlands, is visible as a cropmark on a 1989 aerial photograph. The feature is one of a group of similar features at this location and is probably a Bronze Age barrow.	Bronze Age	Bronze Age	Cropmark	401775	110012
MDO6478	Barrow	Probable Bronze Age barrow, Woodlands. A ring ditch at Knowlton, Woodlands, is visible as a cropmark on 1989 and 2014 aerial photographs. The feature is one of a group of similar features at this location and is probably a Bronze Age barrow.	Bronze Age	Bronze Age	Cropmark	401860	110097
MDO6479	Barrow	Possible Bronze Age barrow, Woodlands. A ring ditch at Knowlton, Woodlands, is visible as a cropmark on a 1977 aerial photograph. The feature is one of a group of similar features at this location and is probably a Bronze Age barrow.	Bronze Age	Bronze Age	Cropmark	401950	110140
MDO6481	Barrow	Bronze Age barrow, Knowlton, Woodlands. A partial ring ditch at Knowlton, Woodlands, is visible as a cropmark on a 1977 aerial photograph. The feature is one of a group of similar features at this location and is probably a Bronze Age barrow.	Bronze Age	Bronze Age	Cropmark	402044	110318
MDO6482	Barrow	Probable Bronze Age barrow, Woodlands. A partial double ring ditch at Knowlton, Woodlands, is visible as a cropmark on a 1970s aerial photograph. The feature is one of a group of similar features at this location and is probably a Bronze Age barrow.	Bronze Age	Bronze Age	Cropmark	402120	110160
MDO6483	Round Barrow	Ring ditch, Woodlands. A ring-ditch 23 paces in diameter. Interpreted as a probable levelled round barrow.	Bronze Age	Bronze Age	Cropmark	402330	110090
MDO6484	Round Barrow	Bronze Age round barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401590	109660
MDO23794	Unenclosed Settlement	Iron Age/Roman British settlement, Goldfields Farm, Sixpenny Handley. Following the discovery of a large number of late Iron Age and Roman coins within a field known as East Long Ground, Goldfields Farm, Sixpenny Handley, excavation revealed a late Iron Age to Romano-British settlement and adjacent Roman cemetery.	Late Iron Age	Roman	Excavation	396900	113900
MDO39851	Miscellaneous Settlement	Possible Prehistoric pits, Gussage All Saints. A series of possible pits are visible as cropmarks in a field to the northeast of Amen Corner, Gussage All Saints on a 2002 aerial photograph. The possible pits are located to the east and northeast of a probable Iron Age or Romano-British enclosure and field system (MDO39849) and may be prehistoric features associated with these.	Iron Age	Roman	Cropmark	400792	110476
MDO39852	Trackway	Possible prehistoric or historic trackways, Gussage All Saints	Bronze Age	Roman	Cropmark	400978	110390
MDO39853	Enclosure	Possible Iron Age or Romano-British enclosure and trackway, Gussage All Saints. A possible square enclosure and trackway is visible as cropmarks in a field to the northeast of Amen Corner, Gussage All Saints, on a 1989 aerial photograph.	Iron Age	Roman	Cropmark	400963	110681
MDO39856	Miscellaneous Settlement	Possible late prehistoric pits north east of Gussage All Saints, Gussage All Saints. A series of sub-circular pits and part of a possible ring ditch are visible as cropmarks on a 1975 aerial photograph. The features may be broadly contemporary with an adjacent Iron Age to Romano-British banjo enclosure and an associated field system and settlement activity to the east of this.	Middle Iron Age	Roman	Cropmark	400360	110909
MDO39858	Miscellaneous Settlement	Possible late prehistoric pits or historic marl pits, Gussage All Saints	Bronze Age	Post-medieval	Cropmark	400515	110762
MDO39859	Agriculture	A possible Late Iron Age or Romano-British field system, Gussage All Saints	Late Iron Age	Roman	Cropmark	400568	111130
MDO39860	Boundary	Historic trackway or possible Late Iron Age or Romano-British field boundary, Brockington Down, Gussage All Saints	Late Iron Age	Post-medieval	Cropmark	401039	111788
MDO39885	Agriculture	Possible late prehistoric field boundaries, field system, Gussage All Saints	Iron Age	Roman	Cropmark	401732	110648
MDO39891	Agriculture	Possible Iron Age or Romano-British field system, Knowlton, Woodlands	Iron Age	Roman	Cropmark	401799	110054
MDO39962	Trackway	Prehistoric trackway, Whiteway Hill, Gussage All Saints. A double-ditched linear feature is visible as cropmarks on aerial photographs to the west of Whiteway Hill lane, Gussage All Saints.	Bronze Age	Roman	Cropmark	400002	109939

MDO40006	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401813	110065
MDO40007	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401826	110074
MDO40008	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401807	110081
MDO40009	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401727	110175
MDO40010	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401810	110228
MDO40011	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	401818	110242
MDO40017	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402033	110075
MDO40033	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402125	110477
MDO40034	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402175	110497
MDO40035	Enclosure	Prehistoric Enclosure , Knowlton, Woodlands	Iron Age	Iron Age	Cropmark	402233	110506
MDO40037	Barrow	Possible Bronze Age barrow , Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402218	110496
MDO40040	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402274	110497
MDO40041	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402272	110526
MDO40042	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402301	110537
MDO40044	Enclosure	Prehistoric Enclosure , Knowlton, Woodlands	Iron Age	Iron Age	Cropmark	402325	110526
MDO40045	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402386	110543
MDO40046	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402454	110546
MDO40047	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402475	110531
MDO40048	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402486	110571
MDO40050	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402471	110410
MDO40051	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402494	110381
MDO40052	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402477	110363
MDO40053	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402525	110375
MDO40054	Boundary	Possible Late prehistoric field boundaries, Knowlton, Woodlands	Bronze Age	Medieval	Cropmark	401289	111328
MDO40055	Barrow	Possible Bronze Age or Roman barrow, Knowlton, Woodlands	Bronze Age	Roman	Earthwork, Cropmark	402614	110306
MDO40057	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Cropmark	402635	110330
MDO40058	Miscellaneous Settlement	Possible prehistoric pit, Knowlton, Woodlands. A small sub-circular cropmark within the Knowlton Barrow Group is visible on 1970s aerial photographs. The feature may represent a small prehistoric pit.	Bronze Age	Iron Age	Cropmark	402525	110390

MDO40059	Miscellaneous Settlement	Possible prehistoric pits, Knowlton, Woodlands. Three small sub-circular cropmarks within the Knowlton Barrow Group are visible on 1990s aerial photographs. The features may represent small prehistoric pits.	Bronze Age	Iron Age	Cropmark	402477	110228
MDO40060	Barrow	Possible prehistoric barrows, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402544	110199
MDO40061	Barrow	Possible Late Prehistoric or Roman barrow, Knowlton, Woodlands	Bronze Age	Roman	Earthwork, Cropmark	402496	110170
MDO40062	Barrow	Possible Late Prehistoric or Roman barrow, Knowlton, Woodlands	Bronze Age	Roman	Earthwork, Cropmark	402497	110148
MDO40063	Miscellaneous Settlement	Possible Late Prehistoric pits, Knowlton, Woodlands. Two small sub-circular cropmarks within the Knowlton Barrow Group are visible on 1990s aerial photographs. The features may represent late prehistoric pits.	Bronze Age	Iron Age	Cropmark	402292	110316
MDO40064	Boundary	Possible Late Prehistoric boundary or trackway, Knowlton, Woodlands	Bronze Age	Iron Age	Cropmark	402259	110511
MDO40065	Boundary	Late Prehistoric field boundary or post medieval trackway, Knowlton, Woodlands. The linear feature may represent part of a Late Iron Age or Romano-British field system or alternatively may be a historic trackway leading towards the North Circle.	Late Iron Age	Roman	Cropmark	402261	110504
MDO40066	Agriculture	Probable Iron Age or Romano-British field system, Knowlton, Woodlands	Iron Age	Roman	Cropmark	402424	110353
MDO40070	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402733	110251
MDO40071	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402726	110359
MDO40072	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402762	110435
MDO40073	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402838	110435
MDO40074	Barrow	Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402890	110440
MDO40075	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402926	110441
MDO40076	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402945	110430
MDO40079	Ring Ditch	Ring ditch, Sixpenny Handley.	Bronze Age	Bronze Age	Cropmark	396810	114790
MDO40082	Ring Ditch	Ring ditch, Sixpenny Handley	Bronze Age	Bronze Age	Cropmark	396970	114030
MDO40083	Ring Ditch	Ring ditch, Sixpenny Handley	Bronze Age	Bronze Age	Cropmark	397370	114950
MDO40084	Ring Ditch	Ring ditch, Sixpenny Handley	Bronze Age	Bronze Age	Cropmark	398682	116201
MDO40085	Ring Ditch	Ring ditch, Sixpenny Handley	Bronze Age	Bronze Age	Cropmark	399990	115830
MDO40086	Ring Ditch	Ring ditch, Sixpenny Handley	Bronze Age	Bronze Age	Cropmark	400030	115940
MDO40088	Enclosure	Enclosure, Sixpenny Handley	Bronze Age	Iron Age	Cropmark	398090	116280
MDO40091	Enclosure	Banjo enclosure and settlement, Sixpenny Handley	Late Iron Age	Roman	Cropmark	398800	116200
MDO40093	Enclosure	Enclosure, Sixpenny Handley	Bronze Age	Iron Age	Cropmark	400320	116040
MDO40095	Enclosure	Enclosure, Sixpenny Handley. An enclosure identifed on aerial photograph.	Bronze Age	Iron Age	Cropmark	398650	115300
MDO40112	Enclosure	Enclosure, Myncen Farm, Minchington, Sixpenny Handley	Iron Age	Iron Age	Cropmark	396700	114300
MDO40122	Earthwork	Prehistoric ditch, Chettle and Farnham. A linear ditch identified on aerial photograph.	Bronze Age	Iron Age	Cropmark	395620	113250
MDO40123	Enclosure	Prehistoric enclosure, Farnham. A small enclosure identified on aerial photographs.	Bronze Age	Iron Age	Cropmark	396050	113620
MDO40125	Earthwork	Prehistoric ditch, Tarrant Launceston. A long curvilinear ditch identified on aerial photographs.	Bronze Age	Iron Age	Cropmark	395600	111760
MDO40127	Earthwork	Prehistoric ditch, Gussage St Michael. The ditch is part of two linear ditches running roughly parallel in an northeast - southwest alignment.	Late Iron Age	Roman	Cropmark	398530	114640
MDO40128	Earthwork	Prehistoric ditch, Gussage St Michael. The ditch is part of two linear ditches running roughly parallel in an northeast - southwest alignment.	Late Iron Age	Roman	Cropmark	398560	115050

MDO40129	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402956	110775
MDO40130	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402849	110814
MDO40131	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403022	110954
MDO40132	Earthwork	Triple ditch feature, Gussage St Michael. A triple ditch curvilinear feature identified on aerial photographs.	Late Iron Age	Roman	Cropmark	399950	114750
MDO40133	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403024	110920
MDO40134	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403048	110898
MDO40135	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403087	110888
MDO40136	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403013	110860
MDO40137	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402994	110823
MDO40138	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403035	110833
MDO40139	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403039	110841
MDO40140	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403068	110852
MDO40141	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403089	110834
MDO40142	Barrow	Possible Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403250	110759
MDO40143	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403158	110665
MDO40144	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403258	110590
MDO40145	Barrow	Possible Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403259	110612
MDO40146	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403351	110721
MDO40147	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403423	110737
MDO40151	Trackway	Probable prehistoric field system and trackways, Knowlton, Woodlands, Wimborne St Giles. A series of long ditched and banked linears at Knowlton are visible on aerial photographs from the 1950s through to 2005. The features overlie the Bronze Age Knowlton Barrow Group and probably represent a field system and trackways of prehistoric or Romano-British origin.	Late Iron Age	Roman	Cropmark	403009	110617
MDO40153	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402787	110634
MDO40154	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402929	110599
MDO40157	Agriculture	Possible prehistoric field system, Knowlton, Wimborne St Giles	Iron Age	Roman	Cropmark	403713	111177
MDO40159	Ring Ditch	Ring ditch, Chettle	Neolithic	Iron Age	Cropmark	395730	113250
MDO40180	Ring Ditch	Ring ditch, Chettle	Neolithic	Iron Age	Cropmark	395880	113020
MDO40181	Round Barrow	Ring ditch, Tarrant Hinton. Small ring ditch identified on aerial photographs. Located amongst a group of barrows.	Bronze Age	Bronze Age	Cropmark	396150	112990

MDO40184	Ring Ditch	Ring ditch, Gussage St Michael	Neolithic	Iron Age	Cropmark	396970	112530
MDO40185	Ring Ditch	Ring ditch, Gussage St Michael	Neolithic	Iron Age	Cropmark	397080	112930
MDO40186	Ring Ditch	Ring ditch, Gussage St Michael	Neolithic	Iron Age	Cropmark	397120	112950
MDO40187	Ring Ditch	Ring ditch, Gussage St Michael	Neolithic	Iron Age	Cropmark	397140	112910
MDO40223	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402931	110674
MDO40224	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402912	110669
MDO40225	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402924	110679
MDO40226	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402929	110662
MDO40227	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402921	110653
MDO40228	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402910	110652
MDO40229	Barrow	Possible Bronze Age barrow, Knowlton, Woodlands	Bronze Age	Bronze Age	Earthwork, Cropmark	402815	110730
MDO40230	Barrow	Possible Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402843	110757
MDO40231	Barrow	Possible Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402899	110801
MDO40232	Barrow	Possible Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402906	110845
MDO40233	Barrow	Possible prehistoric pits, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402932	110868
MDO40246	Barrow	Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403723	111408
MDO40247	Barrow	Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403760	111443
MDO40253	Boundary	Possible prehistoric boundary bank, St Giles's Park, Wimborne St Giles	Bronze Age	Medieval	Cropmark	403887	111407
MDO40254	Ring Ditch	Prehistoric ring ditch, St Giles's Park, Wimborne St Giles. A pennanular ring ditch at St Giles's Park is visible as a cropmark on a 1989 aerial photograph.	Bronze Age	Iron Age	Cropmark	403687	111746
MDO40255	Ring Ditch	Prehistoric ring ditch, St Giles's Park, Wimborne St Giles. A pennanular ring ditch at St Giles's Park is visible as a cropmark on a 1989 aerial photograph.	Bronze Age	Iron Age	Cropmark	403749	111763
MDO40256	Ring Ditch	Prehistoric ring ditch, St Giles's Park, Wimborne St Giles. A pennanular ring ditch at St Giles's Park is visible as a cropmark on a 1989 aerial photograph.	Bronze Age	Iron Age	Cropmark	403731	111700
MDO40257	Barrow	Possible Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403714	111699
MDO40258	Barrow	Possible Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403683	111688
MDO40259	Barrow	Possible Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403652	111673
MDO40260	Barrow	Possible Bronze Age barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403316	112076
MDO40261	Barrow	Possible Bronze Age barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403354	112056
MDO40262	Barrow	Possible Bronze Age barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403325	112039

MDO40263	Barrow	Possible Bronze Age barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403354	112016
MDO40264	Barrow	Possible Bronze Age barrow, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403376	111961
MDO40265	Barrow	Possible Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403540	112007
MDO40266	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403555	112043
MDO40267	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403546	111985
MDO40268	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403723	112180
MDO40269	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403949	112241
MDO40270	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403621	112183
MDO40271	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404042	112133
MDO40272	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404184	112266
MDO40273	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403443	112317
MDO40274	Barrow	Possible Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403463	112371
MDO40275	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403395	112421
MDO40276	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403705	112367
MDO40277	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403758	112676
MDO40278	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403735	112601
MDO40279	Barrow	Bronze Age barrow, Glebe Farm, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403919	112569
MDO40280	Barrow	Bronze Age barrow, Creech Hill Bungalows, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403526	112878
MDO40281	Barrow	Bronze Age barrow, Creech Hill Bungalows, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403552	112898
MDO40282	Barrow	Bronze Age barrow, Creech Hill Bungalows, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403577	112910
MDO40283	Barrow	Bronze Age barrow, Creech Hill Bungalows, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403633	113015
MDO40284	Barrow	Possible Bronze Age barrow, Creech Hill Bungalows, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	403881	112999
MDO40285	Miscellaneous Settlement	Possible prehistoric pits, Creech Hill Bungalows, Wimborne St Giles	Bronze Age	Iron Age	Cropmark	403896	112894
MDO40333	Barrow	Probable Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404073	111888
MDO40335	Barrow	Probable Bronze Age barrow, St Giles's Park, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	404031	111705

MDO40354	Barrow	Probable Bronze Age barrow, Brockington Farm, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401442	111099
MDO40413	Pond Barrow	Uncertain cropmarks, Knowlton Rings, Woodlands. A group of curvilinear cropmarks are visible on aerial photographs to the west of Knowlton Rings, they have previously been interpreted as Bronze Age round barrows. They are possibly pond barrows but a natural geological or extractive origin is thought more probable.	Bronze Age	Bronze Age	Cropmark	401813	109941
MDO40449	Trackway	Possible prehistoric trackway, Tenantry Down, Gussage All Saints	Bronze Age	Iron Age	Cropmark	401173	112349
MDO40452	Miscellaneous Settlement	Possible late prehistoric pits, Tenantry Down, Gussage All Saints	Bronze Age	Iron Age	Cropmark	401228	112331
MDO40456	Boundary	Possible late prehistoric field boundary, Tenantry Down, Wimborne St Giles	Bronze Age	Medieval	Cropmark	401553	112353
MDO40467	Agriculture	Possible late prehistoric field system, Harley Down, Gussage All Saints	Bronze Age	Iron Age	Cropmark	401311	113075
MDO40472	Agriculture	Possible late prehistoric field system, All Hallows Farm, Wimborne St Giles	Bronze Age	Iron Age	Cropmark	401963	112896
MDO40491	Unenclosed Settlement	Late prehistoric settlement and field system, Wimborne St Giles. Ditched rectilinear enclosures, pits and trackways to the north of Manor House, Wimborne St Giles, are visible as cropmarks on aerial photographs.	Late Iron Age	Roman	Cropmark	402943	112857
MDO40492	Trackway	Possible historic trackway, Wimborne St Giles. A double ditched linear feature to the north of Manor House, Wimborne St Giles, is visible as cropmarks on aerial photographs. The feature is considered likely to be a trackway of possible medieval or post medieval date. It is possible, however, that it is of earlier origin as it adjoins features to the southwest associated with a possible Iron Age or Romano-British field system (MDO40491).	Late Iron Age	Roman	Cropmark	403151	113380
MDO41011	Barrow	Probable Bronze Age barrow, Brockington Farm, Gussage All Saints	Bronze Age	Bronze Age	Earthwork, Cropmark	401156	110659
MDO41013	Barrow	Bronze Age barrow, Knowlton, Wimborne St Giles	Bronze Age	Bronze Age	Earthwork, Cropmark	402996	110700

Appendix 2.3 – HER data for a 5km radius around the Nadder-Wylye Ridge

The following data relates to the 5km radius search of Wiltshire HER undertaken at the Nadder Wylye Ridge and summarised in *Table 3* in Section 3.4.

Wiltshire HER Number	Site Type	HER Description	Period From	Period To	Evidence	Easting	Northing
MWI10606	Cemetery	N of Church Bottom. An urnfield revealed by deep ploughing. Excavated by Musty and Stone in 1955. Three urns 10ft apart (adjacent to the barrow). The urns are Deverel-Rimbury type barrel urns.	Bronze Age	Bronze Age	Excavation	410350	136700
MWI10614	Findspot	Iron Age Pottery. Smithen Down	Iron Age	Iron Age	Findspot	411700	135499
MWI10620	Findspot	N of Newton Barrow. 10 sherds of pottery were collected during fieldwalking ahead of the Salisbury Bypass.	Late Iron Age	Roman	Fieldwalking	410063	136265
MWI10698	Bowl Barrow	Bowl Barrow, West of the A360	Bronze Age	Bronze Age	Cropmark, Earthwork	polylines	
MWI10706	Bell Barrow	Bell Barrow, West end of Church Bottom	Bronze Age	Bronze Age	Cropmark, Earthwork	polylines	
MWI10707	Bowl Barrow	N of Church Bottom. A Bronze Age bowl barrow excavated in 1955 by Musty and Stone.	Bronze Age	Bronze Age	Excavation	410351	136699
MWI10708	Bowl Barrow	Barrow, West of Hooklands Plantation.	Bronze Age	Bronze Age	Earthwork, Documentary	polygons	
MWI10709	Bowl Barrow	Barrow, West of Hooklands Plantation	Bronze Age	Bronze Age	Earthwork, Documentary	410677	136790
MWI10727	Bowl Barrow	Newton Barrow. A Bronze Age bowl barrow excavated by Hoare.	Bronze Age	Bronze Age	Excavation	polylines	
MWI10742	Enclosed Settlement	Enclosure, Northwest of Heale Hill. A Prehistoric or Roman square enclosure. A square enclosure, double ditched and very angular. Possibly a Roman Villa building.	Late Iron Age	Roman	Cropmark	polylines	
MWI11110	Findspot	Near Milestone 4, Devizes Road. A barbed and tanged arrowhead.	Bronze Age	Bronze Age	Findspot	410337	134398
MWI11111	Miscellaneous settlement	Camp Down. Possible Bronze Age settlement site found during excavation of pipeline	Late Bronze Age	Early iron Age	Excavation	411690	133580
MWI11118	Enclosed Settlement	Camp Hill Reservoir. Iron-Age ditched settlement excavated in 1992	Late Iron Age	Roman	Excavation	411100	133800
MWI11121	Miscellaneous settlement	Quidhampton Whiting Works (Tinker Pit). Probable Iron Age settlement exposed during quarrying.	Iron Age	Iron Age	Watching brief	411250	131450
MWI11127	Miscellaneous settlement	Camp Down. Possible Iron Age settlement site found during excavation of pipeline	Late Bronze Age	Early iron Age	Excavation	411690	133581
MWI11135	Miscellaneous Settlement	Camphill. Iron Age and Romano-British pottery fragments found during an excavation in 1993.	Late Iron Age	Roman	Excavation	411120	134750
MWI11137	Miscellaneous settlement	Camp Hill Settlement. Romano-British settlement site excavated in 1992	Late Iron Age	Roman	Excavation	411100	133750
MWI11153	Miscellaneous Settlement	Camphill. Iron Age and Romano-British pottery fragments found during an excavation in 1993.	Late Iron Age	Roman	Excavation	411119	134753
MWI11155	Miscellaneous settlement	Camp Down. A watermain trench in 1972 revealed a surface scatter of Romano-British pottery along 190m of its length from SU11693358 - SU11883349 overlying Late Bronze Age/Iron Age settlement. Soil/cropmark features seen in the same area.	Late Iron Age	Roman	Watching Brief	411690	133583
MWI3144	Findspot	Fisherton De La Mere - N of Manor. Bronze flat axe.	Bronze Age	Bronze Age	Findspot	399899	139000
MWI3145	Findspot	North of New Barn. A Bronze Age axehead.	Bronze Age	Bronze Age	Findspot	398899	137301
MWI3146	Findspot	Stockton Earthworks. A Bronze Age polished flint axehead.	Bronze Age	Bronze Age	Findspot	397300	136200
MWI3147	Findspot	In Hollow NW of Stockton Earthworks. Socketed bronze spearhead (loops filed-off in antiquity) with a rivet hole, found in 1965 while ploughing NW end of Stockton earthworks: Greenwell and Brewis Group 4 type.	Bronze Age	Bronze Age	Findspot	396520	136340
MWI3148	Findspot	S of Wylye Down Buildings. Rapier shaped bronze dagger with 2 rivets, also a bronze gouge found at different time, by RS Newall.	Bronze Age	Bronze Age	Findspot	399680	135050
MWI3149	Findspot	Stockton Earthworks. Two Bronze Age hammerstones	Bronze Age	Bronze Age	Findspot	396800	136100

MWI3150	Findspot	New Barn Bapton. Bronze La Tene 1 fibula found 1938.	Iron Age	Iron Age	Findspot	398895	137099
MWI3151	Findspot	W of Bapton Manor. Silver drachma (Evans M13 type) found 1909: cast given to Devizes Museum in 1926 by R S Newall.	Late Iron Age	Late Iron Age	Findspot	399197	138099
MWI3152	Enclosed Seettlement	Stockton Earthworks	Late Iron Age	Roman	Excavation, Earthwork	polylines	
MWI3153	Unenclosed Settlement	Settlement, South of Little Bapton. An Iron Age settlement site excavated in 1974.	Iron Age	Iron Age	Excavation	polylines	
MWI3154	Inhumation	Lamb Down. A skeleton with an iron pennanular brooch on the its shoulder was found in barrow	Iron Age	Iron Age	Excavation	398871	139396
MWI3155	Enclosed Settlement	Romano-British Settlement, Stockton Earthworks	Late Iron Age	Roman	Excavation, Earthwork	polylines	
MWI31558	Enclosed Settlement	Square Enclosure on Deptford Down. A sub-square enclosure was identified through geophysical survey.	Iron Age	Iron Age	Geophysics	polylines	
MWI31559	Enclosure	Oval Enclosure on Deptford Down	Bronze Age	Roman	Geophysics	polylines	
MWI3156	Findspot	Near New Barn. Romano British bronze fibula brooch.	Late Iron Age	Roman	Findspot	398999	137000
MWI3157	Miscellaneous settlement	Settlement, Malmpit Hill. Romano-British remains noted by Nan Kivell.	Late Iron Age	Roman	Documentary	397789	139919
MWI3158	Miscellaneous settlement	Settlement, Malmpit Hill. Romano-British remains noted by Nan Kivell.	Late Iron Age	Roman	Documentary	397949	139541
MWI3160	Findspot	Lamb Down. Many Romano-British sherds and a coin of AD364-7 found in a barrow excavated by Vatcher in 1958.	Late iron Age	Roman	Findspot	polylines	
MWI3161	Findspot	Lamb Down. Two fragments of a Romano-British mortarium found in a barrow and some chips of Samian ware in the ditch, excavated by Faith Vatcher in 1958.	Late Iron Age	Roman	Excavation	398871	139387
MWI3162	Findspot	Lamb Down. A few sherds of Romano-British pottery and 2 sherds of Samian ware found in ditch of a barrow, excavated by Faith Vatcher in 1958	Late Iron Age	Roman	Excavation	398705	139603
MWI3163	Findspot	Lamb Down. Romano-British sherds and 1 unidentifiable piece of Samian ware found in a mound which was probably the result of throw out from digging of trenches in 1st World war.	Late Iron Age	Roman	Excavation	398961	139069
MWI3164	Findspot	Bypass Route. Dolphin brooch, tapering bow brooch and a 3rd century Antoninianus.	Late iron Age	Roman	Findspot	397100	139500
MWI3188	Bowl Barrow	Barrow, Lamb Down. A Bronze Age bowl barrow excavated in 1958.	Bronze Age	Bronze Age	Excavation	398873	139396
MWI3189	Bowl Barrow	Barrow, Lamb Down. A Bronze Age bowl barrow excavated in 1958.	Bronze Age	Bronze Age	Excavation	398912	139354
MWI3190	Bowl Barrow	Lamb Down. A Bronze Age bowl barrow excavated twice.	Bronze Age	Bronze Age	Excavation	polylines	
MWI3193	Bowl Barrow	Queens Barrow. Bowl barrow opened probably by Cunnington who found a primary cremation in a cist, covered with large flints.	Bronze Age	Bronze Age	Excavation	polylines	
MWI3197	Bowl Barrow	Fonthill Bushes. Bowl barrow opened by Thornbury in 1860 who found a primary cremation and a flat bronze dagger in a Bronze Age urn with a lid	Bronze Age	Bronze Age	Excavation	polylines	
MWI3198	Boundary	Groveley Grims Ditch	Late Iron Age	Late Iron Age	Earthwork	polylines	
MWI32041	Cremation	Cremation Burial, East of Hill Farm Cottage. A single urned cremation burial was identified during excavation.	Bronze Age	Bronze Age	Excavation	polygons	
MWI32043	Boundary	Ditch, Northeast of Hill Farm Cottage. A single Romano-British ditch, dated to the 1st/2nd century, was identified during excavation. The ditch may represent a boundary ditch.	Late iron Age	Roman	Excavation	polygons	
MWI3205	Round Barrow	Barrow, Lamb Down	Bronze Age	Bronze Age	Excavation	polylines	
MWI3209	Bowl Barrow	Barrow, Lamb Down. A Bronze Age bowl barrow excavated in 1963.	Bronze Age	Bronze Age	Excavation	398709	139600
MWI3234	Enclosure	Corton Down. Scatter of Iron Age sherds from 1964 excavation of an enclosure. Probably sherds relate to underlying field systems.	Iron Age	Iron Age	Excavation	393291	138682
MWI3239	Findspot	NE of Picket Grove Barn. Scatter of Romano-British sherds.	Late iron Age	Roman	Findspot	393199	137501
MWI3243	Findspot	Chilfinch Hill And Area. Romano-British Pottery, Chilfinch Hill And Area	Late iron Age	Roman	Findspot	393250	135000

MWI3249	Bowl Barrow	Barrow, Corton Down. Identified by Grinsell as one opened by Cunnington in 1804.	Bronze Age	Bronze Age	Documentary	polylines	
MWI3294	Findspot	Chilmark Quarry. Razor with notch and hole. Also possibly another bifid razor found c1940.	Bronze Age	Bronze Age	Findspot	397401	131119
MWI3295	Findspot	NE of Woodbine Barn. Flanged axe with no stop ridge.	Bronze Age	Bronze Age	Findspot	396390	134942
MWI3296	Findspot	Quarry Field. Many worked flints including a barbed and tanged arrowhead found in 1958.	Bronze Age	Bronze Age	Findspot	398998	130901
MWI3297	Inhumation	NW of Manor Farm. Skeleton in a shallow grave, with a cobalt blue bead of La Tene type at its throat.	Iron Age	Iron Age	Excavation	398647	132772
MWI3298	Findspot	Teffont Evias Quarry. A)A silver stater found in 1937. B) Three polishing stones and one small greenish rock, one chalk disc and one potsherd from Teffont Evias Quarry. Also a blue glass ovoid bead.	Late Iron Age	Late Iron Age	Findspot	399198	131008
MWI3299	Findspot	Eyewell Farm. One fragment of Late Bronze Age/Early Iron Age pottery from an evaluation excavation.	Late Bronze Age	Early iron Age	Findspot	397082	132169
MWI3300	Findspot	S of Teffont Park. An Iron Age spearhead.	Iron Age	Iron Age	Findspot	399713	131085
MWI3301	Findspot	Westbrook House. La Tene I bronze fibula.	Middle Iron Age	Middle Iron Age	Findspot	397149	132420
MWI3302	Findspot	Teffont Evias Quarry. A) Iron knife with solid handle and ring. B) Also bronze brooch, a small torc or ring of alloyed gold, an iron knife, an incomplete round based bowl, plus a C) Roman bronze fibula complete with pin and catchplate. D) Bronze bracelet; fragment of humerus it encircled not located.	Late Iron Age	Roman	Findspot	399198	131000
MWI3303	Cemetery	Teffont Evias Quarry. Romano British cemetery. With more than 30 graves excavated before 1909 and in 1936-39.	Late Iron Age	Roman	Excavation	399199	130803
MWI3304	Ritual	Upper Holt Copse. A Romano-British building/shrine. The mound was excavated c1920.	Late Iron Age	Roman	Excavation	polylines	
MWI3306	Cemetery	Romano-British Burials, Portash Cottage	Late Iron Age	Roman	Excavation	396999	131999
MWI3307	Findspot	C200yds W of East Farm. Coarse ware sherds and Kimmeridge shale spindle whorl.	Late Iron Age	Roman	Findspot	397100	132501
MWI3308	Findspot	Teffont Magna. Denarius of Marcus Fannius 137-4 BC.	Late Iron Age	Late Iron Age	Findspot	399098	132099
MWI3309	Findspot	Lady Down. Romano-British quarry	Late Iron Age	Roman	Documentary	polylines	
MWI3310	Findspot	SW of Teffont Church. Romano-British pottery fragments.	Late Iron Age	Roman	Findspot	399098	130903
MWI3311	Findspot	Pottery, South of Portash. Romano-British pottery fragments have been found in this vicinity at various times.	Late Iron Age	Roman	Findspot	396899	131803
MWI3312	Cemetery	Cemetery, Eyewell Farm. Romano-British cemetery excavated in 1990, 1991, 1992 and 1994.	Late Iron Age	Roman	Excavation	397081	132165
MWI3313	Miscellaneous settlement	Settlement, Eyewell Farm. A Romano-British settlement excavated in the 1990's	Late Iron Age	Roman	Excavation, Earthwork	polylines	
MWI3375	Findspot	SE of Fonthill Bishop. Flint flakes from vicinity of circular enclosure ST93SW629. Scatters of flakes, including some good small scrapers, over individual fields to the south of the earthwork.	Bronze Age	Bronze Age	Findspot	393781	132676
MWI3377	Inhumation	E of Barkers Farm. Burial in a flagstone cist. Skeleton almost disintegrated 1953	Iron Age	Iron Age	Excavation	394100	133250
MWI3378	Inhumation	Little Ridge. A Romano-British burial in a stone-lined grave.	Late iron Age	Roman	Excavation	394500	132000
MWI3379	Findspot	Settlement, North West of Fonthill House. A Romano-British settlement site excavated in 1903-4 by J Stallybrass.	Late Iron Age	Roman	Excavation	polylines	
MWI3380	Enclosed Seettlement	West Ashley Wood Down. A Romano-British enclosure was excavated in 1904.	Late Iron Age	Roman	Excavation	polylines	
MWI3382	Findspot	Pottery, Bet Cratt Hill and Chilfinch Hill	Late Iron Age	Roman	Findspot	391900	134799
MWI3686	Findspot	Settlement, Ebsbury Or Grovely Earthworks	Late Iron Age	Roman	Earthwork	polylines	
MWI3688	Enclosed Settlement	Enclosure in Ebsbury Copse	Late iron Age	Roman	Earthwork	polylines	
MWI3689	Enclosed Settlement	Hillfort, Ebsbury or Grovely Earthworks	Late Iron Age	Roman	Earthworks	polylines	

MWI3690	Findspot	Field Called 'Lott Mead'. Two sherds found during fieldwalking.	Iron Age	Iron Age	Fieldwalking	405300	137200
MWI3709	Findspot	SE of Ashton Gifford Lodge. Bronze coin of Carthage, 30mm diameter, dated to 146BC.	Late Iron Age	Late Iron Age	Findspot	396300	139999
MWI3714	Enclosed Settlement	Codford Circle Or Oldbury Camp	Iron Age	Iron Age	Excavation	polylines	
MWI3943	Bowl Barrow	Golden Barrow. Bowl barrow opened by Cunnington. Primary cremation in an oblong cist, a secondary cremation and many small finds including 13 gold beads, gold rectangular plate and 2 gold cones.	Bronze Age	Bronze Age	Excavation	polylines	
MWI5643	Findspot	Pottery, Hoopside. Scatter of Iron Age sherds found on the surface in 1952-4	Iron Age	Iron Age	Findspot	406350	129901
MWI6024	Findspot	Settlement, Ebsbury or Grovely Earthworks	Late Iron Age	Roman	Earthwork	polylines	
MWI6029	Enclosed Seettlement	Enclosure, Northwest of Stapleford. An oval enclosure with a Romano-British settlement within.	Late Iron Age	Roman	Cropmark, Earthwork, Fieldwalking	polylines	
MWI6030	Findspot	Grovely Castle. A polished and painted pebble of Romano-British date.	Late Iron Age	Roman	Findspot	405142	135400
MWI6031	Miscellaneous settlement	Stoford Farm. Features of probable Romano-British date was located in the centre and eastern area of a development site during a watching brief in 2003. One in Test Pit 5 is possibly a ditch.	Late Iron Age	Roman	Evaluation, Watching Brief	408392	135299
MWI6033	Findspot	Ebsbury Copse. Romano-British pottery found during fieldwork in 2002	Late Iron Age	Roman	Fieldwalking	406000	135300
MWI6058	Barrow Cemetery	Stapleford Down. A ring ditch was identified by a geophysical survey. It may be part of a barrow cemetery as there are two other ring ditches recorded nearby.	Bronze Age	Bronze Age	Geophysics	polygons	
MWI6061	Enclosure	Enclosure, South of Druids Head Farm. A possible subcircular ditched Prehistoric or Roman enclosure is visible as cropmarks and has been mapped from aerial photographs.	Bronze Age	Roman	Cropmark	polylines	
MWI6062	Enclosure	Enclosure, Southwest of Stapleford Clump. A possible ditched Prehistoric or Roman enclosure is visible as cropmarks and has been mapped from aerial photographs.	Bronze Age	Roman	Cropmark	polylines	
MWI6069	Agriculture	Field System, Stapleford Down	Iron Age	Roman	Cropmark, Earthwork	polylines	
MWI6077	Bowl Barrow	Barrow, Southwest of the Lawn	Bronze Age	Bronze Age	Cropmark, Earthwork	polylines	
MWI6079	Round Barrow	Barrow, Southwest of Druids Head Wood	Bronze Age	Bronze Age	Cropmark	polylines	
MWI6091	Enclosure	Enclosure, West of Stoford Hill Buildings	Bronze Age	Roman	Cropmark	polylines	
MWI6094	Agriculture	Prehistoric or Roman Field System, Southwest of Lotmoor	Neolithic	Roman	Cropmark	polylines	
MWI6100	Barrow	Barrow, Northeast of Ebsbury Copse	Bronze Age	Bronze Age	Cropmark, Geophysics	polylines	
MWI6101	Enclosure	Enclosure, Berwick St James. A possible Prehistoric or Roman curvilinear ditched enclosure is visible as cropmarks on aerial photographs.	Bronze Age	Roman	Cropmark	polylines	
MWI6102	BARROW	Barrow, West of Stapleford	Bronze Age	Bronze Age	Cropmark	polylines	
MWI6106	Round Barrow	Barrow, South West of Berwick St James	Bronze Age	Bronze Age	Cropmark	polylines	
MWI6123	Enclosure	Enclosure, South of Druid's Head farm. A possible subcircular ditched Prehistoric or Roman enclosure is visible as cropmarks.	Bronze Age	Roman	Cropmark	polylines	
MWI6125	Barrow	Ring Ditch, East of Little Langford	Bronze Age	Bronze Age	Cropmark	polylines	
MWI6146	Findspot	Bronze Age Axehead, East of Sturton Hatch	Bronze Age	Bronze Age	Findspot	402970	135230
MWI6147	Findspot	Bronze Age Axehead, North of Dinton Beeches	Bronze Age	Bronze Age	Findspot	400609	135171
MWI6148	Findspot	Bronze Age Axehead, East of Sturton Hatch	Bronze Age	Bronze Age	Findspot	402970	135160

MWI6149	Findspot	Bronze Age Axehead, North of Dinton Beeches	Bronze Age	Bronze Age	Findspot	400801	135201
MWI6150	Findspot	Beaker Sherd, Wylye Down	Bronze Age	Bronze Age	Findspot	400500	136499
MWI6151	Findspot	Bronze Age Palstave, South of Bilbury Farm Bilbury Rings	Bronze Age	Bronze Age	Findspot	401000	136202
MWI6152	Findspot	Bronze Age Arrowhead, Church Bottom	Bronze Age	Bronze Age	Findspot	401399	136003
MWI6153	Findspot	Palstave, East of Sturton Hatch	Bronze Age	Bronze Age	Findspot	402900	135100
MWI6154	Findspot	Tanged Chisel, East of Steeple Langford	Bronze Age	Bronze Age	Findspot	404200	137300
MWI6155	Findspot	Thumb Scraper, South of Bilbury Rings Camp	Bronze Age	Bronze Age	Findspot	400700	135400
MWI6157	Miscellaneous Settlement	Bronze Age Flints, Three Sisters Bottom. A concentration of worked flint in an area of c20sq. metres. Finds include a fine convex scraper and other discarded, broken or badly made flint, suggesting a possible flint working site.	Bronze Age	Bronze Age	Excavation	404812	134998
MWI6158	Findspot	Bronze Age Flints, Three Sisters Bottom, Langford Wood. small scatter of worked flint tools in an area of 10sq. metres, including a small scraper and other flints associated with a flint working site.	Bronze Age	Bronze Age	Fieldwalking	404800	135100
MWI6159	Enclosed Settlement	Bilbury Rings	Early Iron Age	Late Iron Age	Excavation	polylines	
MWI6160	Enclosed Seettlement	Church End Ring. An Iron Age enclosed settlement, the ditch of which was excavated.	Late Iron Age	Roman	Earthwork, Cropmark, Excavation	polylines	
MWI6161	Enclosed Seettlement	Hanging Langford Camp. Early Iron Age settlement produced Iron Age 'A' sherds. The site was occupied until the Late Iron Age.	Early Iron Age	Late Iron Age	Cropmark, Earthwork, Fieldwalking	401299	135315
MWI6162	Enclosed Settlement	Grovely Castle	Iron Age	Iron Age	Earthwork, Excavation	polylines	
MWI6163	Enclosure	Enclosure, East Castle	Iron Age	Iron Age	Earthwork	polylines	
MWI6164	Findspot	Pottery, Wylye Down. Iron Age pottery fragments excavated from a lynchet in 1960.	Iron Age	Iron Age	Excavation	400300	136000
MWI6165	Findspot	Iron Age Pottery, Field Called 'Lot Mead'	Iron Age	Iron Age	Fieldwalking	403502	137214
MWI6166	Findspot	Quern, Hanging Langford. An Iron Age rotary quern fragment. (May be Romano-British).	Iron Age	Roman	Findspot	401600	135400
MWI6167	Findspot	Axehead, Wylye. An Iron Age miniature bronze axehead.	Iron Age	Iron Age	Findspot	400650	137226
MWI6168	Enclosed Settlement	Pottery, Bilbury Rings. Pottery (bead rims) and a bronze fibula from an excavation by Rev Steele in 1961-2. Also six 3rd-4th century coins. 17 sherds. A copper alloy ring, a spoon and a bow brooch are in Salisbury Museum. A copper alloy penannular brooch with terminals turned back diameter 30-32mm and other brooches found in 1863 are also in Salisbury Museum.	Late Iron Age	Roman	Excavation	401000	136200
MWI6170	Findspot	Brooches, Hanging Langford Camp. An iron fibula, a 1st century bronze fibula, and a 1st century Romano-Celtic fibula.	Late Iron Age	Roman	Findspot	401300	135300
MWI6171	Findspot	Roman Needle, Down Barn, Bathampton. A bronze needle, and an iron T-shaped object, with the left arm bent forward in a circle.	Late Iron Age	Roman	Findspot	402499	139699
MWI6173	Enclosed Settlement	Romano-British Pottery, Church End Ring. Romano-British pottery fragments from an excavation at Church End Ring.	Late iron Age	Roman	Excavation	401300	135550
MWI6177	Findspot	Roman Nail, Fisherton De La Mere House. Iron nail with flattened end bent to form a ring, probably a child's.	Late Iron Age	Roman	Findspot	400039	138561
MWI6179	Inhumation	N of Deptford Field Barn. A Romano-British burial. It may be part of a cemetery.	Late iron Age	Roman	Excavation	401600	139201
MWI6181	Findspot	Wylye Down. Sherds from a trench across a lynchet excavated by Musty et al. In 1960.	Late Iron Age	Roman	Excavation	400301	136006
MWI6182	Findspot	Between Little and Hanging Langford. Fourteen sherds of pottery found during excavation by Wessex Archaeology in 1994.	Late Iron Age	Roman	Excavation	404800	136609
MWI6183	Findspot	Field called 'Lott Mead'. Coarseware including Grey ware sherds, and a sherd of Samian, found during fieldwork.	Late Iron Age	Roman	Fieldwalking	403502	137209

MWI6206	Bowl Barrow	Barrow, North of Deptford Field Barn. Bowl barrow opened by Lush (c1908) who found a primary? cremation and an incense cup. The handle of a beaker also found.	Bronze Age	Bronze Age	Excavation	polylines	
MWI6226	Agriculture	Field System, Wylye Down. An Iron Age/Romano-British field system excavated in 1960.	Iron Age	Roman	Excavation, Cropmark	polylines	
MWI6359	Findspot	Mill Farm. A bronze looped and socketed celt of South Wales type with raised and slightly converging ridges on its sides.	Bronze Age	Bronze Age	Findspot	409801	134449
MWI6360	Findspot	Mill Farm. A tanged and barbed flint arrowhead.	Bronze Age	Bronze Age	Findspot	409100	134000
MWI6361	Cremation	Bronze Age pottery Urn, North of Wilton Reservoir	Bronze Age	Bronze Age	Excavation	408800	132100
MWI6362	Findspot	Ugford Farm.Worked flint, in poor condition found during fieldwork in 2003. Burnt flint, more dense on the west side of the field was also observed.	Bronze Age	Bronze Age	Fieldwalking	407780	131345
MWI6363	Findspot	Nursery Wood. Ten worked flint tools were recovered during fieldwork in 2001	Bronze Age	Bronze Age	Fieldwalking	405700	133700
MWI6364	Findspot	Hamshill Ditches. An Iron Age settlement site excavated in 1934.	Late Iron Age	Roman	Earthwork, Excavation	406200	133200
MWI6365	Findspot	Ugford Farm. A grey ware pottery sherd with a hooked rim, possibly Iron Age was recovered during fieldwork in 2003.	Iron Age	Iron Age	Fieldwalking	407660	131406
MWI6366	Findspot	Southeast of Hamshill Ditches. A fragment of pottery was recovered during fieldwork in 2003	Iron Age	Iron Age	Fieldwalking	406600	132700
MWI6367	Findspot	S of Newton Willows. A silver denarius of Caligula was found in 1946.	Late Iron Age	Roman	Findspot	408589	134691
MWI6368	Enclosed Seettlement	Hamshill Ditches	Late Iron Age	Roman	Geophysics, Earthwork, Fieldwalking, Excavation	polylines	
MWI6369	Miscellaneous Settlement	St John's Hospital. Romano-British and North Gaulish pottery was found during an evaluation excavation in 1997.	Late Iron Age	Roman	Evaluation	409384	131398
MWI6370	Findspot	Barford St Martin. A Romano-British pottery fragment.	Late iron Age	Roman	Findspot	406700	132601
MWI6371	Enclosed Seettlement	S of Red Barn. A possible Romano-British farmstead within a slight enclosure. Pottery, upper stone of a rotary quern and other fragments.	Late irn Age	Roman	Fieldwalking	polylines	
MWI6372	Ritual	NW of Friars Peak. A Romano-British rectangular mound composed of building rubble, thought to be a temple site by Professor Hawkes.	Late Iron Age	Roman	Earthwork	polylines	
MWI6373	Findspot	2 Warren Down, Wilton. A Romano-British trumpet brooch.	Late iron Age	Roman	Findspot	408317	130750
MWI6447	Findspot	Pottery, South Street. One fragment of Romano-British pottery was found during an evaluation excavation in 1995.	Late Iron Age	Roman	Evaluation	409537	131018
MWI6456	Findspot	Southeast of Hamshill Ditches. The base of a Romano-British pot was recovered during fieldwork in 2003	Late iron Age	Roman	Fieldwalking	406601	132698
MWI6457	Findspot	Southeast of Hamshill Ditches. A sherd from a large domestic vessel dated to the 1st - 2nd century	Late iron Age	Roman	Fieldwalking	406400	132600
MWI6459	Findspot	East of Grovely Park. A sherd of grey ware pottery, dating to the 1st - 2nd century.	Late iron Age	Roman	Fieldwalking	405004	133799
MWI6460	Findspot	Field below Hamshill Ditches. Rim sherds of a grey Savernake Ware rim, a Black burnished rim, a rim sherd with a fine red slip, and a sherd of New Forest ware with an embossed pattern below the rim, all dated between the 1st and 2nd centuries AD.	Late Iron Age	Roman	Fieldwalking	405500	133300
MWI6613	Findspot	Flint Blade, Baverstock Long Copse	Neolithic	Bronze Age	Findspot	403300	134100
MWI6620	Findspot	Dinton Beeches. A large socketed leaf-shaped spearhead found in 1880. A socketed and looped axe found in 1881. An axe 5 inches long was found by Dr Clay. A rough whetstone 104 with a bored hole	Bronze Age	Bronze Age	Findspot	400691	134891
MWI6621	Findspot	WNW of Oakley Barn. A bronze palstave was found in 1921.	Bronze Age	Bronze Age	Findspot	400395	134400
MWI6623	Findspot	S of Grovely Grims Ditch. A plain narrow socketed axe was found in 1929	Bronze Age	Bronze Age	Findspot	403694	134600
MWI6624	Findspot	W of Grovely Wood. A loopless palstave	Bronze Age	Bronze Age	Findspot	403992	134899
MWI6625	Findspot	S of Thickthorn Copse. A barbed and tanged arrowhead.	Bronze Age	Bronze Age	Findspot	400096	134000
MWI6626	Findspot	Tools between Barford St Martin & Compton	Bronze Age	Bronze Age	Findspot	403994	130501

MWI6627	Findspot	Near Grovely Lodge. Bronze Age tools	Bronze Age	Bronze Age	Findspot	403896	134300
MWI6628	Findspot	East of Grovely Lodge. Bronze flint tools were found during fieldwork in 2003.	Bronze Age	Bronze Age	Fieldwalking	404922	134000
MWI6629	Findspot	Flint Tools, Grovely Woods. Bronze Age worked flint tools found in 2002.	Bronze Age	Bronze Age	Fieldwalking	404100	134300
MWI6632	Findspot	Stotfield, West end of Grovely Wood. Worked flint tools, probably Bronze Age, were recovered during fieldwork in 2001.	Bronze Age	Bronze Age	Fieldwalking	404700	134500
MWI6633	Enclosed Settlement	Wick Ball Camp	Iron Age	Iron Age	Excavation	polylines	
MWI6634	Findspot	SW of Phillips House. Two fragments of pottery, probably Iron Age, found with several flint flakes and a long end-scraper were found during an excavation undertaken for The National Trust during burial of electricity cables in 1995.	Iron Age	Iron Age	Excavation	400395	131901
MWI6635	Findspot	Crouch's Down. A probable farmstead site revealed during field survey during 1999-2000. Black burnished ware pottery sherds, a fragment of greenstone saddle quern stone and five crude flint scrapers have been found.	Late Iron Age	Roman	Fieldwalking	404294	132503
MWI6636	Inhumation	Manor Farmhouse, Sandhills Lane. An Iron Age burial of a child was revealed during an evaluation in 2002	Iron Age	Iron Age	Excavation	400970	132880
MWI6640	Findspot	South of Grovely Farm. One worn sherd of pottery possibly 1st century AD.	Late Iron Age	Roman	Findspot	404300	133200
MWI6641	Findspot	Baverstock Long Copse. A sherd of micaceous pottery, in poor condition, possibly from the 1st century AD.	Late Iron Age	Roman	Fieldwalking	403300	134100
MWI74550	Barrow Cemetery	Barrows, Little Langford Farm	Bronze Age	Bronze Age	Geophysics	polylines	
MWI75162	Miscellaneous settlement	Pits, Southwest of Great Wishford	Iron Age	Iron Age	Excavation	polylines	
MWI75817	Trackway	Possible Romano-British Trackway, Fugglestone Red.	Late Iron Age	Roman	Evaluation	411345	133436
MWI76284	Agriculture	Linear Features, Dinton Beeches	Iron Age	Iron Age	Earthwork	400700	134900
MWI76295	Agriculture	Linear Features, Grovely Wood	Iron Age	Iron Age	Cropmark	401900	134500
MWI76306	Agriculture	Linear Features, Grovely Wood	Iron Age	Iron Age	Cropmark	402304	134549
MWI76307	Agriculture	Linear Features, Grovely Wood	Iron Age	Iron Age	Cropmark	402100	134300
MWI76379	Agriculture	Field System, Grovely Wood	Iron Age	Iron Age	Cropmark, Earthwork	polylines	
MWI76584	Enclosure	Possible Prehistoric Enclosure, SE of Codford Circle	Bronze Age	Roman	Cropmark	polylines	
MWI76857	Broundary	Prehistoric Cross Dyke, Hut Bottom	Bronze Age	Iron Age	Earthwork	polylines	

Appendix 2.4 – HER data for a 5km radius around Stanwick

The following data relates to the 5km radius search of the North Yorkshire and County Durham HERs undertaken at Silchester and summarised in *Table 4* in Section 3.5.

North Yorkshire HER Number	Site Type	HER Description	Period From	Period To	Evidence	Easting	Northing
MNY12765	Round Barrow	Round barrow 190m south east of Cliffe Hall	Bronze Age	Bronze Age	Earthwork	420880	515150
MNY12766	Bowl Barrow	Round barrow 340m E of Cliffe Hall known as Betty Watson's Hill	Bronze Age	Bronze Age	Earthwork	421040	515260
MNY15726	Inhumation	Iron Age Chariot Burial - The Stanwick Hoard 1844	Late Iron Age	Late iron Age	Excavation, Documentary	419800	509900
MNY20696	Oppidum	Stanwick Earthworks	Late Iron Age	Late Iron Age	Excavations, Earthwork, Cropmark, Geophysics, Fieldwalking	418832	511124
MNY20941	Enclosed Settlement	Roman fort and prehistoric enclosed settlement 400m west of Carkin Moor Farm	Late Iro Age	Roman	Cropmark	416140	508310
MNY24231	Enclosed Settlement	Melsonby. Iron Age and Romano- British Occupation Near Park House Farm, Aldbough St John	Late Iron Age	Roman	Geophysics, Excavation	419900	510308
MNY24389	Enclosed Settlement	Melsonby. Iron Age and Romano- British Occupation Near Park House Farm, Aldbough St John	Late Iron Age	Roman	Geophysics, Excavation	419840	510189
MNY32163	Enclosure	Iron Age or Roman ditched enclosures with associated roundhouses, field system and trackway are visible as cropmarks on air photographs.	Iron Age	Roman	Cropmark	418400	506800
MNY32519	Enclosure	Possible rectilinear enclosure	Iron Age	Roman	Cropmark	418000	512300
MNY32520	Enclosure	Possible rectilinear enclosure	Iron Age	Roman	Cropmark	416700	512400
MNY32522	Enclosure	Sub rectangular enclosue abutting ditched trackway	Iron Age	Roman	Cropmark	422100	514400
MNY32523	Enclosure	Rectilinear enclosure	Iron Age	Roman	Cropmark	422700	512700
MNY32524	Enclosure	Rectilinear enclosure	Iron Age	Roman	Cropmark	421600	513700
MNY32525	Enclosure	Rectilinear enclosure	Iron Age	Roman	Cropmark	421600	513100
MNY32530	Enclosure	D-shaped enclosure	Iron Age	Roman	Cropmark	419500	514500
MNY32531	Enclosure	D-shaped enclosure	Iron Age	Roman	Cropmark	418000	509700
MNY32533	Enclosure	D-shaped enclosure	Iron Age	Roman	Cropmark	423000	510600
MNY32535	Enclosure	Trackway and enclosure features?	Iron Age	Roman	Cropmark	420300	514400
MNY36047	Enclosed Settlement	Features recorded by Geophysics at Melsonby	Iron Age	Roman	Geophysics, Excavation	419877	510077
MNY36293	Enclosed Settlement	A Probable Early-Middle Iron Age Farmstead, North of the A66 at Gatherley Moor	Middle Iron Age	Middle Iron Age	Excavation	418640	506880
MNY32518	Enclosure	Rectilinear enclosure, adjacent to Carkin Moor Roman Fort, East Layton	Iron Age	Roman	Cropmark	415989	508598
MNY24128	Earthwork	Prehistoric earthwork ditch and bank associated with the Iron Age Defended Settlement at Stanwick, visible on air photographs and verified through trial excavations.	Late Iron Age	Late iron Age	Earthwork	417905	510217

County Durham HER Number	Site Type	HER Description	Period From	Period To	Evidence	Easting	Northing
366	Enclosure	Barforth, Grange. The earthwork remains of a rectangular enclosure can be seen at this site. The remains of two circular features survive inside it.	Iron Age	Iron Age	Cropmark	416400	515600
374	Enclosure	Barforth 1. This is the site of an Iron Age (800BC to AD43) enclosure. It was rectangular in shape and surrounded by a ditch.	Iron Age	Iron Age	Cropmark	417600	516200
1585	Enclosure	Barforth. This was once the site of a rectangular enclosure. It was probably a settlement of Iron Age date (800BC to AD43)	Iron Age	Iron Age	Cropmark	416510	515580

1587	Enclosure	Barforth. An aerial photograph of this site showed the cropmarks of a roughly square enclosure. There may have been a building at the west end, though this is not certain. The remains were destroyed in 1973 and there is nothing to be seen at the site now.	Iron Age	Iron Age	Cropmark	416750	515960

Appendix 2.5 – HER data for a 5km radius around Silchester

The following data relates to the 5km radius search of the Hampshire and West Berkshire HERs undertaken at Silchester and summarised in *Table 5* in Section 3.6.

Hampshire HER Number	Site Type	HER Description	Period From	Period To	Evidence	Easting	Northing
20196	Enclosed Settlement	Hillfort SW Of Pond Farm, Near Silchester	Iron Age	Iron Age	Geophysics, Earthwork, Excavation	462678	163078
18424	Miscellaneous settlement	Iron Age Building. During excavations of 1954-8, Boon found and Iron Age occupaton layer under the bank of the inner earthwork (SU66SW46A). This consisted of a thin gravel floor, cut by the Roman town ditch to the N and a rubbish pit © to S.	Iron Age	Iron Age	Excavation	463930	162020
18465	Boundary	Flex Ditch. 1) A ditch c.30m by 5.5m with a spread bank, c.137m long and placed across a narrow spur with natural defiles each side. 2) Boon suggests it is associated with the Iron Age oppidum at Silchester, cutting off access to the plateau via the spur.	Late Iron Age	Late Iron Age	Earthwork	462610	161710
18467	Enclosed Settlement	Silchester Dykes	Late Iron Age	Roman	Excavation, Geophysics, Earthwork	463192	160945
18469	Enclosed Settlement	Silchester Dykes	Late Iron Age	Roman	Earthwork	462500	160500
20041	Enclosed Settlement	Silchester Outer Earthworks	Late Iron Age	Roman	Earthwork, Excavation	463450	162490
20050	Cremation Cemetery	Rampiers Copse cremation cemetery. Site of Roman burials inserted into the Late Iron Age Rampiers Copse earthwork	Late Iron Age	Roman	Earthwork, Excavation	463600	162030
24010	Enclosed Settlement	Bramley Firth Wood. A rectangular enclosure in Bramley Frith Wood, comprising a bank and external ditch, is thought to be the site of an Iron Age or Romano-British settlement	Late Iron Age	Roman	Earthwork, Fieldwalking	464200	160260
42780	Enclosure	Late Prehistoric To Roman Earthwork Boundary. Two banks within the enclosure (SU66SW 124) may represent remains of internal sub-divisions within the site.	Late Iron Age	Roman	Earthwork	464220	160230
20030	Agricultural	Enclosure Se Of Three Ashes. Crop marks recorded by the NMR in 1970 showing a wide track (SU66SW34D) running E-W with rectangular enclosures appearing to the north and south and the east end. Boon considers these cropmarks to represent a Roman-British field system.	Late Iron Age	Roman	Cropmark	464400	160800
20045	Enclosure	Silchester Outer Earthwork Extension	Late Iron Age	Roman	Excavation	463230	162640
20053	Enclosure	Silchester Outer Earthwork. The copse contains a linear earthwork of considerable size extending roughly south-east from the north-west corner, but incorporating a crescentic curve before departing in the east. Hearth pit out into tail of bank of outer earthwork in Rampiers Copse section. Discovered during excavation by Cotton in 1938-9. Pit contained charcoal, tile (SU66SW26B) and some pottery sherds (SU66SW26C).	Late Iron Age	Roman	Excavation, Earthwork	463550	162030
41630	Polyfocal Complex	Silchester *Oppidum*. Precursor to the Roman town	Late Iron Age	Late Iron Age	Excavation, Geophysics, Cropmark, Earthwork, Fieldwalking	464000	162440
18426	Miiscellaneous Settlement	Rubbish Pit. (1)Rubbish pit, 7ft (2.13m) wide cut to a depth of 7ft (2.13m) from present ground surface, excavated by Boon 1954-8.	Iron Age	Iron Age	Excavation	463930	162020
18470	Enclosed Settlement	Silchester Inner Earthwork	Late Iron Age	Late Iron Age	Excavation, Earthwork, Geophysics, Cropmark	463850	162300
18466	Enclosed Settlement	Silchester Dykes. Ditch with bank on W side, c.575m long, curving to the N at NE, where it is truncated by the Silchester outer earthwork (SU66SW22). Perhaps a defensive earthwork of late Iron Age date.	Late Iron Age	Late Iron Age	Earthwork, Cropmark, Excavation	463450	161750
39150	Cremation	Cremation Burial With Iron Age Mirror. Latchemere Green Mirror. 1) A pit was excavated and was found to contain remains of a late Iron Age pedestal jar (SU66SW 99B), cremated bone (99C) and a decorated bronze mirror (99D).	Late Iron Age	Late Iron Age	Excavation	463200	160300

50293	Inhumation	Human remains were recovered during excavations at the North Gate, dated to the two separate periods, and possibly representing early/middle Iron Age activity on the Silchester plateau.	Early Iron Age	Middle Iron Age	Excavation	463854	162795
18468	Enclosed Settlement	Silchester Dykes. (1)Bank and ditch running for c.662m, with gaps in the middle. Perhaps a defensive earthwork of late Iron Age date.	Late Iron Age	Late Iron Age	Earthwork, Geophysics, Excavation	462360	160720
18425	Miscellaneous settlement	(1)Circular hearth, found in association with possible Iron Age hut or huts (A) during Boon's excavations 1954-8. 4ft (1.2m) across consisting of flint pebbles set in clay.	Iron Age	Iron Age	Excavation	463930	162020
35906	Agriculture	Field System / Rectilinear Features	Iron Age	Iron Age	Cropmark	463000	162900
35945	Unenclosed Settlement	1) A prehistoric settlement site (late Bronze Age or early Iron Age in date) was identified during an archaeological evaluation.	Late Bronze Age	Early Iron Age	Cropmark, Evaluation	464663	161693
51195	Unenclosed Settlement	Cable Route From Bramley To Ashford Hill. A concentration of features were exposed to the N of Little London.	Late Iron Age	Roman	Excavation, Watching Brief	462449	160250
58162	Unenclosed Settlement	Excavation And Evaluation At Little London Road, Near Silchester. A series of archaeological investigations were carried out on this site during 2001-03. This work uncovered a number of ditches and an enclosure. These were dated to the Late Iron Age/Early Roman period (C1 BC to C1 AD)	Late Iron Age	Roman	Excavation, Evaluation	462500	161480
57983	Enclosed Settlement	Settlement Enclosure. Complex series of concentric sub-rectangular enclosure ditches visible on aerial photography.	Iron Age	Iron Age	Evaluation, Cropmark, Geophysics	465467	163746
57972	Enclosures	Bramley Frith Wood, Bramley	Late Iron Age	Roman	Earthwork, Cropmark, Excavation	464500	160000
58592	Enclosure	The possible site of a prehistoric ditched enclosure is visible as cropmarks on aerial photographs. The enclosure is 70m across and has an east facing entrance.	Late Iron Age	Late Iron Age	Cropmark, Excavation	464352	164066
60065	Miscellaneous settlement	A possible Iron Age pit and kiln were recorded at this location during the watching brief conducted along the Bramley to Basingstoke electricity cable route.	Iron Age	Iron Age	Excavaion, Watching Brief	464438	159503
58608	Miscellaneous settlement	A small group of pits is visible as cropmarks on aerial photographs. They are probably of Iron Age or Roman origin.	Iron Age	Roman	Cropmark	463505	162233
58611	Cremation	A square anomaly within a D-shaped enclosure proved to be a chambered cremation-burial. Burnt bone from the individual lay in the base of a square-cut pit about two metres square and one metre deep. Gullies around its edges probably supported a timber surround. Eight pottery vessels, six platters and two drinking cups, all originally complete, but now fragmented, were found around the cremated remains.Four copper-alloy rings found in the fill may have been fittings from a box, or fastenings from a leather bag. Covering the grave were the remains of several charred planks of oak, perhaps part of the roof of the chamber. Four of the pottery vessels in the grave were imported from northern France, the remainder were locally made and all date to the early 1st century AD.	Late Iron Age	Late Iron Age	Cropmark, Excavation	465133	163910
58612	Enclosure	A wide linear cropmark underlying the street plan and buildings of Silchester Roman Town are considered to be remains of an inner earthwork enclosure. They are possibly the remains of the defences of the oppidum of Calleva.	Late Iron Age	Late Iron Age	Cropmark	463528	162312
68583	Enclosure	Benyon's Inclosure. A sub-rectangular earthwork enclosure estimated at around 80m across with slightly rounded corners was encountered close to the road in the south-west. Elsewhere, such small, sub-rectangular enclosures generally fall into one of two categories, medieval or post-medieval sheep enclosures (McOmish et al 2002, 114-119: Smith 2005) or Middle to Late Bronze Age enclosed settlements (McOmish et al 2002, 53, 70-3); the latter invariably associated with 'Celtic' fields or linear ditch systems. Some comprise substantial earthworks but others are relatively slight and it is noteworthy that the Bronze Age examples often display the asymmetrical plan form present in the example in the Benyon Enclosure.	Middle Bronze Age	Late Bronze Age	Earthwork	462386	163468
68586	Boundary	Gravelpit Copse & String Lane Copse. Pamber Forest. In the southern part of Gravel Pit Copse and just north of a stream leading to the Silchester Brook is a linear earthwork comprising ditch with bank to the north, that can be traced for c350m.	Iron Age	Iron Age	Earthwork, Fieldwalking	462071	160843
68586	Miscellaneous settlement	Gravelpit Copse & String Lane Copse. Pamber Forest. a burnt mound c.7m by 5m by 0.2m high adjacent to or cut by a small stream where fragments of flint potboilers were observed.	Bronze Age	Bronze Age	Earthwork, Fieldwalking	462071	160843

69647	Boundary	A possible Late Iron Age dyke sectioned by excavation for a water-pipe trench in 1988. Possible evidence for a timber palisade revetment. Three sections of the dyke are visible partly as earthwork and partly as a cropmark on aerial photographs and lidar imagery.	Late Iron Age	Late Iron Age	Excavation, Cropmark, Earthwork	463688	161502
69646	Enclosed Settlement	An enclosure, trackway or boundaries of possible Iron Age or Roman date are visible as cropmarks on aerial photographs to the west of Little London.	Iron Age	Roman	Cropmark	462021	159738
69651	Agriculture	Fragments of a field system of possible Iron Age or Roman date are visible as faint cropmarks on aerial photographs to the east of Mortimer West End.	Iron Age	Roman	Cropmark	463937	163871
69616	Enclosed Settlement	A possible later prehistoric enclosure is visible as an earthwork on lidar imagery within Pamber Forest. Excavation revealed a structure measuring 75m by 60m with an enclosure ditch measuring 2.05m wide and 1.38m deep with a 'V' shaped profile with steep sides and a concave base. Charcoal from the bank returned a radiocarbon date of 395-205cal BC.	Middle Iron Age	Middle Iron Age	Cropmark, Excavation	461743	160569
69617	Enclosed Settlement	A possible later prehistoric enclosure is visible as an earthwork on lidar imagery within Pamber Forest. Excavation revealed a sub-square enclosure 60m by 55m.	Middle Iron Age	Middle Iron Age	Cropmark, Excavation	461649	160493
69619	Enclosed Settlement	A possible later prehistoric enclosure is visible as an earthwork on lidar imgery within Pamber Forest. Excavation revealed a sub-rectangular enclosure 90m by 65m the enclosure ditch measured approx 3.4m wide and 1.9m deep with a 'U' shaped profile with moderately steep convex sides and a concave base. A series of gullies post holes and pits indicates the enclosure was used for habitation.	Middle Bronze Age	Middle Iron Age	Cropmark, Excavation	461741	160104
70082	Miscellaneous settlement	Land off The Street, Bramley. Evaluation undertaken prior to housing development. Excavation focused on a LBA / EIA pit found during a previous evaluation.	Late Bronze Age	Early Iron Age	Evaluation, Excavation	464711	158818

West Berkshire HER Number	Site Type	HER Description	Period From	Period To	Evidence	Easting	Northing
MWB1361	Enclosed Settlement	Rampart - Raven Hill. Part of SM WB53. A possible promontory hillfort, although not in a very defensive position	Iron Age	Iron Age	Earthwork	462919	166100
MWB1365	Bell Barrow	Holden's Firs: Bell Barrow 'A'. Ditched Bell Barrow with counterscarp bank	Bronze Age	Bronze Age	Earthwork, Cropmark	464336	165014
MWB1366	Disc Barrow	Holden's Firs: Disc Barrow 'B'	Bronze Age	Bronze Age	Earthwork, Cropmark	464360	165017
MWB1367	Bell Barrow	Holden's Firs: Bell Barrow 'C'	Bronze Age	Bronze Age	Earthwork, Cropmark	464389	164965
MWB1368	Barrow	Holden's Firs: Bowl Barrow 'D'	Bronze Age	Bronze Age	Earthwork, Cropmark	464408	164942
MWB1369	Barrow	Holden's Firs: Bowl Barrow 'E'	Bronze Age	Bronze Age	Earthwork, Cropmark	464426	164933
MWB1372	Bowl barrow	Stephen's Firs: Bowl Barrow (Holden's Firs outlier)	Bronze Age	Bronze Age	Earthwork, Cropmark	464516	164656
MWB14471	Find Spot	Wash Common. A fragment of a bronze puddle ingot found in 1980s	Bronze Age	Bronze Age	Findspot	464000	164999
MWB16264	Barrow	Outlier to Holden's Firs Barrow Cemetery, in Gibbet Piece, Ufton Nervet (1 of 2). Tumulus marked on a 1922 map and referred to in 1936, but of unknown condition in the early 21st century	Bronze Age	Bronze Age	Documentary	463555	165626
MWB16265	Barrow	Outlier to Holden's Firs Barrow Cemetery, in Gibbet Piece, Ufton Nervet (2 of 2). Tumulus marked on a 1922 map and referred to in 1936, but of unknown condition in the early 21st century	Bronze Age	Bronze Age	Documentary	463581	165563
MWB16266	Barrow	Holden's Firs: Possible Bowl Barrow 'H'. A raised area surveyed in 1990 which may represent a damaged barrow in the cemetery core	Bronze Age	Bronze Age	Earthwork	464376	164986
MWB17611	Barrow	Outlier to Holden's Firs Barrow Cemetery, southeast of Stephen's Firs. Barrow apparently recorded on a late 18th century map but not documented since, although it may partially survive on open land	Bronze Age	Bronze Age	Documentary	464604	164539
MWB17709	Enclosed Settlement	Raghill Farm, Aldermaston - Enclosures and ditches. Late Iron Age and Romano-British enclosures and post-medieval ditches discovered during excavation of Phase 6a of gravel working	Late Iron Age	Roman	Excavation	461261	164812
MWB17710	Cremation	Raghill Farm, Aldermaston - Ditches and cremation burials. Ditches and two cremation burials discovered during topsoil stripping of Phase 3b of gravel working	Late Iron Age	Roman	Excavation	461367	164889
MWB17711	Enclosed Settlement	Raghill Farm, Aldermaston. Late Iron Age, Romano-British and post medieval ditches discovered during excavation of Phase 4 of gravel working	Late Iron Age	Roman	Excavation	461340	164995

MWB17716	Enclosed Settlement	Raghill Farm, Aldermaston - later prehistoric hearths and pits or post holes. Late Bronze Age or Early Iron Age features uncovered during several phases of gravel quarry fieldwork	Late Bronze Age	Early iron Age	Excavation	461195	164475
MWB3326	Bell Barrow	A large ditched round barrow (poss bell baroow) discovered in 1963 by aldermaston arch. soc.	Bronze Age	Bronze Age	Earthwork	463544	166621
MWB3330	Barrow	Ring ditch, possibly an outlier to Holden's Firs Barrow Cemetery, south of West End Road. Small regular ring visible as a cropmark in aerial photographs and located on the old county boundary with Hampshire, apparently in an alignment with other barrows	Bronze Age	Bronze Age	Cropmark	464765	164376
MWB3582	Findspot	Prehistoric flint and Late Iron Age pottery found fieldwalking	Late Iron Age	Late Iron Age	Fieldwalking	466150	166700
MWB9337	Find Spot	Iron Age sherd found fieldwalking	Iron Age	Iron Age	Fieldwalking	465300	163999
MWB1358	Earthwork	Dyke - Park Piece. Unscheduled earthworks identified in 1940s survey as bank with northern ditch, crossing Park Piece and possibly Gravelly Piece	Iron Age	Iron Age	Earthwork	Polyline	
MWB20929	Enclosure	The Berkshire County Council SMR recorded a complex of rectangular enclosures on an aerial photographic transcription sheet <1>. The complex is centred on SU666654, in a field west of Wokefield Park. Assuming that the transcriptions represent a manmade feature, it seems possible that the enclosures could be Romano-British in date, particularly as Calleva Atrebatum (Silchester Roman Town) is less than 4km to the southwest. Alternatively the marks could represent 20th century land-use or agricultural practices.	Late Iron Age	Roman	Cropmark	Polygon	
MWB20933	Miscellaneous Settlement	Mortimer Hill Farm - round house. Post holes and some Bronze Age pottery interpreted as a round house and stockade, discovered during investigations in 2003	Bronze Age	Bronze Age	Excavations	Polygon	
MWB1364	Cbarrow Cemetery	Holden's Firs Barrow Cemetery core	Bronze Age	Bronze Age	Earthwork, Cropmark	Polygon	
MWB1370	Barrow	Holden's Firs: Bowl Barrow 'F'	Bronze Age	Bronze Age	Earthwork, Cropmark	Polygon	
MWB1371	Bell Barrow	Holden's Firs: Bell Barrow 'G'	Bronze Age	Bronze Age	Earthwork, Cropmark	Polygon	
MWB17650	Unenclosed Settlement	Mortimer Hill Farm - Possible Romano-British farmstead. Excavated linear features, pits and postholes interpreted as a trackway and domestic rubbish of a small settlement, dated to the later 1st to 2nd century AD	Late Iron Age	Roman	Excavations	Polygon	
MWB17712	Enclosed Settlement	Raghill Farm, Aldermaston - Enclosed Settlement. Late Iron Age or Romano-British enclosed settlement discovered during Phases 5 and 6a of gravel quarry fieldwork and preserved in situ	Late Iron Age	Roman	Excavations	Polygon	
MWB3325	Barrow Cemetery	Poors Allotment - round barrow southwest of Island Farm Cottage	Bronze Age	Bronze Age	Earthwork, Cropmark	Polygon	

Appendix 3 – Frequency Analysis

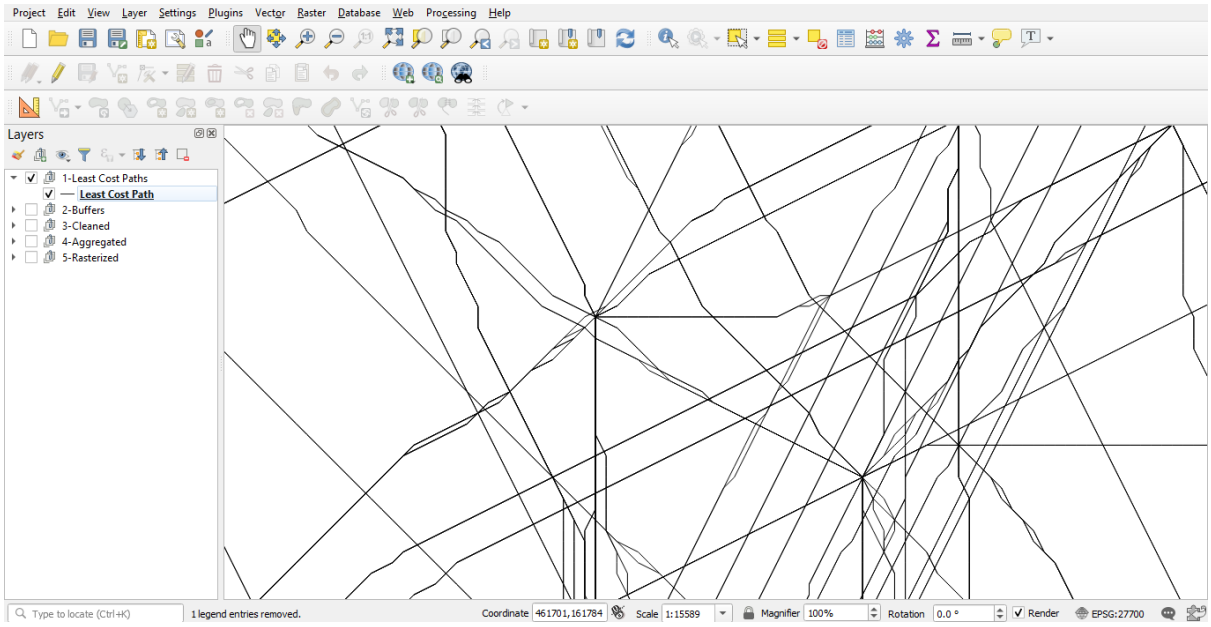
Appendix 3.1 – GIS workflow

The following workflow lays out the way in which the results of the frequency analysis for each landscape presented throughout Chapter 5 was acquired (using QGIS 3.X). For a discussion of the purpose of this analysis see section 4.3.2.3.

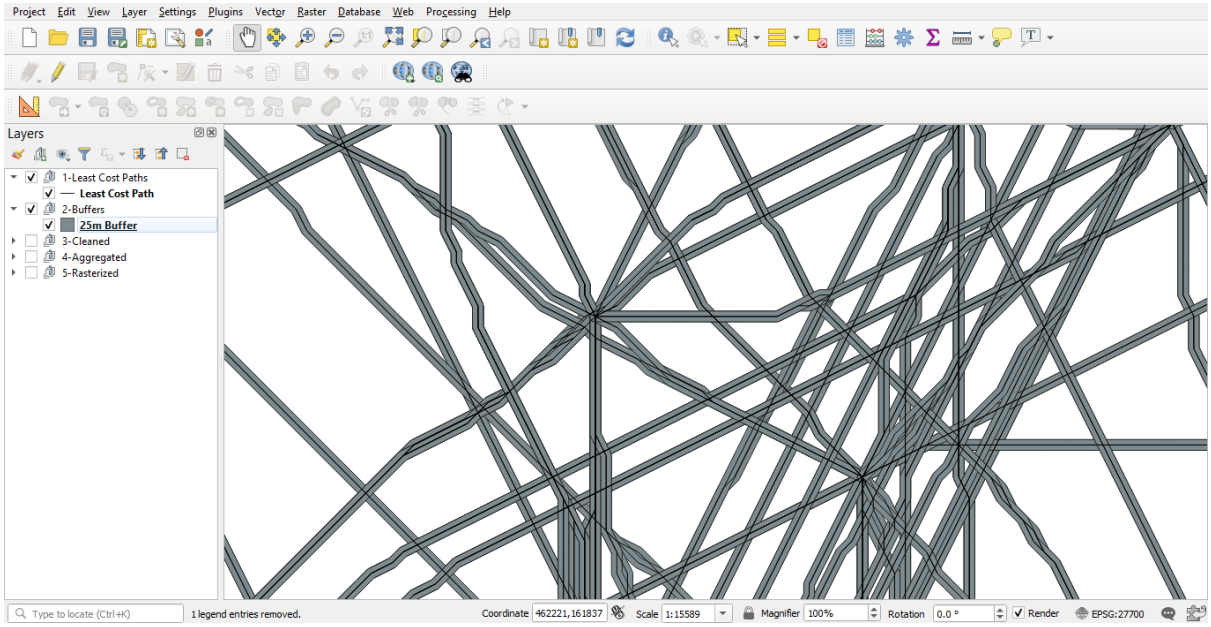
Buffer the relevant Least Cost Path layer using the QGIS Vector tool “Buffer”

1. Select the layer to buffer
2. Set “Distance” to 25 and units to “metres”
3. Leave all other parameters as default
4. Save as “.gpkg”

Input:

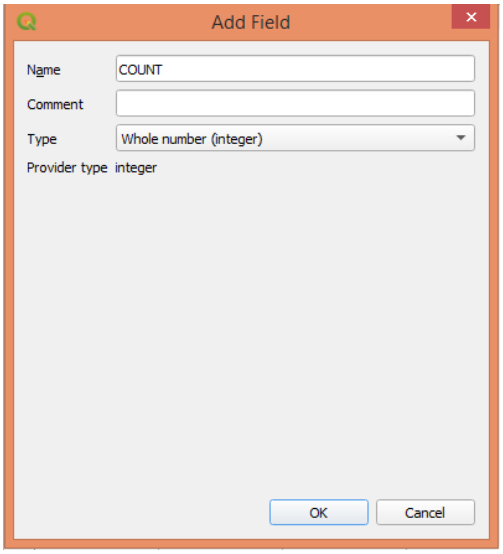


Output:



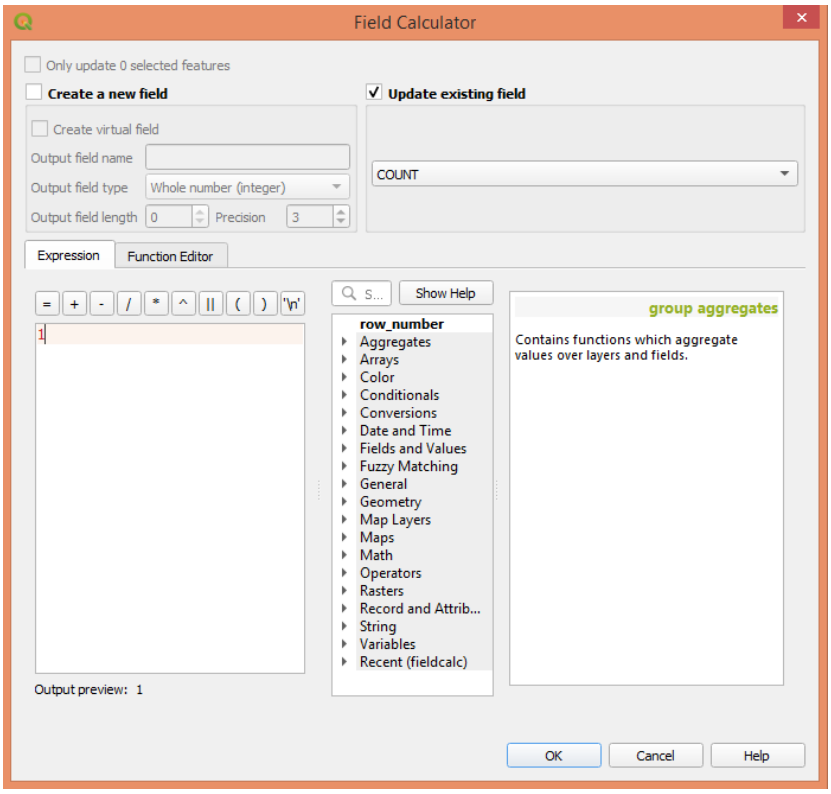
Create a new field for the buffered layer and attribute each feature a value of '1'

1. Open the layer's attribute table and turn on "edit"
2. Create a new field named "COUNT" (or similar field heading) with the "Type" = "Whole number (integer)"



3. Open the "Field Calculator"
4. Tick "Update Existing Field" and select "COUNT"

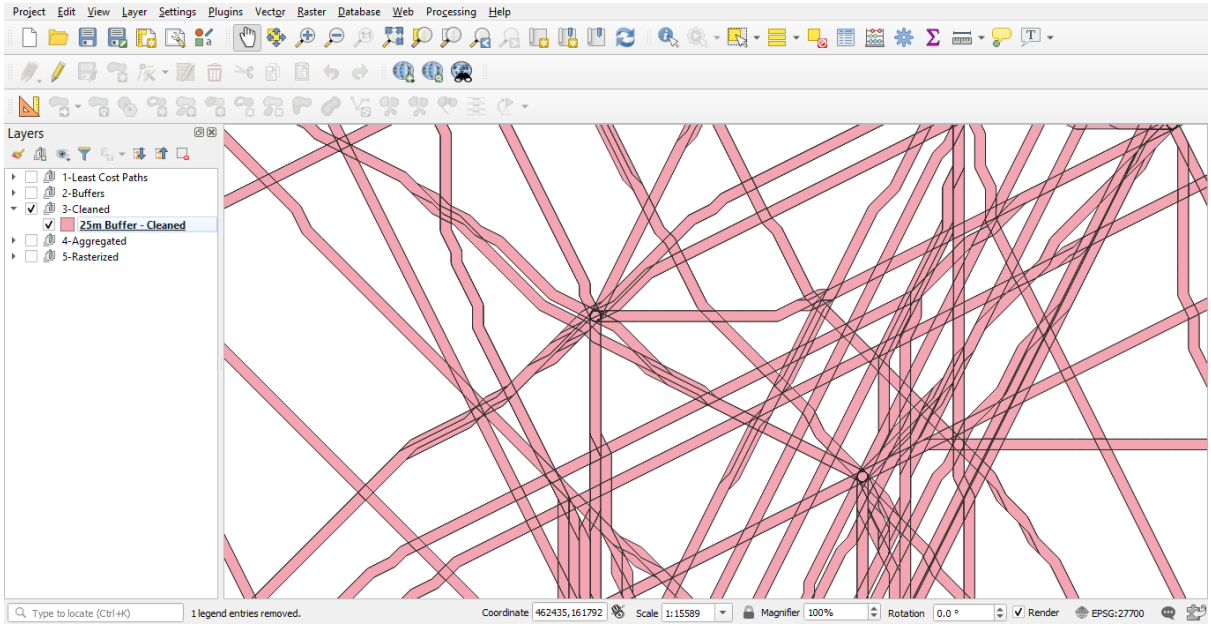
5. In the “Expression” box enter “1” and press “Ok”, every feature will now have a “COUNT” value of “1”



Use GRASS algorithm ‘v.clean’ to break the buffered layer where features intersect with each other.

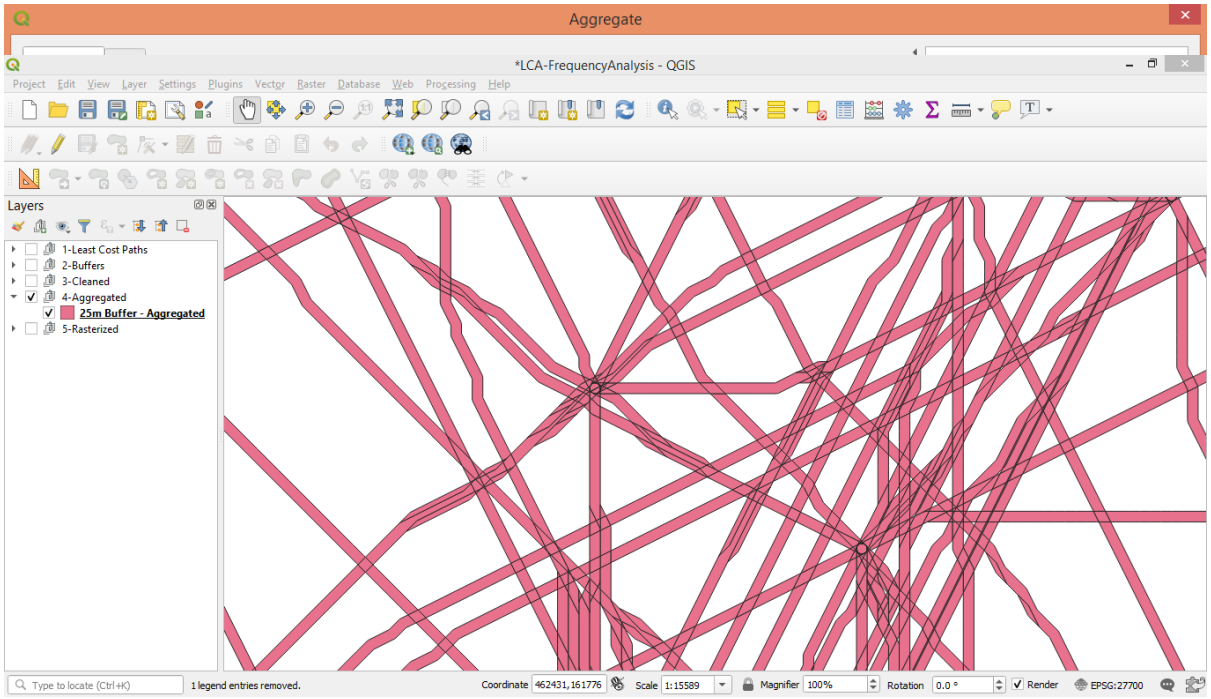
1. Select layer to clean
2. Set input feature type to “area” and set cleaning tool to “break”
3. Select “Combine tools with recommended follow-up tools” in “Advanced Parameters”
4. Leave all other parameters as default
5. Save as “.gpkg”

Output:



Use QGIS tool “Aggregate” to add together the “COUNT” values where features overlap

1. Select the output from the previous step as the “Input Layer”
2. Use the expression “geom_to_wkt($geometry)” in “Group by expression”
3. “Load fields” to “Aggregates” from the input layer and remove all fields except “COUNT”
4. Set the “Aggregate function” to “sum”
5. Save as “.gpkg”

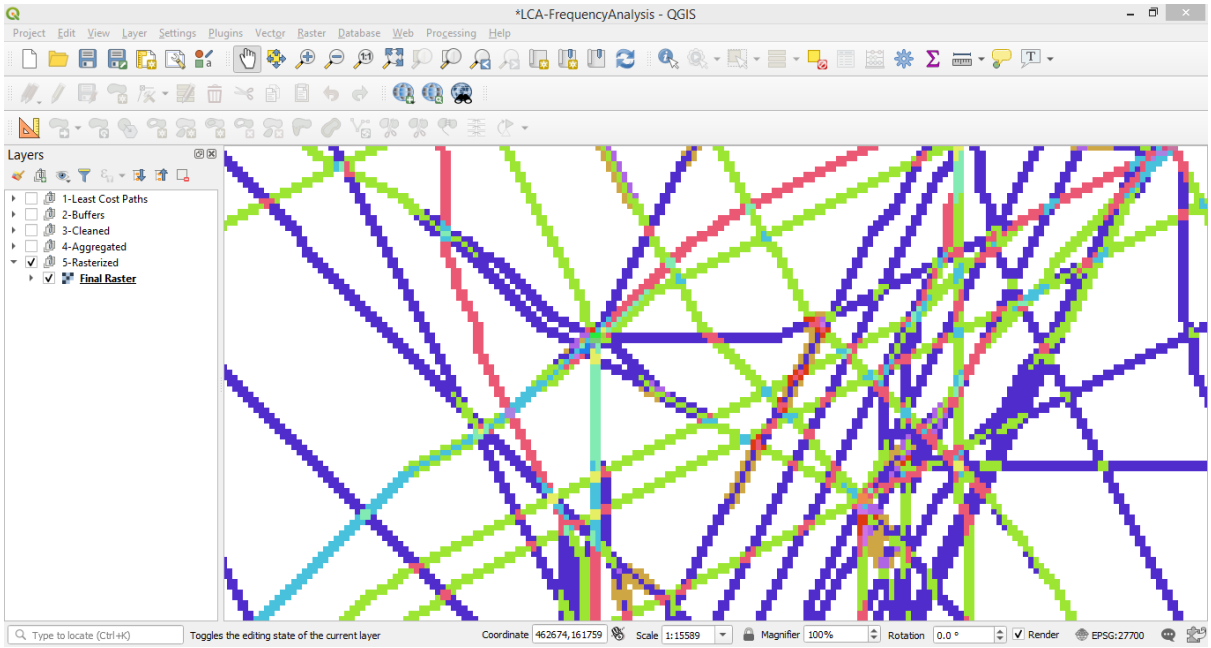


Output:

Use the QGIS tool “Rasterize (Vector to Raster)” to produce a raster of the aggregated layer

1. Set the “Input layer” as the output of the previous step
2. Select “COUNT” as the “Field to use for a burn-in value” and enter “Not set” in “A fixed value to burn”
3. Set the “Output raster size units” to “Georeferenced units” and the Horizontal and Vertical resolutions to “25” each (meaning the output raster resolution will be at a scale of 25m*25m)
4. Set the “Output extent” to that of the “Input Layer”
5. Enter “0” in “Assign a specified nodata value to output bands
6. Leave “Advanced parameters” as defaults and save as “.tif”

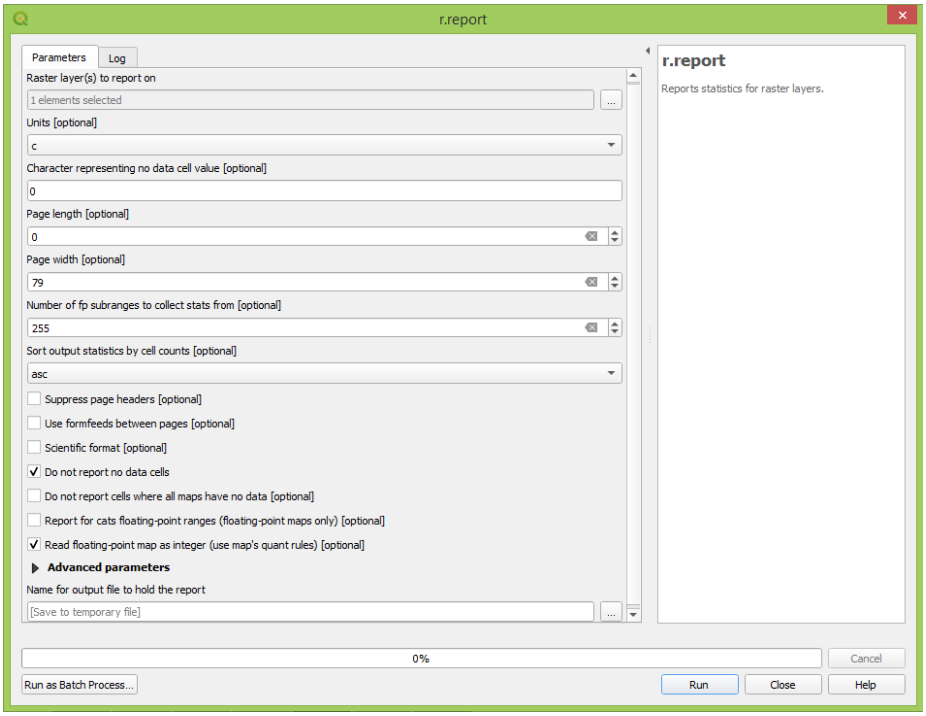
Output:



Use the GRASS function “r.report” to acquire counts of the pixel values for the output of the previous step in order to assess the frequency with which the 25m buffers of each least cost path overlap.

1. Enter the raster output of the previous step into “Raster layer(s) to report on”
2. Set “Units” to “c”
3. Set “Character representing no data cell value” to “0”
4. Tick “Do not report no data cells”
5. Tick “Read floating-point map as integer”
6. Leave all other parameters as default
7. Save as “.txt”

8. These values can be imported into a spreadsheet for further analysis such as that presented throughout Chapter 5



Appendix 3.2: Frequency Analysis Data:

Appendix 3.2.1: Frequency analysis data for the Bagendon landscape:

	Cell Frequency				
Cell Value	High Elevation	High Visibility	Low Elevation	Low Visibility	Slope Factor
1	4844	3264	1920	1888	19463
2	15844	25580	19800	11192	28399
3	1492	262	542	519	4407
4	9610	7150	10701	5606	7962
5	703	70	63	168	1411
6	2583	4449	3498	1857	2673
7	391	16	117	1042	574
8	3773	1470	2145	1582	3334
9	683	11	276	313	297
10	827	1585	967	742	564
11	555	-	72	31	70
12	603	2120	921	1189	506
13	70	6	152	130	84
14	260	345	1014	267	586
15	19	16	20	52	303
16	552	764	322	161	114
17	11	9	20	752	196
18	901	563	1303	1796	18
19	2	-	32	49	195
20	245	1017	613	1079	298
21	-	-	-	163	45
22	353	101	59	297	16
23	8	-	-	16	5
24	76	131	28	379	-
25	-	-	-	13	3
26	791	13	1274	621	-
27	-	-	-	8	27
28	87	60	75	337	12
29	-	-	-	-	-
30	1	-	-	27	-
31	-	-	-	-	6
32	1	12	9	20	-
33	-	-	-	-	-
34	1	1	-	87	-
35	-	-	-	-	-
36	-	-	428	8	-
37	-	-	-	-	-
38	-	-	-	100	-
39	-	-	-	-	-

40	-	-	-	-	-
41	-	-	-	-	-
42	-	-	-	-	-
43	-	-	-	-	-
44	-	-	-	-	-
45	-	-	-	-	-
46	-	-	-	16	-
47	-	-	-	-	-
48	-	-	-	-	-
49	--	-	-	-	-
50	-	-	-	17	-
51	-	-	-	-	-
52	-	-	-	100	-
53	-	-	-	-	-
54	-	-	-	24	-

Total	45286	49015	46371	32648	71568
Min	1		9	8	3
Max	15844	25580	19800	11192	28399
Mean	1617.357	2042.292	1783.5	882.3784	2650.667
Median	471.5	-196.5	375	168	297

Appendix 3.2.2: Frequency analysis data for the Gussage Cow-Down and Nadder-Wylye Ridge landscapes:

	Cell Frequency				
Cell Value	High Elevation	High Visibility	Low Elevation	Low Visibility	Slope Factor
1	15342	19061	7635	14745	48293
2	40245	62753	36237	15138	94984
3	4179	9328	4016	2795	14599
4	16649	28309	16849	9380	40890
5	2353	4890	3308	2058	7905
6	8208	15142	12586	6887	15115
7	1392	1923	1988	2179	6129
8	6590	12414	7323	3720	7655
9	1247	2156	4447	2173	4308
10	2315	6010	5495	4802	5316
11	1022	1409	1616	2784	1831
12	4027	5099	9528	2367	4101
13	325	1185	1232	2221	1340
14	1983	4337	2726	2616	1789
15	527	212	939	2074	554
16	3433	1045	1481	550	1739
17	1172	1242	1785	309	265
18	631	1679	1338	1289	264
19	471	935	1340	2206	293
20	2665	831	855	2019	1346
21	787	317	2022	520	221
22	1808	1019	2603	1781	545
23	501	86	587	1441	584
24	1607	858	283	1221	212
25	1479	77	223	1194	152
26	703	985	152	1396	13
27	254	113	167	830	98
28	691	234	1689	761	34
29	65	20	59	204	40
30	675	268	196	913	68
31	178	26	8	635	15
32	230	22	893	673	13
33	93	12	240	226	26
34	121	355	324	201	64
35	398	127	447	87	8
36	189	29	52	470	1
37	109	23	136	650	11
38	96	4	201	15	22
39	48	5	4	137	1

40	413	54	18	166	2
41	289	224	487	92	112
42	214	26	80	315	-
43	89	2	11	222	2
44	340	48	572	10	-
45	14	-	7	517	-
46	649	14	-	618	-
47	209	339	548	449	273
48	420	9	2	411	1
49	14	-	26	149	-
50	35	18	2	203	-
51	7	5	112	44	-
52	20	12	96	32	3
53	7	1	114	61	-
54	6	16	150	13	-
55	-	-	145	1	-
56	36	6	392	44	-
57	4	-	30	9	-
58	2	-	-	2	-
59	4	-	-	171	-
60	76	-	26	7	-
61	-	-	444	-	-
62	2	4	49	28	-
63	-	-	4	141	-
64	-	-	-	4	-
65	83	-	101	-	-
66	-	-	-	40	-
67	-	-	-	4	-
68	148	-	23	-	-
69	127	-	8	24	-
70	-	-	-	-	-
71	15	-	-	2	-
72	283	-	-	7	-
73	19	-	2	-	-
74	140	-	52	-	-
75	38	-	-	124	-
76	163	-	308	-	-
77	-	-	-	-	-
78	3	-	12	-	-
79	-	-	-	-	-
80	3	-	11	-	-
81	12	-	-	-	-
82	-	-	-	200	-
83	-	-	-	2	-
84	-	-	-	24	-

85	-	-	-	1	-
86	9	-	-	76	-
87	-	-	-	108	-
88	-	-	-	135	-
89	-	-	-	4	-
90	-	-	-	-	-
91	-	-	-	22	-
92	-	-	-	-	-
93	-	-	-	-	-
94	-	-	-	-	-
95	-	-	-	104	-
96	-	-	-	-	-
97	-	-	-	-	-
98	-	-	-	-	-
99	-	-	-	-	-
100	-	-	-	85	-
101	-	-	-	-	-
102	-	-	-	-	-
103	-	-	-	7	-
104	-	-	-	-	-
105	-	-	-	39	-
106	-	-	-	-	-
107	-	-	-	105	-
108	-	-	-	4	-
109	-	-	-	-	-
110	-	-	-	-	-
111	-	-	-	-	-
112	-	-	-	-	-
113	-	-	-	-	-
114	43	-	-	-	-
115	-	-	-	-	-
116	-	-	-	-	-
117	-	-	-	-	-
118	-	-	-	24	-
119	-	-	-	-	-
120	-	-	-	-	-
121	-	-	-	-	-
122	93	-	-	-	-

Total	128837	185318	136842	100517	261237
Min	2	1	0	1	1
Max	40245	62753	36237	15138	94984
Mean	1717.826667	3431.814815	1983.217391	1182.552941	5805.266667
Median	214	229	240	201	264

Appendix 3.2.3: Frequency analysis data for the Stanwick landscape:

	Cell Frequency				
Cell Value	High Elevation	High Visibility	Low Elevation	Low Visibility	Slope Factor
1	12496	1124	1834	2368	10053
2	29569	9382	4971	10200	29337
3	34891	12120	8731	8011	35144
4	13344	8124	8005	3663	14877
5	4929	4385	799	1246	6683
6	7064	3004	4702	2241	6262
7	3369	2351	1933	2631	3509
8	3894	2780	1769	1405	2766
9	2523	1792	1428	1058	744
10	387	1823	2290	1442	948
11	2122	2105	1344	2640	1309
12	947	1429	1770	934	763
13	1045	205	865	989	256
14	552	480	818	895	1094
15	284	540	1126	410	1148
16	227	962	1962	512	106
17	2363	204	1053	1019	1360
18	30	966	184	495	304
19	57	773	39	578	205
20	806	97	169	882	44
21	27	449	121	510	57
22	28	839	135	576	262
23	4	70	75	1008	7
24	7	66	586	466	50
25	4	1847	223	787	391
26	9	262	48	82	4
27	4	243	124	653	5
28	3	726	66	294	5
29	10	71	216	393	80
30	4	16	471	415	4
31	2	58	199	182	3
32	1	602	56	1151	5
33	1		20	187	1
34	3	234	407	800	3
35		1275		164	191
36			148	269	1
37	2	58	1314	2132	17
38		2	64	241	
39	27	319	1991	38	174
40	1		20	352	3

41	1	212			2
42			7	74	
43		11	2	3	1
44			141	10	
45			1	57	3
46			40	8	2
47		9		14	
48	1		34		
49			20	6	
50			54	28	1
51			4		
52					
53	21	44	108	26	24
54					
55					
56	7	4			3
57					
58		1		1	
59					
60			3	8	
61		1			
62			4		
63			4		
64			186		
65					
66			4		
67					
68			89		
69					
70					
71					
72					
73					
74			505		

Total	121066	62065	53282	54554	118211
Min	1	1	1	1	1
Max	34891	12120	8731	10200	35144
Mean	2952.829268	1410.568182	951.4642857	1069.686275	2569.804348
Median	28	464.5	176.5	510	93

Appendix 3.2.3: Frequency analysis data for the Silchester landscape:

	Cell Frequency				
Cell Value	High Elevation	High Visibility	Low Elevation	Low Visibility	Slope Factor
1	5581	1465	4347	4203	36823
2	61669	54595	33659	28021	107665
3	987	299	1393	2852	5886
4	25349	24713	14958	13799	21092
5	619	743	393	831	1093
6	8458	9541	8588	7390	9041
7	219	18	314	1704	838
8	5330	6486	6296	6282	3050
9	39	14	249	188	431
10	3848	6102	1804	4139	1217
11	374	9	167	197	125
12	3387	2569	2262	2026	1361
13	75	-	222	138	87
14	373	1885	978	4790	1977
15	9	4	773	36	9
16	190	2577	998	2492	436
17	9	-	147	429	45
18	906	1996	503	1396	982
19	-	-	32	44	13
20	147	40	1057	2169	499
21	20	-	-	18	2
22	1034	830	873	1125	120
23	28	-	48	-	1
24	147	836	1841	1876	22
25	2	-	1	14	2
26	1354	157	197	1096	34
27	-	-	24	19	1
28	929	186	163	1397	5
29	-	-	6	7	-
30	101	7	2690	95	1
31	96	-	56	4	-
32	165	8	1503	528	12
33	-	-	8	-	10
34	55	55	64	228	46
35	2	-	-	-	4
36	583	5	6	82	-
37	-	-	-	-	-
38	-	4	54	209	-
39	-	-	-	-	-
40	39	-	8	-	-

41	-	-	-	-	-
42	-	-	-	-	-
43	-	-	8	-	-
44	-	-	-	171	-
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	-	-	-	-	-
49	-	-	-	-	-
50	-	-	-	-	-
51	-	-	-	-	-
52	-	-	-	44	-
53	-	-	-	-	-
54	-	-	158	-	-
55	-	-	-	-	-
56	-	-	-	-	-
57	-	-	-	-	-
58	-	-	-	-	-
59	-	-	-	-	-
60	-	-	-	-	-
61	-	-	-	-	-
62	-	-	-	-	-

Total	122124	115144	86848	90039	192930
Min	2	4	1	4	1
Max	61669	54595	33659	28021	107665
Mean	3700.727273	4428.615385	2285.473684	2501.083333	5846.363636
Median	219	521	281.5	679.5	120

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