

Settlement Patterns in Roman Galicia: Late Iron Age – Second Century AD

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I, Jonathan Wynne Rees confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

This thesis examines the changes which occurred in the cultural landscapes of northwest Iberia, between the end of the Iron Age and the consolidation of the region by both the native elite and imperial authorities during the early Roman empire. As a means to analyse the impact of Roman power on the native peoples of northwest Iberia five study areas in northern Portugal were chosen, which stretch from the mountainous region of Trás-os-Montes near the modern-day Spanish border, moving west to the Tâmega Valley and the Atlantic coastal area. The divergent physical environments, different social practices and political affinities which these diverse regions offer, coupled with differing levels of contact with the Roman world, form the basis for a comparative examination of the area.

In seeking to analyse the transformations which took place between the Late pre-Roman Iron Age and the early Roman period historical, archaeological and anthropological approaches from within Iberian academia and beyond were analysed. From these debates, three key questions were formulated, focusing on the Late Iron Age settlement hierarchy, the impact of the administration of early Roman northwest Iberia on settlement patterns, and the relationship between the pre-Roman and Roman-period communication networks

In addressing these issues primarily through the medium of landscape analyses, but also incorporating material evidence (from epigraphy sources, ceramic ware as well as other sources), historical and anthropological studies, it was established that the so-called '*Castro Culture*' of northwest Iberia was not homogeneous, but structured according to diverse socio-political and environmental factors. In the early Roman period, a series of agricultural producers established themselves in fertile areas, resulting in settlement patterns which were located near communication routes and markets. Binding the landscape together were a series of central places, which were often adapted from pre-Roman settlements. Thus, the region's pre-Roman traditions coupled with different customs introduced by Rome, created a fusion of multiple practices, but from an economic perspective northwest Iberia adopted many of the agricultural systems common in other parts of the Roman empire.

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Chapter One

1.1. Introduction

This thesis examines the dynamic changes which occurred in northwest Iberia between the end of the Iron Age and the consolidation of the region by both the native elite and imperial authorities during the early Roman empire. The aim of this work is to understand social, political and cultural changes in the region. Secondary aims are to understand the nature of pre-Roman complex societies and the social, economic and political transformation of northwest Iberia under Roman authority within a wider context.

As a means to analyse the impact of Imperial Rome on the native peoples of northwest Iberia, five study areas in northern Portugal were chosen. These study areas stretched from the mountainous region of Trás-os-Montes near the modern-day Spanish border, moving west to the Tâmega Valley and the Atlantic coastal area. The divergent physical environments, different social practices and political affinities which these diverse cultures offer, coupled with differing levels of contact with the Roman world form the basis for a comparative examination of the region.

In seeking to analyse the transformations which took place between the Late pre-Roman Iron Age and the early Roman period historical, archaeological and anthropological approaches from within Iberian academia and beyond were examined. This generated a series of principal debates through which three key questions were proposed. First, did a Late pre-Roman Iron Age settlement hierarchy exist in northwest Iberia? Second, to what degree did the administration of early Roman northwest Iberia adopt and exploit the landscape of the pre-Roman period, and how did the Roman settlement structure differ from the pre-Roman Period? Third, to what extent did Roman fluvial and terrestrial routes exploit the pre-Roman communication networks and how did this impact on the development of the Roman settlement structure?

1.2. Outline of Chapters and Structural Development

This thesis is divided into eight chapters.

1. Chapter One begins by presenting a historic overview of the region before section 1.4 examines in more detail how the study region was derived, sets out its physical boundaries, and provides a context for those five study areas which will form the basis of analysis in this thesis. Subchapter 1.5 outlines the cultural sequence

from the Late Bronze Age until the early Roman period with the specific aim of evaluating; (a) the current state of knowledge, models and approaches to settlement patterns in northwest Iberia between the Late Iron Age and early Roman period; and (b) where there are inconsistencies in the interpretation of the archaeological record of the study region. Lastly, section 1.6 identifies and presents the gaps in current understanding as a series of aims, which are examined in greater detail in Chapter Two.

2. Chapter Two analyses the theoretical underpinnings of the secondary literature used to generate the key aims of this work, which are exemplified in the work of Parceró Oubiña (2000; 2003) and Sastre Prats (2001; 2008), who present two diametrically-opposed models of Late Iron Age society. In deconstructing the models of *castro* society advanced by Parceró Oubiña and Sastre Prats a more analytical framework is proposed, which emphasises the importance of examining regional settlement patterns, in conjunction with other archaeological evidence as well as historical and anthropological studies, as a means to understand late pre-Roman society. Section 2.3 addresses the settlement structure of early Roman northwest Iberia, but also evaluates a range of theoretical frameworks applied to examining change within regions pacified by Roman authorities, particularly the concept of ‘Romanisation’. Lastly, section 2.4 examines the importance of movement and communication routes within the Late Iron Age and the early Roman period, and how such routeways shaped the landscape and subsequent settlement patterns.

3. Chapter Three provides a more in-depth examination of the five study areas within the context of modern-day northern Portugal, and investigates the importance of geomorphology in shaping both ancient and modern-day settlement patterns in the region. In addition, a critical analysis is made of the datasets employed to examine the five study areas, particularly the key chronological and archaeological evidence they impart and how this contributes to or limits our understanding of northwest Iberia between the Late Iron Age and the early Roman period.

4. Chapter Four examines northwest Iberia during the Late Iron Age and investigates the importance and benefits of the theoretical concepts of social evolution, borders and borderlands and in the process deconstructs these theories to develop a more analytical framework to examine the dynamics of late *castro* societies. This reworked theoretical approach is integrated into an applied

methodology and statistical tools, among them GIS-based techniques, which are used to examine the nature of northwest Iberia during the Late Iron Age with the specific aim of answering the research questions developed at the end of Chapter Two.

5. Chapter Five analyses the settlement patterns of the early Roman period, but also employs a methodological approach similar to that developed in Chapter Four and so incorporates an analysis of those indigenous habitations, namely, Roman-period *castros*, which continued to be occupied in the first and second centuries AD. Additionally, the theoretical concepts analysed at the beginning of this chapter include the nature of settlement studies conducted within northwest Iberia during the study period and beyond; the practical and theoretical complexity of regional comparative analysis; and the importance of ranked settlement analysis. These are all employed to create a more robust and effective methodological approach.

6. Chapter Six analyses movement and communication both within the Late Iron Age and the early Roman period and builds on the findings generated from Chapters Four and Five. Moreover, Chapter Six's theoretical analysis centres very much on re-examining the nature of commerce during the Late Iron Age, but above all during the Roman period, and therefore aims to analyse the connectivity between settlements and regions and thereby determine their probable role. In providing a diachronic analysis of movement and communication from the Late Iron Age until the early Roman period by undertaking an examination of known routeways and least-cost paths a more detailed picture emerges of the criteria and location of habitations, as well as the changing settlement pattern.

7. Chapter Seven incorporates and analyses the key concepts and findings generated in Chapters Four, Five and Six.

8. In Chapter Eight those questions developed at the end of Chapter Two are addressed along with a discussion of opportunities for further research and this thesis' contribution to original knowledge.

1.3. Historical Overview

This section provides a short description of the history of northwest Iberia from the first millennium BC, when small defended hillforts began to emerge within the landscape of the region, through to the second century AD, when, following the

conquest of native communities, Imperial authorities slowly began to assimilate the people of the region.

Geographically, northwest Iberia incorporates the modern-day Spanish provinces of Galicia, western Asturias and western Castilla Y León in addition to the area of northern Portugal. Historically, the region has been largely isolated from the remainder of the peninsula on account of the Meseta of central Iberia, which has acted as a physical barrier denying overland access to the interior and the Mediterranean beyond. Contact and communication was therefore concentrated along the coastal regions as manifest between the ninth and sixth centuries BC, when seafaring Phoenician merchants exploited their maritime expertise and traded extensively with northwest Iberia linking the region commercially, culturally and strategically with the Mediterranean (Cunliffe 1995, 16; 1999; Riva 2005, 207). The collapse of the Phoenician trade network had an important impact on northwest Iberia as it limited access to prestigious goods, as well as the exchange of new practices and ideas, and resulted in economic upheavals within the region as native peoples competed more intensely for control of scarce resources and their trade routes (Aubert 1995, 54-55). The open settlement, which had typified the Late Bronze Age, was in time replaced by small fortified *castro* settlements where it has been estimated that the majority of the sites numbered no more than 200 inhabitants by the Late Iron Age (third century BC – first century BC) (Parceró Oubiña 2003, 281). The term *castro* derives from a Portuguese / Spanish reading of the Latin word *castrum*, or fortress, used by Roman authorities to describe these structures, and in the later Medieval period to identify fortified hillforts when registering land tenancies (Queiroga 2003, 3). Archaeological research has proposed that *castro* settlements were positioned in easily defensible locations, with good access to suitable farmland, and were structurally similar in terms of style, size and assumed function (these notions are debated vigorously throughout this thesis), and are often referred to collectively as the ‘*Castro Culture*’ (Silva 1995, 263).

The spatial organisation and function of these late pre-Roman Iron Age settlements, while extensively researched, is not fully understood. During the beginning of the Middle Iron Age (sixth – second centuries BC) it appears that monumental fortifications were constructed around *castro* settlements which provides a means for loosely dating and categorising these sites. Although no definitive study has been undertaken to calculate the number of fortified *castro*

settlements (problems arise in establishing the area occupied by *castro* settlements, in particular to the east of northwest Iberia where a series of tribal confederations materialised), within the study area (see section 1.4) the number of *castros* can be estimated to be between 3,000 to 5,000. A further problem is how we interpret these *castro* settlements at a local and supra-local level given the complete absence of funerary material, domestically produced ceramic ware and the limited number of intramural small finds.

In recent years, the internal layout, especially the size and structure of possible ‘familial’ enclosures, of a few well excavated *castro* settlements has been examined in great detail, but efforts to extrapolate both intra-settlement and supra-local relationships from this data have proven to be contentious. In this same way, the use of early Roman period hospitality pacts, attesting new or renewed covenants of friendship, are equally controversial. On one hand they provide an insight into the possible pre-Roman social system, but their limited number means they do not provide a comprehensive picture of the study region. Another source of information available to us is martial weaponry which has been employed in recent years as a means of establishing probable social systems in late *castro* society, but as with most forms of material evidence from the period it does not always provide a clear picture of past activities.

Our understanding of the study area is further complicated by the impact of Republican Rome in the second century BC which gradually broadened its authority to encompass the northwest of the peninsular, and in the process encroached upon the tribal domains of the peoples of late *castro* society. It has been argued that Rome acted to subvert many of the local communities it came into contact with and this may account for the emergence of a series of *oppida* in the area to the north of the River Douro (Silva 1995). Further questions arise concerning how early Roman authorities consolidated their control over northwest Iberia. It has been suggested that a network of indigenous settlements (*civitates*) emerged under Roman authorities to act as administrative, mining and tribal centres (*civitas* capitals), around which a series of secondary settlements would subsequently materialise. While many of these *civitas* capitals can be clearly identified from the material record, there is less certainty as to the criteria for their location, or the degree to which these tribal centres made use of strategic pre-Roman territorial boundaries of

neutral space (Lemos *pers. comm.* 03/03/2008), utilised indigenous communication routes, or exploited the immediate physical environment.

Overlaying this framework of *civitates* were three artificially created *conventus* or administrative capitals; *Asturica Augusta*, *Lucus Augusti* and *Bracara Augusta*, which administered their respective territories within northwest Iberia (Hodgson 2005, 16). These *conventus* capitals and *civitates* were linked through a comprehensive network of roads which have been extensively documented at the regional scale, but have only been analysed through a Roman-centred historical narrative. Moreover, the archaeological record is largely silent on such aspects as the relationship between the arterial road network and fluvial routeways within the Late Iron Age and early Roman period as archaeologists researching communication and movement have traditionally focused on establishing the trajectories of Roman roads, particularly those with milestones. For this reason, we must explore the roles which the fluvial waterways and the Roman arterial road network played in integrating native settlements into the emerging Roman settlement pattern, and how indigenous *castro* settlements were incorporated into the new social, political and economic order.

1.4. The Study Area

In defining the domain of research for this thesis, the artificial term, ‘Roman Galicia’ is employed, which incorporates two important socio-political entities; encompassing those territorial parameters of the area defined by *castro* society, and the subsequent conquest and assimilation of this corner of northern Iberia by Imperial Rome following the Cantabrian Wars (29-19 BC). In this way, the region provides an archaeological lens through which to investigate the impact of Roman authority on Late Iron Age society, and examine how areas away from the Mediterranean littoral were connected and thereby incorporated into the sphere of Roman control. The degree of connectivity between regions, and the subsequent exchange of information and material culture, therefore forms an important area of investigation in this thesis and such ideas are examined in greater depth later in this work.

Figure 1. The administrative boundaries (in blue) of northwest Iberia between the first and late third century AD (Acuña Castroviejo *et al.* 1976, Ilustraciones).

In establishing the territorial boundaries which constituted ‘Roman Galicia’ three Roman administrative units were considered. The first proposed study area is the short-lived Roman province of *Transduriana* which provided military jurisdiction over northwest Iberia from 7 until 2 BC, but whose precise boundaries are uncertain (López Barja 2000, 31). A second possible spatial area relates to the period from 2 BC until AD 298 when control of the territory reverted to the province of *Tarraconensis* with its administrative capital at *Tarraco* (modern-day Tarragona in the north-eastern Spanish province of Catalonia). During this period the region was divided into three *conventus* or administrative centres each managing its own territory (López Barja 2000, 38), as illustrated in Figure 1. A third region is the Roman province of *Gallaecia* created from the three *conventus* in AD 298 and which preserved the original southern territorial boundaries, while expanding the administrative domain eastwards and incorporating much of the modern-day Spanish Principality of Asturias (see Figure 2). For the purposes of this thesis, I shall utilise the boundaries in existence between 2 BC and AD 298 to constitute ‘Roman Galicia’, given that the chronology of my study period and the administrative boundary neatly correlate.

Figure 2. The territorial boundaries (in blue) of the province of *Gallaecia* (Acuña Castroviejo *et al.* 1976, Ilustraciones).

In terms of modern geography, the boundaries of my research encompass the territories of northern Portugal, as well as the Spanish provinces of Galicia, northwest Castilla y León and western Asturias (see Figure 3). The study area's southern boundary, the River Douro (Spanish Duero), flows northwest to Zamora, where the trajectory follows the River Esla towards the town of Benavente and the city of León. Northeast of Cistierna, the River Sella completes the eastern boundary of the study area before draining into the Bay of Biscay, west of the town of Llanes.

Within the geographical boundaries of my research, five study areas were chosen as the basis for examining the chronological process of change from the Late Iron Age until the early Roman period, as shown by Figure 4 below. Study Area North covers the area around Bragança (see Figure 3), while Study Areas South and East lie further south on the edge of the research region. Study Area Chaves is located around the fertile Tâmega valley and the modern-day metropolitan centre of Chaves (Roman *Aquae Flaviae*), while Study Area Viana is located far to the west along the Atlantic coast between the Rivers Lima to the south, shown approximately by the town of Barcelos in Figure 3, and the Minho (Spanish Miño) illustrated by Caminha, which is located near the mouth of the river and lies on the present-day border between Portugal and Spain. In terms of the geography of the region, Chapter

Three provides greater detail of the geomorphology of northwest Iberia in general and in particular the five study areas.

Figure 3. The geographical boundaries (in blue) of this project (Microsoft MapPoint).

1.5. Current State of Knowledge: Models and Approaches to the Cultural Sequence of Northwest Iberia

This section provides a more comprehensive background to the emergence and development of *castro* society within northwest Iberia and examines the available knowledge concerning contact and confrontation between indigenous peoples and other cultures, above all Rome. In addition, this section aims to identify where our knowledge of the Late Iron Age and early Roman period is incomplete and thereafter will aim to establish and develop a series of key aims through which the structure of pre-Roman culture, and the impact of Roman authority in the region can be investigated and more comprehensively understood.

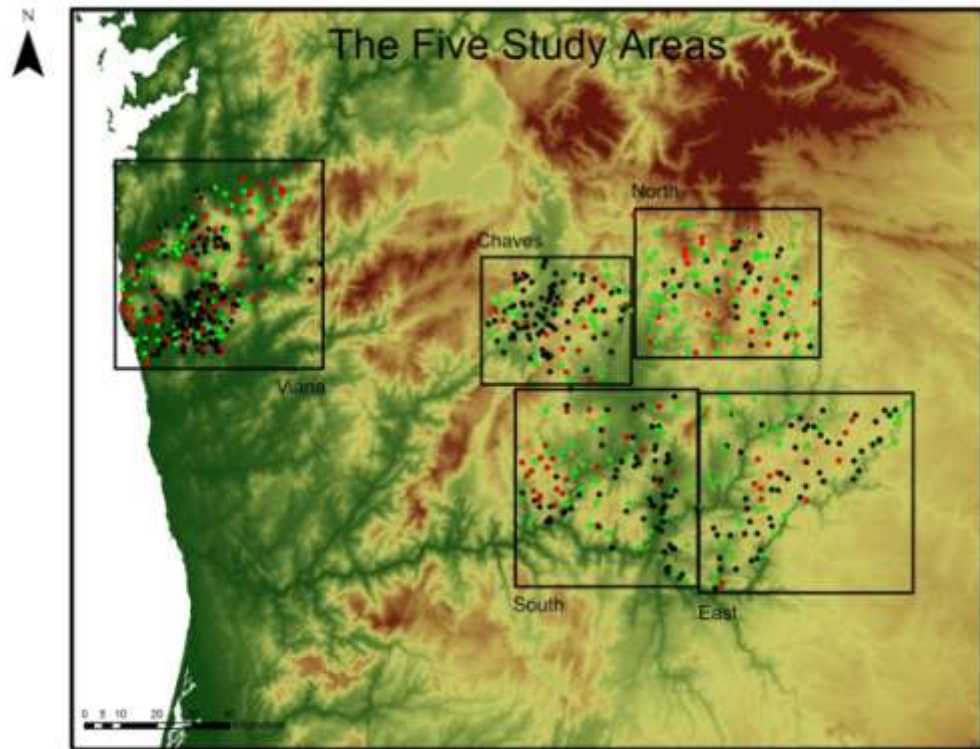


Figure 4. The five study areas; North, East, South, Chaves and Viana. Note: green dots represent Late Iron Age *castro* settlements; red dots Roman period *castros*; and black dots Roman settlements.

The *castro* society of northwest Iberia has its origins in the first millennium BC, but its cultures, its identities and practices were multifaceted and in the course of time constantly evolving. For the sake of simplicity, however, three chronological phases can be established for the indigenous civilisation of the region:

- 1) The Late Bronze Age / Early Iron Age (Ninth Century – Sixth Century BC).
- 2) The Iron Age (Sixth Century BC – Second Century BC).
- 3) The Late Iron Age / Roman period (Second Century BC – First Century BC).

These time periods encompass the chronologically accepted development of the hillfort in northwest Iberia until the region was conquered and assimilated under the control of Rome (González Ruibal 2006-2007; Martins 1990; Parcero Oubiña 2003; Silva 1995). During the period of Roman interaction with the communities in Iron Age northwest Iberia a further chronological sequence can be proposed which

stretches from the Republican period through to the second century AD. Included within this timeframe are:

- (a) The period of contact between Republican Rome and northwest Iberia.
- (b) The emergence of *civitates*.
- (c) The development of *conventus* capitals.
- (d) The demise of the *castro*.
- (e) And lastly, the materialisation of *villae*.

In order to investigate the chronological sequences outlined above I believe this thesis would benefit from the use of the idea of connectivity. The term itself has been commonly associated with the Mediterranean basin, and in particular with the work of Horden and Purcell (2000), as a means to quantify and qualify how regions may have been linked to one another and so developed. However, I feel that northwest Iberia created a powerful bond with other cultures which lay outside the Mediterranean world (see Queiroga's (2003, 27) discussion on Mediterraneanisation) and for this reason I propose two forms of connectivity; one which explains the pre-Roman period, and one which helps clarify the dynamics of the early Roman era. The exploration of pre-Roman forms of connectivity can be seen in the work of two academics. The first is Cunliffe (2009), who has employed the term Atlantic connectivity to explain how Late Bronze Age and Early Iron Age communities were linked by seagoing communication networks. Such ideas have been expanded on by Morris (2010, 1) who utilises Cunliffe's approach and terminology to develop a theoretical understanding of cross-channel (between modern-day Britain and France) maritime connectivity from 175/150 BC until AD 409. The second use of the term reverts to the more traditional interpretation of connectivity as a conceptual framework as envisaged by Horden and Purcell (2000), which the aforementioned authors use to investigate how Mediterranean cultures, in this case principally Rome, impacted on peripheral cultures and how they were drawn into wider commercial, political and social systems (the theoretical standpoint for this is discussed in greater detail in section 2.4.4.2).

1.5.1. Late Bronze Age / Early Iron Age (Ninth Century – Sixth Century BC)

In examining the chronological sequence of events which led to the development of Late Iron Age society in northwest Iberia it is important that we highlight the emergence of a naval and trading superpower, the Phoenicians. This enterprising culture founded a chain of trading posts in the first millennium BC along the Mediterranean coastline of Andalucía, and at the mouths of the principal rivers of the region, which gave access to and controlled important commercial routes into the interior (Aubert 1995, 49). During this period Phoenicia's chief trading partner in the region was the Tartessan Kingdom whose heartland covered the lower Guadalquivir and Guadiana rivers, a region rich in copper, lead and silver from the Río Tinto (Keay 1988, 12-13). Chief among these Phoenician trading settlements was Gadir (modern Cádiz), which, through its strategic location at the boundary between the Mediterranean and the Atlantic, functioned as a commercial hub providing access to northwest Iberia and beyond, allowing the procurement of tin and gold for both domestic consumption and export through *Tartessos* (Cunliffe 1995, 16).

The ensuing connectivity of northwest Iberia with a wider pan-European commercial network caused profound economic and social changes within the region. Wealth and commerce provided a conduit for the exchange of new ideas and practices, such as the *chevaux-de-frise* (defensive structure consisting of a movable obstacle principally used to obstruct cavalry, and discussed in greater detail in section 7.2.1) and the roundhouse (Cunliffe 1999, 95, 98), which would form the primary familial dwelling within the *castro* settlement for many centuries; a reconstruction of this type of dwelling can be seen at the Late Iron Age structure of São Lourenço, in North Portugal (Figure 5). But this was not a culturally impoverished society importing new techniques from more advanced civilisations, rather the archaeological record has identified the development of the roundhouse in Late Bronze Age *castros* of Coto da Pena and São Julião in northern Portugal, suggesting such building forms and architectural structures were indigenous to northern Portugal (Silva 1995, 270).

Connectivity with other regions along the Atlantic coast had an important impact on northwest Iberia, as more centralised communities perhaps under the control of a warrior elite (although the archaeological evidence is not conclusive) emerged during this period to control long-distance exchange (Queiroga 2003,73). What is more certain is that open settlements increasingly developed in low-lying areas to exploit the well-drained and light soils which were suitable for the

cultivation of cereals, principally wheat and barley, and raise livestock, thereby allowing the people of the region to generate surplus produce which could be presumably traded with other communities (Parcero Oubiña 2003, 274).



Figure 5. A reconstruction of a roundhouse at the Late Iron Age *castro* of São Lourenço in northern Portugal (Photo author's own).

1.5.2. Early Iron Age - Late Iron Age (Sixth Century BC – Second Century BC)

The sixth century BC saw the fall of Tyre and the collapse of the extensive Phoenician trading network which contributed to many Phoenician trading posts on the Atlantic coast being abandoned, which in turn severely affected northwest Iberia's ability to participate in both the Mediterranean and Atlantic commercial networks (Aubert 1995, 54-55). As a result of these economic upheavals, it has been suggested that new fortified *castros* appeared during the Early Iron Age in prominent locations, which allowed long-range visual control of the hinterland, often at the expense of access to good agricultural land (Parcero Oubiña 2003, 281). Natural elements, for example slopes and outcrops, which typified Early Iron Age *castros*, were supposedly replaced by artificial structures such as ramparts and low walls. These structures limited each community's movement and perception both externally

and internally, as can be seen at the *castro* settlement of Coto do *Castro* in Galicia (Figure 6) (Parcero Oubiña and Cobas Fernández 2004, 22).

On the basis of this evidence it has been argued that there was little cooperation between individual *castro* settlements. To my mind such ideas have filtered down to erroneously frame our perception of late *castro* society as inherently fragmented and divisive (for example, Sastre Prats *et al.*'s theories which are examined in detail in this chapter as well as Chapter Two). A further point is that our understanding of the Early, Middle and to an extent the Late Iron Age comes from many of these localised studies outlined above, which often emphasise the importance of limited visual contact between settlements. This has been seized upon by many archaeologists investigating *castro* society as demonstrating that outwardly hostile self-sufficient communities developed in this period. At the same time evidence for the use of intramural space, in particular the form, layout and function of domestic and possible commercial storage units is limited. The prevailing wisdom is that many of these Early Iron Age structures were built from perishable materials, such as wood, and their redevelopment of their internal space in the late pre-Roman period often makes it impossible to establish earlier spatial layouts (Carballo Arceo 1998, 12; González Ruibal 2005, 270).

Figure 6. The Early Iron Age settlement of Coto do *Castro* in Galicia, northwest Spain. The orange ringed-hill marks the boundary of settlement (Parcero Oubiña and Cobas Fernández 2004, 14).

1.5.3. The Late Iron Age / Roman Period (Second Century BC – First Century BC)

By the Late Iron Age, it appears that fortified settlements were still being founded in prominent and well-defended locations, but the priority was apparently access to areas capable of supporting intensive farming with lower indices of summer drought and less risk of winter freezing (Parcero Oubiña and Cobas Fernández 2004, 22). Concurrent with this development, technological advances were implemented on the land surrounding the *castros*, which permitted the cultivation of rye in winter and millet in the summer, greatly increasing agricultural production (Criado 1989, 113).



Figure 7. The *castro* of Santa Tegra in northern Portugal, looking north (Photo author's own).

Within the structure of Late Iron Age *castros*, the use of internal space was apparently transformed with individual roundhouses increasingly grouped together to form *barrios* or quarters, where it is assumed that the familial group realised a wide-range of socio-economic roles. The defining element of these closed units were supposed residential structures constructed alongside storehouses with an adjoining

central patio, with a similar internal layout proposed for the Late Iron Age *castro* of Santa Tegra (Vilas *et al.* 2006, 38).

Figure 8. The *castro* of Santa Tegra in northern Portugal viewed from above with north marked by the top of the diagram (Trümpler 2006, 86).

The *castro* of Santa Tegra itself is located on the Atlantic coast near the border between modern-day Portugal and Spain (see Figure 3). Its position on a promontory jutting out onto the Atlantic coast provided strategic visual access to the estuary of the *Ría* de Vigo and its passage inland. Integral to the architectonic dynamics of Santa Tegra was its outer stone wall, which has been interpreted as

serving a dual function by providing the settlement with a 1.6m-wide defence while defining a spatial boundary limiting internal demographic growth. Within the settlement, the implication is that the small walls constructed to delimit space acted to define and create *barrios* of ‘familial’ enclosures (Vilas *et al.* 2006, 38). In Figure 7, the northern part of the settlement clearly contains one of these supposed walls used to demark ‘familial’ space. Its advocates propose that such a boundary ran from the top right near to the outcrop of rock, which formed the eastern lintel gate, where the wall curves round to the centre of the image (Vilas *et al.* 2006, 38). From above (Figure 8), the purported boundary wall is indicated by the arrow in the top right of the image.

1.5.4. Surplus Production and the Reorganisation of Internal Space in LPRIA (Late Pre-Roman Iron Age) Northwest Iberia

It has been proposed that the structural reorganisation of aggregated space into ‘familial’ enclosures was not spatially restricted to those hillforts on the Atlantic coast, nor chronologically limited to the early Roman period, as is the case at the *castro* of Santa Tegra.

Figure 9. The proposed division of space into ‘familial’ units at the *castro* of San Juan de Paluezas in León, Spain (Modified from Fernández Posse 1998 by Parcero Oubiña and Cobas Fernández 2004, 32).

The pre-Roman *castro* of San Juan de Paluezas near León has been employed by those who advocate the existence of ‘familial’ units to illustrate how domestic space within the family compound was utilised. Figure 9 above, shows four supposed delimited ‘*barrios*’ from the *castro* of San Juan de Paluezas with a violet coloured quarter in the top left of the image, separated by a ‘street’ dividing it from the peach, lime green and turquoise coloured ‘familial’ enclosures. It has been suggested that access from the south, to the peach coloured ‘*barrio*’, led into a space presumed to be a kitchen area. Adjoining the kitchen area were two supposed areas for habitation, the northernmost of which could be accessed from the street. Above the two rooms was a workshop area, and next to that a circular storeroom most likely used for the storage of grain (Sastre Prats 2001, 42), with the function of those individual rooms identified from the various material remains found within them. For example, the kitchen area contained remains of food, a hearth, ceramic ware and metal items; in contrast metal workshops, discussed below, contained limited amounts of ceramic ware, but large quantities of metal (Fernández Posse 1998, 62).

The suggestion is that there was little communal articulation of space within the *castro* of San Juan de Paluezas with access to ‘familial’ enclosures, indicated by the arrows in Figure 9, controlled by private corridors, thereby negating the need for or possibility of physical or visual contact with other communal dwellings. As with Santa Tegra, dwellings never shared walls, which its supporters have interpreted as demonstrating a degree of social distance and tension between families within the community, as shown by the access to ‘familial’ compounds, which did not visually overlap, and by this indication may have operated as distinct economic units storing their own surplus production within the ‘familial’ dwelling (Sastre Prats 2001, 43; 2008, 1029). Over the course of time these food stores did not increase in size (an idea discredited by Parceró Oubiña (2000; 2003), see below), which has been interpreted as the consolidation of a level of surplus with no further tendency towards the intensification of production. Moreover, the identification of familial units specialising in metallurgy, but lacking a communal food store, both at San Juan de Paluezas and the contemporary Late pre-Roman Iron Age *castro* of La Corona de Corporales, has been interpreted as proof that material artefacts were shared within the community (Sastre Prats 2001, 43; 2008, 1027). According to Sastre Prats *et al.*

this would imply that while a degree of tension existed between competing ‘familial’ units, as shown by the clear division of space between dwellings, communal access to metallurgical products provided an element of community cohesion amongst members.

There are two fundamental issues here with Sastre Prats’ hypothesis. The first concerns the grounding for so-called ‘familial’ units within Late Iron Age *castro* settlements. In the case of the *castro* of Borneiro located to the west of Carballo near the coast (see Figure 3) the prevailing idea that two ‘familial’ groupings inhabited a series of circular dwellings, which looked onto a communal patio, has now been reinterpreted as a series of individual huts each with access to a neutral space. Each dwelling was reached through a private passageway which fed away from the central area thereby indicating that probable nuclear family units and not ‘familial’ groupings inhabited this space (Lestón Gómez 1995, 1997, 1998). A second criticism is of the notion that Sastre Prats’ advances that supposed ‘familial’ units acted to curtail systems of inequality within the community based on the presence of storage areas. Parceró Oubiña (2000; 2003, 277) questions the quality of archaeological excavations arguing that surveys identifying container pits have traditionally been small-scale, disconnected and focus on developing a vertical (stratigraphic) over a horizontal (area) record.

To my mind Parceró Oubiña (2000; 2003) also offers a diametrically-opposed reading of the archaeological record of the study area during the Late Iron Age to that proposed by Sastre Prats *et al.* This divergent conceptualisation of late *castro* society is especially evident in Parceró Oubiña’s identification of an emerging ‘heroic society’ which was primarily focused on warfare and the conflict and opposition it generated which gave rise to unequal distributions of wealth and so political power. The importance of such a theory is that at the supra-local level this social structure may have manifested itself as a confederation of hillforts where the political authority of the strongest chieftain held sway (Parceró Oubiña 2002, 185). In allowing for the consolidation of an elite political structure it is possible that this could result in further unequal access to wealth and power and the development of a nascent hierarchy of settlements. Conceptually, the ideas of Sastre Prats and Parceró Oubiña provide an important means to investigate late *castro* culture and their theoretical frameworks are examined in greater depth in Chapter Two.

1.5.5. Evidence for Settlement Hierarchies in LPRIA Northwest Iberia

While analysis of the internal dynamics of *castro* space can help to establish the social structure of its late pre-Roman inhabitants, such techniques can only reveal so much about the wider political environment. In establishing whether supra-local relations existed within the landscape of northwest Iberia, I believe it is important to examine both the archaeological record and classical sources as a means to reconstruct how past societies may have operated and communities interacted.

As I outlined earlier in the historical overview (see section 1.3) the material evidence from Late Iron Age northwest Iberia often provides an ambivalent picture of the region, and this is very much compounded when we seek to employ classical sources from the period. Strabo, writing in the late first century BC and early first century AD, provides our best source for the political affinities and social identity of the peoples of northwest Iberia during the Late Iron Age. However, the emphasis that Strabo places on the civilised world, with the Roman empire at its centre, and those barbarians who had yet to be conquered and incorporated within, has led to questions about the veracity and accuracy of such work (see Wells 1999 for argument). Recent archaeological discoveries from pre-Roman northwest Iberia, for example dugout canoes (see section 2.4.1) and discussed by Strabo (*Geographica* III.3.7) would appear to give a degree of credence to his work, but a stringent approach is nevertheless needed to ensure the veracity of the information contained within ideologically-driven classical sources.

Where Strabo provides possible evidence of activities which may have led to inequalities within the region is through the identification of financial transactions being undertaken using cut-off pieces of beaten silver (*Geographica* III.3.7). The presence of these items has been authenticated within the study region with an elevated number of flattened, folded or cut pieces of precious metal found alongside Republican Roman and Iberian coinage in Asturias, modern-day northern Spain (Blázquez Cerrato 2005, 238). Whether such transactions translated into wider activities which transcended single polities and took on a more supra-local significance, as Parcero Oubiña (2000; 2003) would have us believe, is altogether more difficult to substantiate. A key criticism for the use of this form of exchange stems from the fact there was considerable flexibility of access to such commodities through local mining or panning meaning that the accumulation of precious metals could not be monitored or controlled, thereby undermining their primary value as a

form of currency (Sánchez Palencia and Fernández Posse 1998). These conclusions have been reinforced by archaeological evidence which shows that the procurement of gold through panning as well as silver, iron and copper through mining was practised at a local and not a provincial level (Fernández Posse *et al.* 1993, 214-215).

There are nevertheless a series of issues with the ideas proposed above. Firstly, archaeometallurgical analysis comes from only two settlements, the *castros* of San Juan de Paluezas and La Corona de Corporales, located in close vicinity to one another. We should also highlight that the research of Sánchez Palencia and Fernández Posse is closely allied to Sastre Prats' theoretical framework of late *castro* society (there is a considerable body of joint work produced by these three academics). For this reason, limited archaeological evidence investigated along a possible similar theoretical basis has been used to underpin the argument that self-sufficient settlements (in this case the *castros* of San Juan de Paluezas and La Corona de Corporales) forged their own locally-derived metal, and thereby represented independent entities, rather than a community embedded into wider systems of control (Sastre Prats 2008, 1035).

Figure 10. The Edict of Bierzo (Archivo Epigráfico Virtual de Hispana)

Sastre Prats *et al.*'s overarching theory that pre-Roman *castros* were isolated and self-contained units, has also found favour with historians who argue that the Cantabrian Wars (29-19 BC) acted as the catalyst for tribal consolidation and social transformations (González Ruibal 2006, 150; Yanguas 1981, 17). In this respect the agencies of change are Imperial authorities whose establishment of hegemonic structures demanding tribute indirectly ensured the emergence of systems of inequality, as political and economic power began to be concentrated in the hands of the few. According to this premise the coordination and consolidation of power by a native elite appear to have created a medium through which the supremacy and dominance of local chiefdoms was channelled, generating a nascent ranked settlement pattern (Hodgson 2005, 14).

There are, however, a series of problems with this view, especially the chronological sequence of events, as demonstrated by hospitality pacts from the region. These artefacts show that Roman authorities could have played a central role and overseen the consolidation as well as the restructuring of regional alliances, but

they may also provide an insight into the pre-Roman political framework of the region. Of particular significance has been the recent discovery of the bronze Edict of Bierzo (Figure 10, above), which was uncovered 100km west of modern-day León and dated to 15 BC due to the mention of two Roman consuls at the foot of the text (Sánchez Palencia and Mangas 2000, 9, 19).

The Edict of Bierzo provides a legislative transfer of the *castellani Aliobrigiacini* from the *gens Gigurri* to the *gens Susarri* by Roman Imperial authorities, in recognition of an unstated native initiative. It has been suggested that the *castellani* corresponds to a single settlement, most likely a *castro*, on account of the presence of the inverted C, \supset , which is commonly found in epigraphy from northwest Iberia in the late first century BC and first century AD. Our understanding of these hospitality pacts is strengthened further by another example, the Edict of *Zoelas* from modern-day Bragança (and located within Study Area North). This artefact dating to AD 27 makes a mention of a *gentiliani*, representing a single entity, suggesting that the terms *castellani* and *gentilitas* are synonymous with and equate to single settlement units or *castros* (Mangas 2000, 50, 52). Of considerable interest is written evidence that these *gentilitas* were in turn incorporated into *gens* and *populi* at the *civitas* (discussed in greater depth in section 1.5.7) or supra-territorial level (Mangas 2000, 57).

A series of points can be made about these hospitality pacts. The first is that if the artefacts were deposited in the area to which they refer then a territorial-based social system appears to have existed towards the west of northwest Iberia, and kinship-orientated social systems to the east. Moreover, could it be the case that a hierarchical settlement pattern (for example, the *gentilitas / gens / populi* and *civitas* structure) existed or was developing among the kinship-based peoples of the east? (a premise which contradicts those ideas advanced by Sastre Prats' *et al.* and historians who see the conquest of the region by Rome as the vehicle of change). This is a controversial assumption as there are probably no more than ten hospitality pacts in existence, and we should not rule out other unknown social structures. Lastly, is it possible that the hospitality pacts, although written in Latin and representing a 'Roman' format, illustrate earlier pre-Roman political structures? It is unlikely that Roman authorities created two social structures in the region unless they had already existed. And if the hospitality pacts represent pre-Roman political structures was it

the case that a hierarchical settlement pattern had already begun to materialise in the east of the region before its conquest by Rome?

1.5.6. Republican Rome and the *Citânias*

Support for an earlier process of change (one that predates the Cantabrian Wars (29-19 BC) as outlined above) may come from larger structures known as *citânias* which emerged between the Rivers Minho and Douro (see Figure 3) and were characterised by sizeable populations, and encompassed significant territorial domains (as I shall discuss in greater detail below).

Figure 11. The gradual conquest of Iberia by the Roman Republic (Keay 1988, 26).

Many scholars have argued that the influence of Republican Rome from the early third century BC may have acted to create these *oppida*-style settlements (Silva 1995). Certainly, the Republic, by means of diplomacy and conquest, slowly absorbed surrounding territory into its sphere of control (Goodman 1997, 197), through the expanding provinces of *Hispania Citerior* (Closer Spain) and *Hispania Ulterior* (Farther Spain) (see Figures 11 and 12). Our knowledge of the Republican period is limited but it appears that by the mid second century BC tribal coalitions north of the River Douro were increasingly lending their support to Lusitanian forces in the south, which triggered a military campaign by the Roman governor Decimus Brutus in 138 BC. Crossing the Lima and Minho rivers the Roman army returned south and ravaged the land in the immediate vicinity of modern-day Braga (see Figure 3, page 21), which may have brought the local tribes, such as the *Bracari*, under the hegemony of the Roman state, possibly as client kingdoms (Martins 1991, 106).

Figure 12. Early Roman *Hispania*. The coloured dating corresponding to the gradual ‘assimilation’ of Iberia by Roman authorities (Hanson 2008).

The campaign of Decimus Brutus may also have resulted in longer-term structural changes to the landscape as smaller *castro* settlements were consolidated into larger, centrally-controlled *citânias* located in well-defined territories (Silva 1995, 275). The role that Roman agents such as Decimus Brutus played in reshaping the cultural landscape north of the River Douro is hard to establish, but it appears that the development of these *oppida*-style settlements may have coincided with the increasing consolidation of power by a few elite families (material evidence for their existence is discussed below) coupled with new economic practices such as large-scale mining. We can speculate that these activities would have necessitated large supplies of labour and specialised communities to mine the ore (Queiroga 2003, 61), and in the process of generating surplus produce, new systems of inequality would have emerged as those individuals with skills, connections and power consolidated their authority.

It is also likely that many of the *oppida*-style structures of Late Iron Age northern Portugal would have increasingly exploited the fertile surrounding terrain to feed and accommodate a large population, which may have numbered up to 3,000 inhabitants in the *citânia* of Sanfins (assuming that each family unit comprised of 10-20 people, multiplied by the number of settlement pods (Silva 1995, 282)). We can also assume that these *citânia* would have exploited a larger territorial expanse than the smaller hillforts found in the study region (Otegui Pascual 1990, 21-22). To a degree this can be shown by the large proto-urban settlements of Briteiros, Eiras, Bagunte, Alvarelhos, Vandoma and Mozinho, which were located near the Atlantic coast and were all positioned within 25km of their nearest neighbour, a distance which corresponded to a day's journey on foot and was thus apparently a key factor in determining the territorial relationship between these large hillforts (Silva 1995, 275). Spatial analysis would suggest that these large *oppida* developed from earlier structures, given the predilection for good visibility and prominence in the landscape which characterised Early Iron Age settlements. However, there is limited archaeological evidence for the interaction between these large *citânias* and rural farmsteads and smallholdings located within its domain as well as smaller affiliated settlements perhaps controlling its territorial boundaries.

While the *citânias* located to the north of the River Douro do not form the basis of research in this thesis, as they lie outside the five study areas, the identification of spatial boundaries (with each *oppida*-style settlements located 25km from its nearest neighbour), provides a valuable theoretical viewpoint to evaluate how fortified hillforts may have begun to develop in the study area. This is especially important in Study Area Chaves where the region demonstrates elements of a nascent settlement structure with sites of varying size (and which is discussed in greater detail in Chapter Four). Additionally, the spatial orientation of these large *citânias* vis-à-vis other large hillforts also provides a valuable theoretical insight into the possible development of other indigenous settlements in other regions of northwest Iberia, in particular the preference for rich agricultural soils at the expense of an isolated and defensible position towards the Late Iron Age and early Roman period (Parceró Oubiña and Cobas Fernández 2004, 43), which is a hypothesis which is examined in Chapter Five of this thesis.

The role Rome played in creating these new central places in northern Portugal is debateable, but similar processes have been identified in other regions of

Europe, notably Britain. Within the context of pre-Roman Britain, smaller hillforts were abandoned (Hingley 2005a, 267) in favour of large defended *oppida* such as *Calleva* (Silchester), *Verulamium* (St Albans) and *Camulodunum* (Colchester), which functioned as administrative hubs and commercial centres for the consumption of wealth imported from the continent (Creighton 2006, 19). Spatially these *oppida* were confined to southern Britain, but were integrated into larger exchange networks bringing in coal from the Forest of Dean, salt from Droitwich in Worcestershire and precious metals from Wales and Ireland (Copeland 2009, 138). As competition arose between territorial factions so *oppida* developed more elaborate and strategic defences and acted as a focus for tribal identity (Millett 1990, 25-26), which may mirror comparable developments taking place in Late Iron Age northern Portugal (Silva 1995, 275).

Figure 13. Supra-familial units at the *citânia* of Sanfins (Silva 1995, 280).

While our understanding of the impact of Rome on these *citânias* is at best circumstantial, it does appear that in the Late Iron Age new political groupings emerged which seem to have acted to redefine the indigenous familial structure, replacing it with larger supra-familial units, and may have been representative of changes in other areas, in particular the study region. This is evident in the reorganisation of intra-*citânia* space, a prime example of which can be seen at the 14ha *citânia* of Sanfins where three levels of spatial organisation have been

suggested. Firstly, supra-familial neighbourhoods (A,B,C,D...) were delimited through walled space and main thoroughfares running in a north-south direction (Figure 13).

Figure 14. Division of neighbourhoods into probable familial units at the *citânia* of Sanfins (Silva 1995, 280).

Figure 15. Partitioning of familial units into family nuclei at the *citânia* of Sanfins (Silva 1995, 281).

Secondly, the subdivision of neighbourhoods into possible family units (Figure 14) is proposed. Thirdly, the partition of extended family units into individual family dwellings (a,b,c,d) and public space (x1, x2...) can be detected (see Figure 15). While the family compounds shown in Figure 15 appear to be of a similar size and by that logic share a similar function, access is more fluid between some family dwellings at the *citânia* of Sanfins than others, where walls and huts do not obstruct movement, suggesting that different sized compounds made up from individual houses may have existed at the same time.

In one respect the development of orthogonal street divisions enclosing autonomous modular units has been interpreted as spatial reorganisation in response to the demands of higher population (Silva 1995, 275). Alternative explanations view the changes as the breakdown of longstanding Late Iron Age social structures and a shift to a political order which transcended kinship (Parcero Oubiña and Cobas Fernández 2004, 44). If this is so it is possible that the restructuring of the internal floor plan of Sanfins may represent the beginning of inequality as enterprising social units began to accumulate surplus production. One of the largest domestic compounds within the *citânia* is made up of seven buildings with the majority of these structures square in shape (the exact number is not given in the report) being interpreted as granaries and warehouses. The presence of a series of round huts for habitation and the uncovering of a gold torque at the site support the idea that the compound was not merely a storage area, but instead appears to have been controlled by an elite grouping (González Ruibal 2006, 155, 162).

Further evidence for elite families in other *citânias* can be seen at Briteiros where 15 stones inscribed with the name *Camulus* have been found, particularly in an area identified as ritual space (Cardozo 1976). Other inscribed markings of the *Camuli*, in the form of pot stamps (González Ruibal 2006, 164), suggest that this family had risen to prominence through their manufacturing of ceramic ware and control of associated trade networks. Additional evidence for elite families in the region occupied by these *citânias* comes from inscriptions such as the *Principe Coelarnum*, the presumed head of the *Coelerni*, who occupied the territory around modern-day Braga (*CIL* 2.2585) (Hodgson 2005, 13). It is possible that warrior statues (discussed in greater detail in Chapters Two and Seven) found at these *citânias* may represent such individuals. In other regions of northwest Iberia, inscriptions from the early Roman period also testify to a possible prince of the

Copori (*principis Co[pororum]*, IRPLugo 34) located in the region around the *conventus* of *Lucus Augusti* (see section 1.5.8), as well as a *principis Albionum* in modern-day Asturias (ERA 14). However, questions remain as to whether such titled families were created by early Roman authorities or date from an earlier period.

1.5.7. The Conquest of Northwest Iberia and the Emergence of the *Civitas*

The available archaeological evidence outlined above and in section 1.5.5. would imply that an emerging aristocracy, for example the *Camuli* and the *Coelerni*, played a significant role in consolidating Roman authority through the effective establishment of new settlement structures and power bases. It has been suggested by archaeologists and historians alike that these Late Iron Age or early Roman *civitates* illustrated the nature of local power structures, and in turn the dominance of the most important tribal leaders was reflected in the settlement pattern (Wacher 1997, 20), as evident at *Bracara Augusta* (modern-day Braga), which embraced the *populi* of the region, but reflected the supremacy of the *Bracari* tribe (Martins *et al.* 1996, 738; Queiroga 2003, 78).

How these political units evolved, in particular in the region occupied by the *Bracari*, and how they were constituted is, in my opinion, poorly understood. This is further complicated by one our principal sources of the period, Pliny (*N.H.* IV) who does not refer to Late Iron Age or early Roman *civitates*, but instead to the *populi* (or states) that made up the jurisdiction of the *Bracari*. Alarcão (1988, 31) makes a valid statement that the native aristocracy who inhabited the region (Pliny makes reference to the *Coelerni* who we know from inscriptional evidence were headed by a prince) may have enjoyed a degree political freedom. In addition, Tranoy (1981, 204) argues that the epigraphic record supports the view that territorial-based social structures characterised by the inverted C (see section 1.5.5) demonstrates that native communities continued to administer their pre-Roman domain. Tranoy (1981, 150-151) makes an additional point that these native groupings were overseen by *praefecti* (Roman administrators). Evidence for this comes from a pact between *C. Antonius Aquilis*, Prefect of the First Cohort of the Celiberians, and the aforementioned *Coelerni* (AE, 295) as well as the Edict of Bierzo (see section 1.5.5) which was administered by *Legatus* (General) *Lucio Sestio Quirinal* on behalf of the Emperor Augustus. However, as I have argued in section 1.5.5. the available

epigraphic evidence is extremely limited and we must be wary about making broad assumptions from individual pieces of information.

If *civitas* networks were loosely administered by a native elite (Orejas *et al.* 2000, 72) before passing to the direct authority of Roman administrators (a process common in the Roman world, see Watcher (1997, 242) on the Icenii) then our knowledge of how and when this happened is virtually nonexistent (Alarcão 1988, 55), and therefore constitutes an important area of study in this thesis. However, we are fortunate to have the names of some of these *civitates* and for this reason we can postulate as to their possible function. The *civitas Aurienses*, the name of which testifies to the location's role as a centre of gold mining, acted as a satellite to the *civitas* capital of *Aquae Flaviae*, and its strategic position on the River Minho would have provided a means of transporting gold before the arterial road network was constructed and fully integrated (López Quiroga 2004, 87-88). A second example is the *civitas* capital of *Bergidum Flavium*, situated on a pre-Roman hillfort (Key 1988, 45), which controlled and regulated regional mining production and whose name combines the dominant tribe of the region (*Bergidum*) with a late Roman one (*Flavium*).

While we can only speculate that this *civitas* of *Bergidum Flavium* continued to retain a more native element of control, I believe such ideas have a wider applicability in terms of when and why Roman authorities assumed control of *civitates*, and how uniform those changes may have been both spatially and temporally. Such ideas have an important bearing on how the *civitas* capitals of the study region functioned, namely, the *civitas Baniensium* of Study Area South and the *civitas Zoelarum* of Study Area North which are examined later in this thesis.

1.5.8. The Roman State and the *Conventus* Capitals

Overlaying the patchwork of minor settlements in northwest Iberia, Imperial authorities superimposed three regional *conventus* (see Figure 16) with their respective capitals at *Asturica Augusta*, *Lucus Augusti* and *Bracara Augusta* (Hodgson 2005, 16).

Figure 16. The administrative division of northwest *Hispania* (Álvarez Asorey 2001, 169).

It has been argued that this triangular configuration of power provided the administrative, religious and political framework of the region, with each *conventus* capital also assuming a very specific function (Curchin 2004, 57). In the case of the *conventus* at *Lucus Augusti* the suggestion has been made that this central place emerged from a Roman military camp located on the strategically important confluence of the Rivers Miño and Rato (Marcos and Encinas 1996, 913). Despite the fact that the morphology of the Roman camp is not reflected in the town's layout, nor is there material evidence for the Roman army (Rodríguez Colmenero 1996a, 245-264), the location of site in the territory of the *Copori* suggests that its early role consisted of subjugating local tribes (Lovelley and López Quiroga 2000, 54). To the east, *Asturica Augusta* may have also shared a military foundation, but its primary role, until the mines were exhausted in the third century, involved controlling and securing the supply of gold from the surrounding mining area (Sastre Prats 2001, 139). Lastly, there was *Bracara Augusta* to the south, which would emerge in AD 298 as the capital of the newly-founded *Gallaecia*, and whose fortunes appear to have been founded on the rich agricultural farmland and the commercial trade

networks which connected the major centres (Curchin 1991, 116; Martins *et al.* 1996, 738; Morais 2005, 126).

1.5.9. The Road Network and Roman Settlements

Connecting and consolidating the political, social and economic framework of the *conventus* capitals and smaller regional centres were a series of Roman roads (Iglesias Gil 2001, 48). Roman *viae* with accompanying milestones inscribed with the Emperor's name, allow many of the major arterial roads to be dated to the Julio-Claudian period (AD 14-68) (*Viae* VXII, XIX and XX), with the *Via* XVIII dating from the Flavian era (AD 69-96) (Ferrer Sierra 2002, 115). This would imply that central places connected by major roads displayed a high degree of connectivity (such ideas are investigated in Chapter Six), but there still remain questions as to the authenticity of many of these passageways. This is especially problematic in the case of milestones used to mark the route which have either been used in later building projects and have so been found out of context, or had their inscriptions, which contained the name of the Roman emperor who undertook the building work, eroded by the weather. Moreover, the archaeological record is almost silent as to the role of minor Roman roads, the degree to which Roman roads incorporated pre-Roman routeways, and their impact on the structuring and arrangement of the landscape. Literary sources attest to pre-Roman roads (Strabo, *Geographica* III.3.7), which some have construed as paths linking settlements and regions (Caamaño Gesto 1979), but this may simply be overenthusiastic historians attributing intra-settlement passageways, such as those which connected communal structures at the *citânia* of Sanfins, to longer distance trajectories linking native settlements. Within mining areas, it has been argued that Roman roads did utilise pre-existing communication routes, which were integrated into the exploitation of minerals in the region (Blázquez Martínez 1974, 8), but the detailed archaeological research necessary to reveal these continuities has been confined to localised studies within specialised communities. The survival and maintenance of pre-Roman networks, which may have preserved indigenous settlement patterns, does not imply a rejection of Rome, but rather suggests that Roman systems and networks had yet to become fully interconnected with the landscape. For example, the settlement of *Magnetum* was integrated into the wider Roman economic network through the River Sousa, but there are no known Roman roads emanating from this town (López Quiroga 2004,

97). For these reasons, the socio-cultural transformation of the landscape appears not to have been uniform, and may therefore have resulted in pockets of autochthonous control.

In summary, our understanding of the development and extent of the Roman communications system remains limited, as does its integration and use in the early Roman period. The role which the Roman communication system played in linking communities and central places is essential in recognising how and why early Roman political and economic structures evolved. It is also important in determining how native settlements characterised by the *castro* were incorporated or perhaps excluded from new activities, and these ideas are addressed in the following section.

1.5.10. The Demise of the *Castro*

It has been suggested that the demise of the *castro* society did not result in the sudden disappearance of hillfort communities, but rather in renewed strategies for the use of space demanded by the increased centralisation of economic and political requirements under Roman authority. Nor does it appear that the abandonment of these fortified structures was a uniform process (Vilas and Valdes 2005, 301), as many fortified hillforts were adapted towards large-scale mining and agricultural practices in the early Roman period (Orejas 1994; Sánchez Palencia *et al.* 2005, 246). Some localised studies have suggested that where native communities had good geographical access to the agriculturally rich lowlands, such factors may have played an important role in the continued occupation of *castro* sites (Martins 1990, 216). In contrast, where *castros* were unable to generate an agricultural or mining surplus, tribute or exchange they would most likely have been abandoned (Parcero Oubiña and Cobas Fernández 2004, 44).

The short discussion above would suggest that the abandonment or continued occupation of *castro* communities were strongly allied to their ability to adapt to and integrate into new Roman economic systems. However, other aspects, for example the prevailing social structure of native communities (see section 1.5.5), the political relationship between indigenous peoples and Roman authorities, and resistance to Imperial Rome may have played an important role in shaping the settlement pattern of the region, and will constitute areas of investigation in Chapter Four.

1.5.11. The Emergence of *Villae* in the Landscape of Northwest Iberia

Among many of the ideas advanced for the demise of *castro* settlements was the relocation of indigenous communities from the uplands to found lowland settlements, many of which would gradually transform into agricultural centres such as *villae* (Perez Losada and Castro Perez 1995, 170). The proliferation of *villae* settlements within the landscape may be seen as symbolic of changing agricultural practices and the adoption of new ideologies within northwest Iberia. In the countryside working *villae* were orientated towards the production and marketing of agricultural surplus (Hingley 1982, 32), while more gentrified *villae* which were little more than ostentatious displays of wealth by the urban elite materialised at the edges of large metropolitan centres (Millett 1990, 92). Evidence for these gentrified *villae*, for example, the second century villa on the periphery of *Lucus Augusti*, which belonged to the Apana family (as shown by their funerary epitaph, Rodríguez Colmenero (1997, 83)), is often inconclusive as material remains are difficult to identify, and thereby establish the settlement's socio-economic function (Perez Losada and Castro Perez 1995). Some studies have suggested that *villae* emerged near to communication networks (Carvalho 2008. vol. I, 274), while scholars point to the proliferation of *villae* near urban settlements (Martins *et al.* 2005, 288), and the importance of good farmland and communications over a central location near to an urban metropolis (Perez Losada and Castro Perez 1995, 169). This would imply that the decisive factors in the location of *villae* settlements varied from region to region. In addition, many of these agricultural powerhouses operated as centres of production, but also as centralised points of consumption for rural produce (Laurence 1999, 107). For this reason, it appears *villae* settlements may have fulfilled a wide range of often contradictory roles which require clarification.

In conclusion, the discussion above provides a new set of questions as to the role of the *villae* settlements. Firstly, were *villae* settled by the communities from abandoned *castro* settlements, as discussed in section 1.5.10? Secondly, what was the relationship between these largely rural agricultural centres and more urban settlement forms? Thirdly, how did *villae* settlements differ from region to region? And fourthly, can we speak of a single villa type or multiple *villae*, and how can these attributes be identified within the archaeological record? Questions one, two and three strongly imply that a study of *villae* settlements would again benefit from regional comparative analysis, while the identification and the function of *villae* is discussed in greater detail in Chapter Five, 'The Landscape of Settlement'.

1.6. Aims

The purpose of section 1.5 above has been to investigate the cultural sequence of northwest Iberia from the Late Iron Age until the early Roman period and in the process examine the archaeological and historical record and identify where there are gaps in our knowledge of the region. A particular problem in archaeological interpretation in northwest Iberia is the use of research conducted at a local level whose findings are often applied to other areas, which has been compounded by the dearth of provincial studies within the region to analyse and measure the sequence of change at an intra-regional and regional level. For this reason, and others raised throughout section 1.5, three research questions were formulated from my examination of the secondary literature.

Question One. ‘Did a Late pre-Roman Iron Age settlement hierarchy exist in northwest Iberia?’

This question derives from the argument centred around the work of Parceró Oubiña and Sastre Prats as to the nature, dynamics and orientation of pre-Roman society, and whether systems of inequality both within settlements and present at the supra-local level emerged before the region was pacified by Roman authorities. An analysis of the theories advanced by Parceró Oubiña and Sastre Prats permits other questions to be addressed which were highlighted in the analysis of the secondary literature, namely, how was space divided and administered within the Late Iron Age landscape?, and what were the locational criteria for *castro* settlements, particularly in terms of their access to resources?

Question Two. ‘To what degree did the administration of early Roman northwest Iberia adopt and exploit the landscape of pre-Roman northwest Iberia, and how did the Roman settlement structure differ from the pre-Roman Period?’

Such a question addresses the dynamics of pre-Roman settlement structures and the impact of those changes implemented by Roman authorities. In doing so, it provides an opportunity for diachronic analysis of spatial and temporal transformations within northwest Iberia as the region adjusted to a new economic, social and political order. Within this changing environment, further questions need to be asked as to how the landscape was exploited within different regions, especially

by agricultural centres such as *villae*, and how agricultural producers were integrated into the wider settlement pattern.

Question Three. ‘To what extent did Roman fluvial and terrestrial routes exploit the pre-Roman communication network and how did this impact on the development of the Roman settlement structure?’

This question expands and consolidates on the first two questions, enabling a comprehensive understanding of the communication networks which were primarily utilised during the pre-Roman period, compared with those implemented during Roman rule. The need to generate surplus to pay tribute or taxes, and to participate in the Roman economic system, entailed utilising coordinated communication networks to access Roman-controlled central places, and exchange goods and services. In this respect, question three aims to move beyond a simple analysis of the communication system, for example the mapping of the Roman arterial road network, which characterises previous academic research in the region of northern Portugal, and instead contextualise the movement and communication of people and goods through the landscape and settlement patterns of the region.

In order to examine the three questions above in greater detail, Chapter Two analyses the principal theories underpinning each question with the purpose of formulating a more comprehensive application of theory and practice to the analysis of the region of northwest Iberia. As a corollary, this process will also generate a series of objectives, which will form the basis for the applied methodology employed in this thesis.

Chapter Two. Theoretical Background of the Cultural Sequence of Northwest Iberia

2.1. Introduction

The focus of Chapter One has been to establish gaps in the chronological narrative of the events which shaped the *castro* society, as well as inconsistencies in our understanding of how the early Roman administration interacted with the indigenous communities of northwest Iberia. In light of this, a series of principal questions were developed to analyse the structure and process of change in the study region during the Late Iron Age and early Roman period. This chapter examines these key debates in greater detail, with a particular objective to develop the theoretical frameworks which underpin my approach to the main questions explored in this work. In the process of deconstructing previous ideas, new perspectives are discussed and a series of objectives are formulated which shape this thesis' applied methodology.

2.2. Theoretical Background to Research Question One

Central to this thesis is the need to develop a comprehensive understanding of late *castro* society as a means through which to study the appropriation and instigation of new systems by Roman and indigenous agents. Embedded within this narrative is the question of whether a hierarchical settlement pattern existed during the pre-Roman era, which encapsulates broader thematic concepts, such as inequality, supra-local power and political hegemony. Of particular importance are the models of late *castro* society advanced by Sastre Prats (2001, 2008) and Sánchez Palencia and Fernández Posse (1998) who propose that mechanisms of control existed, which prevented the accumulation of surplus wealth within the social composition of *castro* settlements, and as a consequence, eliminated the emergence of nascent political units. Taking a contrary view to that postulated by Sastre Prats *et al.*, Parcero Oubiña (2000, 2003) has argued that systems of equality were 'corrupted' in the Late Iron Age and in their place emerged the social and economic seeds of unequal access and control of wealth. These divergent views have been outlined in Chapter One. In this section, their theoretical basis will be further examined.

2.2.1. The Theoretical Standpoints Underpinning the Discussion of the Role of Surplus Production in LPRIA Northwest Iberia

Recent interpretations of the nature of late pre-Roman societies within northwest Iberia owe much to the theoretical models advanced by Parcero Oubiña (2000, 2003) and Sastre Prats (2001, 2008). Their diametrically-opposed narratives emerge from the analysis of the same material record, but deciphered from very different theoretical standpoints, influenced by multiple disciplines. From an archaeological perspective, both models invest heavily in the evidence offered by the presence of storage units and the placement and construction of single structure dwellings on a small-scale at two pre-Roman *castros*, San Juan de Paluezas and La Corona de Corporales.

The basis for Sastre Prats' hypothesis incorporates a functionalist-evolutionist approach which envisages the development of society along a path of increasing social and political complexity (Bintliff 2008, 1037). Sastre Prats advances a model that includes the fortified settlements within northern and western Leon, Trás-os-Montes, western Zamora, Asturias and the interior and north of Galicia. Differentiated from these isolated structures were more economically dynamic *castros*, with some hillforts located along the Atlantic coast having probable commercial links with southern Iberia, and the proto-urban *citânias* between the Rivers Douro and Minho which exhibited a strong social influence from the encroaching Roman world (Sastre Prats 2008, 1024).

According to Sastre Prats' reading of the evidence in both the interior and the littoral region the *castro* settlements which emerged during the Iron Age began to adopt more efficient means of production, such as heavier ploughs capable of working alluvial soil, which allowed small fixed communities to grow millet in the summer and legumes, barley or wheat in the winter (Parcero Oubiña and Cobas Fernández 2004; Sastre Prats 2008, 1026). This also coincided with the move from open Bronze Age settlements to smaller fixed structures, which transformed the community's relationship with their immediate environment. In this instance, Sastre Prats identified the primacy of harvesting which tied the producer to the land through a system of deferred returns, and in the process reinforced family bonds as surplus production was fundamental in ensuring the survival of the group. While nuclear families could operate as self-sufficient entities, illnesses and accidents limited their ability to continually secure surplus production and guarantee their cycle of survival.

Social mechanisms therefore emerged which consolidated the structure and function of communal groups at the kinship level, thereby ensuring the success of the group (Meillassoux 1991, 68-91). According to Sastre Prats' (2008) model such societies do not operate around classificatory kinship groupings, which according to Morgan (2007 [1871]) include both lineal (direct ancestors) and collateral kin (siblings' lineal kin and their descendants), but instead focus on more restrictive genealogical kinships, as resources and access to the land are fiercely guarded (Vicent 1998, 830). A result of these genealogical kinship groupings is the domination of male values bringing with it acts which are focused around generating symbolic violence (Meillassoux 1991, 68-91).

Sastre Prats attributes this symbolic violence to the social structure of 'primitive' society (Sastre Prats 2008, 1026), which binds the community together, but manifests itself in two ways. Drawing on the work of the French anthropologist, Pierre Clastres, she argues that 'warrior societies' are entities where a minority of men continually go to war, reaffirming their identity and seeking prestige. In 'societies with warriors', by contrast, all men go to war only when the interests of the community are threatened (Clastres 1999). In this respect, the community which generates mechanisms to neutralise the materialisation of a warrior society, in turn suppresses the emergence of a hierarchical structure exhibiting the unequal division of resources and power.

In seeking to orientate her hypothesis, Sastre Prats places her model of *castro* society firmly within Clastres' paradigm of 'societies with warriors', maintaining that there is little evidence for pre-Roman weapons, and where such artefacts exist they would have served as instruments for pillaging and raiding, rather than infantry charges and duelling (Sastre Prats 2008, 1032-1033). In this sense, no one communal grouping succeeded in consolidating an unequal share of resources and surplus production, thereby limiting the accumulation of political power. Consequently, the community maintained a degree of control over emerging familial political units with the consolidation of communal needs over group and individual claims, as shown by the existence of communal metallurgical workshops of the pre-Roman *castros* of San Juan de Paluezas and La Corona de Corporales (see section 1.5.4). These specialised workshops were not affiliated to any one of the familial enclosures, but instead provided a service at the societal level to ensure and reinforce a communitarian propensity to shared production (Sastre Prats 2008, 1035).

Sastre Prats' (2008, 1025) model of *castro* society therefore proposes a culture, which showed elements of cooperation at the local level, but was hostile to outside forces, a hypothesis which Parcero Oubiña (2001; 2003) opposes, advocating within the parameters of a similar functionalist framework that inequality could have developed within the confined communities of these *castro* settlements. Parcero Oubiña utilises a similar historical narrative to Sastre Prats, viewing those improved productive systems which emerged during the Late Bronze Age as central in allowing communities to harvest a second crop during the summer. In implementing such procedures, fortified settlements appear in the landscape as a means of safeguarding surplus production, ensuring that there were sufficient resources until the next harvest. Here the hypotheses of Parcero Oubiña (2000; 2003) and Sastre Prats (2008) diverge, with the former offering a different interpretation of the impact of surplus produce. Parcero Oubiña (2003, 270) employs the 'logic of the peasant economy', as defined by the Soviet agriculturalist Chayanov, which contends that a peasant will aim to keep their level of effort, and so production, at a rate which guarantees their bare necessities. Accordingly, effort is minimised within peasant society, in contrast to capitalist societies where production and so benefits are maximised. By this reasoning, it is only through the supply of surplus labour that conditions of social exploitation can emerge (Chayanov 1986). Where surplus production does develop it can be seen through the lens of Marx's Germanic Mode of Production, where communal access to the means of production becomes concentrated within the hands of familial units. In Marx's Germanic Mode of Production (see Marx's *Formen* (1952) [1857-1858]), the term 'Germanic' derives from what he considers an early ethnographic study, Tacitus' *Germania*. According to this model the central features of prehistoric social structures are; (a) the economic autonomy of the household as an independent centre of production; (b) the coalition of households into tribal assemblies; (c) the development of hierarchical leadership from the judicial and military activities of the assembly (Gilman 1995, 239). In this way, Parcero Oubiña's model employs the first aspect of Marx's Germanic Mode of Production to argue that in satisfying and guaranteeing the needs of these immediate kinship groupings, a progressive intensification of production occurs in which unranked, but unequal family segments manifest within the community, which presumably lead on to stages (b) and (c) as power becomes concentrated in the hands of the few.

According to this view, it is in isolated defended settlements with negative intergroup reciprocity where the internal dynamics are structured around familial units that Germanic Modes of Production emerge during prehistory. As a consequence, new indicators of external wealth emerge which confirm and consolidate unequal resource and power bases, as coercion and intimidation give way to militarism and monumentality (Gilman 1995, 239). Parceró Oubiña (2003, 288) argues that material evidence in the form of portable goods such as metalwork, non-functional products and objects of consumption, such as wine, indicate the accumulation of prestige symbols by individual kinship groupings. In concealing the unequal accrual of wealth within the fortified settlement the community sanctioned a framework of socially acceptable legitimised violence. Juxtaposing acts of aggression, symbols of violence emerge within the landscape as monumentalised signs of warfare consolidating the social organisation around a ‘heroic society’ (Parceró Oubiña and Cobas Fernández 2004, 60). But it is only with the conquest of Rome that inequality manifest through kinship groupings is replaced by a social hierarchy where a favoured class of aristocrats emerges with land rights created and guaranteed by Roman authorities (Parceró Oubiña 2003, 289).

2.2.2. Critiques of the Models of Late Pre-Roman Society in Northwest Iberia Advanced by Parceró Oubiña and Sastre Prats

The theoretical frameworks advanced by Parceró Oubiña (2003) and Sastre Prats (2008) lead to very different conclusions as to the social dynamics in progress between the end of the Bronze Age and the conquest of the region by Roman authorities. Their theories rest heavily on the interpretation of material evidence from northwest Iberia combined with anthropological studies conducted through the observation of modern-day ‘egalitarian’ societies, as well as the reconstruction of social structures of ancient cultures. This section examines the basis for Parceró Oubiña’s (2003) and Sastre Prats’ (2008) theoretical application of these anthropological studies, the nature of the material record and the role of surplus production as a catalyst for the development of more complex societies. In critiquing Parceró Oubiña’s (2003) and Sastre Prats’ (2008) notion of late *castro* society a more dynamic and integrated approach (incorporating a more regional analysis and examining social and political interaction, commercial exchange and communications systems between settlements) for studying northwest Iberia is

proposed which provides the basis for those objectives outlined at the end of section 2.2.2.6.

2.2.2.1. Sastre Prats' Use of Clastre's Theory of Egalitarian Societies

Underpinning Sastre Prats' (2008) model of Late pre-Roman Iron Age northwest Iberia is the notion of an egalitarian society where corporate action serves to limit the exercise of power (Blanton 1998, 152). Such a theory rests heavily on the work of Clastres (1994), who identified a series of symbolic, social and economic activities which characterised the social system of the Guayaki tribes of Paraguay. This culture's agricultural system was organised primarily as a subsistence economy, where surplus was only ever consumed for political purposes on festive occasions by all members of the tribe (Clastres 1994, 196). At the political level, the tribe was headed by the chief, who functioned as a figurehead holding no power and possessing no decision-making capabilities, and whose role within the society was orientated and controlled by public opinion (Clastres 1994, 37). The Guayaki's collective structure was thereby instrumental in ascribing and consolidating social equality amongst its members, ensuring that no group exerted economic exploitation over another. In applying the social framework of the Guayaki tribes of Paraguay to the *castro* society of northwest Iberia during the Late Iron Age, Sastre Prats makes the key assumption that non-state societies are by their very nature egalitarian organisations, which aim to control any emerging social inequality. In this way, the functionalist-evolutionist approach which Sastre Prats adopts militates against such societies displaying any of the social structures associated with more complex organisations, namely, the state, which is characterised by social hierarchies and the development of power relations (see Clastres 2001, 147).

Other anthropological studies have demonstrated that not all societies conform to Clastres' strict socio-political criteria for emerging complex societies. An analysis of those networks present in precontact Hawai'i (Earle 1977, 227) shows a political elite who controlled long-distance commercial exchange, in which the lower orders within society did not participate. In this respect, the social and commercial systems ensured that the elite maintained their position by receiving a cut of food traded through their occupation of central nodes of distribution, while at the lower level of production communal relationships existed between members whose local production unit, the *ahupua'a*, permitted a level of economic self-sufficiency (Earle

1977, 219). This stemmed from access to marine resources available a day's journey from the *ahupua'a*, but when food production was limited within society then reciprocal exchange emerged within kinship groupings as individuals shared resources. As a result, Earle's (1977) reconstruction of precontact Hawai'i illustrates that society could be egalitarian, enforced by kinship groupings, but simultaneously practice commercial exchange, through differentiated centres of power, thus advancing an alternative model to that proposed by Clastres to explain divergent societies.

The argument above demonstrates that the use of ethnographic studies developed by anthropologists such as Clastres studying modern-day egalitarian cultures, and employed by Sastre Prats (2008) to explain the nature of prehistoric *castro* society, rests on a range of simplistic assumptions. Analogous reasoning, while appearing to offer an insight into the workings of past worlds, has been criticised, more vocally it should be said since the arrival of New Archaeology. Binford (1972, 175), a key advocate of New Archaeology, defines the term as synthesizing procedures and methods with aims and objectives, and where priority be given to testing general propositions to ensure we make accurate statements about the past. One of the key criticisms of analogous reasoning is simple and direct readings of past situations which are used to explain the present, or alternatively where the present is used to describe the past (Gould and Watson 1982, 446). Moreover, where direct comparisons can be made then there is often an assumption that other less verifiable characteristics can be applied. The concern here is that there is no method for realising nor demonstrating the critical problem of analogous reasoning, and for this reason interpretive models often become accepted wisdom (Wylie 2002, 139). It therefore remains to say that Sastre Prats' (2008) model of the Late Iron Age in northwest Iberia exhibits many of the problems concerned with analogous inference, in particular the assumption that late *castro* society shared two key attributes with the Guayaki tribes of Paraguay. The first is that that non-state societies are by their very nature egalitarian organisations, and the second is the application of Clastres' (1999) notion of 'societies with warriors', where all men go to war when the interests of the community are threatened (a theme re-evaluated in Chapter Seven). In my opinion, Sastre Prats does not adequately demonstrate that late *castro* society is egalitarian nor that it is inherently non-violent, but rather

ascribes many of the characteristics of those societies examined by Clastres to the Late Iron Age culture of northwest Iberia. .

2.2.2.2. Isolationism during the Late Iron Age?

Sastre Prats reinforces her premise that the prehistoric landscape of northwest Iberia was inherently egalitarian by evoking the notion that late *castro* settlements were politically, economically and socially isolated from one another (2008, 1027). Once again, Sastre Prats takes her inspiration from another anthropological study, in this case Sahlins' (1972) investigation of the Binumarien tribe of the eastern highlands district of Papua New Guinea, which she argues share many of the attributes of late *castro* society. Of particular relevance are the presence of possible 'familial' enclosures in late *castro* society (an idea which was challenged in section 1.5.4), which are also representative of distinct and separate domestic units within Binumarien society (Hawkes 1977, 474). Among the Binumarien the familial unit operates what Sahlins (1972) termed the 'domestic mode of production', where households produce all they need directly and exchange what they cannot obtain indirectly (Sahlins 1972, 83). Consequently, the economic importance and self-sufficiency of each individual household creates a gradient of social distance manifest along kinship lines (Hawkes 1977, 474). Binumarien society is therefore representative of cooperation within the community's working core, the household, from which peripheral spheres of reciprocity emanate (Sahlins 2004, 198), with household transactions marked by positive cooperation, neutral cooperation at the tribal level and hostility between settlements at the intertribal level (Sahlins 2004, 198).

Sastre Prats (2008, 1029) advances the notion that *castro* communities, like Binumarien society, were marked by cooperation at the familial level, but hostility between neighbouring hillforts would manifest at settlement level through isolated settlements. However, as I have already argued in section 1.5.4 the presence of 'familial enclosures' as well as the social, political and economic structures of intramural dwellings within *castro* settlements has not been clearly established. For this reason, Sastre Prats' (2008) identification of household units within Binumarien communities to equate with supposed 'familial units' located within late *castro* settlements cannot be substantiated, and in my opinion require further analysis. This is especially relevant where Sastre Prats *et al.* employ analogous reasoning, in this

case Sahlin's theory of social distance and negative reciprocity, to explain how supra-settlement relationships may have evolved in Late Iron Age society in northwest Iberia.

In seeking to redress the limitations of Sastre Prats' model, I believe it is important to examine the relationships between late *castro* settlements at a regional and supra-regional level. The advantage of such a methodological approach would provide the means to examine how connected or isolated hillforts were within the context of Late Iron Age northwest Iberia.

2.2.2.3. Surplus Production in Iron Age Northwest Iberia?

Recent research into a series of hillforts in northwest Iberia suggest that possible systems of inequality emerged before the arrival of Roman authorities (thereby challenging the theory that inequality only truly emerged with the granting of land rights to an emerging indigenous elite (Parcero Oubiña 2003, 289; Sastre Prats 2008, 1027)). This can be demonstrated by two hillforts, the *castro* of Castrovite and the *castro* of Laias (located respectively in modern-day Pontevedra, and Orense, see Figure 3, page 21). Large quantities of cereals (wheat, barley and millet) and acorns found at both sites radiocarbon date the *castro* of Castrovite to between the Early Iron Age (eighth to six century BC) and the first century BC, when it was presumably abandoned (Carballo Arceo 1998, 10-12), and identify a heightened period of activity at the *castro* of Laias to between the fourth and third centuries BC (López González and Álvarez González 1994; 1997; 2001). The presence of a limited number of domestic dwellings at both sites coupled with a series of storage areas, in particular at the *castro* of Laias where a number of storage huts have been identified (no hearth and considerable quantity of cereal was found in each unit), strongly imply that these two settlements were orientated around the exchange and distribution of surplus produce. This has led to the suggestion that both settlements acted as possible commercial centres during the Middle to Late Iron Age (Carballo Arceo 1998, 17; González Ruibal 2006-2007, 320). Such ideas are reinforced by large quantities of acorns found at the sites which may have been used to make bread for commercial sale (acorn bread was a staple product of the region in the pre-Roman era, Strabo *Geographica* III.3.7) or to fatten pigs which continues to this day in Iberia. A wider picture of commercial activity emerges at the *castro* of Castrovite with the presence of stone mills to process large quantities of cereals, the

identification of measurement containers to quantify the sale of such products (at the *castro* of Laias), and the discovery of an industrial kiln, along with quartz pebbles to polish the clay prior to being fired in order to give the finished product a more appealing sheen (Carballo Arceo 1998; López González and Álvarez González 1994; 1997; 2001).

The archaeological evidence from the hillforts of Castrovite and Laias would appear to contradict Sastre Prats *et al.*'s conceptualisation of *castro* society. Firstly, the layout of both sites does not conform to the strict pattern of 'familial' units which she has supposedly identified at the pre-Roman *castros* of San Juan de Paluezas and La Corona de Corporales, as much of the intramural space is given over to storage units. A secondary issue is Sastre Prats' interpretation of hillforts as independent self-sufficient entities which is not borne out by the *castros* of Castrovite and Laias as they appear to have operated as regional commercial centres during the period between the Middle to Late Iron Age.

An additional concern is that the findings from both aforementioned sites would also appear at odds with Parcero Oubiña's theories for northwest Iberia during the Late Iron Age. As I set out in section 2.2.1, the scholar employs a Marxist perspective to explain the materialisation of forms of inequality within *castro* settlements. In utilising Chayanov's model of the peasant economy, Parcero Oubiña promotes the hypothesis that the surplus generated by the worker allows conditions of social exploitation to materialise. However, this theory proves to be unsubstantiated in two ways. Firstly, Chayanov's peasant society model derives from modern economic and social practices, in this case Stalin's Soviet Union (which can be construed as analogous reasoning, see section 2.2.2.1 for a critique of this); and thus is limited in its scope and context to explaining the prehistoric pre-Roman society of northwest Iberia (González Ruibal 2006, 151), and in particular the activities at the *castros* of Castrovite and Laias. Secondly, the model proposes that the generation of a surplus requires that excess production is appropriated by those who have not directly produced it. By this reasoning, exploitation requires unequal access to the means of production, human labour, land or products themselves (Castro Martínez *et al.* 1998). But according to Parcero Oubiña (2003, 289), the control of the principal source of surplus production, the land, only truly emerges with the granting of land rights to the native elite by Roman authorities, following the conquest of the region.

Parcero Oubiña, to my mind, presents a rather confusing interpretation of late *castro* society that is allied on one hand to the archaeological record which suggests that systems of inequality may have emerged (for example the *castros* of Castrovite and Laidias and section 1.5.4), but also the need to concur with the Marxist framework he advances. Moreover, the scholar contends that these unequal partnerships based around familial kinship groupings, and which led to the rise of an elite warrior class, are only representative within the landscape of the late pre-Roman period (Parcero Oubiña and Cobas Fernández 2004, 60).

2.2.2.4. Evidence of a Warrior Elite and Social Inequality in Iron Age Northwest Iberia?

Evidence for an elite warrior culture, which may have subverted systems of equalities according to Parcero Oubiña, may have been present in the pre-Roman era. The *castro* of Saceda located near present-day Ourense and Verín (see Figure 3, page 21) and positioned just north of Study Area Chaves, shows a series of dynamic changes during the Middle Iron Age (around 300 BC as identified by radiocarbon dating). Not only did the settlement expand considerably (from one to five hectares as shown by its fortified structures, González Ruibal 2005, 271-272), which may have corresponded to an increase in population, it also appears that such changes were allied to an increase in economic activity at the site. Ceramic artefacts produced at the *castro* of Saceda have been found in the adjacent fortified settlements, but the site appears to have had its own blacksmith's workshop (as shown by pincers, nails, axes, and a considerable number of iron and bronze artefacts (including bronze torques) (González Ruibal 2005, 276). More importantly for the discussion here is the discovery of a series of small finds including gold earrings and silver ingots (perhaps a by-product of tin mining) which point to the existence of a gold/silversmiths at the settlement (González Ruibal 2005, 276).

It is possible that a commercial centre existed at the *castro* of Saceda which traded metal artefacts. Alternatively, such items may have been employed by members of the community to work the land and local tin mines, or a mixture of both scenarios (González Ruibal 2005, 276). Either way, it appears that a high-ranking group of people resided in the *castro* of Saceda who had access to prestige gold and silver items made *in situ*. Other prestigious artefacts include belt buckles, and longo travessão *fibulae* (discussed in greater detail in section 3.6.2), and in particular iron

bits (for a horse's bridle) and falcata swords (a curved sword found in the region and examined in the following section) would suggest that the settlement was controlled by a warrior elite. This group may have administered the resources within the *castro* of Saceda as well as their exchange at a regional level (as shown by the presence of ceramic ware in nearby *castro* settlements), and in the process extended their control over subordinate hillforts and initiating the beginnings of hierarchal settlement pattern. Such ideas, if true, would appear dispel the theories advanced by Parcero Oubiña that systems of inequality only emerged with the arrival of Rome. However, it should be noted that there is a key problem with González Ruibal's (2005) reading of the archaeological excavation at the *castro* of Saceda, in particular the identification of weaponry in the Late Iron Age northwest Iberia, and for this reason these ideas require further clarification.

2.2.2.5. Weaponry in Late Iron Age Northwest Iberia

Central to our understanding of the dynamics of late *castro* society is the interpretation of weapons, such as falcatas, which may have been used by a native elite to subvert the social structure of the community for their own immediate benefits. The falcata itself comes in a variety of forms, which include the Iberian falcata (see Figure 17 below) and the shorter falcata found in the region between the River Douro and Minho in northwest Iberia. The shorter curved blade of the latter has led to suggestions that it may have been employed as a utilitarian tool (Quesada Sanz 2003, 93; Sastre Prats 2008, 1032), and given the importance of agricultural practices at the *castro* of Saceda it is possible that the falcatas uncovered at the site fulfilled a non-martial function. Others investigating the region between the River Douro and the Minho have nevertheless suggested that such pieces may have embraced a military function. Of interest was a falcata found in an inner defensive wall at the *citânia* of Monte Mozinho located near the Atlantic coast north of the River Douro and dated to the first century AD. If, as Queiroga suggests, the falcata was ritually embedded within the defensive wall, perhaps to symbolise the end of inter-*citânia* hostiles as new forms of power emerged under the Roman authorities, this would imply that the falcata had a military function (Queiroga 2003, 86-87). The fact that the Iberian falcata was used by Iberian soldiers (Strabo. *Geographica* III.3.7, III.3.6) and mercenaries alike (Quesada Sanz 1991), makes it, in my mind, unlikely that a such a weapon would ultimately find itself transformed into an

agricultural tool by Iron Age communities inhabiting northwest Iberia. We should also acknowledge the poor and fragmented condition of many of falcatas uncovered due in part to the corrosive soil of the region, as well as the considerable number of unpublished site reports where these artefacts have been found (Lemos *et al.* 2011, 191), which makes it difficult to estimate both their number and importance within the context of northwest Iberia. Probably no more than 50 examples exist and the majority of these have been found at the aforementioned *castro* of Saceda and the *oppidum* of São Julião, which is located along the Atlantic coast and occupied from the Bronze Age until the early Roman period (González Ruibal 2005).

Figure 17. A fourth century BC Iberian falcata (2003/114/51. Museo Arqueológico Nacional).

Figure 18. Antenna-type daggers from the *castro* of Santa Tegra (Carballo 1994).

The number and probable purpose of other weapons found within the study region also remains a matter of debate. These include antenna-type daggers, two of which have been found at the *castro* of Santa Tegra (see section 1.5.3) and are shown in Figure 18. In terms of their location antenna-type daggers tend to be found throughout northwest Iberia during the Late Iron Age, except for the region between the Rivers Douro and Minho. The dating of these artefacts to the period after the second century BC suggests that these antenna-daggers were based on similar Celtiberian designs perhaps brought to northwest Iberia through the gradual encroachment by Republican Rome (Quesada Sanz 2003). Although some have interpreted antenna-type daggers as weapons (González García 2009, 70) it is likely

that these artefacts were primarily employed as heirlooms, given that their small size and awkward shape does appear to suit armed combat (González Ruibal 2006, 166).

A third body of evidence pointing to the presence of an elite comprises of stone statues of warriors, which are largely confined to the *oppida* settlements of northern Portugal. The weapons depicted in stone comprise of a small circular shields (*castra*), a helmet, a dagger, a pair of spears and decorated items such as torques. These have been read as symbolising the emergence of a native aristocracy (González García 2009, 70). Many of the weapons depicted on the stone statues have yet to be found within the context of the region and this has led another body of archaeologists to contend that the swords and shields carved in stone represent symbolic variations on Roman types (Quesada Sanz 2003, 93). Such a hypothesis would lend credence to the premise advanced by Parceru Oubiña (2003, 291) that a ‘heroic society’ orientated around acts of symbolic warfare materialised among the proto-urban *citânias* in the Late Iron Age. The dating of these warrior statues to between the mid first century BC and the first century AD (Quesada Sanz 2003, 93), and subsequent re-use as building material in the first century AD (Calo Lourido 1994), would also support the idea that this ‘heroic society’ if it existed, had already begun to disband around the time Roman forces were pacifying the region. The question therefore remains as to what preceded this ‘heroic society’ and how and when systems of inequality emerged within the landscape. As I have already outlined in section 1.5.6 our knowledge of the *citânias* of northwest Iberia rests heavily on the Late Iron Age when a favoured aristocracy had already begun to consolidate power. While the area (the region immediately to the north of the River Douro) where *oppida* dominate the landscape falls outside the study region, the origins of systems of inequality in northwest Iberia have an important theoretical bearing on the process of change in late *castro* society.

2.2.2.6. Summary and List of Objectives for Research Question One

The archaeological record of northwest Iberia during the Iron Age, and its diverse interpretation by scholars studying the region, makes it difficult to substantiate whether a warrior aristocracy emerged in the pre-Roman period which corrupted systems of equality. Equally, it is difficult to establish whether late *castro* society was more egalitarian or exploitative. Exploitation by its very nature requires unequal access to the means of production, human labour, land or products

themselves (Castro Martínez *et al.* 1998), and such activities may well have been present among the hillforts of Saceda, Castrovite and Laias as discussed above. Nevertheless, while the three aforementioned *castros* have helped to broaden the theoretical debate on Iron Age northwest Iberia, their limited number and geographical location (to the west of northwest Iberia) suggest that a more comprehensive examination of late *castro* settlements is needed.

For this reason, this thesis would benefit from an analysis of the available land use for the *castros* examined in the five study areas, and the impact that this resource may have had on their economic wellbeing (and which is discussed and analysed in Chapter Four). This idea emerges clearly from the debate above concerning the generation of surplus produce and interconnectivity of hillforts within the landscape. Such an approach will interrogate Sastre Prats *et al.*'s interpretation of the Late pre-Roman Iron Age communities as socially and economically isolated entities. Such an investigation could also be extended to examine the degree of isolationism or connectivity between late *castro* settlements through nearest-neighbour analysis, which is explored and investigated in detail in Chapter Four.

In examining whether communities were connected through social, economic and political networks, I believe it is important to analyse whether pre-Roman hierarchical settlement patterns emerged with late *castro* society. Possible Iron Age ranked societies have already been discussed in section 1.5.5 with particular reference to pre-Roman hospitality pacts, and this debate is expanded in section 4.4 with a more detailed investigation of physical and social boundaries within Late Iron Age society. These theoretical themes are further explored with the application of Thiessen polygons as a means to establish possible margins of control, where distribution centres such as the hillfort of Saceda may have existed, within the study region, to expand our understanding of late *castro* society.

In analysing the theoretical basis of northwest Iberia Iron Age a more integrated approach has been advanced which incorporates models of late *castro* society, but includes a more detailed investigation of the social, economic and political structures across the study region (as outlined in Chapter One) to address the central question of this section – did a Late pre-Roman Iron Age settlement hierarchy exist in northwest Iberia? In order to answer research question one the following steps are proposed as objectives.

Did a Late pre-Roman Iron Age settlement hierarchy exist in northwest Iberia?

Objectives:

1. To define the pre-Roman people of northwest Iberia according to the socio-economic, political and settlement structures of their communities.
2. To analyse the degree to which late pre-Roman settlement structures were conditioned by environmental, socio-economic and political factors.
3. To examine the arguments advanced by Parcero Oubiña and Sastre Prats as to whether a nascent pre-Roman settlement hierarchy, orientated around tribal networks, was evident in the landscape of northwest Iberia.

2.3. Theoretical Background to Research Question Two

This subsection develops the themes established in the previous sections and focuses on the ways in which Roman authorities exploited and adapted these indigenous structures following the conquest of the region. In analysing these interpretations, this section discusses the traditional narrative of the demise of *castro* society measured against the subsequent development and possible dominance of more Roman forms of settlement. Underpinning this theoretical approach is the value-laden concept of ‘Romanisation’, which traditionally describes the implementation of change within societies, such as the communities of northwest Iberia, from an idealised Roman perspective. In recognising the importance of native agents and culture in the formation of post-conquest societies, the idea of ‘Romanisation’ is explored in more depth with the aim of creating a more balanced approach which gives a voice to non-Roman actors and provides a more holistic narrative.

2.3.1. The Demise of *Castro* Society and the Development of Roman Systems of Authority

The process of change with the conquest of northwest Iberia by Roman authorities, as with many of the peripheral provinces of the empire, has traditionally been represented within academic circles by two separate and divergent disciplines, with the study of prehistoric and temperate Europe on one hand, and the Roman world and classical civilisations on the other (Gardner 2007, 33; Wells 1999; 2002, 379). This stance has been reinforced in Iberia by the belief that the Roman conquest eliminated any vestiges of pre-Roman political authority and indigenous exchange

networks (Álvarez Sanchís 2005, 25), and as a result, an artificial cultural dichotomy has been created which sees the fragmented *castro* society erased from the historical record by a more advanced and sophisticated people, the Romans (see Almagro Gorbea and Ruiz Zapatero (1992, 515)). This narrative advanced by the likes of Strabo (Almagro Gorbea and Lorrio Alvarado 2004, 6), where the ‘Celtic’ world could only be civilised through the implementation of a Greco-Roman polis system (Edmondson 1990, 151) has had a powerful impact on how the region is studied. For example, Rodríguez Colmenero (1996b, 129), in examining the region centred around modern-day Lugo in Galicia, Spain, begins his account with Strabo’s description of the native people, their political affiliations and their settlements before continuing to chart the emergence of the Roman administrative *conventus* of *Lucus Augusti*. Of equal concern, is the focus by archaeologists and historians of northwest Iberia on material evidence from Rome over more indigenous forms as shown by Alarcão’s (1988, vii) catalogue of finds for Roman Portugal. This includes isolated farms or hamlets where a Roman brick or tile were found, but where identical material was uncovered within a native hillfort it was not deemed important enough for publication.

Although in recent years a number of authors have emphasised that the process of change in northwest Iberia was less ‘Romano-centric’ and owed a lot to the fusion of native and ‘Roman’ practices (see González Ruibal 2006-2007; Parcero Oubiña and Cobas Fernández 2004), such perspectives are far from commonplace. Many scholars investigating the region continue to loosely employ the term ‘Romanisation’, without due explanation of the complex economic, social and political practices at work, to describe the transformations that occurred from the Late Iron Age onwards (see Carvalho 2008 vol. I; García Quintela 2002; Queiroga 2003; Lemos 1993 vol. I; Teixeira 1996). This approach has a tendency to emphasise the archaeological record produced by the elite while ignoring the activities of the less wealthy and powerful (Hingley 2000, 139), and to highlight the role of Rome as the disseminator of new practices, which through time are adopted by more primitive cultures (Creighton 2006, 73).

2.3.2. ‘Romanisation’. A Defunct Paradigm or a Valuable Contribution to Roman Studies?

In seeking to investigate whether a more contemporary redefinition of ‘Romanisation’ can be successfully employed for the purposes of examining northwest Iberia during the study period, it is imperative that first we examine its central tenets.

The term ‘Romanisation’ has its origins with the British archaeologist, Francis Haverfield and his contemporaries, who employed the term in the early twentieth century as a means of describing the acculturation, integration and assimilation of peripheral populations during the period of the Roman Republic and Imperial Rome. In doing so, Haverfield drew upon ideas about colonisation and empire, particularly in the context of the British empire, as a means to articulate the policy, impact and long-term consequences of ‘Romanisation’ on those territories assimilated by Rome (Mattingly 2004, 5). ‘Romanisation’, as perceived by Haverfield and other academics of the day, was therefore closely aligned with the dominant themes of early twentieth century imperialism, and as such was constructed around a series of flawed assumptions. The first entailed that many of the territories assimilated by Rome lacked any robust indigenous form of culture, thereby emphasising the superiority of Roman over native systems (Creighton 2006, 9). As a consequence of the cultural imbalance which was seen to operate between Rome and those territories which were assimilated into its domain, the central belief of early advocates of ‘Romanisation’ was in a dissemination and adoption of Roman cultural practices by grateful provincials (Mattingly 2004, 5). This assumption to my mind is flawed as it is difficult to substantiate whether Rome imposed its culture (it is often problematic to establish what is strictly Roman, see Freeman below) and traditions on those nations it conquered and assimilated. For this reason the underlying ideology of ‘Romanisation’ can be argued to espouse the control and exploitation of a foreign power over a native one (Given 2004, 4) when it did not necessarily exist, and such ideas foster a Romanocentric interpretation at best (Webster 1996, 11), and an imperialist and racist one at worst (Woolf 1998, 5).

In recent years, historians and archaeologists have attempted to redefine ‘Romanisation’, giving it a more contemporary and less Roman-centred approach, which could be applied to the study of northwest Iberia. Millett (1990), for example, revised Haverfield’s model of change in Roman Britain to argue that ‘Romanisation’ within *Britannia* was not perpetuated solely by Roman authorities, but rather promoted by indigenous elite groups in the provinces who actively adopted aspects

of Roman culture, elements of which spread down through the social hierarchy (Millet 1990, 117). However, in assigning native actors a more prominent role in the diffusion and adoption of Roman practices Millett (1990) does not so much rework Haverfield's concepts as replace one elite group, Imperial agents, with another, the native elite, as the disseminators of *Romanitas* (Mattingly 2004, 6). A second criticism, and perhaps the key problem with the concept of 'Romanisation', is the nature of those practices adopted and disseminated by the indigenous elite. Freeman (1993, 443) in critiquing Millett's (1990) work argues that the author does not provide a definition of what constitutes 'Roman material culture' and for this reason is unable to identify in 'Roman' goods those markers which make them specifically Roman.

Freeman's argument is an important one, in particular the problems involved in how we choose to interpret 'Roman material culture' and thereby seek to understand the process of change during the Roman era. As the basis of his investigation Freeman (1993, 444) cites the example of villa settlements, which he recognises as a term which is spatially and temporally dependent upon its context within the Roman world, but also a phenomenon which reflected pre-Roman social practices, as shown in southern Gaul where pre-Roman native sites developed into Roman *villae* (Greene, 1990, 117). To this variation we can add the assortment of structures from different settings which constituted a villa. These included the large villa estates found in Italy and Sicily, the *latifundia*, which were dependent on slave labour; the large administrative *villae* of late fourth century AD Iberia (Curchin 1991, 128); the luxury residential villa described by Pliny the Younger (Plin. *Letters*. II, 17); and the more humble agricultural holding. The question therefore remains as to what constitutes 'Roman material culture'? Freeman (1993, 445) has argued that the adjective 'Roman' should be removed on the assumption that many so-called Roman cultural forms were not necessarily Roman in origin. He also adds that the adoption of these Roman forms did not entail a desire to become Roman, but rather the need to employ cheaper, better and more technologically advanced methods in the face of a changing world (Freeman 1993, 444).

The use of an overarching theory such as 'Romanisation' presents a series of problems because of the difficulty in clarifying what constitutes 'Roman material culture' and as a consequence the term often represents different things to different people (Forcey 1997, 15). As a result our understanding of the new practices that

emerged with the meeting of Rome (and the variety of cultures it embodied, especially in the Roman military) and native communities it came into contact with becomes over-simplified (see Barrett 1997), and in many ways is a product of more modern ascribed values and notions (for example Haverfield's ideas of colonisation and empire), rather than ancient processes at work. In the following section I shall propose a more relevant methodological approach which aims to encapsulate how past societies in this period may have functioned and the transformative processes they experienced.

2.3.3. New Approaches to the Interaction of Rome and Peripheral Cultures

In light of the brief discussion above, it is clear that more appropriate, flexible and engaging frameworks need to be employed, which reflect not only the complexity of the Roman world, but for the sake of this thesis, those societies which preceded it. Gardner (2007) advocates a more holistic approach to understanding the nature of contact and acculturation between those communities and forces that were invested with more Roman and indigenous attributes. At the core are three key themes: materiality identity, and transformation. In the case of identity a more sophisticated approach is needed, which moves away from the simplistic binary oppositions such as Roman versus native (see Brandt and Slofstra 1983) and military versus civilian (Blagg and King 1984), which are often employed to frame the archaeological and historical agenda, and instead seek to understand and represent actors more accurately by introducing more representative categories such as gender, age, occupation, status, religion and community (for example, see Mattingley's (2004) analysis of the ex-Catvellaunian slave *Regina* (RIB 1065) who was freed by and married her Syrian merchant / soldier husband, and whose tombstone (an imitation of one commonly used by elite women in Rome) was found at the military base of South Shields near Hadrian's Wall transcends many of the simple dichotomies of identity listed above). Note: while the theme of identity is discussed in relation to 'Romanisation' it does not constitute an area of investigation in this thesis given that; (a) there is limited information on the identity of the peoples inhabiting northwest Iberia; (b) such information does not promote an understanding of settlement patterns in the study region.

Notions of identity should also incorporate more fluid interpretations of material culture as a means to understand the multiple processes that have may have

taken place. Within the context of Late Iron Age and early Roman northwest Iberia the presence of large numbers of *tegulae* (flat roof tiles) and *imbrices* (roofing joint tiles) found in *castro* settlements has often been interpreted rather crudely as evidence of a process of ‘Romanisation’ (see Queiroga 2003, 29, 55). However, such building material has been found in specialised agricultural and mining centres which may have been run by a native aristocracy allied to and sanctioned by Rome (Sánchez Palencia *et al.* 2005, 246), as well as in smaller hillforts with perhaps limited or no contact with Roman authorities. We must not only question to what extent different members of society (the native aristocracy, those who worked under them and more isolated communities with little contact with the Roman world) derived a sense of meaning from the implementation of new ‘Roman’ practices, but also query whether such procedures were truly ‘Roman’. It is possible that many inhabitants within northwest Iberia may have simply employed and viewed locally-produced *tegulae* and *imbrices* as an indigenous development which simply provided better roof insulation.

More fluid interpretations of identity and material culture should also be set against Gardner’s (2007, 34) third theme, that of transformation. Embedded within the theory of ‘Romanisation’ is the often unchallenged belief that the adoption of ‘Roman’ practices was absolute and rapid (Churchin 2004; 11; Keay 1996, 147), whereas in reality many of those changes would often have been taken place over much longer periods of time (Woolf 1995, 9). This interpretation of change as an event rather than a process is conditioned by our use of rigid chronological periods, such as prehistoric, Roman and early medieval, which shape our investigation and thereby understanding of the archaeological and historical record (Gardner 2007, 33). While I have employed labels such as the ‘Late Iron Age’ and the term ‘native’ in this thesis, I have done so for the sake of convenience, while recognising that practices, identity and material culture often operated independently of our modern-day compartmentalisation of time. In this way, an underlying tenet of this work is to recognise and so interpret the broader impact of Rome on native societies, especially given that the fusion of indigenous and more Roman practices would have varied from area to area (Haselgrove 1990, 46).

How varied those changes were both spatially and geographically in northwest Iberia between the Late Iron Age and the early Roman period therefore remains a core area of analysis. For this reason, the subsequent section investigates

how native hillforts may have adapted to Roman rule and explores, through an examination of some important sites, and possible methodological approaches to analyse the process of change.

2.3.4. The Emergence of Specialised Activities within *Castro* Settlements

Our understanding of how native communities inhabiting northwest Iberia adapted to more Roman practices is both fragmented and inconclusive. It has been assumed that access to prime land and the ability to generate surplus produce was a prime factor for the continued existence of many *castro* settlements engaged in agricultural production, as shown in the study of the important mining region of Las Médulas (located to the north of Study Area North) (Orejas *et al.* 2000, 246). Contemporary surveys indicate that the abandonment of native hillforts in the Valley of Fragoso near Vigo (see Figure 3, page 21) and the establishment of *villae* settlements in more fertile areas was a result of the need to access to prime land in the early Roman period (Hidalgo Cuñarro and Vinas Cue 1996, 815). The findings from Las Médulas and the region around Vigo would appear to find support in other studies, in particular recent investigations around the Lima valley, where Almeida has proposed two settlement models of *castro* society for the period between the Late Iron Age and its subsequent conquest by Imperial Rome. The first of these is an agricultural *castro* located on the alluvial plain but with little evidence of defensive capability. The second are more defensible hillforts positioned on spurs and located away from the valley floor (Almeida 1990, 53, 59). At first sight it may appear that the agricultural *castros* were more dynamic in terms of their propensity to generate surplus produce, but Queiroga (2003, 36) questions such assumptions arguing that there may have been little difference in the productive capacity of hillforts located in more defensible locations, for example spurs, but with access to fertile terrain over the agriculturally-based *castro* settlements located on prime land. There also exists the possibility that Queiroga's more defensible hillfort and Almeida's agricultural *castro* represent different timelines (with agriculturally-based settlements representing a later chronological sequence), with the inclusion of the Lima Valley in Study Area Viana (see Figure 4) allowing such hypotheses to be examined here.

We should also query the role of other *castro* settlements which developed a specialised function during the early Roman period. In the area around Las Medulas large-scale mining operations saw the creation of a new settlement, the 'mining

hillfort', which was characterised by a more open settlement plan (hence the removal of monumental fortifications) thereby allowing for a population increment. A common view is that this restructuring of the indigenous *castro* largely preserved the Late Iron Age settlement pattern, but where the social, economic and political focus lay at the heart of the Iron Age settlement now its form and function was very much allied to wider systems of commercial exploitation (Sánchez Palencia 2000). While the ZAM (Zona Arqueológica de Las Médulas) project remains one of the best surveyed and studied areas in northwest Iberia, it is not clear how mining settlements in the study region adapted to new practices in the early Roman period. A cursory examination of the five study areas suggests that mining was not as important an activity, in terms of the numbers of Iron Age and Roman settlements dedicated to processing metals, as it would have been in the region around Las Medulas. Nevertheless, the role of such commercial activities and its impact in shaping the settlement pattern is difficult to gauge, especially if we acknowledge that specialised mining activities may already have been underway among the *citânias* north of the River Douro in the period immediately before the conquest of the region (see section 1.5.6). If they existed such exchange mechanisms may well have had a considerable impact on the dynamics of the regional settlement pattern, in particular the increasing centralisation of commercial activities, during the Late Iron Age and early Roman period.

Our fragmented knowledge of exchange extends to other Late Iron Age communities within northwest Iberia. For example, the *castro* of Vigo (north of the River Minho, see Figure 3, page 21) located near the Atlantic coast was founded in the second century BC, and specialised in the production and trade of *garum* (fish sauce), which was in high demand in those areas of Iberia colonised by Rome. The settlement continued to be occupied, perhaps due to its strategic location on the Atlantic coast, until the early third century. The *castro* of Vigo offers a distinct chronological sequence to other non-specialised *castro* settlements in the Valley of Fragoso which were often abandoned in favour of *villae* settlements in the early Roman period (as discussed above) (Hidalgo Cuñarro and Vinas Cue 1996, 807-838; Pereira García and Hidalgo Cuñarro 1999). The degree of connectivity, or isolation, the *castro* of Vigo enjoyed in relation to other settlements both along the Atlantic coast and towards the interior from the Late Iron Age is less certain, perhaps in part due to the absence of settlement studies conducted in the region.

Similar problems are evident at the large hillfort of San Cibrán de Lás which is located further inland and dates from the second century BC until the second century AD. An important feature of the settlement are a series of benches near to one of the main entrances in the interior of the building which has led to speculation this space served as a tollgate (Eiroa 1988, 111). The settlement's limited natural defences, as well as the large internal space (9.5ha), suggest that San Cibrán de Lás was purpose-built to accommodate a large population, but uncertainties arise in determining the exact function of the Late Iron site and its relationship with surrounding communities. This hillfort may in some way be associated with the aforementioned *castro* of Laias (see section 2.2.2.3) whose decline in the first century BC (López González and Álvarez González 1994; 1997; 2001) and nearby location (3km to the south of the larger settlement) implies a degree of connection if not affiliation. Whether this relationship extended to some form of political attachment with the *castro* de San Cibrán de Lás constituting a new focal centre for an as yet unknown social group, is impossible to establish. It is also difficult to establish the function of this fortified hillfort during the early Roman period and whether this may have extended to a possible subordinate political, administrative and commercial centre for those settlements in its vicinity.

2.3.4.1. The Archaeological Evidence Underpinning the Development of Early Roman Centres of Power

In light of the argument above we can only infer that native settlements would have been incorporated into an emerging early Roman settlement pattern by fulfilling some form of political, economic and social activity, although the dearth of regional studies in northwest Iberia makes it hard to determine what their immediate function may have been (Celis Sánchez 2002, 13). A more contentious debate concerns the modification of the space occupied by fortified Iron Age *castros* and *oppida* to establish open central places (hence without monumental defences) during the early Roman period to exert control over the surrounding hinterland. In the case of *Bracara Augusta* the suggestion has been made that that the settlement may have evolved from a pre-Roman market place or meeting point for surrounding communities (Lemos *pers. comm.* 03/03/2008; Tranoy 1981), an idea supported by the large number of hillforts in the area, among them the *citânia* of Briteiros (see section 1.5.6). An alternative view is presented by Alarcão (1988, 12), who points to

evidence of a possible pre-Roman settlement at *Bracara Augusta* in the form of a circular dwelling (perhaps forming part of larger *castro*) found beneath a Roman mosaic floor. However, as Alarcão is careful to acknowledge, the archaeological excavations supporting the notion of a pre-Roman settlement at *Bracara Augusta* were of poor quality and recorded with insufficient care. Our incomplete knowledge of the adaptation of the Late Iron Age settlement pattern extends to other regions, among them the area around *Aquae Flaviae* (which forms part of Study Area Chaves), where a concentrated number of hillforts are located in close proximity to the early Roman *civitas* capital. The suggestion by López Quiroga (2004, 79) that a pre-Roman settlement lay under *Aquae Flaviae* is a valid theory, but without more substantial evidence such ideas constitute little more than speculation.

The archaeological and historical record is equally unclear concerning the role of early Roman central places, their interconnectivity with surrounding settlements and how those relationships changed over time. This can be demonstrated through a short examination of the three *conventus* capitals found in the study region; *Asturica Augusta*, *Lucus Augusti* and *Bracara Augusta*, which are loosely described in academic literature as administrative centres established in the early Roman era (see, for example, López Quiroga 2004, 127). A more detailed analysis of these central places suggests that they were continually evolving entities with contrasting trajectories both in terms of their function and status. Where both *Asturica Augusta* and *Lucus Augusti* evolved from early Roman military camps to become civic centres, *Bracara Augusta* appears to have been founded primarily as a civilian settlement and grew rapidly to become a focal point between the Rivers Minho and Douro. A rich epigraphic collection points to an imperial cult dedicated to the Emperor Augustus by the native peoples (for example, Camalo, son of Melgeco (*CIL* II, 2426)) who had once inhabited surrounding *castros* or *oppida* settlements, but who had relocated to the new urban centre. The presence of an imperial cult would imply that during the reign of Augustus (27 BC – AD 14) the town acquired a civic status above that of a *civitas* capital (where the town's charter only allowed local laws could be applied (Mattingly 2007, 261)). That the settlement gained many of the attributes of a *conventus* capital during this period (thereby enabling the town to administer its hinterland and provide judicial authority) remains a controversial idea (Martins 2006, 216). A more reasonable interpretation suggests that the settlement may have acquired Latin rights, or *ius Latii*, which granted Roman

citizenship to magistrates upon holding office and ascribed Latin status to its inhabitants (Le Roux 1994).

If this represents the sequence of events then it is entirely likely that *Bracara Augusta* grew more rapidly both in terms of its economic development and civic status than the *Asturica Augusta* and *Lucus Augusti*, which may have been hampered by their early Roman role as military installations and limited commercial opportunities in their respective orbit of influence. In the absence of detailed archaeological evidence, in particular regional settlement studies, we can also deliberate as to the changing relationship and degrees of connectivity between other central places and settlements. Did, for example, *vici* settlements (small Roman settlements discussed in greater detail in section 5.2.3) fulfil a subordinate administrative role to larger centres such as the *conventus* capitals or did that responsibility lie with more indigenous structures such as the large *castro* of San Cibrán de Lás (as discussed in section 2.3.4)? Furthermore, what was the relationship between non-agricultural sites (Roman towns and Roman-period *castros*) and smaller agricultural (for example *villae* and Roman-period *castros*) centres?

2.3.4.2. Summary and List of Objectives for Research Question Two

The focus of the discussion for research question two has very much centred on the available archaeological evidence and has therefore been orientated around more established areas of investigation such as the larger *castro* settlements, hillforts which showed evidence of specialised activity in the early Roman period and central places, in particular *conventus* capitals. In seeking to redress the limitations in our understanding of the study period an approach is needed which examines the landscape at a regional level, but also investigates the character of individual settlements. At the local level, it has been suggested that the agricultural capacity of native settlements played a pivotal role in securing the continuing occupation of many *castro* settlements into the early Roman period. For this reason, this thesis would benefit from a detailed examination of the land use capacity which would follow the same methodological procedure to that outlined for Research Question One (see section 2.2.2.6). A cross-comparative analysis between the land use capacity generated for Late Iron Age *castros* and data compiled for Roman-period *castros* and ‘Roman’ settlements could then be conducted.

Thiessen polygons, generated to address Research Question One, could also be applied to examine the theory that early Roman settlements may have been located on the boundaries of Iron Age sites (see discussion in section 2.3.4.1) to exert control over the landscape. In this way, by incorporating analysis conducted for Research Question One with the data generated for Research Question Two the chronological sequence for the pre-Roman period, the founding of Roman-period *castros*, and the introduction of Roman settlements can be analysed in greater depth. This more analytical framework would provide the means to answer Research Question Two.

To what degree did the administration of early Roman Northwest Iberia adopt and exploit the landscape of pre-Roman Northwest Iberia, and how did the Roman settlement structure differ from the pre-Roman Period?

Objectives.

1. To determine the location, type and pattern of early Roman settlement structures in northwest Iberia and determine the degree to which they were shaped by environmental, political and socio-economic factors.
2. To explain the continuity and discontinuity of pre-Roman and Roman structures according to; (a) environmental constraints; (b) location, plan and form of urban and rural settlements; (c) socio-economic and political factors.
3. To analyse the continuity of pre-Roman structures under the guise of Roman-period *castros*, based on their specialised role as centres of mining and / or agriculture, and the locational criteria for the development of these settlements.

2.4. Theoretical Background to Question Three

How northwest Iberia during the Late Iron Age was integrated into the larger Roman world constitutes a central theme and area of investigation within this thesis. Of central importance were communication routes which acted to integrate, or alternatively distance, native communities and settlements into the new Roman order. The process of change would therefore have also impacted on existing social systems and commercial activities, but above all, and bearing in mind the discussion above on ‘Romanisation’, would have exposed the inhabitants of northwest Iberia to different technologies and practices. Moreover, the adoption of alternative systems and procedures would have been dependent on a series of factors, among them: (a)

how Roman authorities utilised pre-Roman fluvial and terrestrial routeways; (b) the degree to which new communication routes bypassed or integrated native forms of movement within the landscape; and (c) other determinants such as the exploitation of the environment, and the need to develop a network of administrative hubs and commercial centres. The following section examines our existing knowledge of communication routes within northwest Iberia between the Late Iron Age and early Roman period, and concludes with a series of objectives to guide and focus the research conducted within this thesis.

2.4.1. Problems and Limitations of Current Interpretations of the Communication Systems in Northwest Iberia during the Late Iron Age

A dominant feature of late *castro* society is our incomplete knowledge of movement within the landscape, and as a consequence, the existence and function of terrestrial and fluvial routeways. It is very probable that some degree of connectivity existed between adjoining settlements, in particular among Iron Age hillforts which engaged in some form of commercial activity such as the *castros* of Saceda, Castrovite and Laias (see section 2.2 above), at a political level, for example the *castro* of San Cibrán de Lás (see section 2.3.4), or perhaps a combination of social, economic and political interactions. Whether the trajectory of such passageways extended to the regional level and how connected they were with surrounding communities and other networks of movement is difficult to establish.

Recent studies, although limited in number, do allow us to conceptualise how ancient routeways may have evolved and operated in northwest Iberia during the Late Iron Age. Of particular relevance are the possible prehistoric origins of a section of the main Roman road, the *Via XIX* (as shown by the Antonine Itinerary from third century AD), which connects *Bracara Augusta* with the other *conventus* capitals of the region, *Lucus Augusti* and *Asturica Augusta*. The section of road relevant to the discussion lies between the River Minho (on the northern boundary of Study Area Viana) and the Ulla Valley (around modern-day Pontevedra, see Figure 3, page 21). Along the routeway a series of Late Bronze Age axes have been uncovered as well as jewellery and swords from the period which the author, González Ruibal (2001, 157-158), has interpreted as evidence that this was a sacred passageway. During the Early Iron Age a series of *castros* can be identified that were established near to many of these sacred deposits along the length of what would become the *Via XIX*.

There are, in my opinion, a series of issues with González Ruibal's interpretation of the archaeological evidence. While the ritual deposition of weapons in the waterways appears to have been a common practice in northwest Iberia during the Bronze Age (Bradley 1998, 251), it is hard to ascertain how this impacted on the settlement pattern in the region. A closer examination of the proposed routeway shows that its trajectory is drawn from the concentrated number of archaeological sites located around the River Minho, Redondela and Pontevedra (see Figure 3, page 21). With only a single cache of axes found around the Ulla Valley it appears that the disparate site finds have been joined up to create a probable ancient passageway which closely matches the later trajectory of the *Via XIX*. The case study itself shows both Early Iron Age, as well as Middle and Late Iron Age sites converging around the possible routeway (González Ruibal 2001, 158, 163), but the absence of other hillforts located on the periphery makes it impossible to determine how important such a passageway may have been in determining the regional settlement pattern. An alternative viewpoint suggests that the Meridiana depression, along which the *Via XIX* runs (Naveiro López 1991, 141), may have played a more influential role in shaping the path of both the prehistoric and the later Roman routeway.

Where our knowledge of possible prehistoric routeways has been strengthened in recent years with respect to fluvial communication systems, in particular the discovery of a two maritime vessels in the River Lima (which is located at the centre of Study Area Viana) in 2002-2003. The dugouts, labelled Lima 4 and 5, were each carved from a single tree (Alves and Rieth 2007, 15) and have been radiocarbon dated to between the fourth and second centuries BC (Alves and Rieth 2007, 5). Although Lima 5 was never finished, and so not usable, Lima 4 provides the approximate size of such vessels (being carved from a single tree the size of these boats would have varied in size) with a length of 6.95m (internal length 6.03), and a maximum diameter of 0.88m (Alves and Rieth 2007, 12). The design of these pirogas (a small flat bottom boat often driven by an oar which continue to be used in Africa and Asia), within a European context appear to date from the Late Bronze Age (Arnold 1995, 94-95). The presence of similar pirogas found at Loch Arthur in Scotland, and dated to between the second century BC and second century AD (Mowat 1996, 52-53), and the use of the flat bottomed boat in Iron Age southern Britain (Sherratt 1996), may be symbolic of cultural contact and the exchange of

information over the Atlantic highway (see Cunliffe 2009; González Ruibal 2004). Of considerable interest are technological innovations, in this case the mortise-and-tenon assembly system found on Lima 4 which represents a technique typical of Mediterranean ship hull joinery. Comparable designs date from the fourteenth century BC Uluburun shipwreck found in southeast Turkey, to a fourth century BC boat at Kyrenia in northern Cyprus (Alves and Rieth 2007, 25).

Whether the mortise-and-tenon found on Lima 4 represents a Bronze Age or later Iron Age innovation is open to debate, but a small wooden plank complete with the mortise-and-tenon assembling system was recovered in the Arade estuary, in southern Portugal (Alves 2005, 449-450). The absence of radiocarbon dating for this artefact found in southern Portugal makes it difficult to establish its chronological relationship with those mortise-and-tenon jointed boats found in the River Lima. However, both examples have been found within fresh water locations and it could be the case the technology made its way to the western margins of the Mediterranean (southern Portugal) before such practices travelled north and permeated late *castro* society. Within the context of northwest Iberia pirogas most likely constituted the largest water-going vessels available in the Late Iron Age (Strabo makes a reference to dug-out canoes (*Geographica* III.3.7)), but their role would have been largely confined to inland waterways (Fonte 2009, 15) perhaps fulfilling a role as transport vessels and disseminators of information. Although I am sceptical about González Ruibal's (2001) study on the origins of the *Via XIX* (in particular his methodological approach) it is possible that travellers utilised a prehistoric 'taxi service' to cross the River Lima which may have been connected further north with Iron Age routeways that may later have constituted the trajectory of the aforementioned Roman road.

2.4.2. Connectivity and Change. Early Roman Communication Networks

The argument outlined above represents, in my opinion, our best understanding of prehistoric movement within the landscape of northwest Iberia. However, it also highlights our poor knowledge of late *castro* communication routes, how settlements evolved in relation to possible passageways, and the role of the natural environment in shaping possible communication routes. Further inconsistencies arise concerning how integrated, if at all, Late Iron Age terrestrial and fluvial networks may have been. If it was the case that a communication route

ran across the River Lima and followed the trajectory of the later *Via XIX*, then how representative were such routeways in other parts of the study region?

What can be said with more conviction is that recognised and important communication routes, such as the *Via XIX*, have been used to frame the agenda of research into both the prehistoric and the Roman period alike. In the case of the latter time period, the focus of investigation has traditionally centred on the itineraries of Roman roads, the identification of Roman milestones within their original context, and the mapping of communication routes between monumentalised central places (see Rodríguez Colmenero 1976; and the website dedicated to *Vias Romanas em Portugal: Itinerários*). Although in recent years, regional studies have emphasised and analysed the pattern of change between the Late Iron Age and the early Roman period in a more robust manner (see Amaral (1993); Carvalho (2008 vol I and II); Lemos (1993 vol I and II); Martins (1990) and Teixeira (1996), these studies are discussed in greater detail in Chapters Three and Four), there is a tendency for scholars to read these fluvial and terrestrial routes as functional and unambiguous, and ascribe them no purpose other than being lines connecting places on the landscape.

2.4.2.1. The Role of the Communications Network and the Importance of Trade in the Early Roman Empire

In terms of the Roman communications system it appears that a network of terrestrial routeways emerged during the Republican era which were consolidated and expanded during the early Imperial period. Among these developments was a communication infrastructure which provided a more centralised system of government with the emperor at its head (Adams 2001, 4). Suetonius (*Aug.* 49.3) notes that Augustus stationed men and later carriages at points along military roads so that he could quickly and easily receive reports in every province. It is therefore possible that this *cursus publicus*, or Roman postal system, developed chiefly in tandem with the construction of military and civilian roads (and therefore constitutes an area of investigation in this thesis). In this case, it has been argued that the primary function of the *cursus publicus* was to act as a conduit for state, military and official information (Adams 2001, 4), but that role did not extend to the transportation of commercial products (Kolb 2001, 102).

How trade and the movement of freight proliferated during the Roman era, and the extent to which it utilised an emerging communications network, continues to be a topic of fierce debate. Our understanding of the pre-modern city and the role, significance and importance of the communication network which linked urban centres, has been heavily shaped in recent times by historical, as well as archaeological models. Among these models, Finley (1973) presented a clear and unambiguous perspective of the ancient world, as a society orientated around the concept of Weber's consumer city (see *The Agrarian Sociology of Ancient Civilisations*, Weber 1976 [1909]), and in the process adopting the idea that capitalism did not emerge until the Medieval period because of the disincentives offered to power-holders to generate more competitive technologies (Parkins 1997, 84). Implicit in Finley's (1973) theory was a Weberian interpretation of economic activity as subordinate to the pursuit of status, in this case through agricultural activity, reinforced through the evidence of the classical texts (Greene 2000, 32). As a consequence, elites invested in land-based power and consolidated their position through the acquisition and generation of agricultural produce, and in the Weberian scheme, used this wealth to pay for their conspicuous consumption within the urban landscape. A corollary of such deeply entrenched assumptions was the view that bulky agricultural products were consumed locally, and not traded (Greene 1990, 14), thereby limiting the commercial role and the use of highways during the early Roman empire. The idea that goods were costly to transport, in particular where settlements did not have access to fluvial communication systems, and therefore not economically viable for exchange was promoted by earlier studies (for example, Yeo's (1946) wildly inaccurate reckoning for the distance between *Brundisium* to Rome (Laurence 1999, 95-96)). Additional calculations based on Diocletian's edict of maximum prices (see Duncan-Jones' (1974, 368) use of the transportation of wheat from Alexandria to Rome) proved equally inaccurate given that the edict merely established a cost ceiling for certain products, and not their market value (Curchin 2004, 167). What the edict did not account for were savings enjoyed by agricultural practitioners whose access to their own transport and slave labour would have acted to keep costs down (Spurr 1986, 144-146).

The negative belief advanced by Finley and his adherents of limited economic integration, crippling high transport costs and low levels of connectivity between settlements (both rural and urban) in the Roman era has been largely

dismissed in recent years (see Fentress and Fentress 2001, 206; Horden and Purcell 2000, 146; Laurence 1999; Morris 2003, 30; Squatriti 2002, 270, for the Roman world, and Lowe 2009, 4, for Roman Iberia). However, the minimalist view put forward by Finley *et al.* does encourage us to provide proof of wider economic interaction, and by that reasoning provide evidence that the use of communication infrastructure was not confined to state affairs, such as the *cursus publicus*.

In terms of their commercial capabilities, it is possible to identify a series of profit-making activities that integrated towns with their immediate hinterland. Hopkins (1983) identifies a key aspect of rural and urban interaction which involved the purchase of low-value, high-bulk rural raw materials from rural producers which were transformed by urban workshops into high-value low-bulk products. In the case of Pompeii the archaeological record provides a detailed insight of the dynamics of an early Imperial Roman town where small-scale manufacturing, for example the production of wool purchased from shepherds in the surrounding countryside, was brought to the town, where a plentiful supply of human urine and a guaranteed source of water, allowed for its manufacture (Moeller 1976). Other small-scale agricultural practices within the urban landscape, such as the production of wine and the harvesting of olive oil, demonstrated by the remains of olive trees within the gardens of larger houses such as the House of the Ship 'Europa' (Jashemski 1979, 236), attest to other commercial activities within the urban sphere. This produce, in addition to rurally sourced foodstuffs, would have been sold in the *tabernae*, or small businesses, which lined the main thoroughfares into Pompeii (Wallace-Hadrill 1994, 123), to urban dwellers and rural visitors alike. Fast-food offered in the *tabernae* was one of a wide range of services available in the town which extended to prostitution in the backstreets of Pompeii, and currency exchange and financial transactions offered by *tabernae argentariae* (moneychangers) in the *macellum* (market).

The wealth of activities at Pompeii from pottery makers to blacksmiths, joiners to carpenters suggests that early Imperial towns had a commercially diverse relationship with their periphery. How important that relationship was, and the degree to which the Roman road network facilitated that association is altogether more difficult to interpret. Was Pompeii typical of a small town with trade links seemingly limited to its orbit of immediate influence, or did that economic relationship extend to other regions further afield?

Our knowledge of ancient trade within small villages and large commercial centres has been considerably strengthened by the discovery of papyri in Roman Egypt, which in my opinion provides an invaluable insight into economic activity which is often not shown by the archaeological record. Two sites, in particular, are of extreme interest in highlighting the importance of economic activity in this period. The first is the small village of Karanis located at the northeast corner of the Faiyum oasis on the west bank of the Nile, and some 90km from modern-day Cairo. The documentation found at the location attests that the village employed dyers, fullers, weavers, an embalmer, a necropolis worker, wool-sellers, fish-sellers, vegetable-sellers, a butcher, a lamb-butcher, wine-sellers, goldsmiths, transporters, shepherds, cow herders, a doctor, a cobbler, hair-cutters and scribes (Alston 1998, 170). Karanis' small population of up to 3,000 (Pompeii's has been estimated to be around 10,000 (Wallace-Hadrill 1994, 99)) begs the question as whether these small Roman-era settlements were more vibrant than previously thought. Karanis' dependence on grain as a staple crop and the lack of any elite residences at the site implies to a relatively average settlement. Where Karanis may have had an edge on other settlements in the region was its position on the main Faiyum to Memphis road. A registration document from the mid second century AD records that 55 camels and ten calves, which were owned by eight different people, were in the care of a single person (Alston 1998, 174). It could be the case that these beasts of burden were employed to transport goods further afield and this situation may bear similarities with the 'archive of Nikanor', which documents the transport of goods by an enterprising Roman Egyptian and his transport company, to soldiers posted to the Red Sea and Eastern Desert. The naming of a certain Philostratos of Panes on the same document as a possible intermediary (Adams 2007, 214) suggests that the transportation of goods was a complex affair with a series of individuals in charge of the caravan at various stages of its journey.

Although Karanis was a small village which principally interacted with surrounding settlements its role may have extended to and incorporated wider economic networks, perhaps as a result of its prime location on the Fayum to Memphis road. At larger centres, for example Oxyrhynchus in Upper Egypt, the city's role as the administrative capital of the 19th *nome* helped to create an economic powerhouse in the region. Accounts, census material, receipts, tax returns, invoices, as well as correspondence on military, administrative, religious, political and above

all economic matters from archaeological excavations provide a valuable insight into the workings at the settlement. Above all, it has been the manner in which the information has been utilised which has created a picture of different zones of contact. The first of these zones is the Oxyrhynchite, the area under the immediate administrative supervision of the settlement, which accounts for 40-50% of all correspondence. Next is the region at a distance of 90km from Oxyrhynchus, which accounts for 45% of all non-Oxyrhynchite contact and finally zone three which runs about 230km to the north and 260km to the south which involved 17% of all non-Oxyrhynchite correspondence (Alston 1998, 186). This would appear to suggest that commercial exchange at Oxyrhynchus was tempered by degrees of connectivity between different regions in Roman Egypt, which has an important bearing on how we interpret local, regional and supra-regional activity within the Roman empire.

2.4.2.2. Commerce, Communications and Connectivity in the Early Imperial Era

The findings from the large administrative and commercial centre of Oxyrhynchus, as well the small and medium-sized towns of Karanis and Pompeii suggests that these settlements forged a strong symbiotic relationship with their immediate hinterland and beyond. How representative that relationship was in terms of the size of settlement (papyri-sourced information from the small town Karanis shows more evidence of economic activity than archaeological information coming from the larger settlement at Pompeii), the location of the settlement (Karanis was on an important routeway), or whether our understanding of these sites is distorted by the available archaeological and historical evidence, is hard to ascertain. What can be said with more authority is that trade within the early Roman empire was more voluminous and pervasive than previously thought (Horden and Purcell 2000, 148). These conclusions come from many years of archaeological endeavour, but also stem from Horden and Purcell's methodological approach to examining the historical and material evidence. The incorporation of this within the present work would facilitate a greater understanding of the interrelationship of settlements through their communications network. Central to Horden's and Purcell's (2000) broad theory to understanding the Mediterranean region, and in particular the Roman empire, is a fourfold approach. This begins with (1) the notion that a 'regime of risk' pervades all societies and for this reason (2) a series of strategies (diversification of production,

storage and redistribution) are employed to cope with poor harvests and other problems. Within the Mediterranean world these strategies are strongly dependent on (3) distinct topographic characteristics which results in divergent 'microregions' shaped not only by a (4) distinctive communication system, but also the social, cultural and economic attributes of these spatial units (Horden and Purcell 2000; Purcell 2003, 10). Binding the ideas of 'regime of risk', and strategies that emerge to cope with it which result in 'microregions', is the notion of connectivity. In essence, connectivity explains how regions cohere and interact according to their individual attributes, as shown by Roman wheat yields, and to an extent wine and oil production, which varied from year to year and place to place (Horden and Purcell 2000, 152). This ensured that multiple overlapping 'microregions' which were subject to spatial and temporal change were constantly being redefined. Consequently, the degree of connectivity between 'microregions' ensures that communities, far from being represented as being frozen in time, can be shown to be vibrant entities which experience decline and intensification over the course of their existence (Woolf 2003, 135). This flexible understanding and interpretation of the Mediterranean world also moves away from analysing geographic entities (for example states and provinces) and instead seeks to identify multiple regions in the landscape which vary in importance and size from single settlements to the Mediterranean itself (Squatruti 2002, 267).

Horden and Purcell's theory of connectivity provides a valuable tool, in my opinion, to examine the role of the early communication network in the study region and its impact (along with other factors such as land use, and geographical features) on the settlement pattern of the Late Iron Age and early Roman period. However, there are a series of points that require further clarification if the theory of connectivity is to be employed in this thesis. The first is the emphasis that Horden and Purcell place on the importance of salt water communication, in this case the Mediterranean Sea above terrestrial routeways and freshwater transportation networks (Squatruti 2002, 267, 277). The focus on salt water communication and hence connectivity remains a central problem of Horden and Purcell's argument. In the case of Oxyrhynchus, its commercial activities were largely limited to Roman Egypt, and therefore made extensive use of terrestrial and freshwater communication networks. A further example of the importance of inland transportation systems is evident in central *Hispania* where locally grown wheat began to be traded more

extensively with neighbouring provinces. It is possible this economic ‘microregion’ took advantage of the River Duero, which was navigable in central Iberia (Strabo *Geographica* III, 3, 4), as well as terrestrial routes to transport goods to the coast. Alternatively, Roman highways, such as the road linking *Toletum* (modern-day Toledo, near Madrid) with *Corduba* in *Baetica*, may have played a pivotal role in providing a suitable means for land-based haulage (Curchin 2004, 166).

An additional problem with connectivity concerns how it can be identified within the archaeological record. By Horden and Purcell’s (2000, 160) own admission our understanding of ancient trade is often limited to elite exchange, and as a consequence low level connectivity is difficult to measure. Alston (1998, 165) makes a similar point when analysing Roman Egypt, and cautions the reader that surviving evidence, in this case papyri, would not have documented the trade and exchange in its entirety. This is further complicated, in the case of a large central place like Oxyrhynchus by the need to distinguish between commercial activity and administrative communication (Alston 1998, 167). We should acknowledge that while central places such as Oxyrhynchus were connected at a local and regional level this may not have been the case with all Roman settlements. Downs (1996, 97), for example, argues that many Roman settlements in southern Iberia along the Guadalquivir Valley were not integrated into a wider Mediterranean market economy, electing instead to conduct more localised exchange.

In seeking to redress these problems I believe it is necessary to develop a more holistic approach which utilises both terrestrial and fluvial routeways to examine the degree of connectivity between settlements. In section 2.4.3, I outlined the importance in generating an understanding of the relationship between routeways and surrounding communities, which would help us to investigate how connected settlements were at a local and regional level. However, such an enquiry, in particular an examination of terrestrial routeways, throws up an additional series of questions. For example, what was the relationship between settlements and land-based communication systems? Did early Roman settlements emerge along established routeways as Strabo (*Geographica* V.2.10) describes for the *Forum Flaminium*, *Forum Sempronia* and the town of *Nuceria* located along the *Via Flaminia* in Italy? Or was it the case that the Roman arterial road network connected already established settlements? Or was the reality a combination of these practices? Information generated for Research Questions One and Two (see sections 2.2 and

2.3), in particular the agricultural potential of individual sites and the probable economic, cultural and political union between settlements (discussed in greater detail in section 5.2.4), can be used to chart the multiple relationships that may have existed between settlements in the landscape. These include the identification of possible routeways which connected agricultural centres with market places, and extend to identifying the role of administrative and commercial centres in controlling their hinterland.

To measure the level of connectivity between settlements and ‘microregions’ is impossible, but the presence of five study areas allows comparisons to be made which help to address the central question of this section. In order to answer this final research question the following objectives are proposed.

To what extent did Roman fluvial and terrestrial routes exploit the pre-Roman communication network and how did this impact on the development of the Roman settlement structure?

Objectives

1. To define the terrestrial and fluvial communication network of pre-Roman and Roman northwest Iberia.
2. To explain the continuity and discontinuity of the pre-Roman and Roman communication system against; (a) environmental constraints; (b) the location, plan and form of urban and rural settlements; (c) socio-economic, political and strategic factors; (d) its degree of connectivity with the wider Roman world.
3. To explain continuities and discontinuities of the pre-Roman and Roman arterial road network and fluvial transport system against economic opportunities and political hegemony.
4. To analyse the role of pre-Roman and Roman structures in determining the trajectory of Roman roads and the role and importance of Roman communication routes in shaping the settlement pattern of northwest Iberia.

2.5. Summary

The central feature of this chapter has been to explore the principal debates outlined at the end of Chapter One and to develop a series of objectives to answer the three core aims. In exploring the archaeological evidence surrounding the three research questions, it become apparent that our knowledge of the study area between

the Late Iron Age and early Roman period is severely limited. In the case of late *castro* society there is evidence that settlements may have been integrated to some degree at a political or economic level. In this instance, I have proposed terminology such as connectivity, as a means to analyse the pre-Roman landscape, but it should be emphasised that this constitutes a very different term to that used to examine the early Roman landscape. This is because there is little evidence for the integration of northwest Iberia into the Roman world before its conquest in the first century BC, and it is my belief that by stressing the importance of the cultural and economic union of Late Iron Age northwest Iberia and Mediterranean systems of exchange would result in an erroneous and wasteful exercise. What is evident from the analysis of the Late Iron Age is to conduct regional comparative analysis to measure and understand the different processes at work in the landscape. This extends to the Roman period where late *castro* structures were being both abandoned and adapted into the early Roman settlement pattern. In consolidating our understanding of the study period the final section examines the importance of pre-Roman communication systems and Roman trade and administrative networks which are examined against the idea of connectivity, but incorporate data and analysis undertaken for Research Questions One and Two. In this way, the integrated approach which makes use of regional comparative analysis is proposed here and examined in greater depth in Chapters Four, Five and Six, with the express intention of developing a more comprehensive understanding of the study region from the Late Iron Age until the early Roman period.

Chapter Three. An Overview of the Five Study Areas

3.1. Introduction

This chapter provides an introduction to the five study areas, which will be used to analyse the changes experienced in northwest Iberia between the Late Iron Age and early Roman period. In providing a contextual background to the areas of study section 3.2, briefly examines those regions to be investigated, while the following sections explore the geomorphology of northwest Iberia, and its role in shaping the cultural and socio-political structure of the region. Section 3.5, examines the provenance of the datasets utilised in this thesis, the quality and thoroughness of the survey information, and the methodological approaches used to analyse the dataset. In sections 3.6.1 – 3.6.3 the key attributes of the site information are discussed in greater detail, particularly the dating of individual settlements and their contribution to providing a political, as well as socio-economic, understanding of human activity.

3.2. A General Analysis of Northern Portugal and the Study Areas Examined in this Thesis

Among the many factors which shape societies and their practices, the physical environment and a community's access to exploitable resources, natural communication systems and, in the case of the late *castro* society, defensible terrain, played an important role in determining the cultural dynamics of local and supra-local space. Landscape is rarely uniform and in northwest Iberia, where the interior is inhospitable, but the coastal areas are fertile and productive, this variability provides an excellent barometer to examine the changes which took place between the Late Iron Age and the early Roman period. In seeking to examine the transformation which occurred at social, political and economic levels five study areas (see Appendix A for a breakdown of the datasets) were chosen in modern-day northern Portugal, which would provide the means to conduct a comparative analysis of the region (see Figure 4). Three of these study areas - Study Areas North, South and East - derive from the Portuguese province of Trás-os-Montes and the dataset compiled by Lemos (1993 vol. II). The fourth dataset, Study Area Chaves comes from the fertile valley to the west around the Roman *municipium* of *Aquae Flaviae*, present-day Chaves, and the dataset assembled by Amaral (1993) and Teixeira (1996).

Lastly, Study Area Viana takes its name from the modern-day municipality located to the west of Chaves along the Atlantic coast in the region between the Rivers Minho and Lima, and has been compiled by Carvalho (2008 vol. II). Within their geographical context, the five study areas run in an east to west trajectory from the relatively agriculturally unproductive province of Trás-os-Montes to the fertile land adjoining the Atlantic coast.

3.3. The Physical Environment of Northwest Iberia

In seeking to characterise northwest Iberia it is relevant to begin with the central plateau of northern Spain, which is known as the Meseta (see Figure 19, below). This acts as a natural boundary restricting overland access to northwest Iberia (Curchin 1995, 11), and over time has inspired the region to look to other Atlantic cultures for social and commercial inspiration (Cunliffe 1995).

Figure 19. The geomorphological landscape of Iberia (Ninyerola *et al.* 2005, 25). Note. Height in metres.

North of the Meseta is the Cantabrian Cordillera, which hems in the hilly terrain of the Galician heartland to the west and is defined by strongly dissected mountains, and wide valleys and characterised by cold winters (Dobby 1936, 559-560). This landscape gradually gives way to the coastal plains of the Atlantic and Bay of Biscay littorals rich in aquatic resources (Bradley *et al.* 1994, 377).

Figure 20. The principal rivers of northern Portugal and their watersheds (López Quiroga 2004, 370).

Punctuating the landscape of northwest Iberia are a series of important rivers, many of which rise in eastern Spain and drain into the Atlantic Ocean in northern Portugal. This area is dominated by five main rivers: the Minho (Spanish Miño) which forms the border between Portugal and Spain, the Lima, the Cávado, the Ave-este, and the Douro (Spanish Duero), with the latter constituting the southern geographical boundary for this research (see Figure 20 above). Running perpendicular to these five principal rivers is a strip of rich agricultural land adjacent to the Atlantic coast which is characterised by a humid climate and black-coloured nutrient-rich luvisols. This climatic situation is the result of sharply rising terrain to

the east and a series of mountains such as the Penada range (see Figure 21 cross-section C-D below), which act as a natural amphitheatre trapping the sea moisture on the coastal plain where the average rainfall reaches 2000mm per annum, in contrast to the dryer plateaus of northern / central Portugal where the average annual rainfall drops dramatically to 700-1000mm per annum (Ninyerola *et al.* 2005, 38-39). In regulating the movement of humid air towards the interior, the climate, orography and ecology of the agriculturally rich Atlantic coastal area differs greatly to regions to the east which are characterised by a dryer, less verdant and harsher landscape (Ribeiro 1987, 149-150).

Heading inland from the Atlantic coast the terrain rises gradually (see Figure 21 cross-section E-F) until it meets the geological fault of Régua-Verin where a steep valley has been carved out by the River Tâmega, a tributary of the River Douro (Feio 1951, 193). To the north of the Tâmega Valley is modern-day Chaves (see Figure 3, page 21), ancient *Aquae Flaviae*, where the Roman settlement strategically controlled the surrounding plain and access across the Roman bridge over the River Tâmega. East of Chaves, the terrain of Trás-os-Montes is dominated by easily eroded and unproductive soils as well as a series of mountain ranges between 1200 and 1500m in height, which divide and dissect the landscape (Lemos 1993 vol. I, 89).

Figure 21. The terrain of northern Portugal (Queiroga 2003, Illustrations).

3.4. The Human Landscapes, Past and Present: Settlement Patterns, Movement and Communications

As I have already discussed, the unique physical environment of northwest Iberia has over many millennia played a pivotal role in how the region has interacted with other cultures. During the Bronze Age there was a high level of connectivity between northwest Iberia and the coastline which ran from the Mediterranean to the British Isles, which gradually declined with the demise of Phoenician trade-networks in the Early Iron Age (Cunliffe 1995; 1999, and see Chapter One). The accessible corridor along the Atlantic coast, rather than the more mountainous and remote region of the western Meseta, would see the gradual encroachment of Republican Rome on those communities located to the north, near the mouth of the River Douro (Keay 1988, 35). Over time the principal urban settlement in the region, *Bracara Augusta*, with its prosperity guaranteed by rich farmland, would become a *conventus* capital during the Roman era, and thereafter play a key role in the Christianisation of the region with a bishopric founded in the late Roman period, and an archbishopric in the twelfth century. In a similar way, the Roman settlement at *Aquae Flaviae*, founded in the fertile Tâmega Valley, would continue as an important settlement into the medieval period, with Chaves, as it became known, being fought over by Moors, as well as Christian kingdoms. The fact that Braga and Chaves continue to function as central places in modern-day northern Portugal illustrates the continuing importance of their location within the landscape. The same can be said for more rural settlements, which developed as farming centres such as *villae* and *vici* (Roman villages) during the Roman era, which developed into rural centres taking on the vestiges of Christian authority within a non-urban environment (López Quiroga 2004, 289-297).

The written and archaeological records demonstrate that Roman towns, among them *Bracara Augusta* and *Aquae Flaviae*, as well as rural sites would constitute and continue to play a central role in the settlement pattern of northern Portugal. What is less established is the degree to which Late Iron Age structures formed the basis for early Roman settlement patterns, communication systems and the exploitation of the landscape. In seeking to examine the changes between the Late Iron Age and early Roman periods, the next section analyses the five study areas in greater detail, and in particular examines the methods used to date individual settlements and the information they provide as to the socio-economic and political nature of society.

3.5. The Derivation of the Dataset and its Application for Regional Survey Analysis

3.5.1. Introduction

This section outlines the derivation of the datasets utilised in the analysis of the five study areas, starting with a breakdown of the type and number of each settlement present in each dataset. This is followed by a more detailed analysis of the associated problems of regional survey analysis and an investigation of the data used in this thesis. As a result, I will examine at a broad level the methodological approaches used to analyse regional studies, for example GIS-based techniques, and question how appropriate they may be for use in this study.

3.5.2. An Introduction to the Dataset

The dataset employed in this thesis is divided across five study areas: Study Areas North, South, East, Chaves and Viana, as shown in Table 1 below (this data is presented in greater detail, as with all the study areas, in Appendix A, with a list of coordinates of each site, its chronological sequence and a list of references for each settlement). In Study Areas North, South and East the dataset is largely drawn from Lemos' (1993) unpublished PhD 'Povomento de Trás-os-Montes Oriental', which examined the Late Iron Age and early Roman period in the modern-day Portuguese province of Trás-os-Montes (note: permission has been granted to use Lemos' (1993 vol. II) dataset). Among the distinctive features of the three study areas is the presence of *civitas* capitals in Study Areas North and South, but an absence of a *civitas* capital in Study Area East where two *vici* settlements may have fulfilled an administrative and central place function (such ideas are examined in detail in Chapters Five and Six). Other notable characteristics of Study Areas North, South and East are the greater number of agricultural producers, in the form of *villae* and *casals* (small rural holdings which fulfilled an agricultural role, but were less important in size and function (thereby lacking a mill to process cereals, or *dolia* storage vats to store and transport produce) than *villae* holdings and lacked a large central building to oversee operations, see section 3.6.1 for further detail) in Study Areas South and East, in sharp contrast to Study Area North. In the fourth region, Study Area Chaves, the dataset is drawn from the catalogues of two unpublished MA theses; Amaral's (1993) study of the Upper Tâmega Valley from the Late Iron Age until the Roman era; and Teixeira's (1996) analysis of the area around *Aquae Flaviae*

(modern-day Chaves) from the Late Iron Age until the Middle Ages (note: permission has been granted to use Teixeira's (1996) dataset).

Study Area/ Settlement Category	North	South	East	Chaves	Viana
<i>Castros</i>	88	61	41	50	138
<i>Castros from the Roman period</i>	21	29	11	13	74
<i>Castro and villa</i>	0	1	0	0	0
<i>Castro and casal</i>	0	1	0	0	0
<i>Castro and mining settlement</i>	0	0	1	0	0
<i>Civitas capitals</i>	1	1	0	1	0
<i>Vicus</i>	1	1	2	1	3
<i>Vicus and mansio</i>	0	0	0	0	1
<i>Vicus and mutatio</i>	0	0	0	0	1
<i>Vicus and mine</i>	0	1	0	0	0
Roman settlements	20	19	15	10	9
Fortified Roman settlements	0	0	1	2	0
Roman habitats	0	0	4	2	72
<i>Statios</i>	1	0	0	1	0
<i>Mutatios</i>	1	0	2	1	4
<i>Mutatio and settlement</i>	0	0	0	1	0
<i>Villae</i>	2	8	5	22	12
<i>Villa and mansio</i>	0	1	0	0	0
<i>Casals</i>	3	30	17	33	47
Mining settlement	0	1	5	0	0

Table 1. A breakdown of the numbers of settlements in each study area of which three major site types can be identified (note: 'Roman-period *castros*' are drawn from the category '*Castros*' and are therefore counted twice). The first category are *castro* settlements as well as a series of Late Iron Age *citânias* in Study Area Viana. The second grouping are those Roman-period *castros* which continued to be occupied into the early Roman period. Another category are those structures which were founded in the early Roman period but which can be divided into separate settlements with different forms and functions i.e. *civitas* capitals, *vici* and Roman settlements (which can be defined as a cluster of lowland dwellings located together but with no discernible agricultural function). Lastly, Roman habitats most likely correspond to Roman settlements (although we should not rule out other functions) and derive from Carvalho's (2008 vol. II) reanalysis of the incomplete archaeological record of Study Area Viana.

There are two key features within Study Area Chaves. The first is the presence of a *civitas* capital and later *municipium*, which played an important

economic and political role both within the area under its territorial control and perhaps beyond (and will be examined in greater detail in Chapters Five and Six). The second point are the far larger number of *villae* and *casals* in Study Area Chaves as a percentage of settlements when compared to the numerically superior number of agricultural centres in Study Area Viana. The last of the datasets, Study Area Viana, comes largely from the region between the Rivers Minho and Lima and is characterised by a more densely occupied Late Iron Age and Roman settlement pattern than in the other study areas. Additionally, this region, like Study Area Chaves, appears to have invested heavily in agricultural production, and in a similar way to Study Area East, may have been administered during the Roman period by a series of *vici* and other small settlements (see Table 1 above). The data for Study Area Viana is drawn from unutilised site information derived from Helena Carvalho's (2008) PhD study of the region which involved reanalysing Almeida's (1990) dating of the Lima Valley between the Late Iron Age and the early Roman period. Permission was kindly granted by Helena Paula Abreu de Carvalho in 2008 to utilise the data she did not employ in her own PhD thesis, and this now constitutes Study Area Viana.

In summary, the five study areas which form the basis of analysis in this thesis are drawn from a series of catalogues, which represent the wide variety of site surveys, excavation reports and regional studies. In the following section the provenance of these archaeological reports, their quality and the thoroughness of the regional surveys, i.e. Carvalho (2008), Lemos (1993) and Texeira (1996), utilised in this thesis are examined in greater detail.

3.5.3. An Evaluation of the Dataset and Comparative Regional Settlement Analysis

A central feature of the regional settlement studies both within northern Portugal and beyond is the quality of the dataset and the robustness of the methodological approach used to generate reliable findings. This has become a problematic issue in recent years, with settlement studies whose datasets vary in quality and employ different methodological approaches, but which have nonetheless been combined into larger interregional analytical surveys, as exemplified by two studies from the 1980s. The first problem is shown in a series of investigations conducted in western Morocco along the basin of the River Oued Sebou, which

sought to equate population density with rural form and function (Euzennat 1985; Rebuffat 1986). However, it has since been established that few villages appear to have been founded during the Roman period in a region where archaeologists expected to find a dense network of Roman settlements (Vallat 1991, 11). In the second example, Leveau (1984) has compared rural settlements around *Caesarea* in *Mauretania* (present-day Morocco) with two other study areas north of Rome; the *Ager Faliscus*, and the *Ager Cosanus* on the Tyrrhenian coast of central Italy, to generate a model of territorial size for rural structures. Here, criticism has been made of the chronological accuracy of Leveau's material evidence and the subsequent use of such data to compare and analyse two disparate regions (Vallat 1991, 11).

These problems raise three key questions which can be applied to an examination of the data employed in this thesis. (1) How thoroughly has the area been surveyed both in terms of the quality and quantity of data? (2) How accurate is the chronological sequence of material evidence? (3) How compatible is site information drawn from different regional datasets and can an interregional study be effectively undertaken?

In addressing the thoroughness of the regional studies and the quality of site information from northern Portugal used in this thesis, it is possible to identify three key periods of archaeological excavation and surveying. The first is the period at the end of the nineteenth century when excavations were conducted by wealthy individuals such as Francisco Martins Sarmiento, who was the first to excavate the *citânia* of Briteiros (see section 1.5.6) and José Leite de Vasconcellos, who mapped the Bronze and Iron Age landscape between the River Douro and Minho (Queiroga 2003, 3). This work resulted in a great deal of data being collected, which although incomplete and often inadequately investigated, has been added to and improved on over time. The second point is the role played by *castro* settlements which initially captured the imagination of early archaeologists in the region, such as Sarmiento. Not only were these hillforts clearly identifiable, and often known to the residents living in the area, but also the cataloguing and excavation of these sites familiarised archaeologists with less grandiose remnants of Roman settlements such as *tegulae* (flat roof tiles), *imbrices* (roofing joint tiles) and Roman pottery. Over time, the inventory of Roman sites was added to, and in the period from the 1930s onwards there was an increasing focus by archaeologists such as F. M. Alves, to J. M. Neto in the 1970s, and A. P. Lopo, J. A. T. M. Marques, and A. Rodríguez Colmenero in the

1980s, on excavating these sites and compiling a more detailed catalogue of ancient settlements for the region.

The 1980s also marked an important decade in archaeology in northern Portugal, as a greater emphasis was placed on excavation, data collection and analysis, much of which was overseen by the University of Porto, the University of Minho and by regional council and archaeological bodies, such as the Serviço Regional de Arqueologia da Zona Norte which was active in the area around northern Trás-os-Montes. During this period of activity catalogues of finds for northern Portugal were updated (*cf.* Alarcão 1988; Silva 1986) and improved techniques of survey and excavation were introduced, including more detailed stratigraphic analysis and the use of test trenching, surveying, and radiocarbon dating (see Queiroga 2003, Appendix II). This enabled the re-examination of many sites, particularly Late Iron Age settlements which continued to be occupied into the early Roman period, thereby establishing a more robust chronological sequence for material evidence and the dating of individual sites (see Höck 1980).

Improved surveying techniques in recent years have gone hand in hand with a greater appreciation of the theoretical pitfalls associated with collecting, processing and reading the material record. For example, fieldwalking activities have been used extensively to collect and correlate surface finds in Iberia (see Carreté, Keay and Millett's (1995) Survey of the Territory of Tarragona), but such activities can often provide an incomplete reading of the landscape, especially where vegetation, woodland, houses, landfills and other impediments may influence the collection of material evidence (Terrenato 2004, 40). Carvalho has acknowledged in her fieldwalking activities, that the crops under cultivation play an important role in determining the quantity and quality of artefacts recovered (2008 vol. I, 298). Lemos (1993 vol. II, 7) makes similar criticisms about the effectiveness of fieldwalking activities, and warns about the dangers of cross-contamination in the material record as mechanised farming increasingly displaces the soil (Yorston *et al.* 1990, 69). This is demonstrated by studies conducted on pottery sherds which have shown that repeated ploughing acts to recycle ceramic finds, and provide different sherd counts and collections over time (Ammerman 1981, 71; Dunnell 1992; Lloyd and Barker 1981, 291; Taylor 2000). In regions which are subject to more agriculturally-intensive exploitation, the issue of cross-contamination of the archaeological record

has become a very real problem, with sherd-rich earth found to be spread across fields as a fertilizer (Given 2004, 17).

Improved survey and excavation techniques in conjunction with a greater awareness of the problems associated with generating and recording information have seen more accurate information published in recent years. In addition, there is a greater focus on understanding regional patterns. This is most evident in Carvalho's (2008) reanalysis of Late Iron Age and early Roman data from Almeida's (1996) investigation of the region between the Minho and the Douro. It is also visible in Lemos' (1993 vol. I) incorporation of regional studies, for example Sanches' and Santos' (1987) analysis of the region of Mirandela (Trás-os-Montes), into his investigation of Trás-os-Montes between the Late Iron Age and early Roman period.

In addressing the first question posed above as to the validity of the site information used for analysis in this thesis it is thus apparent that the datasets are as reliable (both in terms of their quality, and thoroughness in identifying Iron Age and Roman settlements) as they can be. Moreover, the quality of the data also stems from their constant reappraisal both on the level of individual sites, many of which have been surveyed various times, but also through their incorporation into regional studies and more analytical frameworks, which will be discussed later in this section.

The second question concerns the validity of the quality of chronological data employed in this thesis. The discussion above has shown that the quality of recent excavations, surveys, and general data collection has created regional material which can be trusted both in terms of its thoroughness and quality. Analysis of excavated material evidence, particularly pottery containers e.g. *amphorae* as well as *terra sigillata* and coins have allowed surveyors to date some sites to within 25 years (see section 3.6.1 below).

A secondary issue is how we choose to structure and read settlement information through the creation of chronological phases, for example the 'Late Iron Age' and 'early Roman period'. Historians and archaeologists alike have identified that timeframes may be shaped by preconceived broad phases such as prehistoric, Greco-Roman and modern (Cunningham and Driessen 2004, 103, and see section 2.3.3), or in other cases by details of the material remains, for example the ceramic record (Cherry 1983). Evidently, the use of material evidence to provide a local chronological sequence of events can raise a series of problems, particularly in utilising various settlement surveys to conduct a comparative study. This can be

demonstrated with the Eretum and south Etruria surveys from northern Lazio, Italy, where inconsistent approaches to ceramic dating compelled those analysing two studies to create a series of artificial timeframes to examine the data (Witcher 2008, 18). Additionally, the timeframes which archaeologists employ are not limited to material evidence but may be determined by historical documents and key events (Alcock 1993, 24), or in the case of northern Portugal the founding of settlement, for example *Bracara Augusta* and *Aquae Flaviae*, where a Roman Emperor or Roman Imperial dynasty may shape our conceptualisation and so understanding of time.

It could be argued that the common use of terms such as the ‘Late Iron Age’ and the ‘early Roman period’, which are used extensively in this thesis to illustrate more general patterns, are symptomatic of the problems associated with creating artificial timeframes. However, one of the key strengths of the data employed for analysis in this thesis is that it is multifaceted (see sections 3.6.1 – 3.6.3 for a more detailed discussion) and for this reason no one form of material evidence shapes our understanding of the passage of time. This thesis argues that the transition between the Late Iron Age and the early Roman period can be studied as a process which may have varied between one area and another, and this is a hypothesis which is examined in this thesis.

Another key strength of the datasets employed in the analysis of the five study areas is the accuracy with which sites can be dated. Archaeologists surveying, excavating and cataloguing the landscape of northern Portugal have adopted a common chronological sequence and methodological approaches which mean that interregional studies can be effectively undertaken. This is in contrast to other interregional surveys where the different timelines, practices and objectives of individual projects have created a series of problems in bringing the information together (Attema and Van Leusen 2004, 97-98). One institution, the University of Minho, has played a key role in developing standard recordings of the three important regional studies of northern Portugal in the period between the Late Iron Age and the early Roman era (see Carvalho (2008) Lemos (1993) and Martins (1990)). In two of these studies, namely, Carvalho (2008) and Lemos (1993), both scholars adopted similar approaches which included: differentiating Late Iron Age *castro* settlements from Roman-period ones; recording urban and rural early Roman settlements; mapping the Roman arterial road network and incorporating the principal river networks. For the remaining study area, Study Area Chaves, the

information included in Teixeira's (1996) catalogue shares similar techniques and dating practices to those found in Lemos' (1993) inventory with many settlements on the eastern and south-eastern margins of Teixeira's study area taken from Lemos' database.

Despite the wealth of good quality site information contained within and utilised in Lemos' (1993) and Teixeira's (1996) studies, particularly in the case of the latter, the analysis is often limited to observing settlement data rather than examining it. Lemos does introduce many effective ideas, for example a breakdown of probable land use (see Lemos 1993 vol. I, 97), but was unable to extend his study further to examine the relationship between land use and settlement type due to the limitations of technology. In recent years more effective analytical tools have become available, such as GIS, which Carvalho (2008), uses in her study to analyse spatial relationships in the data, such as the distances between the principal Roman roads and Roman settlements. Other studies in northwest Iberia have also made extensive use of GIS techniques, for example Strutt (2000) in analysing the Late Iron Age and early Roman landscape in the Ave Valley Project in northern Portugal (see sections 4.6 and 7.3) and TAPA (*Trabajos de Arqueología del Paisaje*) coordinated by the University of Santiago, Spain, which seeks to measure the impact on archaeological sites of upgrades to Galicia's gas pipeline infrastructure.

GIS offers a sophisticated method of managing, analysing and presenting data (Gillings 2001), and has been strategically employed for analysis within this thesis to generate nearest-neighbour analysis for Iron Age settlements (see Chapter Four), and Thiessen polygons, and an examination of land use capacity for both Iron Age and Roman settlements (see Chapter Five). However, we should be aware of the dangers of using computer-based analysis, particularly as many of its opponents argue that they are teleological, and therefore focused primarily on achieving a series of end goals (Lock 2009, 77; Shanks and Tilley 1987, 124-125, and Tilley 1994, 11, in critiquing landscape archaeology). While it is not my intention to employ a more agent-centred investigation in this thesis (there has been limited success in marrying a more phenomenological methodological approach to computer-based analysis, see Lock's (2009, 75) discussion of Van Hove (2004)), I believe it is important to ascertain how we examine and interpret the archaeological record that is employed in the analysis of the dataset. For this reason, the following sections seek to provide an investigation of the strengths and weaknesses of archaeological record in establishing

a site classification and sequence of events for the study region, as well as the theoretical approaches we may use to interpret that data.

3.6. A Broad Characterisation of the Dataset

The section examines the material evidence used to identify settlement forms (see Table 1 in section 3.5.2) as well as other social, political and economic practices in the Late Iron Age and early Roman period. The dating and classifying of sites through pottery remains and numismatic evidence constitutes the first area of investigation, and the argument here also includes a short discussion on how we derive an understanding of acculturation from the archaeological evidence. *Fibulae* and torques from the Iron Age period are examined in the second section, and in the subsequent section there is an outline of the material evidence for cross-cultural contact and elite residences in the pre-Roman era.

3.6.1. Issues with Dating and Site Classification. The Ceramic and Numismatic Record

In examining the datasets to be used in this thesis it is perhaps appropriate we begin with the most common and reliable dating technique, ceramic ware and its various guises from kitchen implements through to commercial containers. Within the context of the northwest Iberian Iron Age, as in many cultures, pottery can be differentiated in many ways. As a chronological marker Early Iron Age ceramic ware was characterised by clay with a high mica content where vessels were crafted by hand and decorated with rectilinear geometric designs, which were characterised by limited variation in their design, decorative elements and motifs. These forms and fabrics differ from those of the Middle Iron Age until the Late Iron Age, where the principal temper of mica was replaced with quartz, in conjunction with the increasing use of the potter's wheel to model the clay. Additionally, potters in this period increasingly decorated the clay with complex compositions, which utilised curved geometric elements, greater diversification through the use of strips, and continuous lines and medallions within border areas. As a result, where Early Iron Age pottery was characterised by decorative simplicity, later Iron Age plastic forms now exhibit more complex patterns, which extend to different parts of the vessel such as the rim and the neck (see Figure 22 below) (Parcero Oubiña and Cobas Fernández 2004, 18).

Figure 22. Established differences between Early and Late Iron Age ceramics in northwest Iberia (Adapted from Parceró Oubiña and Cobas Fernández 2004, 17).

Clear differences in the use of raw materials, form, finish and decoration of Early and later Iron Age pottery allow settlements and structures to be unambiguously dated to the period before and after the sixth century BC. Additionally, the presence of more 'Roman' material evidence, particularly in the form of ceramic ware and *tegulae* and *imbrices*, which appear from the second century BC onwards, provides a timeframe for these fortified hillforts. Where problems arise in generating a chronological sequence for the Iron Age is in the nature of ceramic manufacturing, where we see a pattern emerge in which each *castro* settlement produced enough pottery to supply its own needs. This domestic production of pottery is shown by analysis conducted on material evidence from a series of *castro* settlements in the Cávado Valley (northern Portugal). The different colour tones of the ceramic ware showed that the temperature used to fire the clay varied between 600 and 900C as different amounts of firewood were burnt, and this illustrates the rather inexpert methods which *castro* communities employed (Little 1990). As a result the prevailing approach to date ceramic ware and the hillfort settlement in general has been through stratigraphic analysis, although in recent years methods such as radiocarbon dating often provide a more accurate means to contextualise Iron Age sites (see Jordá *et al.* 2002; Queiroga 2003, Appendix II).

Where Late Iron Age sites are easily identified through their monumental structures, in particular fortified defences, the precise dating of these settlements through ceramic remains is a less exact process. In many ways, the reverse is true for the early Roman period where large quantities of discarded pottery have been uncovered. Dressel 1 containers from the western Mediterranean, and Haltern 70 from the southern Hispanic province of *Baetica*, which together constitute 80% of the *amphorae* found in northwest Iberia, not only allow settlements to be clearly dated to the period between the first century BC to the first century AD, but they also testify to an early and vibrant trade with Roman colonies and provinces (Naveiro López 1991, 63). Such activities demonstrate a high level of connectivity between

southern Iberia and the Atlantic coast of northwest Iberia. How the trade and consumption of more Mediterranean products as well as the flow of ideas shaped the native communities inhabiting *oppida* and *castro* settlements is altogether more difficult to establish, and this raises a series of issues as to how we can use the archaeological evidence to identify new processes.

Central to the argument is the cultural fusion and its bearing on how new settlement forms and networks emerged through new practices within the context of Late Iron Age and early Roman northwest Iberia. There is a great body of work concerning the process of acculturation which is very much allied to the discussion of ‘Romanisation’ in section 2.3.2. It could be said that the theory of ‘Romanisation’, which advances the notion of the supremacy of Roman practices and their adoption by peripheral cultures, although conceptually flawed (see section 2.3.2), constitutes the most prominent theory of acculturation. Other models, for example Webster’s (2001) theory of creolization challenges the inadequacies of ‘Romanisation’ and advocates the existence of multiple cultures, but ultimately implies the development of a single culture. While acculturation may be more easily identified and understood within some contexts, for example the Roman military (see Mattingly 2011; Okun 1989), it is often more difficult to identify those processes in other fields of study, in particular to establish a relationship between material culture and cultural processes (Haselgrove 1990, 46; Jones 1997, 129). Allied to the fact that recent archaeological and historical studies have shown distinct regional and local practices developing around the Roman world (see Churchin 2004; González Ruibal 2006-2007, 654; Revell 2009, 78), I believe it important to distance ourselves from established models and frameworks and adopt a more fluid approach to identifying the process of change, as outlined in section 2.3.3.

How we read the material culture constitutes a critical element in the analysis conducted in this thesis and this can be seen in brief analysis of the ceramic record from Study Area Viana. In this case the *oppidum* of Cividade de Âncora (Study Area Viana, site 12 Note: each settlement within a study area has an individual site number which is shown in Appendix A) and the nearby *vicus* settlement 256, large quantities of Haltern 70 *amphorae* and southern Gaulish Samian ware demonstrate that both sites were active between the mid to late first century AD, and contemporaneous. The archaeological record shows that the Cividade de Âncora was abandoned during the late first century (Cavalho 2008, vol. II, 91), which may have

been a consequence of the increasing importance of the *vicus* settlement. In this instance the material record does not tell us any more, but the identification of another *vicus*, the *vicus vagornicense* (site 607, Study Area Chaves. See section 7.2.9 for a more detailed description), shows that this site was most likely colonised and administered by a native grouping (Teixeira 1996, 98). It is therefore possible that a community of Cividade de Âncora founded or colonised the nearby *vicus* settlement 256. In doing so they would have substituted a native dwelling (the Cividade de Âncora) for more 'Roman' style structure, but in all likelihood continued to exert a degree of administrative and political control as they had had done in the pre-Roman period. Whether such a process took place cannot be firmly established (and therefore form an important area of investigation in this thesis), but the cultural fusion and creation of new practices may have had a profound impact on the settlement pattern in the study region, in particular if native agents assumed administrative, economic and social powers.

Where ceramic evidence may help us to understand how the exchange of ideas and practices created new settlement forms and networks in early Roman northwest Iberia, it also provides a valuable means to identify the function and size of other structures, in particular agricultural centres. In the region of the Tâmega Valley in Study Area Chaves a number of *villae* settlements have been identified by large quantities of Roman-style *tegulae* and *imbrices* with smaller quantities of roofing material suggesting the presence of smaller rural sites, for example *casals*. This process of identification can be shown by the area *tegulae* and *imbrices* cover, which ranges from 7.1ha in the case of the settlement at the *vicus vagornicense*, to 2.4ha for villa site 51, and 0.3ha at *casal* 703 (Teixeira 1996, 98, 10, 104). Larger *villae* settlements can again be differentiated from *casals* through the presence of *dolia*, large ceramic vats, and millstones which testify to large-scale agricultural practices. We are also fortunate that some larger agricultural centres show evidence of pottery sherds from samian ware and *terra sigillata Hispania*, which were manufactured between the middle first and second centuries AD, and allow settlements to be accurately dated as demonstrated by *villae* sites 162, 208, 232, 238 and 242 which appear to have been founded between the first half of the first century to the late second century.

A second form of dating comes from numismatic evidence which can be used to date settlements and demonstrate probable contact with other cultures further

afield. In Study Area Viana a cache of Republican and early Imperial coins have been found at *castro* site 102, which would imply the occupation of the site between 109/108-104 BC (Centeno 1977, 94, 99), as well as an Iberian denarius found at *castro* site 1 and dated to 73 BC (Carvalho 2008. vol. II, 133). How we chose to interpret the presence of these artefacts within the context of northwest Iberia is altogether more difficult. The coins could represent the vestiges of trade networks with other regions and therefore served their primary purpose as a means of transaction. Alternatively, it is possible that individuals employed as mercenaries or auxiliary soldiers in the Roman army (for example, during the Lusitanian Wars in the second century BC (Millett 2001, 167; Queiroga 2003, 98)) returned to their communities with coinage, where these items may have taken on a symbolic value in the absence of any evidence of indigenous forms of minted currency in the region (see section 1.5.5). Both scenarios do nevertheless indicate that northwest Iberia was becoming increasingly drawn into the ambit of the Mediterranean world in the pre-conquest period, where trade as well as returning soldiers would have provided a means to familiarise native peoples with central Mediterranean societies (Wells 1999, 47). How widespread such practices were or how they impacted on native communities is difficult to ascertain, and thereby forms an additional area of investigation in this thesis.

It is during the early Roman period, with the introduction of a monetary system, that numismatic evidence is best employed as a means to establish the chronological sequence of the region. Moreover, coins from the period can be readily employed in conjunction with Roman pottery and tiles to establish the chronological sequence of a settlement. In the case of villa 390 in Study Area East the discovery of an *as* from the reign of Emperor Vitellius (AD 69) and early *terra sigillata hispanica* suggest the complex floor plan of the luxury residence was built shortly after the area was occupied by Roman authorities (Lemos and Marcos 1985, 143-148). As I shall discuss in greater detail in section 5.3.3.1 the timeframe offered here provides a clear opportunity to examine how the landscape and practices of northwest Iberia transformed (over the course of a few generations) from the Iron Age to the early Roman period.

3.6.2. *Fibulae* and Torques. Evidence of Distinct Social Structures and Relocation within the Landscape?

Fibulae and torques form a second means of mapping the cultural sequences within the Late Iron Age and Early Roman period. Within the context of pre-Roman northwest Iberia *fibulae* found in the region not only provide a loose means of dating sites, but may also represent the presence of different social systems within the landscape. In short, two principal types of *fibulae* can be identified, the first being the longo travessão sem espira brooch, which is characterised by an arched bow and long arms (see Figure 23 below), and dated from the fifth until the first centuries BC. The stylistic changes and increasing complexity of these brooches has been interpreted as indicative of emerging or growing systems of power and inequality within *castro* society (González Ruibal 2006-2007, 431). Although such a *fibula* has been found at a possible Iron Age central place (the *castro* of Saceda, see section 2.2.2.4) such ideas are, in my opinion, inconclusive as they cannot be corroborated against wider economic, social and political practices. The second main group of *fibulae* are those which are artistically and culturally derived from the region around the Meseta (see Figure 23 below).

Figure 23. The distribution of longo travessão *fibulae* (to the left) and Meseta type brooches (right) (González Ruibal 2006-2007, 452).

In terms of their general distribution longo travessão sem espira *fibulae* are found to the west of the Tâmega Valley, while the Meseta group of brooches are found more to east of the Tâmega Valley. However, there is an overlap in terms of their geographical distribution, especially around the Tâmega Valley, where a longo travessão sem espira *fibula* dates the fortified hillfort of Outeiro dos Mouros (Study

Area Chaves, site 157) to between the third and first centuries BC. Also in Study Area Chaves a Meseta-type brooch dated to the first century BC has been found in the nearby Late Iron Age fortified hillfort of Muro da Pastoria Meseta (Study Area Chaves, site 413). Whether these different brooch styles correspond to different social structures, which characterised northwest Iberia – namely, a territorial-based society to the west and a kinship-orientated system to the east with a possible convergence of social networks around the Tâmega Valley (see 1.5.5 for an introduction to these ideas) – is an issue which will be explored in section 4.4 and subsequent chapters.

A second form of metallic evidence are Iron Age torques which can be divided into three regional groupings within northwest Iberia. The first are northern torques from modern-day Galicia; the second group are torques from *oppida* in northwest Portugal, which are identified through their elaborate decoration, which is representative of styles found in the Mediterranean area and perhaps indicative of contact with other civilisations in the region; and lastly, those torques from the area around north-eastern Portugal (González Ruibal 2006-2007, 422). In the absence of any archaeological or historical evidence it is difficult to discern if the different styles of torques correspond to different social and political practices, or whether their owners may have represented an emerging native elite in the Middle to Late Iron Age. However, they do provide an insight into continuity of native communities between the Late Iron Age and early Roman era.

Figure 24. Type A represents a Vila Boas style torque found at the Roman settlement of Tamancas. The Type B are *oppida* torques, in this case found at the *oppida* of Lanhoso, near modern-day Braga (Silva 1986, Estampas CXI-CXII).

A series of north-eastern Portuguese style torques (see Figure 24 above) found at the Roman settlement of Tamancas at Vila Boas (site 774, Study Area South) to the north of the *civitas Baniensium*, have been dated to the second and first centuries BC (Santos *et al.* 1965, 151). This strongly implies these prestige items were brought to the Roman settlement of Tamancas by the native inhabitants of the fortified hillfort of Senhora da Assunção (site 773, Study Area South) located a few hundred metres away. This suggests that native communities did not simply disappear (as with the community at the Cividade de Âncora which may have relocated to *vicus* settlement 256, see section 3.6.1), but may well have adapted to living in new settlement forms (in this case ‘Roman’ settlements located on lowlands and showing an absence of fortified defensives), and therefore forms an important area of investigation in this thesis. This is especially relevant in piecing together the process of change in northwest Iberia given that we have probable evidence of a community’s relocation from a native to Roman settlement, in the same way that the numismatic and ceramic evidence (see section 3.6.1 above) shows the construction of an apparent *ex-novo* villa settlement, but with no indication of involvement by native agents.

3.6.3. Evidence for an Emerging Elite and Cross-Cultural Contact?

In this final section we briefly examine the use of stone in the Late Iron Age and what it tells us about the social, political and economic systems that may have been in operation. It is during late pre-Roman period that walled structures became more monumental and complex as the stones used to construct defences were more carefully cut and arranged (Queiroga 2003, 45). The practice of employing better quality masonry in construction appears to have extended to dwellings themselves, as can be seen in Figure 25 below, from the *castro* de Lesenho in northern Portugal, where greater care and accuracy appears to have been taken when constructing the dwelling in the background compared to the building in the foreground. It is likely that these constructions are contemporary, as a wall common to both structures marks the limit of space to the east. Whether more opulent homes signify the presence of more prosperous and influential families who increasingly began to distance themselves from those who inhabited less impressive dwellings is not clear (Queiroga *pers. comm.* 21/06/2007). Moreover, it is difficult to substantiate how significant the differences are in the intramural architecture of the *castro* de Lesenho

compared with other late *castro* sites given the dearth of investigation into this valuable area of study.



Figure 25. Two dwellings from the *castro* de Lesenho in northern Portugal (Photo author's own).

Where more academic enquiry has taken place, which is relevant to the analysis conducted in this thesis has been the study of a series of zoomorphic sculptures in the form of boars/pigs or bulls found in Study Areas East and South. Known as *berrões* (singular: *berrão*) in Portuguese, and *verracos* in Spanish (see Figure 26 below), these large sculpted artefacts may bear witness to the presence of neighbouring tribal groupings, such as the *Vetton* and *Vaccaeii* north of the River Douro. If it was the case that there was a *Vetton* and *Vaccaeii* presence within the study region then how did this manifest itself, and did it result in new practices, above all commercial with the Iberian interior, which may have created inequality in Late Iron Age Study Areas East South? The basis for such ideas are examined in section 5.3.2 and discussed in greater depth in section 7.2.2.

Figure 26. The granite Toros de Guisando (The Bulls of Guisando) from Guisando, Ávila, Spain dating to the second century AD (Enciclopedia Libre).

3.7. Summary

In concluding this chapter two main points can be made. The first, is to assert the quality and thoroughness of the five datasets as well as the common practices employed by archaeologists which makes them highly suitable for use in an interregional study. The second point has been to describe the material evidence to be employed in this thesis in sections 3.6.1 – 3.6.3, and identify its strengths and weaknesses, which can be channelled, along with more dynamic methodological approaches outlined in section 3.5.3, to develop a more thorough understanding of the study region. The use of such analytical frameworks and material evidence will form the basis for further investigation in Chapters Four, Five and Six and seek to answer the aims and objectives outlined at the end of Chapter Two.

Chapter Four. The Geopolitical and Social Environment of Late Pre-Roman Northwest Iberia

4.1. Introduction

As the first of three analytical studies, this chapter provides a detailed examination of settlement patterns and their relationship to socio-political structures and commercial activities in the five study areas during the Late Iron Age period. In seeking to develop the theoretical basis of this investigation, the concept of the chiefdom as well as theories of social evolution (an approach which measures societal development along a scale of ‘progress’) are explored, given that they form an integral part of Sastre Prats’ (2008) model of late *castro* society. A second area of investigation examines the concept of borders, which I define as the recognised interface between two bodies (Ratzel 1897, 59) and how theories of group boundaries (the margins of an area of influence) can be applied to the analysis of the Late Iron Age in northwest Iberia. These themes are employed in conjunction with the empirical analysis conducted in this work to address the first aim of this research outlined in Chapter One, namely, ‘Did a Late pre-Roman Iron Age settlement hierarchy exist in northwest Iberia?’

4.2. Sastre Prats, Chiefdoms and Social Evolutionism

A central theme which emerges in Sastre Prats’ hypothesis (2001; 2008), and one which provides a framework for her model of northwest Iberia during the Late Iron Age, is the idea that hillfort settlements were elements of chiefdom societies (2008, 1022, 1024), and thus representative of one stage on an evolutionary scale of human progress. Sastre Prats’ use of theories of social evolution have been critiqued and commended in equal measure. Parcero Oubiña (2003, 269), for his part has distanced himself from what he terms a functionalist-evolutionist perspective, while Bintliff (2008, 1036), in the comments following Sastre Prats’ 2008 article, extols the social evolutionist perspective she advances, and Earle (2008, 1038), in the same section, supports the notion of chiefdoms and more complex state systems. The central importance of social evolution and the chiefdom which Sastre Prats (2008) employs to advance her argument require further examination. Although Sastre Prats does not directly define a chiefdom, her mention of tribal societies as forerunners of chiefdoms (2008, 1024), suggests that her use of the term derives from Service’s (1962, 149) evolutionary scale of human progress, which begins with bands, which

evolve into tribes, then chiefdoms and finally states. Within these developmental stages, Service envisaged chiefdoms as residential groups, where economic, social and religious activities became concentrated into the hands of chiefs with ascribed status of succession and rules and taboos, which structured their differentiated identities. This in turn allowed chiefs to control the means of production through redistributive actions thereby further consolidating their position (Service 1962, 149). However, there exist a series of key problems with the notion of social evolutionary theory and its implementation by Sastre Prats (2008).

The first critique to be made of the model of chiefdoms and the notion of societal progress is that they are simply outdated, as the theories which underpin them derive from the work of nineteenth century anthropologists. Two of the more influential models of social evolution were Morgan's *Ancient Society* (1974 [1877]) which argued for a classificatory system based largely on technological development (Conn 2004, 210), and Spencer's (1876) theory of societal development which advanced the notion of economic determinism (Sanderson 1990, 26). Where both models converged was in presenting a western mandate which promoted a table of progress and would continue to influence archaeological thought, whether explicitly or indirectly, until the present day (Chapman 2003, 34). In this respect, the theories of social evolution which Sastre Prats (2001; 2008) employs are very much embedded in the psyche of nineteenth century ideas of cultural superiority, albeit modified and incorporated into a more modern agenda which incorporated key elements of New Archaeology and its associated practices.

A key aspect of New Archaeology (see section 2.2.2 for a definition) was the positivist agenda it promoted, which is evident in the underlying philosophy of Sahlins' and Service's (1960) model. In this case, Sahlins and Service adopted White's Law of Cultural Dominance (1943) which affirmed a progressive view of more complex cultural entities outcompeting simpler ones through the use of better and more efficient technology. Such a theory also promoted the concept of general evolution where cultures passed through a stage-by-stage process (Yoffee 2005, 12). Consequently, by adopting the principal arguments of Sahlins' and Service's (1960) model of social evolution, Sastre Prats (2001; 2008) is constricted to ascribed stages of development, for example band, tribe, chiefdom and state, as well as the need for a community or culture to conform to the characteristics of that stage of society as laid down in the model. To this effect Sastre Prats (2001; 2008), may be indirectly

committing a similar mistake which has been identified in other archaeological research that of seeking to uphold the validity of the Law of Cultural Dominance (Pauketat 2007, 20). This is perhaps best illustrated in Sastre Prats' diachronic analysis of food storage space in late *castro* settlements (see section 1.5.4), which Sastre Prats (2008, 1029) argues remained a constant size over time, and thereby indicating that once an agrarian system had been consolidated that fed the 'familial' unit it remained stable. Only with the conquest of the region by Roman forces and the reallocation of land did more intensive farming techniques emerge generating surplus produce which could be bartered or sold. Through the granting of land rights by Roman authorities inequality would begin to emerge within *castro* society and this would see the beginning of hierarchical social systems as some individuals, notably the elite, consolidated their economic and social positions (Sastre Prats 2008, 1027). Consequently, the model promoted by Sastre Prats behaves in a similar manner to White's Law of Cultural Dominance as late *castro* communities are replaced by more complex settlements during the early Roman period.

A further point emerges from White's Law of Cultural Dominance (1943) and his unilinear law of societal development (i.e. a stage-by-stage process that societies pass through), which has come under attack from those providing alternative readings of social evolution. Steward's (1955) multilinear approach proposed that societies evolved along many lines and thereby suggested that a culture at a lower stage of development could leapfrog more developed societies. Steward's specific evolutionary views were incorporated into Sahlins' and Service's theory of social evolution (Service 1960, 33), albeit as a marginal idea, but they do not appear to have translated into mainstream use, as in the case of unilinear evolution. There are issues with the multilinear approach, most notably the need to classify societies according to an ideal type (Yoffee 2005, 7, 20), which is a problem that can be ascribed equally to unilinear and multilinear theories of social evolution. However, Steward's (1955) hypothesis does question one of the central beliefs of unilinear social evolution, that is the need to interpret societal development along one series of stages, which is an approach that Sastre Prats (2008, 1024) appears to embrace.

Steward's (1955) multilinear approach and White's unilinear reading of social development also betray wider problems in the classification of societies used to measure change, and this is evident in their application to archaeological practices. During a formative period in the 1960s, when new theories of social evolution were

being proposed, two theories rose to prominence. The first is the aforementioned hypothesis advanced by Sahlins' and Service's (1960) model which rested very much on an economically-determined classification. The second was a later hypothesis suggested by Fried (1967) which emphasised a more political approach (Chapman 2003, 36; Pauketat 2007, 22). Over time Sahlins' and Service's (1960) and Fried's (1967) models would become distorted in their use as archaeologists began to incorporate elements of both theories. These would include redefining chiefdoms as organisational and productive entities through a functionalist perspective (see Peebles and Kus 1977), the interplay of demographic analysis and environmental determinism (the hypothesis that physical geography rather than social conditions determine a culture) to interpreting the rise of chiefdoms (see Carneiro 1973), and increasingly the identification of chiefdom types; for example, Renfrew's (1974) individual and group-orientated chiefdoms, identified through material evidence and conceived along the lines of Service's (1962) economically-determined model. Renfrew's chiefdoms are also illustrative of the need to equate theory with practice and where societal types, especially chiefdoms, did not fit the anthropological and archaeological record new types were created (Chapman 2003, 41; DeMarrais *et al.* 1996, 16; Pauketat 2007, 19; Yoffee 2005, 20).

The identification of ideal chiefdom types is not borne out by the archaeological and anthropological record, as the underlying characteristics of these societies are far from uniform. Moreover, the idea of a chiefdom as a stage of development along a social evolutionary path appears to be a flawed one, with cultures often exhibiting varying paths of progress. For this reason, I believe it is important to distance ourselves from the ill-defined term chiefdom and its association with ideas of social progress which are demarcated by general theories, which often cannot be applied to examining the workings of real cultures, as I have already discussed above with reference to Sastre Prats' hypothesis of late *castro* society (2001; 2008). We should also acknowledge that while Parcero Oubiña (2003, 269) distances himself from social evolutionary theory, he too proposes that inequality only truly emerged with the granting of land rights by Roman authorities to native actors. In this argument, it is only with the assimilation of the region by Rome that more dynamic communities develop in northwest Iberia. However, we must question whether 'native' and 'Roman' represent stages of progress, as Revell (2009, 6) has stressed in her discussion of 'Romanisation'. The debate as to whether systems of

social inequality emerged before the conquest of the region by Roman forces represents a core theme in this thesis, given that unequal access to political and economic influence can often be translated into hierarchical patterns of settlement at the communal, local and regional level. Consequently, such ideas are explored in the following section with explicit emphasis on other practices, which may have created forms of inequality in late *castro* society.

4.3. New Approaches in Understanding Late Pre-Roman Society in Northwest Iberia. Geopolitical Borders, Social Boundaries and Spatial Divisions

In seeking to develop a more thorough understanding of Late pre-Roman Iron Age society in northwest Iberia, this section turns to borders and boundaries and the use of space as a means to interpret the relationships between individuals and their community, as well as wider contact at a regional level. The term community can be defined as a group of people who have a sense of shared belonging through communal rituals which act to unite members (Cohen 1985, 8). In this respect a community can be seen to constitute part of a settlement, as Fernández Posse (1998, 62) and Sastre Prats (2001, 42) have proposed, but may extend to incorporate other settlements (which can be seen, within the context of the Iron Age world, as the development of a tribal society as multiple families or communities are linked by a common culture as well as shared religious, economic, social and blood ties and often with a recognised leader). In order to investigate how communities can be identified within the landscape this section begins with an examination of borders and boundaries within Late Iron Age southern Britain. Here, the material and symbolic culture, particularly the presence of ceramic and numismatic evidence, which were not in widespread use in northwest Iberia during the Late Iron Age, tell us a great deal about possible ethnic groupings (and which can be defined as a group of people whose shared practices and social relationships create a culturally distinctive unit which is different from other groups with whom they have a minimum of regular interaction (Eriksen 1993, 12)). These ideas of spatial division are then applied to an examination of late *castro* society where a more robust theoretical approach is proposed to analyse communal groupings.

Within the context of southern Britain in the Late Iron Age, tribal boundaries can be inferred from the spatial analysis of ceramic artefacts and numismatic evidence. Coins were already in widespread use in the south of the island by the

second and first centuries BC (Haselgrove 1987; Kimes *et al.* 1982, 117), at which time tribal leaders would have been in control of their minting and distribution. As a result, the location of such coins appears to indicate the limits of control of the Late Iron Age territories, as well as show evidence for tribal expansion during this period. For example, the probable expansion of the *Catuvellauni* eastwards into the territory of the *Trinovantes* of modern-day Essex, as shown by the minting of coins by the *Catuvellauni* leader Tasciovanus from *Camulodunon*, the capital of the *Trinovantes* (Creighton 2000, 168). In terms of their distribution, Late Iron Age coins occupy similar areas to pottery styles both at a regional level (Millett 1990, 13, 15), as well as at a local level. The use of ceramic and numismatic evidence to determine boundaries of influence has been demonstrated in the area around Norfolk, where a border region existed with a series of farmsteads affiliated to either the *Iceni* tribe, who controlled the territory to the north, or the Eastern Kingdom (the *Trinovantes* and *Catuvellanui*), who controlled the area to the south (Pitts and Perring 2006, 193).

However, we should acknowledge that the correlation between material culture and ethnic groupings (and possible tribal units, which is discussed below) are not always clear cut (Jones 1997, 141). Haselgrove (1990, 46) has demonstrated in his study of Belgic Gaul that material culture was rarely uniform as its use and function was determined by individuals and local groups. Haselgrove's caveat can be demonstrated by archaeological studies which show overlapping spheres of influence in Late Iron Age Britain, particularly between the (northern) *Dobunni* (who occupied the region around north Somerset, Bristol and Gloucestershire) and the Eastern Kingdoms in the areas around Oxfordshire (Creighton 1995, 299; Millett 1990, 14), where both political groupings appeared to vie for influence. Here, closer analysis reveals that the boundaries of influence of the Eastern Kingdoms have been shaped by the identification of Cunobelin's gold coins which extend far into western England. In contrast, silver and bronze coins issued by Cunobelin are found more commonly around *oppida* settlements of the Eastern Kingdoms and less frequently in peripheral areas (Sellwood 1984, 196-197).

The discussion above therefore suggests that we should be careful in how we equate material evidence with possible tribal margins of control. Additionally, we should also question how tribal groupings were manifest in the pre-Roman period. Much of our understanding of Late Iron Age peoples comes from later Roman sources such as Tacitus (Millett 1990, 18), as well as early Roman administrative

structures (*civitates*) formed from tribal groupings. However, it is likely that in the pre-Roman period the identities and territorial control of these Iron Age people was much more fluid (Mattingly 2007, 56). This can be demonstrated by the *Dobunni* where sub-divisions within the ceramic and numismatic record suggest that the tribe may have been divided into two groupings in the Late pre-Roman Iron Age; the northern Dobunnic and the southern Dobunnic. The reasoning behind a division in Dobunnic territory is based on the presence of south Glastonbury ware 2-5, which extends to the valley of the River Avon, but not beyond into northern Dobunnic territory (Sellwood 1984, 200-201). Within this possible southern Dobunnic realm, coins minted with the name Corio have been uncovered, with coins inscribed with the name Bodov found further north and perhaps representing northern Dobunnic territory (Sellwood 1984, 193). Whether Corio and Bodov were important and influential *Dobunni* clan leaders who united against external threats or conversely represent the fragmentation of once larger tribal grouping is difficult to establish. An examination of another tribal grouping, the *Brigantes* of northern England, would lend credence to the idea that these large tribal groupings were divided into smaller domains. Creighton (2006, 34) has effectively employed Tacitus' account of events (*Ann* 12.32) to argue that when Queen Cartimandua divorced her husband Venutius, he gathered support from disaffected clans to invade her territory. This would suggest that some Late Iron Age tribes in Britain were made up of smaller territorial units. Support for Creighton's hypothesis can be found with Frere (1987, 46) and his identification of a series of *pagi* (sub-divisions of the *civitas*, Millett 1990, 150) from the period after the invasion, whose names incorporate probable Late Iron Age groupings, such as the *Lopocares* from around Corbridge, and who may have constituted one of the clans which made up the larger *Brigantes* tribe.

In contrast to the looser affiliations of the *Brigantes*, and possibly the *Dobunni*, the *Durotriges*, who occupied the territory around Dorset appear to have functioned as a tighter political unit with their centre, the hillfort of Maiden Castle, which may have constituted the residence of their most important clan leader (Millett 1990, 28). It has also been argued that the *Durotriges* were more culturally unified than the tribal groupings which they bordered and this unity is visible not only in distinct forms of coin design and pottery, but also in burial practices. Where the *Durotriges* practiced inhumation their neighbouring tribe, the *Atrebates*, located to the east in Hampshire, cremated their dead (Blackmore *et al.* 1979, 102). It can be

argued that the *Durotriges* sought to consolidate their ethnic identity by establishing a series of shared values which distinguished them from neighbouring tribes in response to the need to protect their territory and commercial interests. This would appear to suggest that ethnic identity and tribal cohesion may have been more defined in some Late Iron Age groupings than others, and as Hill (2011, 252) argues we should not necessarily see these tribes as fixed units, but rather envisage them as more fluid entities which were shaped by time and changing circumstances. Moreover, as Hill elaborates the activities of a social group were not so clear cut, and it may have been the case that members, or communities of the *Durotriges* may have been participated in other political, economic or religious associations.

Three key themes emerge from the examination of tribal boundaries in southern Britain which can be applied to the analysis of late *castro* society. The first point is to acknowledge how we use material evidence to envisage Late Iron Age boundaries, and in the process avoid creating false divisions between communities, which did not exist in antiquity. A second consideration is that some tribes, for example the *Durotriges*, may have been more politically cohesive than other social groupings, but that does not mean their activities were exclusively limited to the religious, political and economic networks established by this tribal confederation. A final point is the fabric of tribal groupings in Britain during the Late Iron Age which appear to have been clan-based, but where there was scope for considerable flexibility as shown by the tribe uniting, particularly in times of war. These three points form the basis of analysing Late Iron Age borders, boundaries and models of Late Pre-Roman society in northwest Iberia in the following section.

4.4. Borders, Boundaries and Models of Late Pre-Roman Society in Northwest Iberia

As I have already discussed, material evidence in the form of coinage is absent in late *castro* society (aside from coinage from other areas such as coins from the Roman Republic and Iberian states prior to their assimilation by Rome), and pottery production and consumption was largely confined to individual settlements. Textually-driven sources are also limited with both Strabo (see *Geographica* Book III) and Pliny providing a series of lists of Late Iron Age tribal units which formed the basis for later *civitas* groupings, but with little detail as to how these social structures evolved, or their relationship with one another.

In reconstructing probable boundaries and borders during the late *castro* period there are, however, a series of other material artefacts which we can access. The first are *fibulae* brooches discussed in section 3.6.2, with *longo travessão sem espira fibulae* normally found to the west of the Tâmega Valley, while the Meseta group of brooches are found more to east of the Tâmega Valley. In terms of their geographical distribution it would appear that the River Tâmega formed a boundary, albeit a fluid one (González Ruibal 2006-2007, 452), with a Meseta-style *fibulae* uncovered to the west of the Tâmega Valley (Study Area Chaves Map 4, site 413). Whether the two brooch styles represented different social structures which characterised northwest Iberia – namely, a territorial-based society to the west and a kinship-orientated system to the east, with a possible convergence of social networks around the Tâmega Valley – is an idea which I suggested in Chapter Three. The evidence provided by *fibulae* brooches is interesting, but as I have already acknowledged above in the discussion on tribal boundaries in Late Iron Age Britain, material evidence does not always correlate to ethnic groupings and can often present an erroneous view of possible powerbases and divisions in the landscape.

A second form of material evidence, and one which appears to lend credence to the idea that the Tâmega Valley formed the boundary between territorial-based social systems to the west and a kinship-orientated social structure to the east, is the epigraphic record. Kinship-based social systems were characterised by lineages and families or *gentilitates* and *gentes* as shown by an inscription from a member of the *Zoelae* tribe or confederation, which encompassed the region around northern Trás-os-Montes. The inscription refers to Araus, son of Ablaeceus, from the *Desonsi* family (*gentilitas*) from the tribe (*gens*) of the *Zoelas* (*CIL* II 2633), and commemorates the political treaties between the *Desonsi* and *Tridiavi*, thereby testifying to a hierarchical kinship system, which incorporated the family, supra-familial units and lastly a tribal confederation. This suggests that a corresponding allegiance based on kinship ties, can be expected to exist at the familial, supra-familial and tribal levels, with the latter providing the basis for the *civitas Zoelarum*.

Of considerable interest in our understanding of kinship-based social systems are a series of four granite stones found near the River Outeiro Jusão, a tributary of the Tâmega Valley, with the symbols *PRAEN* and *COROC* carved on opposing sides each stone (*CIL*, II, 2489, see Figure 27 below).

Figure 27. One of the *PRAEN / COROC* boundary markers found near the River Outeiro Jusão, a tributary of the Tâmega Valley (Rodríguez Colmenero 1988a, 15).

The names *PRAEN* and *COROC* have been interpreted as supra-familial groupings structured along kinship lines who inhabited the nearby fortified hillfort of *Crastas de Santiago* (Study Area Chaves, site 548, Map 4) (Silva 1981-1982, 87-88) along the eastern bank of the River Tâmega. This lends support to the idea that the Tâmega Valley may have formed a boundary between kinship groupings to the east and territorial-based social systems to the west. At a local level, the *PRAEN / COROC* inscriptions have been variously interpreted as a means to establish borders between settlements (Tranoy 1981, 375), as divisional markers guaranteeing control and access to agricultural land (Silva 1986, 276). The dating of these stones to between the mid to late first century AD (Silva 1986, 275; Teixeira 1996, 81), is based on the assumption that they relate to the partition of the land with the consolidation of Roman authority in the region and the establishment of a new *civitas* capital, *Aquae Flaviae*. However, research conducted for this thesis strongly suggests that an important native settlement preceded the latter, most likely under the control of the *Turodi* (see 5.3.3.1 for a more detailed discussion). Within this context the *PRAEN / COROC* inscriptions take on a new meaning and are indicative of emerging

systems of control in the pre-Roman landscape, as competing groups established boundary markers and tangible spatial borders.

A second type of boundary marker can also be identified from the early Roman period and is characterised by an inverted \supset and generally found to the west of northwest Iberia, as I outlined in section 1.5.5. Further evidence for these territorial-based social systems are shown by the carving *STP /) INT COM CI I* from the territory of the *interamniense* within the *Conventus of Gallaecia Bracarensis*, which has been interpreted as *S(altus) T(erritorium) P(ublicum) / (castelli) Int (...?) COM(prehensus) CI(vitate) I(nteramniense)*. This suggests that individual *castro* settlements negotiated their own territorial boundaries within the larger *civitas* network (Pereira Menaut 1983, 174), thereby gaining a level of judicial, administrative and so political freedom (Pereira Menaut 1983, 176, and see section 1.5.7). The importance of this inscription lies in what it tells us about the emergence of larger *civitas* networks, in this case the *interamniense*, and how smaller territorial units, the *castellum*, were already incorporated into larger social structures under Roman authority. However, such an inscription also asks additional question about the social structure of the study region and in particular the changes which the region might have experienced between the Late Iron Age and early Roman period.

The first issue concerns where lineage and territorial-based structures operated, with the former traditionally occupying the region to the west of a buffer zone stretching from eastern Asturias down through eastern Trás-os-Montes (see Figure 3, page 21), and the latter to the east of that divide (Mangas and Olano 1995, 18-20). In recent years this interpretation has been re-evaluated with the recent discovery of the bronze Edict of Bierzo (see section 1.5.5), which has been dated to 15 BC on account of the two Roman consuls mentioned at the foot of the text (Sánchez Palencia and Mangas 2000, 9, 19). The central text of the Edict of Bierzo provides a legislative transfer of the *castellani Aliobrigiacini* from the *gens Gigurri* to the *gens Susarri* by Roman Imperial authorities, in recognition of an unstated native initiative. This edict not only demonstrates that kinship and territorial-based systems operated in the same region, but that both social structures appear to operate in conjunction with one another. This is particularly relevant in the case of the boundary markers *PRAEN* and *COROC*, which are more characteristic of the kinship-based social structures found to the east of northwest Iberia, but are located

in a region where territorial-based structures would be the accepted norm. A second problem is evident from the Edict of *Zoelas* from Bragança (northern Trás-os-Montes), and dated to AD 27, where the terms *castellani* and *gentiliani* are synonymous with and equate to single settlement units or *castros* (Mangas 2000, 50, 52). In this sense, there appears to be little organisational difference between territorial and kinship-based social system other than the term used, with hillforts incorporated into larger *populi* or *civitas* networks to the west of northwest Iberia, while to the east of the region the kinship-based *gentiliani/gens*/supra-regional groupings ultimately gave way to *civitas* organisations during the early Roman period. This therefore begs the question as to why different Roman authorities employed different terms, for example, *castellum* and *populi* to the west and *gentiliani* and *gens* to the east, to describe social systems which would appear to have shared key characteristics by the early Roman period. A logical explanation would be to assume that during the Late Iron Age the principal attributes of these two social groupings were actually very different, and this hypothesis will be examined in greater detail in analysis and discussion conducted in this chapter.

4.5. Settlement Analysis and Models of Late *Castro* Society

We are also fortunate in that our understanding of late *castro* society is not limited to these hospitality pacts between neighbouring settlements and tribes, but also extends to settlement analysis conducted in northwest Iberia. From a methodological point of view, and the results it generates, Martins' (1990) research into the long-term settlement patterns of the area between the Cávado and Ave rivers provides a valuable insight into boundaries and areas of control in northern Portugal, between the Bronze and Late Iron Age. For her analysis, Martins divided settlements into three categories. Type A, represent fortified *castros* dating from the Bronze Age until the early Roman period occupying strategic spurs overlooking fluvial boundaries in the valley below (see Figure 28 below). Type B, dating from the Early Iron Age, consisted of fortified hillforts, which were predominately located on small hills. Lastly, Type C, Late Iron Age fortified *castros* were orientated towards agricultural land and located on small rises near the valley floor.

Figure 28. Settlement patterns in late pre-Roman northwest Iberia. Type A *castros* are shown as boxed circles. The passage of the Rivers Cávado and Ave are in black and tessellated Thiessen polygons in grey (Martins 1990, 215).

Martins argues that during the Early Iron Age population pressure encouraged the colonisation and creation of Type B *castros* at the territorial periphery of Type A settlements, which were more suited to farm the resources of the valley below. In turn Type C settlements, located at the periphery of Type A *castros*, would emerge sometime during the second century BC to exploit the rich alluvial land along the valley edge more effectively (see Figure 28). Martins therefore presents a landscape of political dependency with Type A *castros* consuming those surpluses generated by Type B and C structures, and concludes that a hierarchical settlement pattern existed in the region in the Late Iron Age period, while others have interpreted such relationships in terms of political and economic segmentation (Sastre Prats 2001, 45).

In defence of Martins' (1990) premise that fortified hillforts may have shared social and economic functions, the existence of other Iron Age *castros* located within

close proximity suggest an element of cooperation between adjacent settlements. In Cerdedo in the Spanish province of Pontevedra, two *castros* known collectively as Os Castros de Quireza and dating from the Middle Iron Age (sixth century BC – second century BC), are separated by one hundred metres, with one structure occupying a more dominant geographical position than the other (Parcero Oubiña 2001). A second example dating from the Middle to Late Iron Age (sixth century BC – first century BC) is the pair of *castros* of Retén and Iria in Padrón, La Coruña, which shared adjacent defensive walls (Puente Míguez and Ruibal del Castillo 1978, 158). The presence of closely adjacent structures may have represented a series of strategies centred around the need to consolidate and coordinate resources, as well as to provide collective strategies in the face of potential external hostilities. It is also possible that population pressures demanded that new settlements be founded in a similar manner to Martins' (1990) study.

In seeking to understand how fortified hillforts interacted with one another there has in recent years been a move towards more computer-based analysis, which not only allows a considerable amount of data to be examined, but also quick and efficient analysis to be undertaken. A relevant example of a regional study of this type is the Ave Valley Project (see Strutt 2000), which examined a similar study area as Martins (1990), between the Rivers Ave and Cávado in northern Portugal, and utilised GIS applications and quantitative processes to analyse the settlement pattern of the Late Iron Age landscape through a series of tests. The first involved cataloguing the geological location of hillfort sites and thereafter analysing their observed and expected values by using a chi-squared test at a 0.05 significance level. The rejection of the null hypothesis showed that the *castros* were not distributed evenly across the landscape and were predominantly located on granite outcrops. The second area of analysis concerned the topographical location of the fortified hillforts with the largest grouping, 17 out of 24, located on hilltops, in conjunction with an analysis of the gradient of the land with 19 of 24 *castros* positioned on gradients of zero to four degrees (Strutt 2000, 126). The findings from the Ave Valley Project therefore demonstrate that granite hilltop locations provided the optimum location for *castro* settlements displaying the need to employ defence strategies (Strutt 2000, 131). While it is not my intention to analyse the correlation between the Late Iron Age settlements and geological position within the landscape, as the information would not tell us a great deal about late *castro* society, I believe this thesis would

benefit from a similar methodological approach, comparing late *castro* settlements and their relationship with the productive capacities of the landscape (see section 3.5.3 for an introduction to Lemos' (1993) land use capacity). An additional area of investigation conducted by the Ave Valley Project which would prove advantageous would be an analysis of the slope angle of settlements. In both cases, a comparative approach between the Late Iron Age and early Roman period would yield important results and provide a valuable insight into how communities transformed and adapted to the landscape during this period.

One aspect of research which requires further investigation is the use of viewshed analysis as a means to identify boundaries and settlement affiliations, which was used extensively in the Ave Valley Project. The problems and limitations of such an approach are best explained by Fábrega Álvarez's (2005) analysis of the diachronic sequence of development and change from the Early Iron Age into the Roman period in northern Galicia, Spain. Employing a methodological approach which rests heavily on the use of GIS-generated viewsheds, the study concluded that during the Late Iron Age a confederation of *castros* emerged in the region around the Rías (river valleys characteristic of the region), characterised by supra-local affinities manifest in intersettlement visibility and corridors of accessibility (Fábrega Álvarez 2005, 146). Pivotal to the analysis conducted in the study was the *castro* of Ladrido dating from the first century BC until the first century AD, which occupied a strategic position with visual access to all contemporary surrounding hillforts (Fábrega Álvarez 2005, 144). While the findings of such a study appear valid, often the methodology has been the subject of wider concerns, which have been levied at similar investigations, notably Carballo Arceo's (1993, 63) use of viewshed analysis to identify the clustering of Iron Age sites, which the author interpreted as demonstrating mutually beneficial socio-economic relations. The first criticism centres around the notion that intersettlement visibility demonstrates that single or multiple sites enjoyed a degree of cooperation, but where in reality the founding of new settlements and the need for accessible agricultural land, especially in the Late Iron Age, would have made settlements more visible to one another. A second issue concerns the presence of Early, Middle and Late Iron Age settlements, where the criteria, whether visual, defensive or strategic were inherently different (Sastre Prats 2001, 44, see sections 1.5.2 and 1.5.3 for a breakdown of the location of *castro* settlements between the Early and Late Iron Age). In this respect, it is important to

be aware that while settlements may have been contemporary during one period in time, for example those Late Iron Age settlements which Fábrega Álvarez (2005) discusses, their origins are often difficult to identify, and as such may have corresponded to different time periods and practices.

In summary, the studies discussed above demonstrate a series of theoretical issues and methodological problems in seeking to investigate how Late Iron Age settlements interacted. Where the argument has proven to be consistent is in the use of borders and boundaries, epigraphic evidence and environmental analysis as a means to examine late *castro* society, which will all provide the basis for the development of the applied methodology in this chapter.

4.6. Methodological Approach and Analysis

4.6.1. Introduction

The applied methodology employed in this chapter incorporates the key themes of the Late Iron Age discussed in Chapter Two and earlier in this chapter. Sastre Prats' (2008, 1029) hypothesis that fortified hillforts of the Late Iron Age were isolated entities with no demonstrable evidence of intersettlement cooperation (see section 2.2.1 for a more detailed discussion) is examined through nearest-neighbour analysis. This is discussed in greater detail in section 4.6.4, and provides a means to examine Sastre Prats' premise that late *castro* communities were physically and so socially and economically disconnected from one another. The presence of possible hierarchical settlement patterns in conjunction with the identification of border and boundaries is undertaken through an examination of tessellated polygons, and is discussed in section 4.6.5, with analysis of the five study areas explored in section 4.6.5.1. The third main area of investigation is land use capacity which provides a means to establish where Late Iron Age settlements were situated and evaluate their relationship with the landscape, both in terms of agricultural and possible strategic concerns. The examination of land use capacity (section 4.6.3) follows a brief analysis of each study area which is outlined below.

4.6.2. An Overview of the Five Study Areas

This section presents an introduction to the five study areas which are examined in the following order; Trás-os-Montes North, Trás-os-Montes South, Trás-os-Montes East, Chaves and Viana. Maps 1-5 provide a brief analysis of each

study area, while a detailed examination of individual hillfort settlements, their surrounding environment and land use capacity is discussed with reference to Maps 6-10. Graphs 1-6 provide an investigation of nearest-neighbour analysis and Maps 11-20 illustrate possible settlement borders and boundaries represented by tessellated Thiessen polygons. All maps discussed in this chapter are to be found in Maps in Volume II of this thesis, as well as on the CD-ROM included at back of the thesis.

For reasons of clarity when discussing the maps, each has been divided into a grid system (table 2). These nine grid areas will be used when making a reference to a specific site or topographic feature and its corresponding position within the map.

Top left	Top centre	Top right
Centre left	Centre	Centre right
Bottom left	Bottom centre	Bottom right

Table 2. The division of maps according to the grid system.

Study Area Trás-os-Montes North (hereafter Study Area North) is characterised by unproductive land, a limited fluvial network and a cold climate during the winter months. Map 1 shows the Late Iron Age *castros* and the river system plotted onto the map, where river Types 1-3 were deemed to be streams, which would dry up during the summer, Type 4 small rivers, Types 5-7 medium size rivers and Type 8 large rivers such as the River Douro, which were navigable during all seasons. Within Study Area North the River Sabor runs to the left of the River Maçais on the right of Map 1, while a mountainous spine, beginning with the Serra de Nogueira in the top centre of the diagram and running south, dissects the region in two. As a result, while *castro* settlements are located along the margins of mountainous territory in Study Area North, there are few examples of hillforts located in an elevated position with the exception of sites 168 (bottom centre) and 28 (top middle).

The position of and possible relationship between *castro* settlements can be inferred from Map 1. In the bottom right of the diagram a cluster of four *castro* sites are visible, located around the River Sabor, with *castros* 45 and 46 to the west of the river and 97 and 461 to the east. It is likely that this area constituted a river crossing perhaps linked to long-distance trade controlled by settlements 46 and 97, which are

separated by a distance of 500m. Whether sites 46 and 45, and 97 and 461, which were each separated by a distance of 1400m, were mutually dependent cannot be firmly established, although their close location to one another is strongly indicative of an interdependent relationship. In the top centre of Map 1 settlements 255, 254 and 232 are clustered along the path of the river suggesting a degree of political cooperation, which may have incorporated shared security as well as the harvesting of fluvial resources and gold panning. Lastly, within the landscape the close location of series of *castro* settlements, namely, sites 67 and 65, and 30 and 31 in the centre, 6 and 8 in the centre right and 234 and 235, 263 and 225, and 265 and 228 in the centre left of Map 1, are indicative of a level of cooperation between Iron Age hillforts.

Study Area Trás-os-Montes South (hereafter Study Area South) is heavily influenced by the River Douro, which runs east-west and marks the southern margin of the study area. The region is further delineated by two smaller rivers, the Tua located in the centre of Map 2 and the River Sabor which is positioned in the bottom right of the diagram. Between these two rivers in the centre and bottom of Map 2 is an elevated plateau sparsely populated with a series of *castro* settlements (sites 530, 532, 535, 539 and 764) positioned along its outer edge. Location in proximity to major rivers does not appear to have been a priority with only one settlement (site 691 in the bottom centre) situated on the River Douro, site 680 on the River Sabor (centre right), sites 837 and 839 on the River Rabaçal (top left), and 823 (centre left) on the River Pinhão. Where *castro* settlements were not immediately located next to the river, they occupied strategic geographical positions, such as site 835 (centre) positioned on a spur in the land above the River Rabaçal, which permitted control of the valley below, site 822 (centre) centred on a crook on the River Tua, and sites 600 and 601 located near to the River Tua.

In contrast to Study Area North, only two sites 661 and 662 (bottom right), located at a distance of approximately 600m apart, display any evidence of shared systems of control. Rather where there is a concentration of hillforts to the left of Map 2 distributed between the Rivers Rabaçal and Pinhão, which appear to be divided into two groupings with sites 829, 826 and 815, forming the southern boundary of the northerly group, and sites 823, 825 and 802, located to the south of this formation. In the latter grouping, the larger of the settlements, the large fortified *castro* of Castelo de Vilarelho (site 802), in the centre left of the diagram, as with many of larger hillforts in the region boasted visual access and so probable control

over the hills and valleys, which extends down the River Douro (Lemos 1993 vol. II, 476).

Study Area Trás-os-Montes East (hereafter Study Area East) is dominated by the River Douro, which forms the south-eastern margin for this study area (note: the River Douro running from the bottom left to the top right of Study Area East, forms the study region border and modern-day frontier between Portugal and Spain). Within Study Area East three categories of settlement are visible on Map 3. Firstly, those *castros* which are located along the River Douro, namely, sites 585, 573 and 357 (centre bottom), 430 and 419 (centre), and 328, 327, 340, 304 and 321 (top right). Then there are the hillfort settlements positioned alongside other fluvial routeways, shown by sites 509 (centre left) and 172 and 353 (centre top) located along the River Sabor, sites 160, 184 and 185 on the River Azibo (top left), sites 587 and 589 (bottom left) on a major tributary of the River Douro, and *castros* 672 and 572 on tributaries of the River Sabor occupying a strategic view and possible control over the valley below. Thirdly, there are those settlements which were not located near to any major rivers, exemplified by sites 391 (centre), 302 (centre) and 178 (top centre), which may have been positioned according to other criteria, for example, access to good agricultural land and terrestrial routeways.

Study Area Chaves is located to the west of Trás-os-Montes and its principal geographical feature is the River Tâmega, which flows from modern-day Galicia south through Chaves, Roman *Aquae Flaviae*, after which its course narrows before it joins the River Douro. The river's trajectory can be seen on Map 4 running from the top centre down to the bottom left of the diagram. Despite the rich agricultural land offered by the Tâmega Valley, the need for hillfort communities to locate in defensible areas meant that only four *castros* have been identified positioned alongside the River Tâmega, sites 419, 423, 505 and 506 (centre left), all of which congregate around a small cluster of settlements to the left near the River Terva. These include sites 155, 402, 408 and 416, which may have operated as small-scale mining centres in the Late Iron Age (Teixeira 1996, 166), as well as a mine (site 410) and a local mining settlement (site 411), which operated here during the early Roman period. It is therefore possible that sites 419, 423, 505 and 506 located on the left bank of the River Tâmega interacted with the pre-Roman mining community centred around sites 155, 402, 408 and 416, to ship the cargo elsewhere.

Positioned to the right of the River Tâmega is a spine of high land, the Serra da Padrela, which runs from the top right down to the bottom centre of Map 4. As with Study Area North, a series of *castros* were located along the margin of the mountainous territory, where the gradient provided an element of defence, but also permitted access to the richer agricultural lowlands. Within Study Area Chaves a series of settlements beginning with site 301 (top centre), sites 706 and 719 (bottom centre), and site 328 (top right) can be seen to fulfil this function, occupying the margins of the highland. The size, and so perhaps the function of these *castros* varied from 2.8 ha for site 715 (bottom centre) and 2.4 ha for site 719 (Lemos 1993 vol. II, 553-554, 509-511), to less than a hectare for sites 706 and 709 (bottom centre).

To the right of Study Area Chaves a series of *castros* are located near to the River Rabaçal and its tributaries. In the top right a cluster of hillfort settlements (sites 340, 342 and 346) are located around a bend in the River Rabaçal. Further south lies a collection of *castros* at a distance of between 300m (site 606) to between 1000 to 2000m (sites 603, 609, 614, 616) from the River Calvo, while below that site 805 is 170m from the River Torto. This suggests that sites 346 (top right), 606 (centre right), 805 (bottom right), and sites 419, 423, 505 and 506 (centre left) located on the River Tâmega, may have utilised the river network for a range of activities from strategic purposes, perhaps as a barrier against raiding from adjoining settlements, to agricultural exploitation.

The final region to be examined, Study Area Viana, is positioned alongside the Atlantic Ocean and is dissected by a series of major rivers. The River Minho (Spanish Miño) forms part of the present border between Portugal and Spain and provides the northern limit for this study area. Map 5 also shows the path of tributary rivers, in this case the River Coura (centre left) which joins with the River Minho before it reaches the ocean. In the centre of the diagram is another major waterway, the River Lima, and below that forming the southern limits of this study, and only visible in the bottom right of this diagram is the River Cávado. Locating adjacent to these rivers was apparently not of prime importance for Late Iron Age communities, although there appear to have been a few exceptions such as site 103 (top centre), site 59 (centre right) and site 126 (centre left). Rather, *castro* settlements are grouped in the prime land and rich soils adjoining the coast, while avoiding the less productive highlands around the Serra de Agra (centre left) as well as the mountainous region to the east, especially the Serra da Peneda (top right). Within the

landscape there are several clusterings of settlements, most notably sites 11, 108 and 109 (centre left), sites 114, 115 and 121 (bottom left), 64, 70, 80 and 81 (centre) and above that 47, 51 and 52 (centre). Other than these major clusters, the neighbouring *castros* are closely grouped in twos, for example, sites 66 and 67 (centre), 77 and 95 (centre bottom) and 29 and 37 (centre top).

4.6.3. Pre-Roman Northwest Iberia and the Importance of the Physical Environment

This section examines the role of the productivity of the land, as well as analysing the importance of the fluvial network, to determine the pattern and structure of *castro* settlements within the five study areas. In investigating the relationship between *castro* settlements and their surrounding environment, the Iron Age dataset for each study area was projected onto a land use capacity for northern Portugal, which derived from a digital map, at a scale of 1:1,000,000 obtained from modern-day agricultural surveys undertaken by the Portuguese Serviço de Reconhecimento e Ordenamento Agrário (SROA). The SROA survey presents three principal land Types; A, prime agricultural land; C, extensive agricultural land where cultivation required more energy than prime agricultural land; and F, forested and wooded land, which have been used by others investigating the relationship between the physical environment and Late Iron Age communities (see Lemos 1993 vol. I, 97, 105, 135, 169).

As I have already discussed in section 3.5.3 Lemos' (1993) investigation of land use capacity was severely limited by the availability of statistical tools which have become more readily available in recent years, and are employed in this study. In the paragraph below there is a brief description of the general characteristics of land use capacity for each study area. Thereafter, Table 3 presents the total land area of each soil type, and Table 4 shows the percentage breakdown of soil type against the percentage of settlements located on that soil type. Table 5, shows the results of chi-squared analysis, which shows the difference between the observed and expected numbers of settlements located on different soil types. In presenting a brief breakdown of the general characteristics of each study we begin with the land use capacity of Study Area North (see Map 6). This region is heavily forested, shown by the yellow (Type F) colouring, but with little prime agricultural land, illustrated in blue (Type A). A number of *castro* settlements are located on the boundary of land

types especially Type A and F combinations such as site 124 (top right), site 133 (centre right) and 6 (centre right).

In Study Area South, the land use capacity can be divided into two categories. To the top and the right of Map 7 the landscape is heavily forested, but to the left of the diagram, especially in the region bordering the River Douro, the terrain is characterised by extensive agricultural land (Type C) shown in red, as well as intensive agricultural land coupled with forested areas (Type A+F) illustrated in brown. Where Type C and A+F land use predominates in the centre left of the diagram, there is also a corresponding clustering of Iron Age settlements.

The land use capacity of Study Area East (Map 8) is more similar to Study Area North than Study Area South with a large expanse dominated by forests (Type F). Where intensive agricultural land is present (Type A) in the landscape it does not appear to have been an important factor in determining the positioning of *castro* settlements, with many hilltop communities choosing instead to locate on mixed land providing intensive agricultural use and forest (Type A+F).

Map 9 shows the land use capacity for Study Area Chaves. The region is dominated by the Tâmega Valley, and the rich Type A agricultural land shown in blue can be seen running from the top centre down to the centre of the diagram. *Castro* settlements generally occupy the hillier region surrounding the valley, especially Type A+F terrain. In contrast to Study Areas North, South and East, fewer settlements are located on purely forested land (Type F), which occupies a smaller overall area in Study Area Chaves relative to Study Areas North, South and East.

Lastly, Study Area Viana (Map 10) shows a fragmented land use capacity, with Type A and F predominating towards the Atlantic Ocean, and Type C and F characteristic of the hillier and more mountainous territory towards the east. Correspondingly, *castro* settlements are located within or near to intensive agricultural land (Type A), especially along the Lima valley (centre and centre left, Map 10).

Table 3 below presents an analysis of the relationship between *castro* settlements and their surrounding environment. This information is broken down into the total area and number of *castro* settlements which occupied each soil type, and their total value is shown in the penultimate column. For example, in Study Area North Type A prime agricultural land represents 101.8km² of the 1766km² total

space which makes up this study area. In addition, 6 of the 87 hillfort settlements are located on this land.

Study Area/ Soil Type	A	C	F	A/C	A/F	C/F	Area / Number of Sites
North Km2	101.8	6.8	1453	11	140.8	52.8	1766km2
North IA sites	6	0	72	0	3	6	87 sites
South Km2	116.3	63.3	1218.7	5.5	138.3	200	1742km2
South IA sites	1	3	42	0	6	9	61 sites
East Km2	126.8	0	1250.6	0	208.2	46.9	1633km2
East IA sites	3	0	34	0	3	2	42 sites
Chaves Km2	171.1	4.6	515.1	5.4	270.7	101.5	1068km2
Chaves IA sites	6	0	37	1	8	1	53 sites
Viana Km2	370.2	265.9	1250	26.5	10.9	19.1	1943km2
Viana IA sites	32	31	71	2	0	2	138

Table 3. Land Use Capacity for the five study areas.

Study Area/ Soil Type	A	C	F	A/C	A/F	C/F
North Km2 / %	5.8	0.4	82.3	0.6	8	3
North IA sites / %	6.9	0	82.8	0	3.4	6.9
South Km2 / %	6.7	3.6	70	0.3	11.5	11.5
South IA site/ %	1.6	4.9	68.9	0	9.8	14.8
East Km2 / %	7.8	0	76.6	0	12.8	2.9
East IA site/ %	7.1	0	80.1	0	7.1	4.8
Chaves Km2 / %	16	0.4	48.2	0.5	25.3	9.5
Chaves IA site/ %	11.3	0	69.8	1.9	15.1	1.9
Viana Km2 / %	19.1	13.7	64.3	1.4	0.56	1.0
Viana IA site/ %	23.2	22.5	51.5	1.5	0	1.5

Table 4. Percentages of Land Use Capacity for the five study areas.

In order to contextualise the information shown in Table 3, the figures were calculated as percentages as illustrated in Table 4 above. For example, in Study Area North Type A prime agricultural land represents 101.8km2 or 5.8% of the

1766km² which make up this study area. The 6 of the 87 hillfort settlements located on this land in turn constitute 6.9% of total *castro* sites from the dataset.

Finally, the percentage breakdown of total land type and the number of Late Iron Age sites located on given terrain were analysed using the chi-squared test to examine whether there is a difference between the observed and expected numbers of sites upon different soil types. This particular test is one which Conolly and Lake (2006, 123) identify as an appropriate analysis for comparing a number of sites to different types of soil or geology (see Strutt 2000 in section 4.5). As with the Ripley's *K* and the K-S test the level at which the null hypothesis is rejected is 0.05, and the chi-squared analysis uses the R software tool (Hornik 2010). The findings are presented in Table 5 below.

Study Area	Chi-Square Value
North	p-value. 0.1053
South	p-value. 0.5901
East	p-value. 0.6331
Chaves	p-value. 0.035
Viana	p-value. 0.01785

Table 5. Chi-squared analysis for soil types versus site location.

Location on forested land is of prime importance in four of the five study areas with 83% (72 of 87), 69% (42 of 61), 81% (34 of 42) and 70% (37 of 53) of settlements located on forested land (Type F) in Study Areas North (Chart 1 below), South (Chart 2 below), East (Chart 3 below) and Chaves (Chart 4 below), respectively, while this figure falls to 51% (71 of 138) in Study Area Viana (Chart 5 below).

We should be mindful that the percentage of forest land and the sites located upon this soil type is fairly consistent in Study Areas North, South and East as shown by Table 4. Additionally, all three study areas demonstrate a close relationship between the percentage of other soil types and Late Iron Age sites located on them, with only a small deviation in Type A/F land. For this reason, the chi-squared test for Study Areas North, South and East returns a p-value greater than 0.05 (see Table 5) and therefore the null hypothesis cannot be rejected. In other words there is no

significant difference between the observed location of Iron Age sites on soil types, and the expected location of Iron Age sites on soil types.

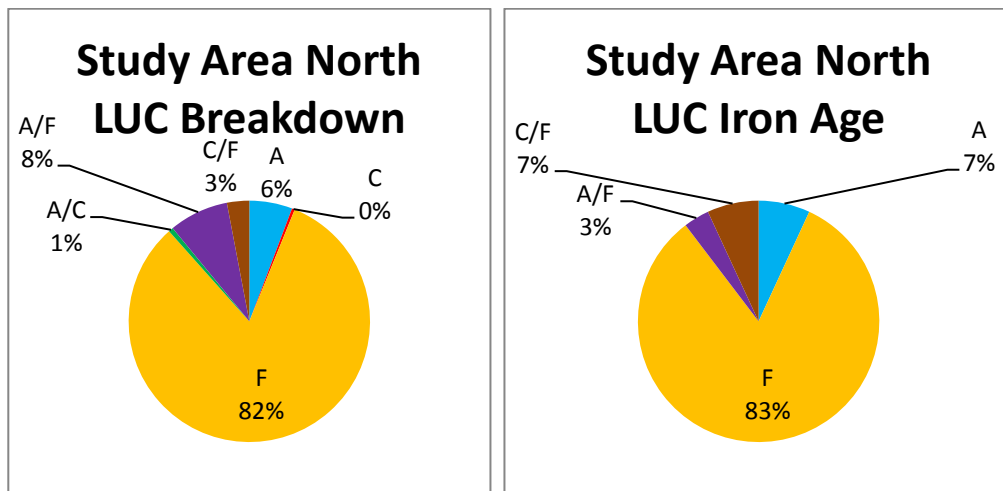


Chart 1. LUC (Land Use Capacity) for Study Area North (left) and site distribution during the Late Iron Age (right). The data used in Charts 1-5 comes from Table 4.

Nevertheless, Study Areas Chaves and Viana return p-values less than 0.05 (see Table 5), thereby rejecting the null hypothesis, while demonstrating that there is considerable deviation between the observed and expected values when conducting the chi-squared test. In Study Area Chaves this deviation is greatest on forested land which makes up 48.2% of the total land, but constitutes the location of 69.8% of Iron Age settlements, as shown on Table 4. A similar relationship can be seen with Type A land (16% versus 11.3%) and A/F terrain (25.3% against 15.1%), as shown on Chart 4 below. This would suggest that *castro* settlements in this region actively sought out forested land for livestock wood pasture and / or fuel, or alternatively because of the defensive capabilities it might have offered. It is certainly the case that fewer hillforts were located on Type A land, which predominated around the fertile, but largely indefensible Tâmega Valley.

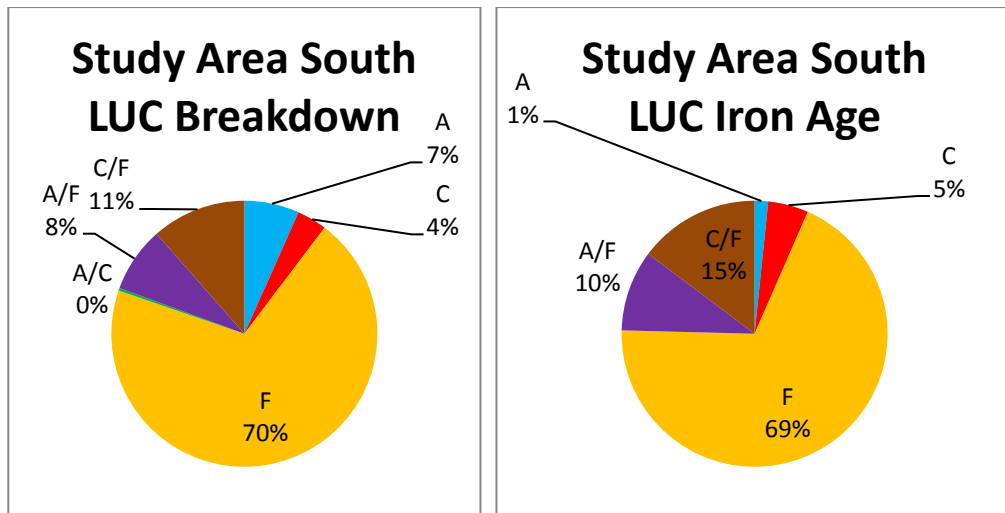


Chart 2. LUC (Land Use Capacity) for Study Area South (left) and site distribution during the Iron Age (right). As I have outlined in the main discussion, there is little deviation between the percentage breakdown of soil types and the percentage of Late Iron Age sites occupying that terrain type for this study area, as well as Study Area North and East.

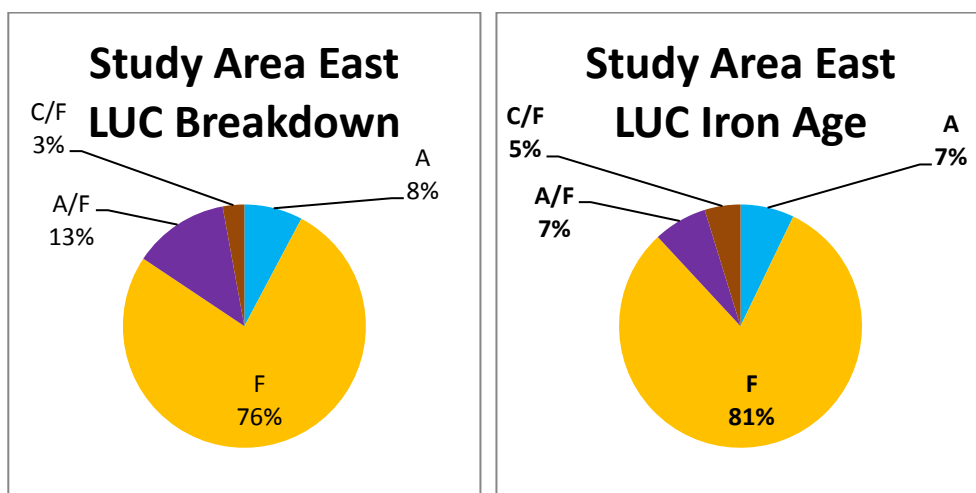


Chart 3. LUC (Land Use Capacity) for Study Area East (left) and site distribution during the Iron Age (right).

In Study Area Viana a p-value of 0.01785 and therefore a rejection of the null hypothesis derives from the popularity and use of certain different soil types in the Late Iron Age (see Chart 5 below). This is particularly true for Type C and F terrain, where the former is more comprehensively settled by *castro* settlements while the latter is underemployed. This would imply that agricultural activity was more prominent in Study Area Viana over perhaps livestock rearing and defensive strategies offered by Type F land. In this respect, although Study Areas Chaves and

Viana display a statistically significant concentration of settlements in certain areas, they do so for different reasons.

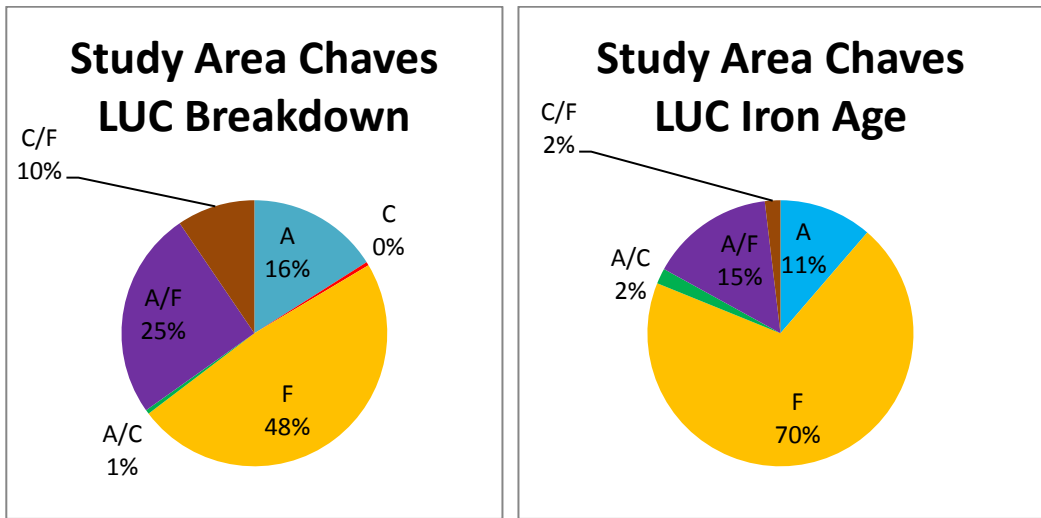


Chart 4. LUC (Land Use Capacity) for Study Area Chaves (left) and site distribution during the Iron Age (right).

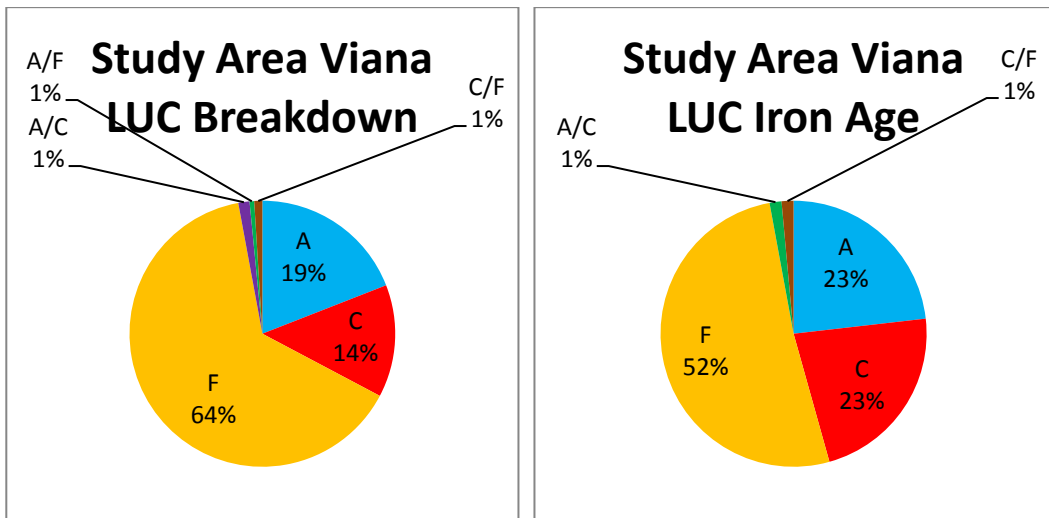


Chart 5. LUC (Land Use Capacity) for Study Area Viana (left) and site distribution during the Iron Age (right).

Lastly, access to water sources for the five study areas (see Table 6 below) is shown in two formats. Firstly, the nearest river source and secondly the distance to navigable Type 5 rivers and above. These rivers retained water during the summer months and were capable of supporting small river craft during wetter seasons. This data was generated by plotting and measuring distance from individual settlements to the river systems using ArcGis 9.2, and the calculations for each study area are presented in Appendix B.

Study Area / River Type	Nearest River Source (metres)	Distance to Type 5 River (metres)
North	345	5390
South	441	3905
East	256	4740
Chaves	286	7155
Viana	322	5346

Table 6. Average distance between a *castro* and (a) all rivers and (b) Type 5 rivers.

The distance to the nearest available water source varies from 256m in Study Area East to 441m in Study Area South, although it should be noted that the southern and eastern boundaries of Study Area East are formed by the River Douro, along which a series of hillforts are positioned. This fact also explains the low cumulative distance of Study Area East, relative to the other study areas, to Type 5 rivers. In this analysis, Study Areas North, South and Viana all show similar figures, but Study Area Chaves deviates from this pattern showing an average distance of 7155m from *castro* settlements to Type 5 rivers. The implications of these findings will be considered below in section 4.7.

4.6.4. The Application of Nearest-neighbour Analysis

Nearest-neighbour analysis is the second principal form of analysis conducted in this chapter as a means to investigate the spatial configuration of late *castro* settlements within the landscape. As a statistical tool, nearest-neighbour analysis was first developed within the field of ecology (see Clark and Evans (1954)) and thereafter by geographers in the 1960s and 1970s before being taken up by archaeologists for the purpose of settlement analysis (see Hodder and Hassall (1971)).

In more recent years, nearest-neighbour analysis has been used effectively to examine the diachronic settlement patterns of large hillforts in southern Spain between the sixth century BC and the first century BC. The findings from this study showed that the average distance between third and fourth level sites, that is the distance between a site and its third and fourth closest neighbour, increased between the sixth century BC and the second century BC. The researchers conducting this

study interpreted this trend as evidence of economic instability within the region during this period, as the competition for scarce resources resulted in the population concentrating in larger hillforts (Ruiz Rodríguez *et al.* 1991, 31-32). For this reason, the study undertaken by Ruiz Rodríguez *et al.* (1991) provides a useful template for the analysis conducted in this thesis, above all, in identifying clusters of settlements at multiple levels, which can be illustrative of settlement, tribal or regional boundaries.

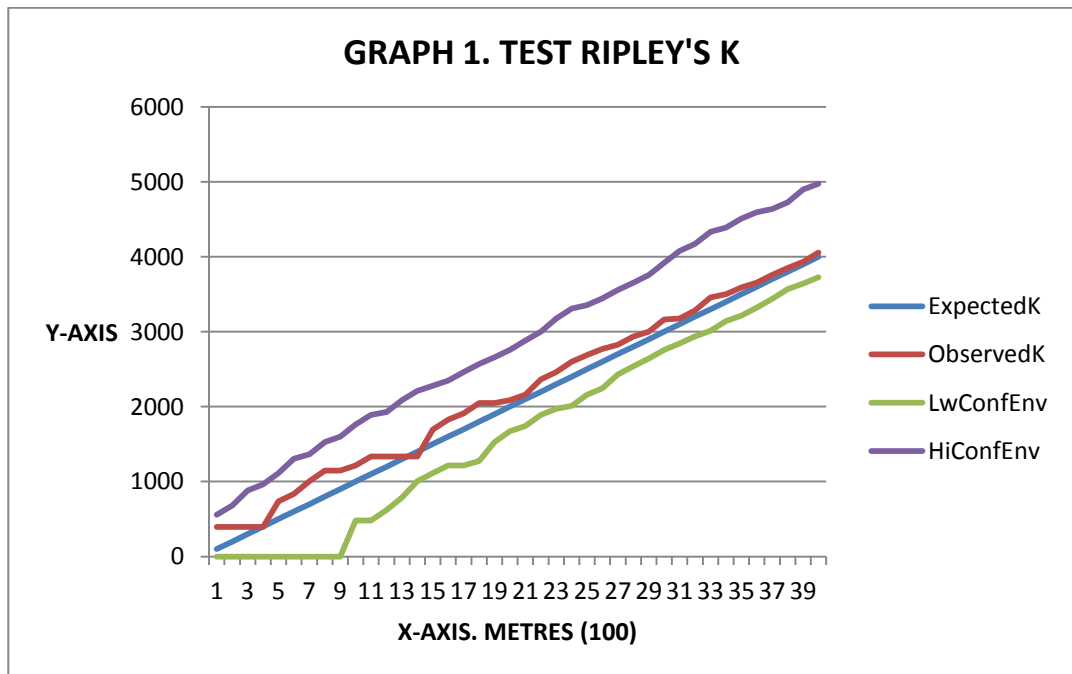
An additional use of nearest-neighbour analysis can be seen in the study of Early Neolithic *Magoules* (settlement mounds which housed small village communities) in eastern Thessaly, Greece, which was conducted in conjunction with Thiessen polygons to create equidistant boundaries between settlements. The findings were that *Magoules* structures showed a statistically significant level of clustering around terrain which was neither prone to flooding nor too dry (Perlès 1999, 52). This analysis suggests nearest-neighbour analysis provides a means to examine the relationship between the settlement pattern and the environment, which will be pursued later in this chapter.

Figure 29. Some of the problems of multiscale patterning (Conolly and Lake 2006, 166).

It is nevertheless important to acknowledge that as a statistical tool, nearest-neighbour analysis has limitations, and statisticians have demonstrated that how we read and interpret the results which are generated can have a bearing on our findings. For example, in Figure 29 above the analysis initially identifies eight clusters within the dataset (1-8). However, there is also a higher order settlements, shown by A, B, C, as well a micro clustering of those points located in A3 (see enlarged panel to the

right) would not necessarily be detected by the statistical technique (Conolly and Lake 2006, 166).

One technique which overcomes the inherent problems presented by nearest-neighbour analysis is the Ripley *K* test, which identifies the relative aggregation and segregation of point data at different spatial scales. Ripley's *K*-function defines the expected number of neighbours in a circular radius *r*, at arbitrary points in the distribution. The *K*-distribution thereafter provides a cumulative frequency of average point intensity at predetermined intervals of *r* (Bevan and Conolly 2006, 221), and can be efficiently and accurately calculated using statistical tools such as the R software tool (Hornik 2010). A pilot study conducted for this thesis using the settlement data from Late Iron Age settlements in Study Area North, demonstrates how the test was conducted. Ripley's *K*-function was employed using ArcGis 9.2 and calculated over 40 bands, which correlated at spatial intervals of 100m and measured against 999 randomly generated permutations. To ensure that the analysis was not biased, outer boundary values were simulated or mirrored against available spatial data, to provide a more realistic calculation.



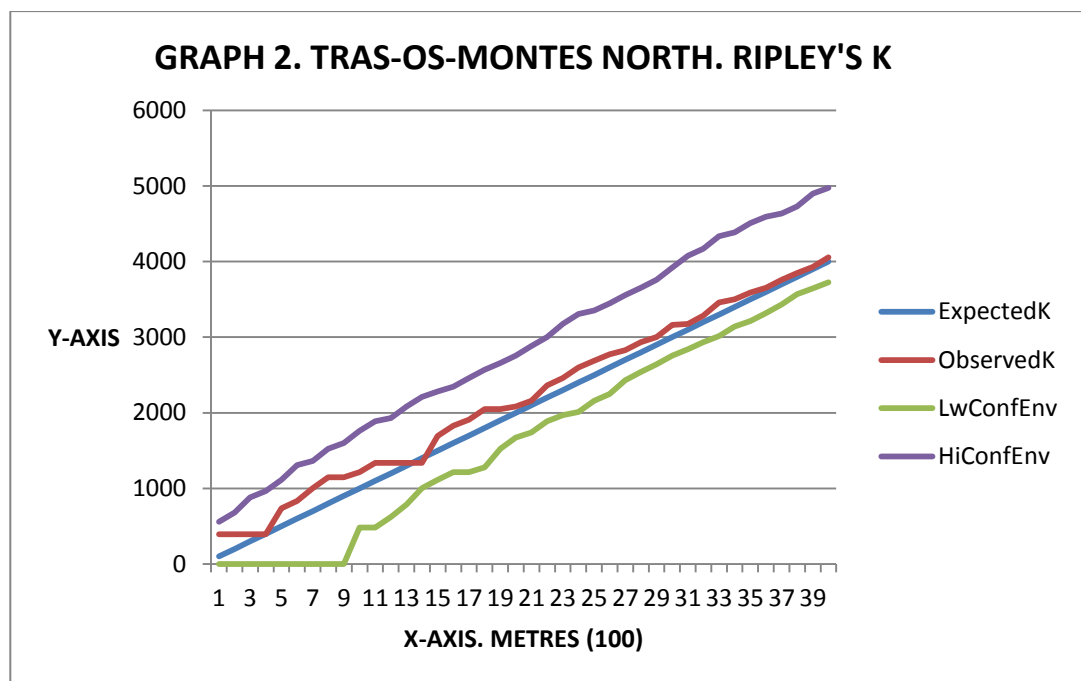
Graph 1. Ripley's *K* analysis.

The formatted data presented above as Graph 1, shows the observed values (ObservedK, red line) positioned against the expected values (ExpectedK, blue line).

Where the observed values deviate above the expected ones, there is a tendency for clustering, as shown between 400 and 1,300m on the x-axis. Where observed values fall below those expected values, the settlements show a tendency towards dispersal. Statistically significant distributions measured at a 95 per cent confidence level are shown when the ObservedK peaks above the HiConfEnv (Higher Confidence Envelope, purple line), or fall outside the LowConfEnv (Lower Confidence Envelope, green line). In the example shown by Graph 1, there is no statistically significance of clustering or dispersed distribution.

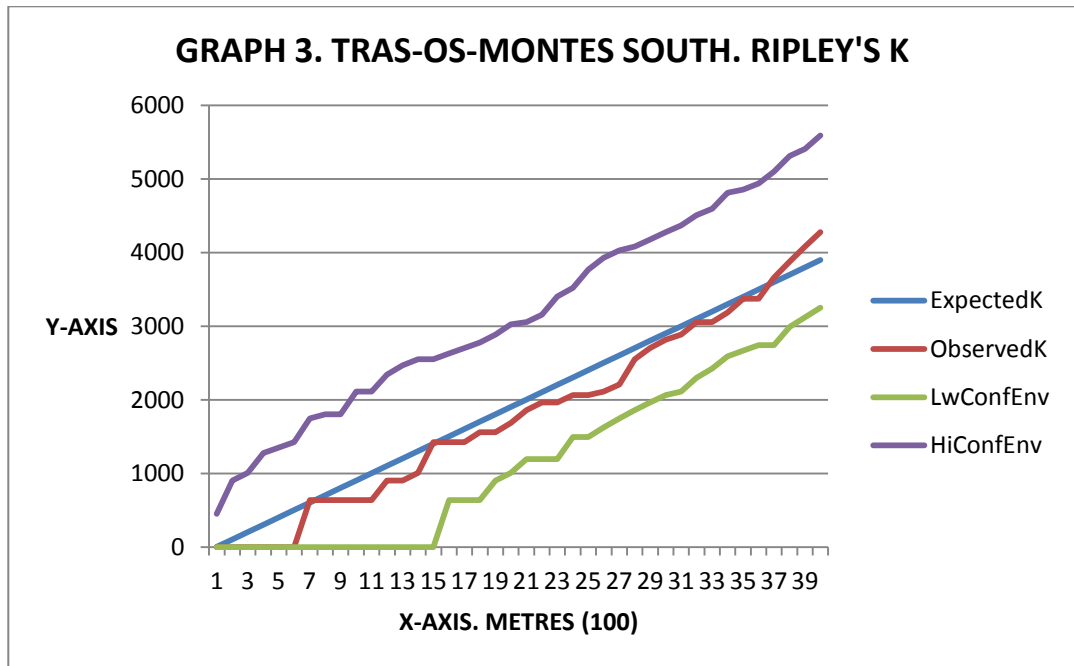
4.6.4.1. Nearest-neighbour Analysis for the Five Study Areas

An examination of nearest-neighbour analysis for Study Area North, conducted using the Ripley's K function (see Graph 2 below) shows that in this study area there was a tendency towards clustering.

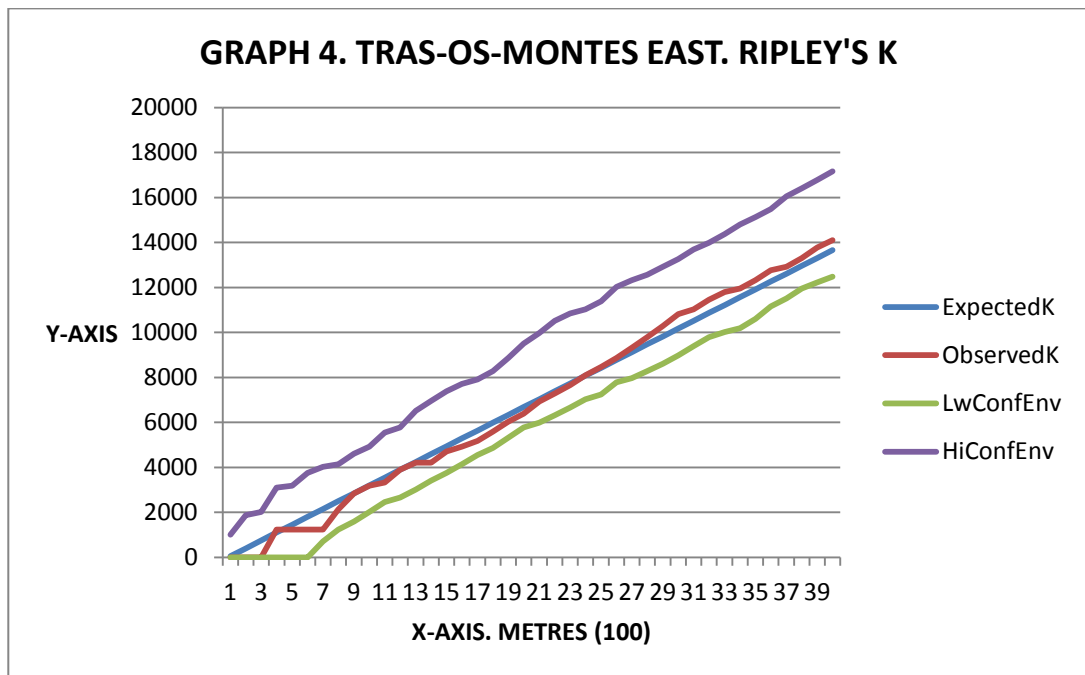


Graph 2. Ripley's K analysis for Study Area North.

This is demonstrated where ObservedK is larger than the random distribution shown by the ExpectedK, in blue, between 400 and 1,300, 1500 and 2000, and 2200 and 3700m. However, the presence of a statistically significant probability measured at a 95 per cent confidence level is not present so it can be stated that positive evidence for clustering does not exist in study area north.



Graph 3. Ripley's *K* analysis for Study Area South.



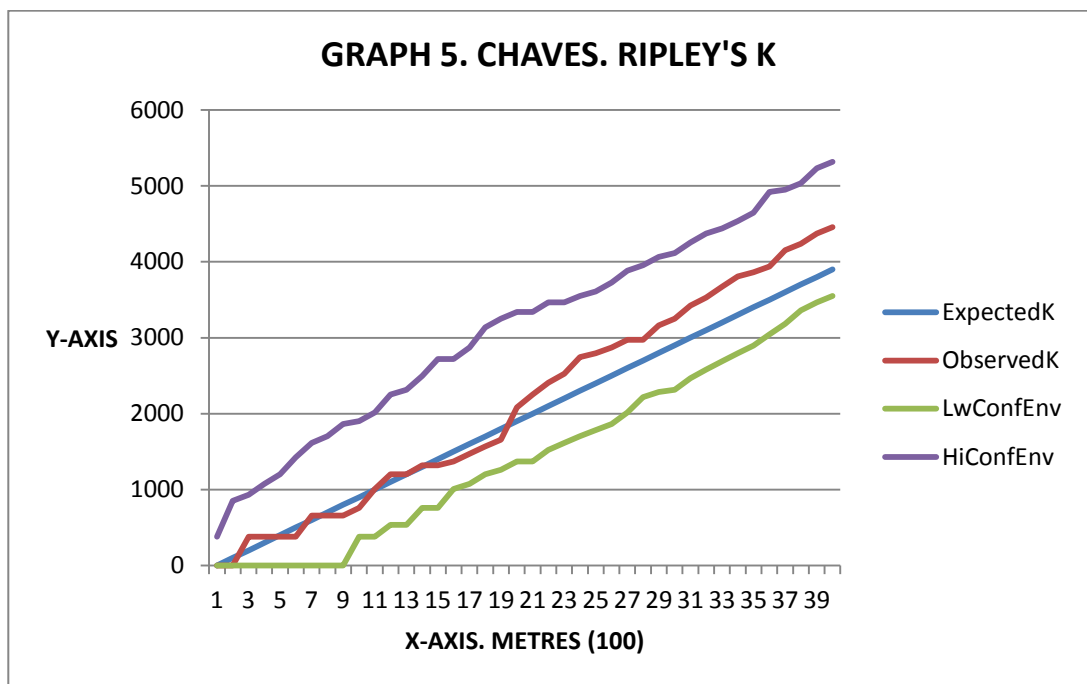
Graph 4. Ripley's *K* analysis for Study Area East.

The dispersed settlement visible in the landscape of Study Area South (see 4.6.2) is also replicated in the Ripley's *K* test (Graph 3). While it is not statistically significant, in other words the ObservedK is not smaller in value than the LwConfEnv value, the ObservedK is lower than the ExpectedK between 600 and

1400 and 1500 and 2700m. This would suggest that the hillforts in Study Area South are more dispersed over certain distances than a standard random distribution of settlements.

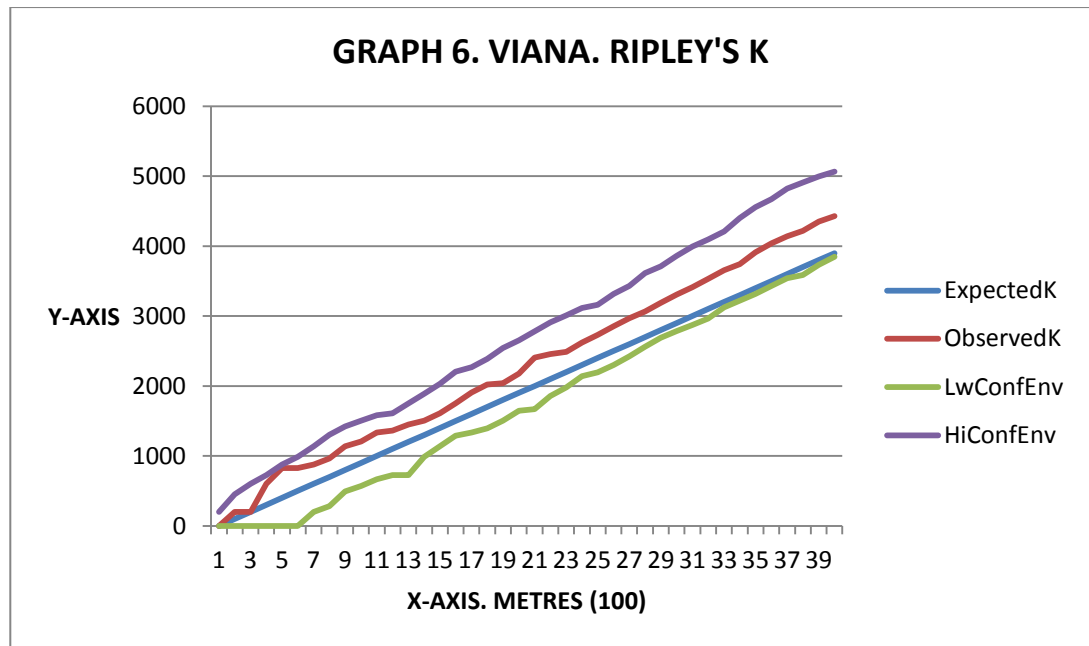
The Ripley K test conducted for Study Area East (Graph 4) shows that the ObservedK correlates closely to the ExpectedK, but with a slight tendency towards a dispersed distribution at 700m. After 2800m the settlement structure shows small evidence of clustering but the pattern for Study Area East as a whole, is one of random distribution.

In Study Area Chaves the Ripley's K test (Graph 5) shows that the ObservedK closely follows the ExpectedK, and only above 2000m do the settlements show a propensity to cluster.



Graph 5. Ripley's K analysis for Study Area Chaves.

The clustering of settlements visible in Map 5 (see section 4.6.2) are also reflected in the Ripley's K test for Study Area Viana (Graph 6). At 500m, there is a statistically significant spatial clustering where the ObservedK value in red touches the HiConfEnv (the Higher Confidence Envelope), represented by the purple line. From 500 up to 4000m there is tendency towards clustering, which is visible in the graph where the value of the ObservedK continues above that of the ExpectedK.



Graph 6. Ripley's K analysis for Study Area Viana.

In summary, it is only Study Area Viana that demonstrates a statistically significant evidence of clustering which can be measured at a 95 per cent confidence level.

4.6.5. The Application of Thiessen Polygons

Thiessen polygons constitute the second methodological application employed to analyse settlement interaction, hierarchical structures and to identify the presence of borders and boundaries within the Late Iron Age landscape of northwest Iberia. Thiessen polygons are created by ascribing an area to each point in the dataset, whereby that tessellated space is closer to a specific point than any other, and as an applied methodology have been used for multiple forms of analysis. These include the identification of territorial divisions in Neolithic Britain (Renfrew 1976), regional catchment areas in Roman Britain (Hodder and Hassall, 1971), and the locational criteria for Early Neolithic *Magoules* in eastern Thessaly, Greece, where tessellated space was analysed in conjunction with nearest-neighbour analysis (Perlès 1999, 52).

Figure 30. This diagram of the Maddle Farm Project shows a remarkable similarity between the northern and western boundaries created by site catchment analysis (the dotted lines), Thiessen polygons (the thin lines) and the material boundaries of the *villae* (the thick lines). The boundaries to the north also parallel the natural barriers of the chalk backslope valleys (Gaffney and Gaffney 1988, 88-89).

In recent years, the use of Thiessen polygons to identify borders and boundaries has been authenticated against methodological applications, as well as other archaeological evidence. A relevant example of this is the Maddle Farm Project in Berkshire, where density of sherd deposits from small Romano-British *villae* were used to plot site catchment areas, which were then compared to Thiessen polygon boundaries between adjoining *villae*, which closely corresponded when projected onto a map (Figure 30). Another study, the WHP (Wroxeter Hinterland Project), employed terrain-weighted Thiessen polygons generated from cost surfaces, to examine the impact of the growth in importance of Late pre-Roman Iron Age Wroxeter on the surrounding hillforts. In this investigation it was discovered that three pairs of hillforts were positioned at regular intervals along the River Severn Corridor, with Late pre-Roman Iron Age Wroxeter located near to a common boundary with four of these hillforts, where the River Severn could be easily forded. This implies that boundaries which converged between the hillforts and Wroxeter could have acted as market or religious centres, consolidating Wroxeter's role as a central place (Van Leusen 2002, 9-10).

As with nearest-neighbour analysis, criticisms have been made of Thiessen polygons for the underlying assumptions that they function independently of transport costs, social and cultural factors, and assume all settlements to be of equal size (Conolly and Lake 2006, 212). However, such issues do not play such a

prominent role within the context of northwest Iberia during the Late Iron Age, where communication routes (particularly terrestrial ones) are largely unknown (Naveiro López, 1991) and our knowledge of the social and cultural sequence is often limited. The use of Thiessen polygons has been successfully applied to the study of the region along the strategic River Cávado, and as a means to identify smaller hillforts positioned at the boundaries of these larger *castros*' territorial control (Martins 1990, see section 4.5). In examining the visual relationship between possible boundaries and borders within the landscape, this investigation utilises multiple scales of Thiessen polygons, which can be broken down into: (a) tessellated analysis for all settlements; (b) for medium and large sites; (c) and for large sites only.

4.6.5.1. Thiessen Polygon Analysis for the Five Study Areas

The finding from the use of Thiessen polygons for Study Area North (Map 11) did not show any discernible patterns, with the trajectory of river networks located within the hillfort's immediate territory, rather than forming the boundaries between individual hillforts. For large hillforts, namely, sites 273 (top left), 108 (bottom centre), and 100 (bottom right), and their territorial margins shown by red tessellated Thiessen polygons, the only recognisable border area is that dividing sites 273 and 108 where a series of hillforts, sites 207, 78, 95 and 38 are located along the red boundary lines. For medium and large hillforts (Map 12) a series of settlements can be found on the boundary areas shown in blue. These include those smaller *castros*, sites 75 and 42 located around the larger hillfort site 78 (centre), and those settlements 232, 254, 255 and 231 positioned at the periphery of control of site 105 (top centre). Given that two medium-sized hillforts, sites 78 and 105, shared a boundary where the smaller *castro*, site 75, was located is also significant.

Thiessen polygon analysis conducted for all *castro* settlements in Study Area South (Map 13) does not provide any conclusive findings, other than the short boundary created by the path of the river between sites 545 and 835, 542 and 836, and 542 and 600 in the centre of the map. Thiessen polygons conducted for large hillfort 608 (top right), 607 (centre right), 613 (top centre), 806 (bottom centre), 814 (centre left) and 802 (bottom left) are shown in red on Map 14. Of significance is site 613 with a series of hillforts (from right to left), sites 615, 775, 600, 848 and 843, located on its peripheral territory, while around medium-sized hillfort 600, can be

found a series of smaller *castros* 601, 733 and 542. A series of smaller *castros* are located at the territorial margins of large hillforts, for example 848 and 826 (centre left), and at the margins of medium-sized *castros*, sites 545, (bottom centre) and 764 (bottom right), but the dominant pattern shows smaller hillforts located on the boundaries of medium-sized *castros*. For site 613, these are 626, 842 and 901; for 608, medium-sized hillfort 602; for 607, sites 611, 740 and 755; for 806, 532 and 600; for 814, medium-sized *castro* 815; and for 802, medium-sized settlement 825. This would suggest the dominant partner was a large hillfort with one to three medium-sized settlements located within its territorial boundaries.

In Study Area East, Thiessen polygons drawn for all settlements (Map 15) do not seem to correlate to geographical boundaries. The territorial margins of medium and large-scale hillforts (Map 16) show the same interesting results; *castro* site 573 (bottom centre) occupies the boundary, shown in blue, between two medium-sized *castros*, sites 357 and 585. In the same way, site 374 (centre) is positioned on the margin between middle-sized hillforts 572 and 354. There were no conclusive findings for the two large-sized *castros*, their Thiessen polygons are shown in red.

In Study Area Chaves Thiessen polygons applied to all *castro* settlements (Map 17) showed possible fluvial boundaries between sites 614 and 616 (centre right) and 342 and 346 (centre right). Thiessen polygons formatted for large and medium-sized *castros* show two clear patterns (Map 18). To the east are a series of large hillforts, sites 320, 340, 603 and 614, but only two medium-sized *castros* 301 and 346 are located within the respective territorial boundaries of large-sized *castros*, possibly fulfilling a subservient role. In contrast, the territory of large *castro* 715 (bottom centre) contains medium-sized *castros* 545 and 548, large *castro* 719 (bottom centre) medium-sized *castros* 722 and 805; large *castro* 402 (centre left) four medium-sized *castros* 155, 505, 416 and 419; and lastly, large *castro* 201 (top left) contains medium-sized *castros* 157, 158 and 160. In this sense, the settlement pattern of a series of medium-sized hillforts located within the territorial boundaries of large-scale *castros* is similar to those findings generated from the western region of Study Area South; note that Study Area Chaves is spatially positioned immediately above the western part of Study Area South. In contrast, the less structurally complex region of eastern Study Area Chaves where large *castros* dominate their territory with few medium-sized *castros* is more typical of Study Area North. Evidence for the territorial domain of these large-scaled *castros* is visible

along the River Tâmega, where the boundaries between site 201 to the west of the river, and sites 603 and 715 formed along the trajectory of the waterway. Large hillfort 603 also appears to have been a central place for surrounding small *castros* with sites 258, 261, 314, 355 and 609 positioned on its margins. Nevertheless, with respect to medium-sized *castro* 416 (centre left) a series of smaller hillforts 413, 412 and 404 are located on the edge of its territorial boundary. In summary, large-sized *castros* appear to have controlled the landscape with a series of medium and smaller-scaled hillforts located at their territorial margins, and where the trajectory of large rivers formed intersettlement boundaries.

Lastly, Study Area Viana showed no evidence of the territorial control of larger *castro* settlements visible in Study Area Chaves. Thiessen polygon analysis conducted for the study area as a whole suggests that boundaries may have existed along important waterways, notably, the River Lima, which runs from the bottom left to the centre right of Map 19, where the path of the river provides a boundary between *castro* settlements.

4.7. Discussion

This section brings together the findings outlined above and suggests some important themes within late pre-Roman society in northwest Iberia, and incorporates the theoretical concepts of isolationism, the importance of environmental factors, and the consolidation and negotiation of borders and boundaries, which were discussed in depth at start of this chapter. In order to present a coherent argument, this section breaks down the structure of the established five study areas, and reconnects the data to highlight five regions which exhibit shared characteristics, especially with regard to their settlement pattern and ultimately their hierarchical structure.

The first region to be discussed is Study Area North, which is characterised by three large *castro* settlements and a series of medium-sized hillforts. Structurally, these large settlements do not exhibit any strategic domination of their hinterland given that: (a) large hillforts 100 and 108 (bottom right) appear isolated from surrounding settlements; and (b) the remaining large *castro* 273 (top left) may have functioned more as a medium-sized structure. This is borne out by Thiessen polygons created for medium-sized settlements, which show a series of smaller *castros* 231, 232, 254 and 255 along the border area shared with the adjacent medium-sized *castro* 105 (see Map 12). Furthermore, the role of medium-sized *castros* within the

landscape of Study Area North can be further established in the bottom right of Map 12 where a pair of medium and small *castros* are located either side of the River Sabor, and sites 30 and 31 are located within 500m of each other, with the former being a medium-sized *castro* and the latter a smaller structure. Nevertheless, smaller hillforts are not always found at the peripheral margins of control of medium-sized *castros*, especially towards the southern area of Study Area North. Additionally, within the landscape there is considerable evidence for connectivity between smaller *castros* within 1000m of each other, and located away from large and medium-sized hillforts, whose communities most likely invested in mutually beneficial actions orchestrated along strategic and economic lines.

This complex and multifaceted picture of settlement patterns within Study Area North is arguably representative of the systems of kinship and lineage which existed towards the eastern region of late pre-Roman northwest Iberia and are manifest in inscriptions and other archaeological evidence from the period. Within this region, social groupings orientated around the family and then the supra-familial units of *gentilitates* and *gentes*, as shown in the inscription which referred to Araus, son of Ablaecaenus, from the *Desonsi* family (*gentilitas*) from the tribe (*gens*) of the *Zoelas* (*CIL* II 2633), which testifies to a hierarchical social structure (see section 4.4). In this way, medium-sized *castros* exhibit a degree of territorial and so political and economic control over smaller hillforts. At the same time, the presence of two smaller *castro* sites within 1000m of each other, might be indicative of the flexibility of the social structure of the region, which gave a voice to individual communities, as shown above with the *Desonsi* inscription, where the clustering of two or more hillforts may have given rise to shared economic, social and political benefits. This grouping of small *castros* is evident in the Ripley's *K* analysis of the region, where there is a tendency for sites to cluster between 500 and 1400m, but this is juxtaposed within the landscape with the possible regional control of smaller hillforts by medium-sized ones.

The northern portion of Study Area East and the eastern section of Study Area South represent the second region which can be identified characterised by a series of large and medium-sized *castros*, which dominate their territorial boundaries and present a largely dispersed settlement pattern. Within Study Area South, large-sized *castros* 607 and 608 and medium-sized *castros* 611 and 620, as well as 414 and 672 in Study Area East, occupy large territorial space, with few smaller *castros*

within their boundaries. Furthermore, at the eastern and south-eastern margins of Study Area South the landscape is dominated by smaller *castros*, which are largely dispersed within the landscape, as shown by the Ripley *K* test (Graph 2).

The paucity of settlements within the area to the east of Study Area South and that space to the north of Study Area East cannot be explained through the physical geography of the region. Where only a limited number of *castro* settlements were positioned around the bifurcation of the River da Vilarica and the River Sabor in the Late Iron Age (for position see site 664, bottom right, Map 2), during the early Roman period Imperial authorities invested heavily in this strategic area locating the *civitas* capital (*civitas Baniensium*) at the confluence of the two rivers. Furthermore, in the area around the *civitas* capital, there was a dense network of *villae* and farms showing the region to be fertile and capable of supporting a central place as well as a series of satellite towns. As a result, during the Late Iron Age, this space represents a buffer area sandwiched between the large hillforts found in the west of Study Area South and the *castros* located along the River Douro shown in Study Area East, which means the area is characterised by isolated hillfort settlements, and thus indicative of those models of *castro* society advanced by Sastre Prats (2001; 2008). As such, hillfort settlements may have been dispersed within the landscape, perhaps to ensure a level of economic and political isolation, through which systems of social equality and so economic parity were maintained within the community.

In the third region, the central and southern part of Study Area East, a series of large to medium-sized *castros* played an important role within the landscape. Many of those medium-sized *castros* were located on principal waterways, for example, sites 503 and 509 on the River Sabor, which would have given access to the River Douro to the southwest and northwards to Study Area North. The location of smaller settlements within or at the border of the territorial hinterland of medium-sized *castros*, suggests that these entities may have shared political, economic and social systems, in common with many of those hillforts in Study Area North, as previously discussed.

Positioned along the River Douro were a series of fortified sites giving their occupants access to the river's resources, and providing visual control of the waterway, and therefore greater defensive control. A secondary function for these *castros* came with their strategic location at the edge of the principal waterway of northwest Iberia, permitting their communities to engage in long-distance exchange

along the river's trajectory. In a westerly direction, these *castros* may have been integrated into a wider Atlantic exchange network (Naveiro López 1991), but the dearth of hillforts located near to or along the River Douro's trajectory in Study Area South strongly suggests that the commercial activities were more orientated towards the east and the large *castro* settlement of Villalcampo. Located outside the study region to the northeast of Study Area East, this hillfort controlled the strategic confluence of the Rivers Duero (Portuguese Douro), which snaked east into the Iberian interior, and the River Esla (see Figure 3, page 21), which marks the easterly boundary of this thesis' study area. Dating from the second century BC (Esparza Arroyo 1987, 375-376), Villalcampo occupied a strategic location at the edge of a series of tribal confederations of the region, the *Asturs*, the *Vettones* and the *Vaccaeii*, who controlled the abundant deposits of gold, tin, copper and iron within their respective territories and provided access to the Iberian interior (Esparza Arroyo 1983-1984, 136). Integrated into these long-distance exchange networks were those *castros* located inland, but connected to those hillforts on the River Douro through possible overland trails or more probably fluvial networks, which provided access through the River Sabor and its tributaries to the regions in the interior. This trade may have been coordinated by those *castros* upstream given the presence of one medium-sized and one small *castro* either side of the River Sabor in Study Area North, sites 45 and 46 on the left bank and 97 and 461 on the right (bottom right, Map 1). However, the strategic control of both banks of the River Sabor would suggest some sort of crossing point incorporating long-distance exchange with communities to the east.

Study Area Chaves and the area located immediately below it, the western part of Study Area South, constitute the fourth regional area, which is characterised by large *castros* often with medium-sized *castros* located within their territorial boundaries. Of notable significance are a series of large *castros*, notably sites 613 and 814 in Study Area South and 201 and 402 in Study Area Chaves, along whose boundaries a series of medium-sized and smaller *castros* are located. In terms of their position, these large hillforts occupy strategic positions within the landscape which are not dependent upon the natural defences offered by principal rivers, but where affiliated medium to smaller-sized *castros* locate at the river edge as seen with sites 806 and 814 in Study Area South. Similar levels of connectivity are replicated in Study Area Chaves, with a series of large hillforts located around the periphery of the

Tâmega Valley, but again with subordinate *castros* positioned at the margin of their territorial boundaries. This can be seen with large hillfort 402 (centre left, Map 4), which occupied an area rich in gold deposits, where two medium-sized *castros* punctuated by two smaller ones are located on the left bank of the River Tâmega, within strategic access of the large *castro* to the west. It is possible to conclude that these four *castros*, and the only settlements located adjacent to the river in Study Area Chaves, fulfilled some sort of economic role, possibly the transportation of gold or other materials, with the medium-sized *castros* offering a degree of security to the bordering smaller hillforts.

In Study Area Chaves margins of territorial control seem to have played an important role in consolidating corporate enterprise managed by large fortified settlements, whether manifest in natural geographical phenomena as with the boundary created by the large hillfort 201 to the west of the River Tâmega and 603 and 715 to the east in Study Area Chaves, or the positioning of small *castros* (sites 615, 843 and 848) and medium-sized hillforts (sites 600 and 775) along the margins of the large hillfort 613 in Study Area South. In this respect, the settlement patterns shown in this region replicate the findings of Martins (1990) study of the region between the Cávado and Ave rivers, where fluvial networks formed the borders between large hillforts positioned inland from major waterways, and with smaller *castro* structures located along their terrestrial margins of control. Established borders of control would have existed between competing large settlements, and can be seen to symbolise those settlements represented by the inverted \supset within the epigraphic record of the Late pre-Roman Iron Age society within northwest Iberia, where the borders and boundaries of individual structures were reinforced and tangible within the landscape. Moreover, in Study Area Chaves the territorial-based social system, shown by the inverted \supset within the epigraphic record, may have acted to bind communities together in a more cohesive manner than in Study Areas North and East, where borders may not have been so firmly established or controlled and society was more integrated through constantly renegotiated kinship relations. It is therefore possible that the kinship-based social systems in northwest Iberia were more representative of those looser clan affiliations shown by the *Brigantes* and the *Dobunni* in Late Iron Age Britain (see section 4.3). Whereas those communities whose identity centred around the settlement, shown by the inverted \supset within the

epigraphic record, may have been more characteristic of the *Durotriges* of southern Britain during the Late Iron Age who were more culturally unified against neighbouring tribes. However, where the *Durotriges* differentiated themselves from the neighbouring *Atrebates* through distinct forms of coin design, pottery and burial practices (Blackmore *et al.* 1979, 102), the archaeological record of Study Area Chaves does not allow such comparisons to be made. Unlike other regions in Europe during the Late Iron Age, coins were not used as a medium of currency in northwest Iberia (see section 1.5.5), and the complete absence of burial sites within late *castro* society (see section 7.2.1) further limits our understanding of possible ethnic differences between communities and regions. Where pottery is present in large quantities each *castro* settlement produced enough ceramic ware pottery to supply its own needs (see section 3.6.1), and therefore the identification of exchange networks and regional alliances is difficult to establish.

Where Study Areas North, South, East and Chaves have been shown to display different strategies and systems, their relationship with their immediate environment is similar. All four study areas show a tendency for settlements to locate on forested land, as illustrated by land use capacity analysis. This suggests that: (a) the defensive capabilities of this less hospitable landscape continued to represent a key criterion in the location of *castro* settlements; and (b) there was a need to harvest the resources which the forested land offered, and providing access to feed for livestock was a key priority. Such findings are representative of recent studies of *castro* settlements from the Middle Iron Age, where hillforts from the Middle Iron Age were positioned at the boundary of productive / forested land (Fábrega Álvarez 2005, 129), which permitted greater agricultural production (Parceró Oubiña 2000, 2001). In the case of Study Chaves, where the null hypothesis is rejected for the chi-squared test (see section 4.6.5), there is a statistically significant number of settlements located on forested land, which make up 48.2% of the total land, but constitutes the location of 69.8% of Iron Age settlements. While access to the resources contained within forested land may have been important, as it was in Study Areas North, South and East, it is also likely that defensive strategies played a major role in the location of *castro* settlements at the periphery of the fertile Tâmega Valley (see Map 9). It is possible that larger hillforts located on poorer land may have relied on the *castros* positioned on their periphery, over which they had a degree of

influence, to supply them with resources, in particular foodstuffs from the River Tâmega.

In the last region to be examined, Study Area Viana, the patterns observed with the other study areas is reversed, with a preference towards locating on agricultural land as shown by the p-value of 0.01785 for the chi-squared test. The preference shown for good quality agricultural land is also visible where hillforts located in the rich fertile region adjoining the Atlantic ocean, and away from the less hospitable and elevated terrain to the east. This would suggest that agricultural activity was more prominent in Study Area Viana over perhaps livestock rearing and defensive strategies offered by Type F land, as demonstrated in Study Area Chaves. The importance of agricultural practices can be shown by the Ripley's *K* test (Graph 6), with settlement agglomeration evident at the 500m mark, and representative of high level of connectivity between hillforts closely grouped together such as sites 64, 70, 80 and 81 (centre), where the settlements were given over to agricultural production (Almeida 2003a), as well as harvesting salt from the salt flats built up near the ocean as in site 112 (bottom left) (Carvalho 2008 vol. II, 131). In investing in the land, many *castros* located near to their primary resources, and in doing so, located at a lower altitude in less defensive positions.

Study Area Viana was also more inherently dynamic and integrated into the wider Mediterranean world than the other four regions, as shown by the caches of Republican and Imperial Roman coinage found in hillfort settlements. 38 Republican *denarii* dated to the first century BC were found in site 1 (bottom left, Map 5), and a cache of 37 coins unearthed at site 72 (bottom centre) among which were four Republican *denarii*, with the remainder dating from the period of the Emperor Augustus (27 BC-AD 14). While the dating of such coin finds does not prove the presence of Roman authorities, it is indicative of practice-based connections conceived from the periphery where experiences from outside permeate and connect with those members and institutions within (Wenger 1998, 117). In this sense, contact whether directly or indirectly with agents, structures and practices outside the immediate area, increasingly shaped the society of this region.

In identifying the impact of external influences, internal dynamics, or both, the territorial boundaries of medium and large-scale *castros* do not show any discernible pattern of control with the landscape, but tessellated Thiessen polygons around the River Lima suggest that margins of control conceived by individual

hillforts were located along the periphery of the waterway. This strongly suggests the presence of independent *castros*, or confederations of mutually-cooperative hillforts orchestrated around agricultural activities, where energy was invested in the economic activities, but where political or social allegiance to those elites who inhabited the larger hillforts varied within the region. This is borne out by the presence of three large metropolitan centres, or *citânias*, represented by Cidade de Âncora (site 12, Map 5, bottom left), the *Citânia* de Santa Luzia (site 133, Map 5, bottom left) and the *castro* da St. Da Vista (site 39, Map 5, top right), whose territorial domain is similar to those *citânias* located further south, would have encompassed a radius of 25km, an area insufficient to have controlled the whole of Study Area Viana.

For this reason, this Late Iron Age landscape adjoining the Atlantic coast is best perceived as representing multiple communities, some independent, others operating as mutually beneficial communities and lastly, those settlements within the ambit of larger hillforts, whose dominance with the assimilation of the region by Roman authorities, would be reinforced as they acted as geographical and political central places for the creation of tribal groupings and ultimately *civitas* settlements.

4.8. Conclusions

In summary, a series of points can be made about the settlement patterns, systems and practices of late pre-Roman northwest Iberia.

1. The empirical analysis conducted in this chapter strongly suggests that we should not speak of a single recognised ‘*Castro Culture*’ but of multiple *castro* communities, which occupied different spatial settings, but within which existed overlapping practices and systems. Study Areas North and Viana therefore exhibit similar settlement patterns in the clustering of communities, but the activities of those peoples who lived on the agriculturally rich vein of land along the Atlantic coast were strongly orientated towards generating economic surplus, where the presence of outside agents in the form of merchants, and Roman authorities in the adjoining province of *Lusitania*, helped ferment economic activity. In contrast, the emergence of *castro* settlements within close proximity of each other in Study Area North, while partially conditioned by its geographical immediacy to economic opportunities to the east, was predominantly constituted through lineage-based social structures.

2. Sandwiched between Study Areas North and Viana, a different social structure emerged around the region of Study Area Chaves and the western section of Study Area South, characterised by dominant large-scale hillforts, which controlled their hinterland and the economic opportunities they offered through smaller *castro* settlements located on their territorial borders. Geographically denied territorial access to the Atlantic coast through a series of mountain ranges and isolated from those waterways around which were orientated the economic activities of the hillforts perched along the River Douro in Study Area East, a nascent hierarchical system emerged with larger settlements located at a distance from major rivers, but with subordinate *castros* often located at the margins of waterways, where resources and fluvial transport networks could be accessed. The presence of smaller *castros* along the boundary areas of larger hillforts suggests that territory was delimited and controlled, and is strongly symbolic of those settlements located to the west of pre-Roman northwest Iberia, where territorial borders were tangible, recognised and enforced, in contrast to those boundaries manifest in Study Area North, where a lineage-based social structure probably emerged.

3. Of equal importance within the landscape of pre-Roman northwest Iberia were economic opportunities which shaped their respective cultures and are evident in the landscape of Study Areas North and East, as well as Study Area Viana. Nevertheless, the provenance and the nature of commercial operations may have had a contrasting impact on both regions, with Study Area Viana drawn into the ambit of commercial control provided by the Roman, and in turn, Mediterranean world, while Study Areas East and North were more likely integrated into long-distance exchange systems which centred on the interior of the Iberian peninsula. In this respect, their role in shaping both societies was inherently different, with Study Area Viana beginning to be moulded by Rome economically, and so socially and politically, while in Study Areas East and North, the commercial activities do not appear to have a corresponding impact, as shown by a more dispersed and therefore more politically-independent settlement pattern.

4. The communities which existed in late pre-Roman northwest Iberia were therefore multifaceted and complex, adopting a series of practices and systems which were conditioned by the physical geography, the economic benefits they offered, and the political systems they adopted and advanced. In this way we should move away from the narrow concept of isolationism forwarded by Sastre Prats (2001; 2008)

characterised by systems, which negated the emergence of inequality with the community while ensuring a collective voice which remained hostile to outside forces. Equally, we should be sceptical of Parcero Oubiña's (2003) 'heroic society', which envisions systems of inequality conditioned by Roman authority and the emergence of new systems which placed economic and political power in the hands of a small elite. In this sense, *castros* were representative of integrated and isolated structures, entities which were both hostile and cooperative, and settlements which invested and did not invest in commercial activities. Above all, they were different, with divergence marked not only between regions, but also among adjoining settlement structures.

Chapter Five. The Landscape of Settlement. Early Roman-Period Structures in Northwest Iberia

5.1. Introduction

This chapter examines the changes which transpired between the late pre-Roman era, as discussed in the previous chapter, and the early Roman period. In doing so, the themes and analytical frameworks developed in the previous chapter will be extended, but also new concepts will be incorporated, which can be applied to the investigation of northwest Iberia under Imperial rule. The first part of this chapter focuses on developing a ranked settlement structure which can be applied to examining the hierarchical settlement pattern that emerged in the early Roman period. It should also be acknowledged that ranked settlement structures are discussed in this chapter, and not in the previous chapter, as they reflect the hierarchical order of villages, towns and central places in early Roman northwest Iberia which was not overtly present during the Late Iron Age. The first area of investigation is a brief examination of Central Place Theory which has been used as a means to provide a hierarchical order to settlements of different size and function (see Smith (1976)). This is followed by a short investigation of settlement analysis based upon classificatory systems of population size. Finding Central Place Theory and demographic settlement analysis limited in scope and application, a more thorough methodological approach is proposed in section 5.2.4 which acknowledges the uniqueness of early Roman sites in northwest Iberia, and provides a framework to analyse the settlement structure. The second half of this chapter follows the same pattern to the previous one in setting out a methodological approach, reviewing and discussing those findings, and lastly, providing a series of concluding remarks.

5.2. The Theoretical Modelling of Ranked Settlements

5.2.1. Central Place Theory and the Practical Application of Settlement Ranking

The first methodological approach to be examined is Christaller's Central Place Theory (1933) which made a series of statements concerning the relationship between site structure and function. The first assumption was the notion that higher ranked settlements became central places to lower-order structures. A second principal belief was that these structures inhabited an isotropic landscape, that is to say a perfectly even terrain, where the cost of movement is the same irrespective of the direction one is travelling in (Smith 1976, 12-25). Both ideas outlined above are

hard to substantiate in the real world. Firstly, because the landscape is rarely isotropic (a point which emerges among the varied topological features of northwest Iberia, see section 3.3), and secondly the notion that higher ranked settlements, usually based on size, offered a wider range of functions, and thereby became centres to lower-order places (and which would appear to put a precedent on population size over other determinants of central places, for example, religious sites e.g. Delphi, in ancient Greece, and the small but important ecclesiastical capital of Wales, St David's (Rihll and Wilson 1991, 63)). Another critical issue with the practical application of Central Place Theory is the need to adhere to Christaller's framework to make sense of and validate empirical finds. This is perhaps best demonstrated by Hodder and Hassall's (1971) analysis of the spacing and ranking of walled towns within southern and central Roman Britain, where settlement patterns generated from the research were redrawn by Hodder and Hassall (1971, 404) to more closely replicate Christaller's (1933) hypothetical models of hierarchical settlement structures (Hingley 1989, 3). It could be argued that Hodder and Hassall's study was conceived in an era when a dominant theme was the positivist methodology which demanded that theory is not contaminated by the data and thereby delivers a clean hypothesis (Hodder and Hutson 2003, 207). Nevertheless, the limited use of Central Place Theory, especially in recent archaeological research, and its flawed conceptual framework strongly suggests that such a methodological approach cannot deliver a robust understanding of the raw data.

5.2.2. The Development of Rank-Size Population Studies

In a similar way, we must also question the use of other theoretical approaches to investigate settlement patterns, namely rank-size analysis, which proposed that settlement size was directly related to higher order functions (Johnson 1980). As I have already argued in section 5.2.2 population size does not always equate to a settlement's importance. Further problems arise in the material record, which is rarely complete, and so does not provide the archaeological tools to establish the population, nor the population density of ranked settlement structures (Drennan 1987, 309; Hassan 1981, 264; Rihll and Wilson 1991, 69). Efforts to overcome the shortcomings of rank-size approach have been proposed, which include Kosse's (1990) development of a hierarchical classification of settlements according to their demographic size. There are, however, additional problems with

this approach. This is particularly evident in the tiered settlement hierarchies Kosse promotes (and which resemble stages of social evolution as critiqued in section 4.2), and the simple fact that certain settlements do not conform to her model. An example of this is the *citânia* of Sanfins in northern Portugal where the estimated population of 3,000 (Silva 1995, 275, see section 1.5.6) means that the large hillfort should head a four or five tiered ranked settlement pattern, but where archaeological excavations have yet to locate any subordinate sites.

Although the theory underpinning rank-size classificatory systems is, in my opinion flawed, it does highlight one of the central problems of settlement analysis, our limited knowledge of past societies. This is an issue endemic to the Roman world where too little is known about most Roman towns to assess their function (Bekker-Nielsen 1989, 5), and thereby assign them a position within hierarchical settlement patterns. Moreover, the problems in defining a Roman site have been further complicated in recent years as archaeologists have not only employed new expressions (often within the scope of their research) to describe Roman towns, but in turn have been increasingly confronted by the bewildering array of terms. Hanley (2000, 6) notes that the terms used for small Roman settlements include; village, small town, *vicus*, larger rural settlement, lower-order settlement, lowest-order market centre, non-villa settlement, native settlement, roadside settlement, local centre, local market centre, proto-urban centre, hamlet and nucleated settlement, with the most commonly used term being village, small town and *vicus*.

5.2.3. Roman Settlements of Northwest Iberia

Hanley (2000) forces us to recognise that Roman settlements did not correspond to the neat categorisation envisaged by many archaeologists, but rather adapted to internal needs and external pressure over time. Additionally, within the Roman empire, which encompassed a period of half a millennium, the range of different cultures which Imperial Rome dominated had a further impact in differentiating one regional landscape from another. For this reason, it is important to acknowledge the individual characteristics of early Roman settlements in northwest Iberia, which would have been shaped by a particular blend of indigenous Iron Age practices and the needs of Imperial administrative control.

Early Imperial northwest Iberia differed markedly from the Roman provinces, which had already been established at the time of the conquest. Many had been

incorporated under the control of Rome at a much earlier date, and for this reason may have demonstrated a greater level of assimilation into Roman economic, social and cultural practices. Within northwest Iberia following the end of the Cantabrian Wars (29-19 BC), three *conventus* capitals - *Asturica Augusta*, *Lucus Augusti* and *Bracara Augusta* - were established, which provided regional judicial and administrative control for the region (Hodgson 2005, 16, see section 1.5.8), but were incorporated into the province of *Tarraconensis* and administered from its capital, *Tarraco*, modern-day Tarragona near Barcelona (Keay 1988, 174). Unlike other more developed provinces in *Hispania*, notably *Baetica* (approximately modern-day Andalusia in Spain), *coloniae* settlements did not develop within the region. Why *coloniae* materialised in Roman Britain, which was incorporated into the Roman empire at a similar time to northwest Iberia, but not within northwest Iberia itself cannot be firmly established. However, the presence of *civitas* capitals and *civitas* towns, which operated as commercial and administrative centres under the *conventus* capitals, suggests that the local indigenous aristocracy, working in conjunction with Imperial authorities, managed the administrative and judicial needs of these nascent settlements (Alarcão 1998, 51). What can be more definitively stated is that the pace of change within Imperial northwest Iberia ensured that the status and therefore function of some of these settlements was one of sudden change (for example *Bracara Augusta* as discussed in section 2.3.4.1). Of central importance in the investigation of the study region were early Roman *civitas* capitals which may have fulfilled a range of rapidly evolving functions. These included the *civitas Baniensium* (Study Area South, site 667), located at the confluence of the Rivers da Vilariça and Sabor, to the probably less commercial and strategic *civitas Zoelarum* (Study Area North, site 43), which was equidistant between the prosperous *municipium* of *Aquae Flaviae* to the west, and those settlements located towards the interior (Lemos 1993 vol. II, 64-70). Despite the differences in the size and status of these settlements, the *civitas Baniensium*, the *civitas Zoelarum* and the *municipium* of *Aquae Flaviae* appear to have fulfilled a similar role and functioned as central places for their immediate territory, a premise which will be examined in greater detail later in this chapter.

Dependent upon these metropolitan centres were a series of smaller settlements, among them *vici* (see section 3.6 for a discussion *vici* settlements), which have been identified through classical sources as well the epigraphic record

(Curchin 1991, 123-124). It is also important to acknowledge that the use of the term *vicus* within Roman northwest Iberia refers to a small town, and not an administrative unit of a large urban centre (Hornblower and Spawford 2003, 1598) as is found elsewhere in Spain, for example Roman Cordoba (*vicus Hispanis*, Spanish quarter; *vicus Forensis*, Roman quarter) (Curchin 1991, 124). Outside of Roman Iberia, particularly in the north of the empire, the term *vicus* was more closely associated with a civilian settlement emerging next to an auxiliary fort (Salway 1981, 591; Wilson 2002, 499). Within Roman Iberia, the names ascribed to the various *vici* settlements often identified their role and key attributes (Wightman 1976, 60), such as the *vicus Cuminarius*, which derived its name from trade in the valuable cumin seed, and which has been identified on the Roman road between *Laminium* and *Titulcia* (central Iberia) (*Itin. Ant.* 445.6) (Curchin 2004, 106). Other *vici*, for example, the *vicus Vagornica* (Almeida 1982, 69-70) or alternatively the *vicus Lovagornica* (Rodríguez Colmenero 1987, 17, 66), suggest that the term *vicus* represented an established identity and function for these small settlements.

Where *vici* shared a similar function to settlements elsewhere in the empire, was their role as villages or small rural towns, especially in the less developed regions of central, western and north-western Iberia (Curchin 1985, 330-332), where they were integrated within the Roman arterial road network (Laurence 1999, 28; Wightman 1976, 61). While these *vici* functioned as centres from which to access surrounding productive farmland (Curchin 2004, 97; Lemos 1993 vol. II, 324), and as provincial markets (Alarcão 1988, 43; Curchin 1991, 125), how they integrated into the wider settlement pattern is not fully understood. Some argue that *vici* administered sub-divisions of the *civitas*, the *pagi* (Millett 1990, 150), and perhaps provided a means for local aristocrats to preserve a degree of influence and importance (see Drinkwater 1985, for Roman Gaul), while others (Curchin 1991, 125) envisage *pagi* and *vici* as two separate and distinct entities. However, it is likely that *vici* fulfilled a series of subordinate roles on behalf of larger towns, such as the collection of taxes (Curchin 1991, 66), and for this reason they may have occupied a position both in terms of importance and function below that of a *civitas* (Mattingly 2007, 171).

Also investing heavily in agricultural production were villa settlements (see section 3.6.1 for an identification of *villae* from the material evidence), whose traditional function was one of production of rural surplus, which could be

exchanged or sold at market. Nevertheless, it is important to define what we mean by the term *villa*, especially given that the term possessed multiple meanings to the Romans themselves (Percival 1976, 13). Classical authors, such as Varro (*RR.* 2, 10, 6) and Columella, a first century native of *Gades*, modern-day Cadiz, southern Spain (*RR.* 12, 15, 1), distinguish between working and storage elements (*villa rustica* and *fructuaria*) and the residential dwelling (*villa urbana*). Here, the importance of good soil and climate (Cato. *De. Agric.* 1.3), and the need to be near a road network (Varro *RR.* 1.16.2-3), to ensure access to the local town (Plin. *N.H.* 17.28), are all emphasised by Roman writers. Cato's assertion 'Let not the villa want a farm, nor the farm want a villa' (Cato. *De. Agric.* 1.4.8), highlights the dual role hard work and industry played in framing Roman aristocrats' conceptualisation of *villae* settlements (Reay 2005). While many rural estates did share many of the attributes mentioned by these authors other grander residential *villae* existed during the early Roman empire, with little or no agricultural function, such as Pliny the Younger's (AD 61-112) detailed description of his suburban seaside residence at *Laurentum* (Plin. *Letters.* II, 17). Characteristic of southern Italy and Sicily, the *latifundia*, or large slave plantations of the first century AD, did not take hold in Iberia, but instead large villa complexes, the *villa urbana*, emerged during the fourth century as miniature consumers and producers (Curchin 1991, 128), while some larger-estates functioned as private fiefdoms under their aristocratic owners, such as the Roman villa at Olmeda, northern Spain, which garrisoned a fully equipped private army (Keay 1988, 194).

This discussion above would therefore suggest that *villae* within the Roman empire as a whole can be classified according to their function as rural agricultural estates, *latifundia*, residential *villae* (as described by Pliny the Younger), and rural palaces, which functioned as administrative centres, such as the late Roman Villa of Carranque near Madrid, whose owner, the Prefect Maternus Cinigius, was uncle to and minister in the Emperor Theodosius' (347-395) administration (Parque Arqueológico de Carranque). The majority of *villae* settlements within the landscape of Roman northwest Iberia during the first and second centuries AD would have been simple agrarian centres, with a minority being residential *villae* (Amaral 1993; Carvalho 2008; Lemos 1993; Perez Losada and Castro Perez 1995). Nevertheless, the size and importance of these rural producers would have differed slightly from one settlement to the next. Certainly, within southern Etruria different architectural units were not always present within the same architectural complex, or easily

identifiable (Potter 1980, 74). Nor were they uniform in their size and function as was the case with upland and lowland *villae* of southern Etruria on account of the economic diversity in cultivating different crops (Potter 1980, 76). The dichotomy of upland and lowland *villae* not only question the assumption of a single agricultural villa type, but also raises the issue of the distinction between villa and farm. The *Ager Cosanus* Survey of the 1970s classified only the most elaborate buildings as *villae* (Dyson 1981), which if applied to Romano-British *villae* would relegate them to mere farms (Greene 1990, 89). Additionally, over the course of time many farms and pre-Roman rural structures would have been redesigned and taken on the form of a villa estate consisting of working and storage elements (*villa rustica* and *fructuaria*), and the residential dwelling (*villa urbana*). With reference to early Imperial northwest Iberia, the dichotomy of farm versus villa is best illustrated with the abandonment of *castros* from the early first century AD, and the colonisation of more manageable terrain and productive land within the vicinity (Perez Losada and Castro Perez 1995, 170). That is not to say those inhabitants who abandoned their fortified hillforts immediately colonised purpose-built *villae*, but rather that some humble structures developed into more complex rural structures over time, as shown by the proliferation of *villae* in the rich agricultural area around *Bracara Augusta*, in the second century AD (Martins *et al.* 2005, 288). Where this thesis aims to build on the discussion above is through a local examination as well as comparative regional analysis of agricultural centres, the *villae*, and smaller rural holdings such as *casals* identified by Roman roofing tiles, which may have operated as small farming communities. In addition to this, dating of Roman artefacts, particularly ceramic ware, as discussed in section 3.6.1, provide the means to firmly identify a chronological sequence of change for both early Roman agricultural centres, and also surrounding *castro* settlements, given that the communities of these abandoned hillforts may have gone on to populate nearby ‘Roman-style’ settlements (see section 3.5.2 for a definition).

5.2.4. The Applied Methodology to Examine Settlement Ranking

In light of the discussion above two clear points emerge. The first is the unsuitability of Central Place Theory and rank-size analysis to measure and analyse both the local and regional variation of settlement patterns from the Late Iron Age into the early Roman era, as shown in the previous section 5.2.3. The second core

issue, is the need to formulate a means to correlate, identify and examine the settlements contained within the five datasets. Settlement ranking in the form of a hierarchy of settlement function and chronological sequence, rather than simply size, would offer an effective means to define and examine the sites, but to proceed, a series of key concepts must be addressed. Firstly, we must acknowledge that the structure of settlements transformed over time in response to the changing political, economic and social needs of the region's inhabitants. Chronological frameworks often present an episodic interpretation of settlement, and also conceal the dynamic nature of continuously changing circumstances, whether for emerging settlements, or those in decline. In addressing the need to present these temporal and spatial changes, in this thesis I acknowledge the presence of multiple processes within the landscape, where the abandonment of fortified hillforts and the development of more 'Roman-style' structures, may not have been uniform either within or across regions. For this reason a more detailed analysis of the material record for individual settlements is necessary, as discussed in sections 3.6.1 – 3.6.3, to establish whether the chronological sequence of events varied at a regional or even local level.

Lastly, in devising a ranked settlement pattern, we should be mindful of the strict categories which are applied to Roman structures, especially when we talk of architectural size, consumption and economic and social functions (Witcher in press). *Villae* and *vici* present two very different types of settlement, but when discussed from an economic perspective appear to share common attributes as producers of agricultural surplus and market locations. Equally, the function of *mansiones*, or Roman roadside inns (Mattingly 2007, 259), was very different to that of *villae*, but in terms of their respective size and possible function, both structures may have been remarkably similar.

I therefore reject those narrow hierarchical orders (see Barker 1995; Greene 1990, 126; Ponsich 1974), and instead seek to recognise that broader relationships existed between settlements, particularly within the context of administrative control and agricultural producers. In the absence of *conventus* capitals, the settlement hierarchy (see Table 7) is headed by the central urban administrative units of the region, the *municipia* (the *civitas* capital and later *municipium* of *Aquae Flaviae* is identified through epigraphic evidence, see section 5.3.2) and *civitas* capitals (an *ara* with the name identifies the name and location of the *civitas Baniensium* (Lemos 1993 vol. II, 354); while evidence for the *civitas Zoelarum* comes from Tranoy

(1981, 52), as well as GIS-based analysis, see sections 6.5 and 7.2.2). Below these large central places are positioned the *vici* as possible subordinate administrative centres and collectors of tax and arbitrators of rural affairs. As I outlined in section 3.6.1 the archaeological record these settlements have been identified from inscriptions which mention the term *vicus*, sherd-scatters of *tegulae* and *imbrices* which are more extensive than those of *villae*, and lastly the presence of material evidence (at *villae* there is considerable presence of *dolia*, mills and storage containers which testify to agricultural activities which are not present at *vici* settlements (Carvalho 2008 vol. II; Lemos 1993 vol. I; Texeira 1996)). Below the *vici*, are Roman towns and Roman habitats (*vici*, and Roman town and habitats have been differentiated on account of larger quantity of *imbrices* and *tegulae* found at the former, as well as epigraphic evidence) which appear to have operated as non-agricultural settlements (see section 3.5.2). It is also important to acknowledge that I have previously described *vici* sites as small rural towns and villages (the latter term is commonly employed by archaeologists to describe *vici*, see Curchin 1991, 66), and yet have placed them above Roman town and habitats in terms of importance within the settlement ranking. This stems from my belief that *vici* sites operated as important administrative, economic and cultural centres and therefore may have performed a more important role than Roman towns, which is a hypothesis that is examined in each of the five study areas.

Alongside Roman towns and habitats can be placed *mansiones* and military barracks, the *statio*. Two military sites (12 in Study Area North and 813 in Study Area Chaves) have been identified from their relatively isolated position in relation to other Roman settlements, at strategic points in the road network, and in the case of site 12 the large numbers of inscriptions were found at the settlement including one dedicated to Calpurnio Reburrino, a cavalryman in the *Ala Flavia II* (Lemos vol. II, 41). These places were most likely coordinated from metropolitan centres, such as *conventus* capitals, and whose function was very much linked to Imperial state affairs. Below these structures can be found *mutationes*, or horse relay stations for the *cursus publicus*, which were positioned between larger *mansiones* (Mattingly 2007, 259), but were of a smaller size, suggesting that *mutationes* fulfilled a subordinate role in terms of the range of services offered by the larger *mansiones* (Smith 1987, 17). The identification of *mutationes* comes principally from their location along major Roman roads. In the same way *mansiones* are identified from

their strategic location along major Roman roads, but where their function may have been allied to a *villae* which would have provided supplies for travellers (for example, the large *villae/mansio* 663 in Study Area South), and *vicus/mansio* site 252 located on a strategic crossroads of two main Roman roads where large quantities of *tegulae* and *imbrices* have been found (Carvalho 2008 vol. II, 124)).

Alternative settlements were rural centres such as *villae* and Roman-period *castros* which appear to have shared a similar function as centres of agricultural production, although such a hypothesis constitutes an element of the core analysis for this work. All the *villae* bar one showed a similar function as agricultural centres (see section 3.6.1) with the exception to this being the luxury villa at site 390 in Study Area South. However, we should not rule out the presence of a *villa rustica* or some agricultural holding attached to this *villa urbana* and for this reason all *villae* were included in one category. Below *villae* and Roman-period *castros* can be found farms, which were probably worked by an extended family or a small community, and can be identified from the centuriation of the landscape in Study Area Chaves (see Rodríguez Colmenero 1997, 125-133). Our best means to identify these farms is through *casals* which are small sheds or small farm dwellings which can be differentiated from larger agricultural centres (*villae*) on account of the limited scatter of *imbrices* and *tegulae* (see section 3.6.1) and the absence of agricultural storage units (e.g. *dolia*) and other agricultural implements (e.g. mills).

Site Hierarchy
Major towns, e.g. <i>civitates</i> capitals and <i>municipia</i>
Large villages, e.g. <i>vici</i>
Roman settlements, Roman habitats, <i>mansiones</i> , <i>statio</i> , <i>villae</i> , <i>castros</i> and Roman-period <i>castros</i>
<i>Mutationes</i>
Farms
<i>Casals</i> and farms.

Table 7. The order of hierarchical settlements.

5.3. Methodological Approach and Analysis

5.3.1. Introduction

The analysis conducted in this section begins with a presentation of the principal characteristics of five study areas during the early Roman period, and employs the site hierarchy (see Table 7 above) and other ideas established in sections 5.2.3 and 5.2.4 to analyse the study region. Following this section 5.3.3 utilises the Thiessen polygons from Chapter Four to examine the degree to which Roman settlements exploited boundaries and border within the landscape when establishing *ex-novo* settlements to administer and control the indigenous population. Section 5.3.4 presents the land use capacity, distance to river sources, as well as the slope height and angle for Roman settlements and compares this data with the Iron Age period. A discussion of this information (section 5.4) is followed by concluding remarks (section 5.5).

5.3.2. An Overview of the Five Study Areas

This section presents the findings from the applied methodology discussed in the previous section. For the sake of clarity the five study areas are examined in the following order; Trás-os-Montes North, Trás-os-Montes South, Trás-os-Montes East, Chaves and Viana. Furthermore, the analysis is presented in the subsequent order: a brief examination of each study area (Maps 21-25); the positioning of Roman settlements according to probable Iron Age boundaries (Maps 26-30); and the relationship between Roman-period *castros* and Roman settlements and their surrounding environment (Maps 31-35). All maps discussed in this chapter are to be found in Volume II of this thesis.

Where Late pre-Roman Iron Age Study Area North was marked by the presence of two or more fortified hillforts within close proximity, as discussed in Chapter Five, these *castro* settlements undergo a notable process of change in the early Roman period. Firstly, where two fortified hillforts were located near to one another, under Imperial control one settlement is often abandoned, while the other becomes a Roman-period *castro*, as shown by sites 8 (abandoned) and 6 (continued occupation) (Map 21, centre right), 65 (abandoned) and 67 (continued occupation) (centre right). This practice is also evident with those fortified hillforts located around the River Sabor (bottom right), where sites 46 on the left bank, and 97 on the right, were abandoned, while sites 45 and 461, on the left and right banks of the river respectively, continued to be occupied into the early Roman period (see Map 21). This process was more prevalent in the east of the study area. In contrast, in the west

of the region, clusters of *castro* settlements were abandoned en masse during the early Roman period, for example, sites 234 and 235, 225 and 263 (centre left), 228 and 265 (centre), and the set of three fortified hillforts 232, 254 and 255. Furthermore, in the far west of Study Area North, only a few fortified hillforts continued as Roman-period *castros* (see sites 252, centre left; 210 and 630, bottom left), in a region where few Roman settlements were established. Only in the north of the study area did a cluster of *castro* settlements, sites 258, 273 and 282 (top left), and 213 and 248 (top centre), continue to exhibit a Late pre-Roman Iron Age settlement pattern.

Within the region as a whole, Roman-period *castros* showed a tendency to occupy the peripheral space of Study Area North, for example site 241 (top left), 166 (bottom centre), 136 (bottom centre), 113 (centre right), while Roman structures showed a tendency to concentrate in the area between the River Sabor to the right of the study area, and the River Rabaçal (near to site 226, centre left) to the left. At the heart of the Roman settlement pattern was the *civitas* capital of the local tribe, the *Zoelae* (Lemos 1993 vol. II, 64-70) (centre, site 43), around which a series of clustered satellite Roman settlements emerged, for example sites 29, 33 and 36 to the west, 52, 56 and 59 to the north, and 51, 53 and 87 to the northeast. Within the orbit of control of the *civitas* capital and located 12km to the northeast a *vicus* settlement (site 17, top right) was established, and most probably populated from abandoned *castros* 16, 73, 117, 118, located five or so kilometres to the west. Other important Roman structures included the *statio*, or military barracks (site 12, centre right), located at the strategic junction on the main Roman *via*, and a *mutatio* (site 257, top centre), which was also positioned at the northern bifurcation of the Roman highway.

This process of change within Study Area North was not uniform. A series of Iron Age *castro* sites were abandoned in preference for Roman settlements, for example sites 30 and 31 for settlement 29 (centre), and Iron Age site 2 for nearby Roman settlement 1. However, a considerable number of Roman-period *castros* located in the vicinity of Roman settlements, for example sites 45 and 47 (bottom right), 60 and 63 (centre right), and 252 and 253 (top left). This strongly suggests that these Roman-period *castros* functioned as dynamic settlements during the early Roman period, after which they were slowly vacated in favour of more ‘Roman-styled’ structures. The colonisation of the lowland was not confined solely to establishing Roman settlements, but also farming communities, as shown by the

abandonment of Iron Age site 75, and the location of a *casal* (site 74, top centre), less than 1km away. Nevertheless, the founding of new agricultural centres through the relocation of indigenous communities appears to have been limited in practice, as well in number, with only two *villae*, located to the south of the *civitas* capital (sites 102 and 125, bottom centre), contained within the study area.

Study Area South presents a very different set of changes to those evident in Study Area North. While the close proximity of sites 661 and 662 (Map 22, bottom right), replicates a similar settlement pattern to that found in Study Area North, with one site (662) being abandoned, while the other (site 661) continued as a Roman-period *castro*. Within the region as a whole there is no discernible pattern for the abandonment or continued occupation of Iron Age hillforts. Some *castros* located near to rivers were vacated, for example sites 822 (bottom left), 545 (centre) and 835 (centre), while others such as sites 600 (centre) and 611 (centre) were not. Additionally, while many fortified hillforts located away from the fluvial network were abandoned, such as 532 (bottom centre) and 613 (top centre), others, for example sites 608 (top right) and 901 (top centre), continued to operate as Roman-period *castros*. Nevertheless, to the west of the Rivers Tua (running north to the left of *vicus* 549, centre), and Rabaçal (Iron Age site 835 is located on a bend on this river, centre), the Iron Age settlement pattern remained intact with many fortified hillforts adapting to become Roman-period *castros*. Moreover, all of the large hillfort settlements in this area, sites 806, 802 and 814 continued to be occupied in the early Roman period, in contrast to other large hillforts within the region, sites 607 (top right) and 613 (top centre), which were abandoned during the Roman era. Where large hillfort site 608 (top right) continued to operate as a Roman-period *castro*, its relative isolation from both Iron Age and Roman settlements alike, may have ensured that it continued to be inhabited during the early Roman period.

As with Study Area North, fortified hillforts were abandoned in favour of lowland Roman settlements, for example abandoned *castro* 680 and Roman settlement 681 (bottom right), abandoned hillforts 607, 638 and Roman settlement and mine 637 (top right), as well as abandoned *castro* 664 (bottom right) located near the *civitas* capital. In tandem with Study Area North, many Roman-period *castros* prospered until the first or second centuries AD, after which the community begin to colonise ‘Roman-style’ settlements, as shown by the close proximity of Roman-period *castros* and Roman settlements 842 and 844 (top centre), 773 and 774, 535

and 553 (bottom centre), and 740 and 741 (centre right). However, in contrast to Study Area North, where the Roman settlements concentrated around the *civitas* capital and the region between the River Sabor and River Rabaçal, in Study Area South a more complex pattern emerges. Firstly, to the west of the Rivers Tua and Rabaçal, a series of fortified hillforts adapted to become Roman-period *castros*, while to the south in the first and second centuries a network of *casals*, *villae* and Roman settlements emerged within the landscape. Here, the close proximity of these Roman settlements and agrarian centres to the Rivers Douro and Tua would have provided a cheap and effective means of transporting goods and products to neighbouring provinces and beyond. To the east, the presence of a *vicus* settlement (site 549, centre), may have acted as an administrative centre for local agricultural settlements, while possibly providing some form of administrative control along with Roman settlement 830 (centre left), over the native communities located to the northwest.

In Study Area South, another agglomeration of Roman settlements can be seen in the centre of Map 22 where a villa, site 772, two Roman settlements 735 and 774, and two *casals* 770 and 771 are located within an area of 7km². Of considerable interest here is Roman settlement 744 where a granite berrão, a zoomorphic structure in the form of boar/pig (see section 3.6.3) as well as a series of gold torques similar in style and form to those in Figure 24 (section 3.6.2) were found, which now form part of the collection of the Museu Nacional de Arqueologia in Lisbon. The dating of these torques to the Middle Iron Age (sixth century BC – second century BC), suggests that they were brought from the nearby Roman-period *castro* (site 773) probably when the hillfort was abandoned, but this assumption is very based on the relative distance between settlements 773 and the Roman settlement of Tamancas (site 744), which are located a few hundred metres apart. With respect to the torques (I shall discuss the berrãos in greater detail in Chapter Seven) their presence within a ‘Roman’ context suggests that these gold artefacts most likely continued to play an important symbolic role for their owner/s during the early Roman period, as they had done for previous generations in the Iron Age.

In the bottom right of the diagram, a cluster of Roman settlements along with a *casal* were established between 1.5 and 3km from the River Douro. Farther north are two *casals*, sites 641 and 644, which probably supplied the workers of the nearby iron ore mine (site 640), while Roman settlement 655, located on the Douro, most

likely functioned as an *entrepôt* for the shipment of ore. To the north of this mining area is the *civitas* capital (the *civitas Baniensium*), located on the strategic confluence of the Rivers da Vilariça and Sabor, and within 5km of the River Douro. Integrated into the settlement pattern was the main road, which ran north and joined with the Roman *via* whose trajectory linked the *civitas Zoelarum* in Study Area North with *Aquae Flaviae* to the west. Peppered around this Roman highway a series of *casals* and *villae* emerged, which would have supplied the *civitas* capital and nearby Roman settlements, and utilised both the main Roman road and the River Douro to transport their produce. The trajectory of the Roman road continued north running close to a series of mines, sites 627, 730 and 760 (centre right).

Study Area East is dominated by the River Douro and the River Sabor, which provided for three distinct zones of occupation during the Late pre-Roman Iron Age. The first of these was the area close to the River Douro along which a series of fortified hillforts were located during the Late pre-Roman Iron Age, but abandoned, with the exception of medium-sized *castro* 430 (Map 23, centre), during the early Roman period. Secondly, in the region between the River Douro and the Sabor further inland, where a series of Iron Age structures dominated the Iron Age landscape, three fortified hillforts, sites 391, 323 and 302 (top right) continue as Roman-period *castros*, as do a cluster of fortified hillforts, sites 358, 364, 374, 386, 389 and 426 (centre), of which 364, 386 and 426 are medium-sized *castros*. As with the area to the west of Study Area South, the Iron Age settlement pattern appears to have been preserved, with a small enclave of medium-sized hillforts located in the centre of the diagram, perhaps continuing to exert an element of control over the smaller Iron Age structures in this area. Furthermore, the close proximity of these hillforts to the main Roman road implies that this terrestrial routeway may have played an important role in preserving this network of indigenous settlements. Equally, the abandonment of those hillforts on the tributaries of the River Sabor suggest the fluvial network now played a secondary role to terrestrial forms of communication in the early Roman period. Within the region to the north of the River Sabor, a few Roman structures emerged adjacent to Iron Age ones, for example, Roman settlement 159 adjoining *castro* site 160 (top left) and fortified hillfort 512 next to *casal* 516 (top left), but there was also a process of *ex-novo* Roman settlements being established adjacent to the river system (see sites 173 and 377, top left).

During the early Roman period, the cluster of Roman-period *castros* were also slowly abandoned and a series of Roman structures emerged adjacent to the Roman *via*, as shown by Roman settlement 388 and *casals* 424, 425 and 428 (centre). To the northeast of this area, an agglomeration of Roman communities were established, as shown by *villae* 390 and 392 (centre), as well as Roman habitats 415 and 417, Roman settlement 400 and 404, and villa 410 and adjoining *casals* 405, 406 and 408 (top centre). Along the River Douro, Iron Age settlements were quickly abandoned in favour of ‘Roman-style’ structures. A loose agglomeration of Roman settlements 394 and 433, along with two *casals*, sites 416 and 431, can be observed in the centre of Map 23, as can Roman settlements 399 and 422, and Roman habitat 423 to the northeast. Near to these communities is the fortified Roman settlement 420, whose defences have been dated to the early Roman period (Lopo 1987, 136), and which may have been indicative of the need to secure the area from rebellious tribes and incursions further inland. Whether the *vicus* settlement 309, and adjacent Roman settlements 305 and 312, played a role in securing the area from insurgency to the east cannot be established. Nevertheless, the abandonment of *castro* site 304 overlooking the River Douro and the agglomeration of these Roman settlements inland, strongly suggests these settlements were connected with the main Roman highway located nearby. At the opposite end of the Roman highway, another *vicus* settlement was founded, site 565 (bottom left), suggesting these *vici* provided some form of administrative control over the area, especially with the absence of a *civitas* capital / *municipium*. Without doubt, the area around *vicus* settlement 565 was important both in terms of communication (with a *mutatio*, site 577, located around 12km away), and a hive of economic activity, as shown by mining settlements 673, 676 and 695, and *villae* settlements 582 and 677.

Study Area Chaves provides an altogether more dynamic Iron Age settlement pattern compared to that of Study Area East, with the presence of a series of large and medium-sized fortified hillforts, which extended their influence over the landscape through smaller *castro* settlements located at their territorial boundaries. In the region to the west of the fertile Tâmega valley, two of the large hillforts, sites 201 (see Map 24, top left) and 402 (centre left) continued to function as Roman-period *castros*. In the area around site 402, the presence of smaller Roman-period *castros* 155, 408 and 416, strongly suggests that indigenous communities continued to engage in nearby mining activities as shown by mining centres 410 and 411 (centre

left). In the process of time, these hillforts were abandoned as the population at large *castros* 402 and 404 probably relocated to Roman settlements 403 and 405 (centre left). Further north, an agglomeration of Roman structures appeared around large *castro* 201, with agriculture the dominant activity in this area, as shown by *villae* 51 and 208, and *casals* 159 and 203. Medium-sized hillforts such as 416 and 505 (centre left), the latter of which may have operated as an *entrepôt* for the transportation of mining production during the late pre-Roman era and the early Roman period, became Roman-period *castros*, with subsequent Roman presence in the area. Similarly, to the east of the River Tâmega, a series of large, but isolated hillforts (relative to Iron Age and later Roman structures), such as sites 715 and 719 (bottom centre), and 613 (centre), became Roman-period *castros*. Nevertheless, within this area characterised by a belt of highland, the Serra da Padrela, the relatively unproductive environment did not result in the establishment nor development of Roman settlements. Away from Serra da Padrela where the land was more fertile, fortified hillforts were abandoned in favour of Roman habitations at the beginning of Imperial rule, as shown by large *castro* site 614 and Roman settlement 615 (centre right), and medium-sized *castro* 301 and Roman habitat 300 (top centre). Elsewhere the pace of change was slower, with the large-Roman period *castro* settlement 340, located on the main Roman highway linking the settlement of *Aquae Flaviae* with the *civitas Zoelarum* to the east. Also positioned on the main Roman road, and to the west of Roman-period *castro* 340, was a *vicus* (site 607, centre right), which most likely fulfilled a subordinate administrative function for the regional capital, *Aquae Flaviae*, located a further 20km to the west.

However, *Aquae Flaviae* should not be viewed as a fully formed entity, but as a settlement which evolved over time. The origin of this central place has traditionally been disputed given Ptolemy's (c.AD 90-c.168) reference to an *Aquae Laiae* (*Geographia* II, 6, 39), which has been interpreted as a corruption of *Aquae Flaviae*, and symptomatic of the unreliable nature of this classical author's work (Rodríguez Colmenero 1997, 13). The fifth century Christian theologian, Hydatius, who was consecrated bishop of *Aquae Flaviae* in AD 427, vindicates Ptolemy's account, talking of the *municipium Lais* (Burgess 1993, 123). In defining the chronological sequence of *Aquae Flaviae*, it is probable the settlement evolved from a pre-Roman *castro* under the control of the dominant tribe of the region, the *Turodi* (López Quiroga 2004, 29). In the early Roman period, it acquired the title *Aquae*

Laiae, perhaps a reference to the Latin word for happy (*laetus*), or the Celtic word for milk (Welsh *llaeth*, Old Cornish *lait*) (Meillet 1937, 267). During the *Flavian* era (AD 69-96), the settlement acquired the suffix *Flaviae* and *municipium* status (see Alarcão 1988, 7, and the argument that the settlement was elevated to a *municipium* between AD 79 and AD 96), and with it came *ius Latii*, or Latin rights, for its citizens, an intermediate status between non-Roman and Roman citizenship, while magistrates, on completion of their office, attained Roman citizenship (Fear 1996, 133). With *municipium* status, new and grander buildings may have been constructed, as evident in other towns which became *municipia*, for example, Baelo (*Baetica*, modern-day Andalucía) (Keay 1988, 58), thereby increasing the settlement's socio-economic and political influence within the region. Allied to the new prosperity of *Aquae Flaviae*, was the flourishing of agricultural activity along the Tâmega Valley illustrated by a high number of *villae* and *casals*, for example, sites 703, 707, 708, 712 (bottom centre), as well as 535, 536 and 540 (centre).

The settlement pattern of Study Area Viana, from the late pre-Roman to early Imperial period was very much representative of those changes found in Study Areas North, South and East. Firstly, in those areas where few Roman settlements were established, notably in the top centre of the diagram (see Map 25), to the south of the River Minho (Spanish Miño), there was a strong presence of Roman-period *castros*, for example sites 25, 26, 34, 36 and 39. However, the process established in Study Area North, where two or more fortified hillforts existed in close proximity, but where one settlement was abandoned while the other continued as a Roman-period *castro*, was not repeated here. Rather, adjacent *castro* settlements 29 and 37, as well as 34 and 36 became Roman-period *castros*. This pattern was also repeated along the Atlantic coast (centre left), where a concentration of fortified hillforts and Roman-period *castros* continued to dominate the landscape in the early Roman period, but where very few Roman structures appear to have been established. Here, two adjacent fortified hillforts, sites 12 and 110, became Roman-period *castros* while Iron Age structures 108 and 109, were abandoned. This activity strongly suggests that communities sharing similar socio-economic goals and perhaps a political affiliation, either abandoned their Iron Age settlements en masse with the adoption of Roman systems of control, as shown by *castros* 64, 70, 80, 81 (centre), or consolidated their activities in the early Roman period. Consequently, Roman-period *castros* 66, 67 and 83 (located near the *vicus/mansio* 252, centre left), which may

have functioned as agricultural centres were probably vacated for a series of nearby Roman habitats, which also engaged in similar agricultural practices. Equally, Roman-period *castros* 114, 115, 125 and 130 (bottom left), located adjacent to a series of gold and tin mines, continued to engage in mining activity in the early Roman period, possibly under the control of a local aristocrat, until those settlements were abandoned for nearby Roman settlements and habitats in the first and second centuries AD.

In the course of the early Imperial era, the Roman settlement pattern became concentrated within specific regions. The first of these was the area to the south of the River Minho, positioned between two major Roman roads, where a series of agricultural producers, principally *casals* and Roman habitats were established. The second was further south around the Lima River Valley where a series of Roman roads converged, especially around the road junction where *vicus/mansion* 252 was located. The plethora of Roman-period settlements within this area can be attributed to a series of factors: firstly, the rich agricultural landscape coupled with profitable mining activity; secondly, the network of Roman highways providing access to nearby markets and ports; and thirdly, the close proximity of the *conventus* capital of *Bracara Augusta* to the south. It is likely therefore that this combination of factors contributed to the growth of this area, perhaps at the expense of other districts, especially the agriculturally-rich coastal area, where a series of Roman-period *castros* continued to farm and mine the landscape.

As with the other four study areas, and with the absence of a central place in the region, a series of *vicus* settlements probably fulfilled some form of local governance and control. These included *vicus* settlements 303 and the *vicus/mansio* 252 (centre left) located on the junction of the main roads, as well as *vicus* 256, positioned next to the River Minho and adjacent to a main Roman road (top left), and *vicus* 168 in the relatively unpopulated region towards *Aquae Flaviae* (centre right). These *vici* appear to have functioned as central places given the spatial absence of larger settlements, particularly *civitas* capitals, the subsequent section develops and explores the themes of boundaries, borders and their practical application, via Thiessen polygons, with a specific aim of investigating how *castro* and ‘Roman-style’ settlements interacted, and in turn how the settlement pattern developed during the early Roman era.

5.3.3. Thiessen Polygons, Borders and Boundaries

In analysing the impact of the early Roman administration on late pre-Roman communities, this chapter utilises the multiscalar Thiessen polygons generated in the previous chapter for all *castro* settlements, medium and large hillforts and large hillforts. Firstly, this information is utilised to examine the degree to which Roman settlements were located within the landscape to administer and control the indigenous population, as well as to exploit neutral territory, when establishing *ex-novo* settlements (see section 1.5.7). Secondly, Roman period boundary markers found in Study Area Chaves are analysed against tessellated polygons to investigate how fortified hillforts were organised in the early Imperial landscape, and to examine how those borders and boundaries changed with the emergence of Roman settlements.

5.3.3.1. Analysis of Thiessen Polygons, Borders and Boundaries

Analysis of the impact of early Roman systems of control and administration on the late pre-Roman landscape was conducted by projecting the early Roman settlement pattern over the multiscalar tessellated Thiessen polygons generated in the previous chapter. In Study Area North, as with the other study areas, the abandonment of *castro* settlements and the subsequent colonisation of adjacent space, often in the form of a Roman settlement or agricultural centre, did not provide any notable change in the landscape. Where change is more evident, is in the establishment of *ex-novo* settlements, especially the *civitas* capital, site 43 (Map 26, centre), and *vicus* site 17 (top right), which are both positioned on the boundaries of medium-sized *castros*. Nevertheless, it is important to acknowledge that the *civitas* capital may have functioned as a pre-Roman central place (discussed in greater detail in the Chapter Six), and for this reason, will exhibit the spatial characteristics of a pre-Roman settlement. Equally, we must query whether Roman settlements 5 (top right), and 226 (centre left), were positioned along Iron Age boundaries or next to established rivers, or both. Other Roman settlements, sites 80 (bottom right) and 137 (bottom centre), are both positioned at the territorial limits of small *castro* settlements, but it is difficult to establish any coherent pattern here. In contrast, *villae* settlements 102 and 125 (bottom right), and *casals* 264 and 269 (centre left), are all located on or near to boundaries generated from small fortified hillforts. It is therefore possible that neighbouring communities pooled their resources in the early

Roman period, and in abandoning their fortified settlement established agricultural centres on their territorial boundaries.

As with Study Area North, a series of *casals* in Study Area South (Map 27) can be found at the territorial boundaries of Iron Age settlements, notably sites 770 and 771 (centre right), and site 739 (centre). Nevertheless, other *casals* and *villae* within the region are often found away from Iron Age boundaries, suggesting that agricultural centres did not necessarily emerge on the margins of abandoned Iron Age settlements, as seen in Study Area North. However, to the east of Map 27, where few Roman structures were established and where the pre-Roman settlement pattern continued to be dominated by large Roman-period *castros*, sites 802, 806 and 814 (bottom left), the location of Roman settlement 830, at the junction of the multiscalar Thiessen polygons, suggests the settlement fulfilled a strategic role. To the southeast of site 830, *vicus* settlement 549, is also located on the boundary of medium-sized hillfort 532 and large *castro* 806, suggesting the *vicus* functioned as an administrative centre, providing strategic control over the region, especially given the absence of a *civitas* capital in the area.

In Study Area East (Map 28), a more complex settlement pattern emerges with a series of Roman settlements positioned at boundary points, for example, 324 (top right), 404 (top centre) and 377 (top left), and Roman habitats 417 and 423 (top right) and 560 (bottom left), but equally, other Roman settlements and habitats can be found located away from possible boundaries. In the case of agricultural centres, however, a greater number are located at the margins of Iron Age territory. This can be shown in the top centre of the diagram, where all *castros* were abandoned in the early Roman period, but where a cluster of *casals* 405, 406, 408 and villa 410, emerged along those pre-Roman boundaries generated from all Iron Age settlements (in black) or medium and large hillforts (in blue). This practice is further repeated to the south where two *villae*, sites 390 and 392, are located on the boundaries of a series of abandoned fortified hillforts. In other regions, notably in the centre of the diagram, a similar pattern emerges with a series of *casals*, sites 381, 382, 425 and 426, all positioned near to the boundaries of Roman-period *castros*. This suggests, as with Study Area North, that in the early Roman period fortified hillforts were abandoned with multiple communities establishing agricultural centres along original pre-Roman territorial margins. Within these regions the pace of change varied with *casals* and *villae* becoming established throughout the early Roman period.

Moreover, many of these structures most likely developed over time from farms to *villae*, while others did not. In the case of villa 390 (centre), the early *terra sigillata hispanica* and an *as* from the period of Emperor Vitellius (AD 69), dates the structure to between the mid to late first century. The villa appears not to have developed from a simple earlier structure, but rather to have been a purpose-built luxury residence, as shown by the structure's columns and established floorplan (Lemos and Marcos 1985, 143-148).

In Study Area Chaves (Map 29), only a few structures are positioned on Iron Age boundaries. Among these is *vicus* settlement 607 (centre right), which is located on those tessellated Thiessen polygons generated for medium-sized and large *castro* settlements. The *vicus* in this study area may have functioned as an administrative and strategic centre for the nearby centre at *Aquae Flaviae*, and thereby fulfilled a similar role to the *vicus* settlement in Study Area South, which most likely operated as a subordinate settlement to the adjacent *civitas* capital. Other structures grouped around spatial boundaries can be found in the bottom centre of the diagram, with a series of *casals* 703, 707, 708, 712, 713, and to the west *casal* 705 and villa 704. However, the limited number of early Roman settlements located on the territorial margins of Iron Age hillforts suggests that other criteria may have been responsible for the clustering of these agricultural producers, such as terrestrial communication systems and the quality of the land.

Lastly, contained within Map 29 are a series of boundary markers. The first (site 213, centre left), is a divisional marker recorded on a granite stone with the inscription *TERM(inus) / CL*. While the divisional markers are Roman in origin, *Terminus* being the Roman god who protected boundary markers, it is possible these territorial delineators established by Roman administrators represent Late Iron Age margins of control. Certainly, the location of the inscription itself closely corresponds with the computer-generated Thiessen polygon for all settlements (in black), suggesting that the inscription was a territorial divider between two adjacent hillforts. Similarly, site 515 (centre), adjacent to the River Tâmega, represents the location where a series of four granite stones were found, each with the carved inscription *PRAEN* and *COROC* (*CIL* II, 2489) on opposing sides, as discussed in detail in section 4.7. While these boundary markers correspond to a series of Thiessen polygons generated for all settlements, it is more likely the inscriptions represented the territorial divisions of the medium-sized hillforts located further

south, sites 548 and 505 (Silva 1986, 275). Of considerable interest therefore is the exact location of these boundary markers, given that they are not positioned equidistant between both *castro* settlements, but offset to the north. While the inscribed granite markers are located at the boundary of three settlements, sites 261, 505 and 548, a fourth, would help to explain why four stone markers were constructed, each inscribed with the names *PRAEN* and *COROC* on opposite sides. That fourth settlement may have been the site which would become *Aquae Flaviae*, and which was most likely a pre-Roman *oppidum* (Ptol. II, 6, 39). Nevertheless, the exact layout of the inscribed stones is not known, and whether they radiated out as points on a compass or took another form cannot be established. What can be established is that medium-sized *castros* strategically dominated the landscape, as suggested in the previous chapter, and that supra-familial groupings, such as the *PRAEN* and *COROC*, represent two of these lineage-based communities. A third boundary marker, site 803, can be found at the bottom centre of Map 29, on a granite stone with the word *TERMIN(us)* inscribed at the centre, with the text *OBILI(um)* facing east, and *TREB(ilium)* facing west. According to Rodríguez Colmenero (1987, 641-642), this boundary marker located near to a level four river relates to the familial grouping of the *Teburos* or *Treilios* and the *Obilios*, and may be representative of competing kinship groupings.

The final region to be examined here, Study Area Viana (Map 30), does not present any coherent relationship between Iron Age boundaries and early Roman-period settlements and agricultural centres. Additionally, in contrast to Study Areas North, South and Chaves where *vicus* settlements were located on the territorial boundaries of fortified hillforts, the early Imperial settlement pattern is more representative of two spatial concentrations, one to the south within access of *Bracara Augusta* and the other to the north near the River Minho, with each region heavily integrated and reliant on the Roman arterial road network.

5.3.4. Roman Northwest Iberia and the Importance of the Physical Environment

This section examines the role of the productivity of the land and the importance of the fluvial network in determining the pattern and structure of early Roman settlements within the five study areas. In many ways, the scheme of analysis follows a similar trajectory to the previous chapter, Chapter Four, and makes extensive use of the different soil types to establish how; (a) different practices

emerged between the Late Iron Age and early Roman period; and (b) how the five study areas differed in their adaption to Roman agricultural and commercial needs. As with the analysis conducted in Chapter Four, Table 8 presents a breakdown of soil versus total area, but in this case for Roman sites.

Study Area/ Soil Type	A	C	F	A/C	A/F	C/F	Area / Number of Sites
North Km2	101.8	6.8	1453	11	140.8	52.8	1766km2
North Roman sites	2	0	17	1	6	3	29 sites
South Km2	116.3	63.3	1218.7	5.5	138.3	200	1742km2
South Roman sites	6	6	38	0	5	8	63 sites
East Km2	126.8	0	1250.6	0	208.2	46.9	1633km2
East Roman sites	4	0	41	0	6	1	52 sites
Chaves Km2	171.1	4.6	515.1	5.4	270.7	101.5	1068km2
Chaves Roman sites	24	0	21	1	20	13	79 sites
Viana Km2	370.2	265.9	1250	26.5	10.9	19.1	1943km2
Viana Roman sites	65	20	60	2	0	1	148

Table 8. Land Use Capacity for the five study areas.

These Figures were then converted into percentages as shown in Table 9 below.

Study Area/ Soil Type	A	C	F	A/C	A/F	C/F
North Km2 / %	5.8	0.4	82.3	0.6	8	3
North Roman sites / %	6.9	0	58.6	3.4	20.7	10.3
South Km2 / %	6.7	3.6	70	0.3	11.5	11.5
South Roman site/ %	9.5	9.5	60.3	0	7.9	12.7
East Km2 / %	7.8	0	76.6	0	12.8	2.9
East Roman site/ %	7.7	0	78.8	0	11.5	1.9
Chaves Km2 / %	16	0.4	48.2	0.5	25.3	9.5
Chaves Roman site/ %	30.3	0	26.6	1.3	25.3	16.4
Viana Km2 / %	19.1	13.7	64.3	1.4	0.56	1.0
Viana Roman site/ %	44.9	13.5	40.5	1.4	0	0.7

Table 9. Percentages of Land Use Capacity for the five study areas.

Hereafter, chi-squared analysis for soil types versus site location (see section 4.6 for Strutt's (2000) use of chi-squared analysis) gave a series of p-values which are shown below in Table 10.

Study Area	Chi-Square Value
North	p-value. 0.005221
South	p-value. 0.1706
East	p-value. 0.9508
Chaves	p-value. 0.0002723
Viana	p-value. 2.997e-12

Table 10. Chi-squared analysis for soil types versus site location.

Study Area North during the Roman period exhibits a very different settlement pattern to that of the Late pre-Roman Iron Age (see Chart 6 below). As already discussed above (see section 5.3.2), Roman satellite towns showed a tendency during the early Imperial era to cluster around the *civitas* capital (see Map 31). This may be attributed to the more productive agricultural land in the region, as shown by a patch of Type A (shown in blue) prime agricultural land as well as Type A/F land, a mixture of Type A and Type F forested terrain.

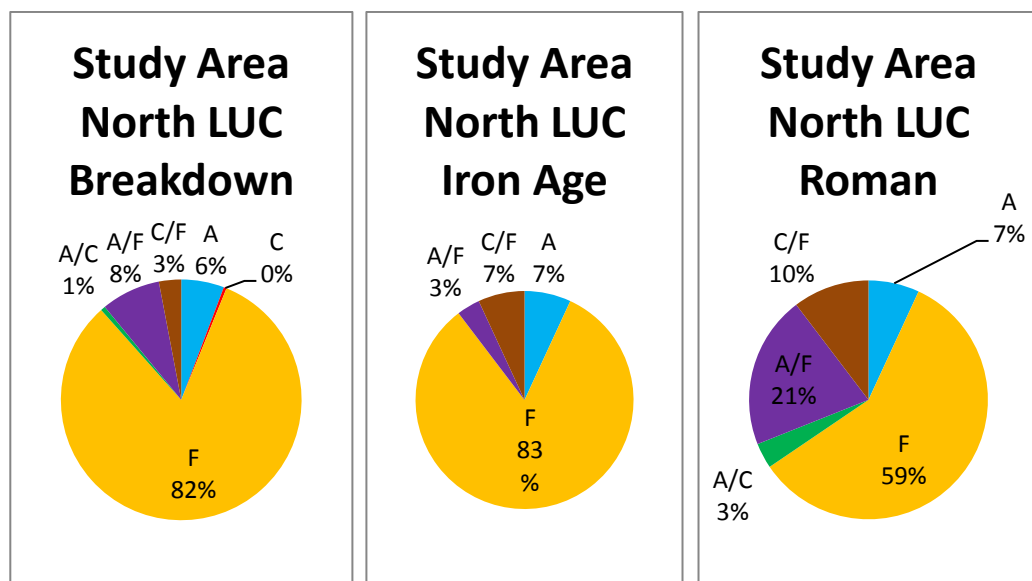


Chart 6. LUC (Land Use Capacity) for Study Area North (left) and site distribution during the Iron Age (centre), and early Roman period.

Chart 6, shows that only 59% (17/29) of Roman structures are located on forested land (Type F), in comparison with 83% (72/87) of Iron Age hillforts (note that data for a comparative analysis of Iron Age and Roman settlements conducted for the five study areas comes from Table 4 in section 4.7.3 and Table 9 above, respectively). Consequently, a greater percentage of Roman sites are located on Type A/F land (21%), in comparison to only 3% of Iron Age sites. Roman settlements locating next to Type A/F land make up 45% of the dataset, while this figure falls to 32% for Iron Age settlements.

Of considerable interest is the chi-squared analysis which returned a p-value of 0.005221 and therefore rejects the null hypothesis. This is a result of the extensive use of agricultural land, particularly Type A/F, which makes up 8% of the total land in Study Area North but represents 21% of land utilised in the early Roman period. The same can be said for Type A/C and C/F terrain, which results in a reduction of the use of Type F land. This suggests that the *civitas Zoelarum*, and the Iron Age settlement on this site, may have made extensive use of the limited good quality land in the area and explains why a series of satellite towns developed around the *civitas* capital. However, good farming land is limited in Study Area North and this may justify why the region never appeared to prosper.

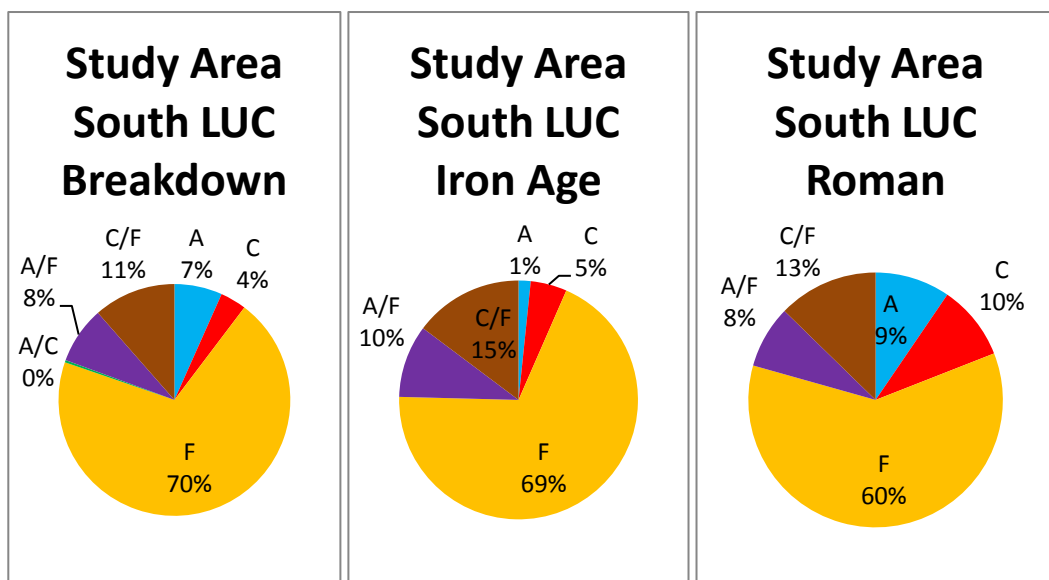


Chart 7. LUC (Land Use Capacity) for Study Area South (left) and site distribution during the Iron Age (centre), and early Roman period.

Study Area South differs from Study Area North in that the numbers for the dataset of Iron Age and Roman-period settlements are similar (61 versus 63) (see Chart 7 above). These figures, however, diverge with a preference shown by Roman settlements for Type A prime agricultural land (6) over Iron Age sites (1), which extends to Type C extensive agricultural land (6 against 3) as shown in Chart 7 above, as well as the numbers of Iron Age sites found on Type F forested land (43) against Roman settlements (38).

Although the null hypothesis for Study Area South cannot be rejected (a p-value of 0.1706 is returned) there is a noticeable difference in land use between what was available in the region as a whole, and the location of settlements in the Late Iron Age and the early Roman period, as shown in Chart 7 above. Firstly, a series of Roman settlements emerged around the fertile valley, where the *civitas* capital was located, as this corresponds to the greater use of Type A and C agricultural land. However, not all this prime land was utilised, as shown by the absence of *villae* and *casals* in the fertile region to the west of the study area, where a cluster of large Roman-period *castros* continued to be occupied into the early Roman period (see Map 32). Instead, Roman agrarian centres occupied Type C and C/F terrain further south, which is characterised by hot Mediterranean summers and to this day is conducive to the cultivation of two major Roman agricultural products, olive oil and wine grapes.

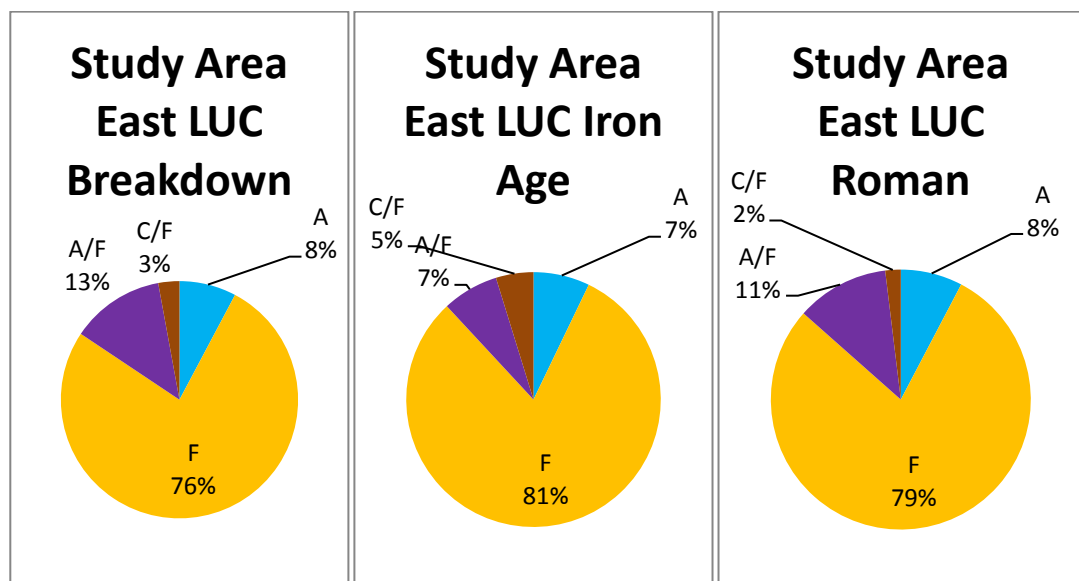


Chart 8. LUC (Land Use Capacity) for Study Area East (left) and site distribution during the Iron Age (centre), and early Roman period.

The region around modern-day Study Area East (see Chart 8 above), also continues to cultivate olive oil and wine grapes, and may explain why so many *villae* and *casals* located on Type F forested land during the Roman period. As a whole, 79% of Roman settlements and 81% of all Iron Age sites are located on Type F terrain, but further analysis shows that of the five *villae*, three are located on forested land, as are fifteen of the seventeen *casals*. This preference for Type F land can be shown by the patchwork of Type A and A/F in the centre and top right of Study Area East (Map 33), where the main Roman highway runs, but where few Roman agricultural holdings were established. This strongly suggests that agricultural products grown on intensive land were not profitable or conducive for export, but less perishable products, such as olive oil and wine grapes, were a major economic concern.

Despite the extensive use of Type F forested and scrubland used to produce staple Roman products, the p-value of 0.9508 given by chi-squared analysis does not suggest that there was a significant correlation between certain land use against the overall land distribution in the study area.

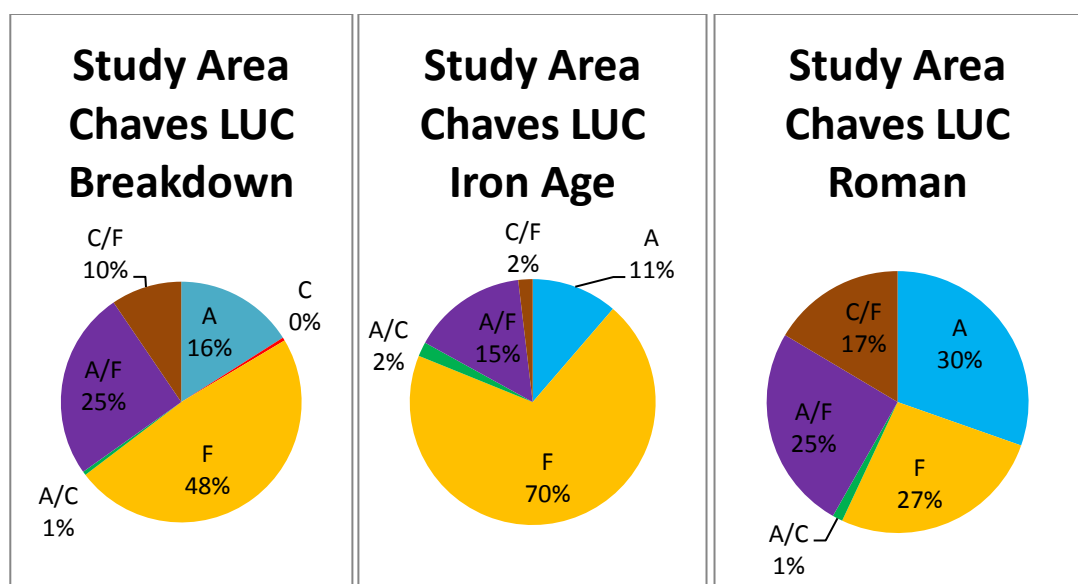


Chart 9. LUC (Land Use Capacity) for Study Area Chaves (left) and site distribution during the Iron Age (centre), and early Roman period.

Study Area Chaves is characterised during the early Roman period by a proliferation of agrarian centres located along the Tâmega Valley (see Map 34).

These are shown by the percentage of Roman settlements located on Type A terrain (30%), against the percentage of Iron Age ones (11%) (see Chart 9 above). Subsequently, the relationship between Iron Age sites and Roman settlements relative to Type F terrain is reversed with 70% of Iron Age sites locating on forested land, while 26% of Roman settlements were located on Type F terrain. Furthermore, there is also a rise in the number of settlements located on Type C/F land, from a single Iron Age settlement, to 13 early Roman sites, which may suggest that the land lent itself towards the production of olive oil and grape production, as shown in Study Area South.

As a consequence of the emergence of agricultural centres along the Tâmega Valley often at the expense of peripheral settlements, Type A land (constituting 16% of the overall terrain in Study Area Chaves) makes up 30% of all site locations in the early Roman period. For this reason the chi-squared analysis returns a figure for p of 0.0002723 and consequently the null hypothesis can be rejected and it can be stated that the soil percentages for the region, and those of the early Roman period are drawn from different populations.

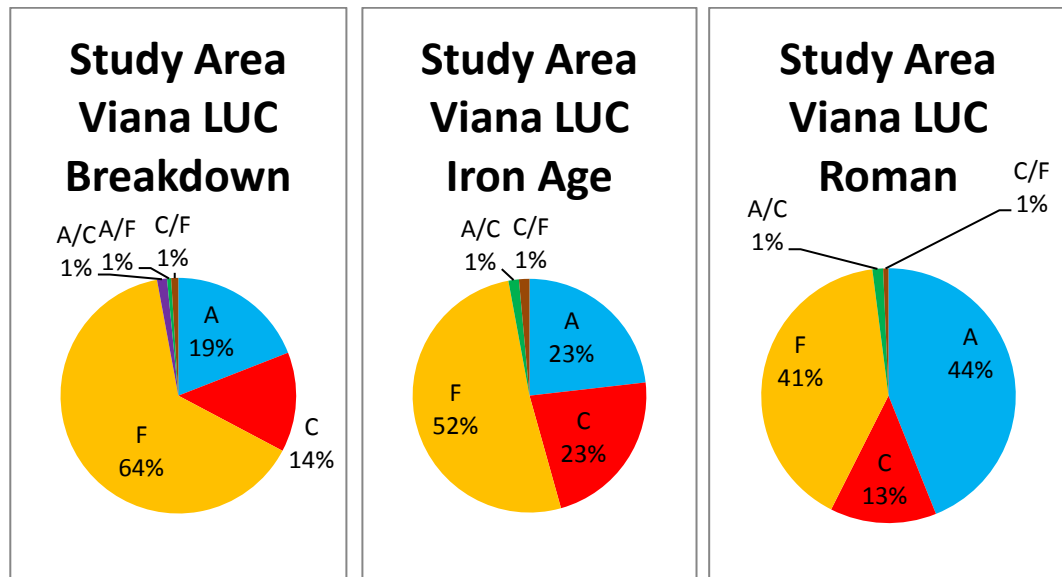


Chart 10. LUC (Land Use Capacity) for Study Area Viana (left) and site distribution during the Iron Age (centre), and early Roman period.

In the last region, Study Area Viana (Map 35), the pattern of land use is similar to that of Study Area Chaves, with the number of settlements on Type A terrain rising from 23% of Iron Age sites to 43% during the Roman period (see Chart

10 above). Nevertheless, the preference shown for nearby access to fluvial and terrestrial communication routes resulted in two agglomerations of Roman settlements in the area to the south of the River Lima, and the region further north, near to the River Minho, and as a result, fertile terrain, especially along the Atlantic seaboard was not heavily exploited during the Roman period. These early Imperial settlement patterns are illustrative of communities, which invested heavily in agricultural production, especially on Type A terrain, and relied on the communication network to transport perishable products to market. The importance of quality land is reflected in the chi-squared analysis which returns a figure for p of 2.997e-12 (or 0.0000000000002997) demonstrating that the null hypothesis can be conclusively rejected.

Table 11, below, presents a breakdown of the relationship between Roman settlements and river systems, which was conducted for Iron Age settlements in section 4.7.3 (see Table 6).

Study Area / River Type	Nearest River Source. Iron Age / Roman sites (metres)	Distance to Type 5 River. Iron Age / Roman sites (metres)
North	345/241	5390/6238
South	441/319	3905/2801
East	256/247	4740/4313
Chaves	286/267	7155/4339
Viana	322/246	5346/5053

Table 11. Distance to nearest river and Type 5 rivers for Iron Age / Roman settlements.

As with Chapter Four, this data was generated by plotting and measuring distance from individual settlements to the river systems using ArcGis 9.2, and calculations for each study area is presented in Appendix B. The relationship between Roman settlements and Type 5 rivers (rivers which retained water during the summer months and were capable of supporting small river craft during wetter seasons) is presented below in Table 11. Between the Iron Age and Roman period, the average distance to Type 5 rivers in Study Area South fell from 3905m to 2801m as Roman settlements were established around the *civitas* capital. Of equal interest are the figures for Study Area Chaves, where the average distance to a Type 5 river falls from 7155m in the Iron Age period to 4339m during the early Roman era.

Additional analysis was conducted on the distance of Iron Age and Roman settlements to river systems using the Kolmorov-Smirnov (hereafter K-S) statistical test. The K-S test can be used to compare two non-parametric datasets, where the values do not conform to a specific shape, and this is reflected in the different number of settlements in the Iron Age and Roman datasets. As with the chi-squared test conducted in this thesis, the K-S employs a significance level of 95%, where the value for p is less than 0.05 the null hypothesis can be rejected, and we can conclude that the datasets are not drawn from the same population (Conolly and Lake 2006, 132-133). While K-S analysis is conducted in this chapter, it is also employed in the following chapter, Chapter Six to analyse the relationship between Iron Age and Roman settlements and the Roman road network.

Analysis using the K-S test returned the figures 0.3096, 0.7897, 0.2407 and 0.8394 for Study Areas North, South, East, and Viana, respectively, suggesting that pre-Roman and Roman settlements shared a common relationship in terms of their relative position with respect to Type 5 year-round navigable rivers. In the case of Study Area Chaves the value for p was 0.0003592 showing that the Iron Age and Roman settlements were drawn from different populations. These findings are supported by the results from land use capacity for Study Area Chaves (Chart 9 above) where 70% of Iron Age settlements but only 27% of Roman ones are located on Type F forested terrain, with Roman settlements showing a general preference for good quality land.

Average Angle	All <i>Castro</i> Settlements	Iron Age <i>Castro</i> Settlements	Roman-Period <i>Castros</i>	Roman Settlements
Study Area North	11.840	12.148	11.238	7.206
Study Area South	10.532	11.4955	9.472	7.810
Study Area East	11.642	13.1797	8.331	5.841
Study Area Chaves	9.315	9.016	10.052	5.749
Study Area Viana	10.1115	7.8954	11.891	7.6311

Table 12. Gradients for *castro* settlements, Roman-period *castros* and Roman settlements.

Table 12, provides the findings of the average gradient upon which all *castro* settlements, Roman-period *castros* and Roman settlements were situated. Roman settlements in each of the five study areas are positioned along less steep gradients than all *castro* settlements and Roman-period *castros*. However, in Study Areas Chaves and Viana, Roman-period *castros* are located on steeper gradients than all *castro* settlements, and illustrate that while lower gradient *castros* were quickly abandoned in favour of Roman-styled settlements and habitats, in more inhospitable areas with hillier terrain Roman-period *castros* continued to function in the absence of Roman settlements.

Lastly, Table 13 shows the heights for all *castro* settlements, Roman-period *castros* and Roman settlements, and demonstrates a similar pattern found in the analysis of slope angle. Roman settlements are located at the lowest elevation but Roman-period *castros* in Study Areas North, East, Chaves and Viana are positioned higher than the collective grouping of Iron Age settlements. Again, this is illustrative of Iron Age *castros* being abandoned in favour of Roman settlements in areas of lower elevation, but where Roman-period *castros* continued to operate in hillier and more elevated terrain.

Average Height	All <i>Castro</i> Settlements	Iron Age <i>Castro</i> Settlements	Roman-Period <i>Castros</i>	Roman Settlements
Study Area North	772	812	828	739
Study Area South	565	566	555	388
Study Area East	594	560	680	595
Study Area Chaves	651	637	699	571
Study Area Viana	213	214	215	162

Table 13 shows the heights for all *castro* settlements, Roman-period *castros* and Roman settlements.

5.4. Discussion

This section brings together the findings outlined above and seeks to explain the impact of Imperial Rome on the landscape of northwest Iberia. In doing so, this discussion provides a chronological argument as to the process of change in the region, incorporating the data and evidence for Iron Age site patterns examined in

Chapter Four, and analysing it against the emergence of Roman-period *castros* and more enduring Roman settlements alike. The themes considered in the previous chapter as relating to the nature of pre-Roman northwest Iberia; namely, the social organisation of the region, the role of the environment and of borders and boundaries, as well as concepts derived from this chapter, specifically, the development of the Roman hierarchical settlement structure and the role of individual settlements within that order, are also addressed here.

The changes which were already underway in the Late pre-Roman Iron Age in the landscape of northwest Iberia, were not uniform throughout the region. Firstly, in Study Area North, the juxtaposition of two fortified hillforts often resulted in one site becoming abandoned during the early Roman period, while the other became a Roman-period *castro*, as shown in Map 21 by sites 8 (abandoned) and 6 (continued occupation) (centre right), 65 (abandoned) and 67 (continued occupation) (centre right). Whether this was a deliberate policy by Imperial authorities within the region to consolidate resources and instigate more effective practices is difficult to establish. The different political system based on lineages and families, *gentilitates* and *gentes* in the eastern region of pre-Roman northwest Iberia, and orientated around a kinship-based social system, strongly suggests that hillfort settlements located in close proximity may have shared mutually-beneficial political and social structures. Therefore, with their gradual assimilation into Imperial control, the communities of these fortified hillforts may have actively decided to merge their population into a single settlement. In Study Area Viana, where a more territorially-based settlement pattern has been proposed, with communities representative of social organisation based around the territorial control of the *castellum* (shown by the inverted \supset in indigenous inscriptions (Pereira 1983)), the process of change during the early Roman period was altogether different. Where two or more fortified hillforts existed in close proximity to one another, these *castro* settlements were often abandoned en masse, as shown by fortified hillforts 64, 70, 80, 81 (Map 25, centre), and 108 and 109 (Map 25, centre left), in contrast to other site groupings where two adjacent fortified hillforts became Roman-period *castros*, for example, 29 and 37 (Map 25, top right) and 12 and 110 (Map 25, centre left). This implies that Late pre-Roman Iron Age communities in Study Area Viana, may have shared similar socio-economic goals and perhaps a central political affiliation, but continued to invest in

the importance of their settlement, rather than those wider kinship-based systems and regional affiliations seen in Study Area North. In this way, pockets of Iron Age hillforts were abandoned as new economic and social systems emerged during the early Roman period, but concurrent with these developments adjacent *castro* settlements, more often located along a patchwork of emerging Roman settlements and habitats, continued to be inhabited into the first and second centuries AD.

Indigenous settlement patterns also continued largely uninterrupted during the first and second centuries AD, at the periphery of Roman central places as shown in Study Areas North (Map 21, top left), South (Map 22, top left), East (Map 23, centre) and Viana (Map 25, centre left and top right). The reasons for the continued existence of these Late pre-Roman Iron Age settlement patterns are both numerous and complex, and embedded in the economic and political systems which emerged in the early Roman period. In Study Area North, the continued occupation of *castro* settlements in the northwest of the region was a direct result of the consolidation of the area around the *civitas* capital (site 43, Map 21, centre), where a series of Roman satellite settlements emerged to provide agricultural products for this metropolitan centre. The greater investment in generating agricultural surplus from the relatively fertile landscape around the *civitas* capital can be seen from land use capacity analysis. Here a greater proportion of Roman settlements were located on agricultural land (see Chart 6) than Iron Age sites, with 59% of Roman settlements positioned on Type F forested land, in comparison to 83% of Iron Age hillforts. In this way, the settlement pattern of Study Area North during the early Roman period is strongly indicative of a core region characterised by a fertile lowland area around the *civitas* capital, while a series of Roman-period *castros* locating on more elevated terrain and steeper land inhabited the periphery.

In Study Areas South, Viana and to an extent in Study Area East, there was also a continuation of the pre-Roman settlement patterns, but the reasons for the continued occupation of these areas by indigenous peoples were very distinct. To the west of Study Area South, a series of large *castro* settlements, sites 806, 802 and 814, continued to exert control over the landscape largely bereft of Roman centres of power, with the *civitas Baniensium* (Study Area South, site 667), located some 33km to the east, and *Aquae Flaviae* 51km to the north. The relative isolation of these Roman-period *castros* to the west of Study Area South, as with the continued occupation of those Iron Age structures in Study Area North, was probably

representative of regions of indigenous control where settlements continued to be administered by native leaders. By reinforcing local centres, instead of creating new structures, where the economic and political outlay would be substantial, Roman authorities were able to administer outlying provinces more effectively, and in the passage of time communities may have adopted more Roman-orientated social, economic and political practices (Queiroga 2003, 39). In the case of Study Area East, the continued existence of a series of adjacent native settlements, which were juxtaposed between the two *vicus* administrative centres in the region (Map 23, sites 309 top right, and 565 bottom left), most likely ensured that this area was administered in some shape and form by indigenous leaders, but under the ultimate supervision of Imperial Rome.

In Study Area Viana, the continued occupation of fortified hillforts ensured that pre-Roman settlement patterns in the northeast of the region and along the Atlantic coast remained largely intact in the early Roman period. In other areas, a dense network of Roman settlements and agrarian centres emerged within the landscape along the River Coura, thereby providing a gateway to the interior, as well as to the Atlantic Ocean along the River Minho. This area also benefited from being strategically placed between two Imperial highways. Further south, a concentration of Roman structures emerged along the southern bank of the River Lima, where a series of interlaced terrestrial routeways were constructed (see Map 25). These communities invested heavily in agricultural products (as shown by the K-S test result), such as wheat and other types of grain, which had been grown in the region since the Late Bronze Age (Parceró Oubiña and Cobas Fernández 2004, 22), and in this way access to cheap and effective transportation, as well as the marketplace, constituted important criteria in the location and success of early Roman settlements.

In Study Area Chaves, a similar process emerged with a series of agrarian producers becoming established along the River Tâmega during the Roman period. Nevertheless, we must be mindful that many of these systems and practices developed over generations and that the process of change was by no means uniform. This change can be best shown by the region around the future *municipium* of *Aquae Flaviae*, where the late pre-Roman landscape was dominated by a series of medium and large *castros*. Within this area, two medium-sized fortified hillforts, *Crastas de Santiago*, site 548 (see Map 34, centre) south of the River Tâmega, and *Castro da Curalha*, site 505, north of the River Tâmega, dominated the landscape. Within this

territory, a series of early Roman period boundary markers established the respective territorial control of two supra-familial units, the *PRAEN* and *COROC*, and as such may have represented earlier pre-Roman divisions within the landscape. Of further importance was the location of these boundary markers, which were not positioned equidistant to sites 505 and 548, but located further north where a convergence of multiple territorial divisions generated from tessellated Thiessen polygon analysis of sites 505, 548 and 261 are clearly visible. If Ptolemy's account is credible (*Geographia*. II, 6, 39), a pre-Roman *oppidum*, possibly a central place of the *Turodi* tribe, existed in the area where *Aquae Flaviae* would emerge. This pre-Roman *oppidum* can therefore be incorporated into the already established triangular boundary, and explain why four inscribed boundary markers were employed to mark the territorial divisions between settlements. Where the archaeological record is silent is how these inscribed stones were positioned, but it is possible to speculate that they represented the divisional markers of smaller settlements, which were incorporated within larger kinship groupings, the *PRAEN* and *COROC*.

In this area, a regional capital, *Aquae Laiae* (Ptolemy. *Geographia* II, 6, 39), was established at the start of the first millennium, which would be renamed *Aquae Flaviae* in the Flavian era and advanced to *municipium* status. In the period between the establishment of *Aquae Laiae* and *Aquae Flaviae*, those nearby medium-sized hillforts, such as sites 505 and 548, evolved to become Roman-period *castros*, and became more engaged in agricultural and mining activities. Concurrent with these developments, was the establishment of a series of agrarian centres, which were located at the periphery of the Tâmega Valley, and unlike the larger Roman-period *castros* had better and closer access to Type A prime agricultural land. These changes in the settlement pattern are shown by the percentage of Roman settlements located on Type A terrain (30%), against the percentage of Iron Age ones (11%), and as a consequence only 26% of Roman settlements were positioned on Type F, where the figure had been 70% in the pre-Roman period. As with Study Area Viana, the River Tâmega became a vital conduit through which to transport goods to market, above all perishable ones, which established *Aquae Laiae* as an economic powerhouse in the region, while consolidating and creating a 'microregion' (see section 2.4.2.2 for an outline of 'microregions' and connectivity) of agrarian centres positioned along the Tâmega Valley. As shown by the K-S analysis, the settlement pattern changed dramatically, as the Late pre-Roman Iron Age structures located on

the periphery of the Tâmega Valley were replaced by early Roman period settlements located near to the fertile valley plain.

In other study areas, the transformation from the late pre-Roman period to the first and second centuries AD, was more embedded in the indigenous social and political structure, as well as the economic opportunities open to the peoples who inhabited these regions. While many of the communities of Iron Age *castros* relocated to adjacent Roman settlements in Study Areas North and East, a different set of processes were responsible for the establishment of agrarian centres. In Study Area North (Map 26), a series of *villae* settlements, sites 102 and 125 (bottom right), and *casals* 264 and 269 (centre left), emerged on the margins of Iron Age boundaries. These practices may reflect the collective activities of neighbouring communities who shared a common kinship, and united in the face of a changing world to combine resources. Such structural changes were not confined to Study Area North, but are also visible in the landscape of Study Area East (Map 27), where a cluster of *casals* 405, 406, 408 and villa 410 (top centre), and *casals* 381, 382, 425 and 426 (centre) were located around the Iron Age boundaries, a process which is repeated further south with *villae* 390 and 392, on the boundaries of a series of abandoned *castros*.

While the similar patterns of emerging Roman agrarian centres in Study Areas North and East may reflect parallel pre-Roman political and social structures, their respective environments were very different. The *terra quente* terrain and climate, characterised by scorching summers, which dominates the region around the River Douro played an important role in the location of *casals* and *villae*. Of the five *villae*, three are located on Type F forested land, while this relationship occurs with fifteen of the seventeen *casals*, which may reflect agricultural producers investing heavily in olive oil and grape production during the early Roman period, and thereby demonstrating a high degree of connectivity with other regions in the Roman world, where such products were in demand. These agricultural practices found in Study Area East, may also have been representative of the proliferation of Roman agrarian centres in the bottom left of Study Area South, where a series of *villae* and *casals* are located on Type C/F agricultural / forested land. However, where the two regions differ is their use of transport with Study Area South utilising the River Douro as a conduit to ship produce, while Study Area East invested heavily in the main Roman highway. In this way, the communication routes utilised in the Late Iron Age and the

early Roman period were reversed, with land-based communication playing a greater role in Study Area East, and an incremental investment in fluvial passage in Study Area South. The reasons for this are not clear, but the inaccessible and elevated terrain around the River Douro in Study Area East may have made access difficult and costly during the early Roman period.

The use of the fluvial network is also reflected in Study Area South in the area around the *civitas* capital (*civitas Baniensium*), which was positioned on the strategic confluence of the Rivers da Vilariça and Sabor and within a 5km distance of the River Douro (Map 22). While the position of the early *civitas* may have incorporated nearby native tribal groupings, its location reflects the agenda of Imperial Rome in creating and integrating this central place into the wider Roman economic, political and social system. In this way, the *civitas Baniensium* provided strategic control over the mining centres located to the south along the River Douro, as well as administering those mining settlements and industries positioned in the bottom left of Study Area East. As with Study Area Viana, the creation of a Roman road running adjacent to the River da Vilariça, provided access along the valley for agricultural centres and strategically linked the region to *Aquae Flaviae* in Study Area Chaves and the *civitas Zoelarum*, in Study Area North.

Functioning alongside the *civitas Baniensium* in a strategic and administrative capacity was *vicus* settlement 565 (Study Area East, bottom left), and while its role is open to speculation, the absence of a central place in the form of a *civitas* or a *municipium* strongly indicates that this site fulfilled an important administrative or strategic function. In Study Area East, these *vici* settlements are found at the extreme ends of the study area and located near to the main Roman road. In Study Area North, *vicus* settlement 17, and 549 in Study Area South, are positioned on the boundaries of medium-sized fortified hillforts, and in the case of the latter, its close location to the cluster of Roman-period *castros* suggests its initial function may have been to monitor indigenous self-rule in the region. In a similar way, *vicus* settlement 607, in Study Area Chaves, positioned on the boundary of a medium-sized *castro* and near to the main Roman road, as well as *vicus* settlement 168 in Study Area Viana (Map 25, centre right) may have fulfilled a comparable role, providing a strategic and administrative role in their respective regions. Moreover, we should not assume that the transition between pre-Roman and Imperial rule was a smooth one, with fortified settlements 420 (Study Area East, centre) located on the River Douro,

and site 850 (Study Area Chaves, bottom centre) positioned to the north of the cluster of those Roman-period *castros* to the west of Study Area South. In other areas, *vici* settlements were adapted to the needs of the region, with a series of *vici* in Study Area Viana, which incorporated a *mansion* (site 252), a *mutatio* (site 200), as well as *vicus* settlement 303, all positioned along or at important junctions of the main Roman roads. This role also extended to economic activity with *vicus* settlement 552 (Study Area South, centre bottom), located near to a mining community along the River Douro, but whether this settlement incorporated a strategic function is difficult to establish.

5.5. Conclusions

In summary, a series of points can be made about the settlement patterns, systems and practices, and the chronological developments, which defined early Roman northwest Iberia.

1. The analysis conducted in this chapter strongly reinforces the findings relating to pre-Roman northwest Iberia discussed in the previous chapter, as to the nature of indigenous social structures. With the assimilation of the region and the gradual consolidation of Imperial authority, the hillfort, which characterised communal living, was abandoned. This process was not uniform either chronologically or regionally, but rather these settlements were abandoned, or continued as Roman-period *castros* dependent on a range of factors. In Study Area North, where two hillforts existed adjacent to one another, there was a tendency for one to be abandoned, while the other continued to be inhabited as a Roman-period *castro*. In Study Area Viana, which was also represented by clusters of fortified hillforts, the processes were different, with nearby Iron Age settlements being abandoned en masse at the end of the Late pre-Roman Iron Age, or continuing to be occupied well into the early Roman period. This corroborates the conclusions made in the previous chapter that we should not speak of a single recognised ‘*Castro Culture*’, but of multiple *castro* communities, and furthermore, this supports the argument that different social structures existed within the landscape of late pre-Roman northwest Iberia. Consequently, the occupation of pockets of Roman-period *castros* in Study Area Viana, suggests that local communities continued to invest in a social structure which was socially motivated and politically orientated around the hillfort. In contrast, in the region around Study Area North, where resources were consolidated

and two *castros* often became one, a kinship-based lineage, which emphasised supra-familial and intertribal affinity ensured an altogether different process of change.

2. Where all the study areas demonstrated a similar settlement pattern was in the preservation of pockets or regions of autonomous rule in the early Roman period. However, the reasons for the continued existence of these pre-Roman communities was not uniform. In Study Areas North, South and East, Imperial authorities appear to have reinforced local centres and indigenous control, instead of creating new settlements and thereby minimising the economic and political outlay in administering the region, which would concur with the general hypothesis advanced by Queiroga (2003, 39), and discussed in section 5.4. However, closer analysis of the cluster of Roman-period *castros* in Study Area East located near to the main Roman road, reveals that they appear to have been more integrated into the emerging early Roman settlement pattern than the largely isolated group of hillforts to the west of Study Area South. In the case of the cluster of Roman-period settlements in Study Area South, their continued occupation may therefore be more illustrative of native communities which lay at the periphery of the Roman commercial and trade network. The previous point is supported to a degree by the changes in Study Area Viana during the Late Iron Age and early Roman period, where the continuity of the pre-Roman settlement pattern was largely dependent on the economic needs fashioned by early Roman society. In this way, Roman-period *castros* continued to be occupied where they had access to the communication system, established markets and trading centres, but were often abandoned in more peripheral areas,

3. The importance of fertile land, an efficient and cost effective communications system and local markets in the form of metropolitan centres shaped the landscape of Roman northwest Iberia. In Study Area Chaves, where large and medium-sized *castros* were located at the periphery of the Tâmega Valley, and controlled the landscape through a series of smaller affiliated fortified hillforts, this system began to break down under Imperial authority. In the first and second centuries AD, a series of agrarian centres were established along the fertile Tâmega Valley, which not only consolidated the economic importance of the *civitas* capital of *Aquae Laiae* and ensured that it was promoted to *municipium* status in the Flavian era, but also provided further impetus for agricultural development in the region. In this way, the river network illustrates the high degree of connectivity between ‘microregions’ of agricultural producers and their access to principal markets, while the Roman arterial

road system integrated those strategic and administrative centres. In Study Area South, both a fluvial and terrestrial communication system were utilised in the area around the *civitas Baniensium*, to secure the profitable mining centres to the south and the east, as well as to provide a cost-effective transport system to the settlements, and agricultural centres, which grew up along this strip of fertile land.

In the less productive regions such as Study Area North, where Iron Age fortified hillforts were spread across a large spatial domain, during the early Imperial era Roman settlements became sandwiched between the River Sabor to the right and the River Rabaçal to the left of the study area. The reasons for this ‘concertina’ in the early Roman period settlement pattern can be attributed to the patchwork of low-lying fertile land on which the *civitas* capital was located, and those satellite towns, which emerged to serve this central place.

4. In Study Area East, the main Roman highway played an important role in orientating Roman-period settlements, but other processes also shaped the settlement pattern, especially with regard to the establishment of agricultural centres. As with Study Area North, the indigenous kinship-based social structure, which characterised this eastern region of northwest Iberia, served to consolidate resources and found farming communities on the territorial boundaries of their pre-Roman settlements. However, the greater number of *casals* and *villae* found in Study Area East, in contrast to Study Area North, suggests that these agricultural centres further south were more successful owing to the hotter climate, which was conducive to the production of olive oil and wine grapes. Additionally, the profitability of these staple Roman period products also shaped the landscape to the west of Study Area South. Where a series of Roman-period hillforts occupied the fertile terrain further north, a concentration of agrarian centres were established further south along the banks of the River Douro, which not only provided the landscape for the production of olive oil and wine grapes, but also the means to ship these communities for export.

5. Where the communities were physically distant from those *civitas* capitals in Study Areas North, South and East and the *municipium* of *Aquae Flaviae*, *vici* fulfilled an important dual function, providing strategic as well as regional administration. However, unlike larger centres such as *civitas* capitals and *municipia*, which could equally be located near the large waterways or the terrestrial communications system, *vici* were positioned near to or along the Roman road network perhaps to monitor indigenous activity within the region. Moreover, the role

of these small settlements also encompassed secondary functions, and in the agricultural heartland of Study Area Viana, *vici* settlements were integrated into the *cursus publicus*, or Roman public postal system, through *mansiones* and *mutationes*. For this reason, we must readdress our traditional interpretation of *vici* as simply small settlements and instead entertain the notion that these Roman-period structures played an important role within the landscape, at least in early Roman northwest Iberia.

Chapter Six. Movement and Communication in Late Iron Age and Roman Northwest Iberia

6.1. Introduction

This work examines movement and communication in northwest Iberia in the Late Iron Age, and how these systems were exploited, and subsequently adapted by Roman authorities in the early Imperial era. In doing so, this research builds on the themes and analytical frameworks developed in the two previous chapters, but incorporates a very different methodological approach to examine the nature of observed changes. Central to this chapter is the earlier discussion concerning the minimalist view promoted by Finley *et al.* that trade was limited to small-scale exchange at a local level was found to be erroneous (see section 2.4.2.1), and instead a more dynamic approach was implemented which seeks to examine the existence of ‘microregions’ and their degree of connectivity with the wider Roman world (see section 2.4.2.2). Where a detailed account of Late Iron Age movement in northwest Iberia was undertaken (see section 2.4.1) the same cannot be said about early Imperial communication routes, in particular terrestrial routeways. For this reason, these routeways are discussed in much greater detail in this chapter with the aim of establishing the different passageways available in the early Roman period, and how such networks may have impacted on the study region. The second part of this chapter develops the methodological approach for the analysis of movement and communication in northwest Iberia between the Late Iron Age and early Roman period. The final section of this chapter outlines the results, reviews and discusses the findings, and lastly, provides a series of concluding remarks.

6.2. The Role of the Roman Arterial Road Network

The Roman communication system was far from uniform in the quality, speed and direction of passage it provided, and was shaped not only by the topology of the region, the needs of its people and the empire as a whole, but also by the pre-Roman terrestrial and fluvial routeways that Rome inherited. In differentiating the multitude of roads and passageways available to the inhabitants of the Roman empire, it is perhaps best to begin with the information encapsulated in the Emperor Justinian’s codification of Roman law. Although written in the sixth century, this document encapsulates many of the decrees, rulings and structures from earlier in the Roman empire, and so provides a valuable picture of the early Roman road network

(Davies 2002, 67), and a means to establish the degree of connectivity between settlements and regions. The *Codex Justinianus* establishes three types of routes; an *iter*, where neither a beast nor vehicle could pass; an *actus*, where a beast can pass; and a *via*, which had to be wide enough for either a beast or a vehicle (*Code of Justinian*, 8.1.13). Clearly, the size of the road was an important, if not the most important factor in determining access and so passage through the Roman landscape. Vehicles during the course of the Roman empire are likely to have varied in size, although their average wheel-base width has been calculated to be around 4.75 *pedes* (Piggott 1992, 35), with a *pes* equivalent to 11.6in or 0.296m (Davies 2002, 67). Examples of carriages found at Pompeii, which correspond to a timeline within the scope of this thesis, had wheel bases of 4.75 and 5 *pedes*, which increased to 6 and 6.25 *pedes* with the inclusion of wheel-hubs (Tsujiura 1991, 61). Where the *Code of Justinian* refers to the passage of ‘a vehicle’, and so one-way traffic, along the *via*, it seems likely that the necessary width need only be around 7 *pedes*, with the width of road widened slightly where a wagon needed to negotiate a tight turn (Tsujiura 1991, 74).

If the main roads of the Roman empire, the *viae*, were only wide enough to allow one-way travel, then it must be assumed that the flow of traffic was inherently slow, thereby increasing the cost of land transport, and perhaps in the process limiting the degree of connectivity between points on the map. However, recent studies of 488 principal roads in Roman Britain have shown the width of their metalled surface, that is where stones and gravel are used to construct a firm and well-drained surface, to average 22 *pedes* (Davies 2002, 73). Such space would not only have provided passage for two-way traffic, but may have also allowed faster and lighter vehicles, as well as mounted horsemen, additional room to pass slower moving traffic. The width of these main roads in Roman Britain also reflected the administrative and strategic needs of the province. Watling Street, for example, with the highest average metalled width of 34 *pedes*, constituted perhaps the most important road in southern *Britannia*, linking the strategic coastal settlement of Richborough with London and Wroxeter. The value of this trajectory is also confirmed by the third century Antonine Itinerary, which lists a series of itineraries passing along Watling Street and thereafter developing new routes, especially north towards Hadrian’s Wall. Nevertheless, Watling Street, as a main road within a civilian space, was an anomaly in terms of the width of its metalled surface, with a

trend for wider routeways shown in the north of England, where military activity was more prevalent (Davies 2002, 75).

While northwest Iberia was largely pacified following the Cantabrian Wars (29-19 BC) (Keay 1988, 44), many of the early Roman roads, which were constructed in the region, were of military origin (Yanguas 2002, 84). Early Roman roads, within the context of this study, are shown by a milestone found near Soeira along the northern *viae* linking the *civitas Zoelarum* (Study Area North, site 43) with *Aquae Flaviae* (Study Area Chaves, site 2) (Lemos 1993 vol. I, 312), which most probably dates from 3-2 BC during the reign of the Emperor Augustus (27 BC-AD 14). A second milestone located to the west of *Aquae Flaviae* on the Antonine Itinerary XVII linking *Bracara Augusta* with *Aquae Flaviae* and *Asturica Augusta*, corresponds with AD 44 in Emperor Claudius' reign (AD 41-54) (Teixeira 1996, 19). While the so-called Augustan milestone may date to the early first century, and is discussed in greater detail below, the second from the reign of Claudius, suggests a possible military route running east from Study Area North towards Study Area Chaves. If a military road did connect the modern-day regions of eastern and western Trás-os-Montes, further questions remain as to the chronological development and inclusion of the *civitas Zoelarum*, as well as the Roman central place which would become into *Aquae Flaviae*, into this nascent communication system.

6.2.1. The Roman Arterial Road Network and the Compression of Space-Time

Undoubtedly military roads played an important role in the pacification of Rome's enemies. Nevertheless, the vast majority of communication routes which arose in those regions administered by Rome, had an altogether more practical usage and modest origin. Roman roads, the *viae publicae*, linked major settlements, but also incorporated local roads, *viae vicinales*, as well as private and estate roads, *viae privatae*. Access to the latter, the *viae privatae*, was often restricted by landholders who were responsible for their upkeep, while *viae vicinales*, which were minor public roads, were built and maintained by the local community (Siculus Flaccus 146L). Where these *viae publicae* and *viae vicinales* differed was often in their size, level of maintenance, and their importance, with the former incorporating the *cursus publicus*, or Roman public postal system (as introduced in section 2.4.2.1), its affiliated *mansiones* and *mutationes*, and the presence of barracked soldiers along the route (as discussed in section 5.2.4). For the official traveller the *viae publicae*

offered food, lodgings and a change of horse at the *mansiones* and *mutationes* (Mattingly 2007, 259), but for the official and non-official alike, the security offered by armed soldiers was undeniably a benefit, especially with documented activity of bandits operating along many established communication routes (Curchin 1991, 180; Laurence 1999, 178; Wells 1984, 232-233). In spite of the benefits offered by the *viae publicae*, its most prominent advantage was the direct route it offered between major settlements, in contrast to the *viae vicinales*, which often connected minor towns, as well as leading to farms and villages (*Code of Justinian*, Dig. 43.7.3).

Overland transportation was therefore far from uniform within the early Roman empire and dependent on a series of factors, among them the quality of the road surface, the width of the road, the connectivity of the routeways and the security and services offered to travellers. The most effective and important routeways, the *viae publicae*, had the added benefit of compressing space-time between settlements, allowing lightly-loaded horse-drawn vehicles, such as a *raeda*, to cover as much as 100 miles in a single day (Suet. *Jul.*57). As a result, the speed of communication was often less between urban structures, than surrounding satellite settlements, which often had to rely on indirect and poorly maintained roads. The compression of space as a container of social power, also entailed that these Roman highways created new forms of authority and control within society, and over the long-term produced new challenges and practices, which would stimulate a diverse range of social, cultural and political responses (Harvey 1990, 255). The changes fostered by the compression of space-time were constantly evolving, as the conduits of change, the Roman highways, brought with them a multitude of different people each with an individual story.

The *viae publicae* also impacted on those major urban centres which they passed through, inspiring the construction of civil monuments to impress travellers, while the inhabitants of such towns and cities also sought to engage travellers at a social, economic and religious level (Laurence 1999, 154). Furthermore, these social, economic and religious activities were not confined to a single space or urban centre, but embedded in an affiliated social system, which was stretched across time and space. In contrast to less complex societies structured around kinship, and where most transactions required a physical presence, or what Giddens terms high presence-availability (Giddens 1981, 4-5, 66-67), more sophisticated societies, such as the Roman empire, created a series of mechanisms which connected

geographically-distant space. Consequently, the Roman emperor was physically tied to a point in space, but his presence-availability could be enhanced through his image on coins, his statue presiding over civic monuments, and the presence of the imperial cult in metropolitan centres (Creighton 2006, 81). While the emperor benefited ideologically from stretching time and space, so commercial networks employed agents at key locations, often established along well-connected terrestrial routeways, for the purposes of processing, managing and marketing produce (Greene 1990, 166-167). In this way, networks of power and influence, whether ideologically or commercially driven, became allied to the space-time distancing created by the Roman arterial roads linking these settlements, which in turn created hierarchies of information (Morley 1997, 49).

Giddens' concepts of high-presence availability, hierarchies of information and the compression of space-time should not be seen as concepts solely applied to large states, such as the Roman empire, but apply equally to other timeframes. During the Late Iron Age, the gradual encroachment of Rome, and its subsequent conquest of foreign territory, had a direct impact on the relationships between native settlements and the negotiation of political and commercial rights. Within the context of late pre-Roman southern Britain, trade networks were predominantly focused in a north-south direction with raw materials, such as iron and coal from the Forest of Dean, precious metals from central Wales or Ireland, and salt from Droitwich (Worcestershire), being transported along waterways to *oppida* settlements further south. The dating of these *oppida* to the early first century suggests that a series of strategic centres among them *Verlamion*, the north Oxfordshire Grim's Ditch and possibly Bagendon began to emerge in the late pre-Roman period. How connected these *oppida* were, and the degree to which they utilised a probable pre-Roman Akeman Street which ran in an east-west trajectory is difficult to ascertain. Nevertheless, with the founding of Akeman Street during the Roman period a slow and deliberate process of change began. The Late Iron Age settlement of *Verlamion* became the Roman centre of *Verulamium*, but other transformations to the west of Akeman Street were altogether slower. The elite located at Grim's Ditch and Bagendon would, over the course of time, be involved in establishing the *civitas* capital of the *Dobunni* tribe, *Corinium Dobunnorum*, modern-day Cirencester (Copeland 2009, 139).

In this case, the Late Iron Age society which was characterised by the *oppidum*, was affected by a linear trajectory, in the form of Akeman Street, running through the territory of the *Catuvellauni* and *Dobunni* peoples, thereby compressing space-time between those settlements located along its path. Nevertheless, the nature of that space-time was not uniform, with Iron Age communities often continuing to exist within the same bounded space their ancestors had occupied a generation before. In time, some urban communities adopted Roman practices, but the degree of change would have been more prevalent in those communities which were integrated along Akeman Street and its subsidiary roads (Copeland 2009, 141). Such a hypothesis therefore offers a valuable insight into the role of communication routes between the Late Iron Age and early Roman period, particularly the consolidation of certain Late Iron Age structures as centres of Roman authority and the Roman arterial road network which connected them, at the expense of those indigenous settlements which were located at the physical and so cultural periphery of Roman influence. In this way, the Roman road network and communication system in general provides a means to examine the role it played in shaping both native and more ‘Roman-style’ settlements, which is explained in greater detail in the following section.

6.3. Methodological Approach

6.3.1. Introduction

Akeman Street provides an archaeological illustration of those social, economic and political changes which occurred over centuries, but were very much ingrained in the movement of goods and people between spatial settings. The study also demonstrates that pre-Roman terrestrial and fluvial communication routes worked in unison. In the same way, we should also acknowledge that waterways played a prominent role in the early Roman period as shown by the transportation of staple goods (as demonstrated by the transportation of wheat from Alexandria to Rome, see section 2.4.2.1), but also in terms of the geography of a region (for example, the connectivity provided by the River Nile which linked important commercial centres, such as Oxyrhynchus, see section 2.4.2.1). Where our knowledge of movement, in particular commercial exchange, is altogether more limited is how terrestrial and fluvial communication networks were integrated (see section 2.4.2.2 and how wheat produced in central Iberia was transported elsewhere)

into the wider Roman world. In order to examine these ideas it is first important to examine the available methodological approaches which could be used to analyse the communication systems of the study region.

6.3.2. The Theory and Practice of Least-Cost Paths

In providing a context for the analysis of Late Iron Age movement and the subsequent early Roman communication system in northwest Iberia, this section examines the use of new analytical models developed from computer software to map, measure and examine expressions of movement across the landscape through the implementation of least-cost paths (see section 3.5.3 for an introduction to computer-based analysis). In aiming to replicate as closely as possible the pattern of human movement across the landscape, practitioners of least-cost path analysis have developed algorithmic software, which can be compared against known routeways. Bell and Lock (2000), in investigating the path that both ran through and near to a series of Iron Age forts located along the Ridgeway in southern Oxfordshire, found the initial computer-generated least-cost path falling off the steep descent before later ascending to rejoin the path. The initial computer-generated path proved to be unrealistic in terms of its trajectory and the physical cost it offered, given that the route required a traveller to descend and ascend the slope either side of the ridge, rather than follow the established path offered by the Ridgeway. This was amended by rewriting the algorithms and turning the descent into an ascent creating a resultant pathway which adhered to the ridge (Bell and Lock 2000, 92).

Other more comprehensive studies have used a multifaceted approach to recreate the landscape and its communication routes. Madry and Rakos (1996), sought to recreate routeways in the Arroux valley in the Burgundy region of France, by replicating the conditions for known roads, which closely adhered to a combination of features, namely, the visibility of the route from surrounding hillforts; close positioning to narrow ridge crests; least change in elevation along the ridgeline, as well as other cultural and environmental factors (Madry and Rakos 1996, 110-111). With the computer software producing accurate replications of known segments of roads, cost-surface analysis was applied to other locations within the study area, where the archaeological record was more limited. This procedure revealed the importance of the pre-Roman town of Toulon-sur-Arroux as a transport hub, which has led to the reappraisal of its commercial and strategic role within the

region (Madry and Rakos 1996, 123). Implementing a similar multivariate approach to Madry and Rakos (1996), Vermeulen *et al.* (2000), utilised geology and soil data as well as vertical aerial photography and cartographical analysis to create a Digital Elevation Model (DEM), through which Roman roads could be replicated in the area of *civitas Menaporium* in modern-day northern France. These routeways corresponded closely with roads detected from aerial photography and the location of Roman material finds suggesting a close correlation between GIS-modelling and major Roman roads (Vermeulen *et al.* 2000, 191).

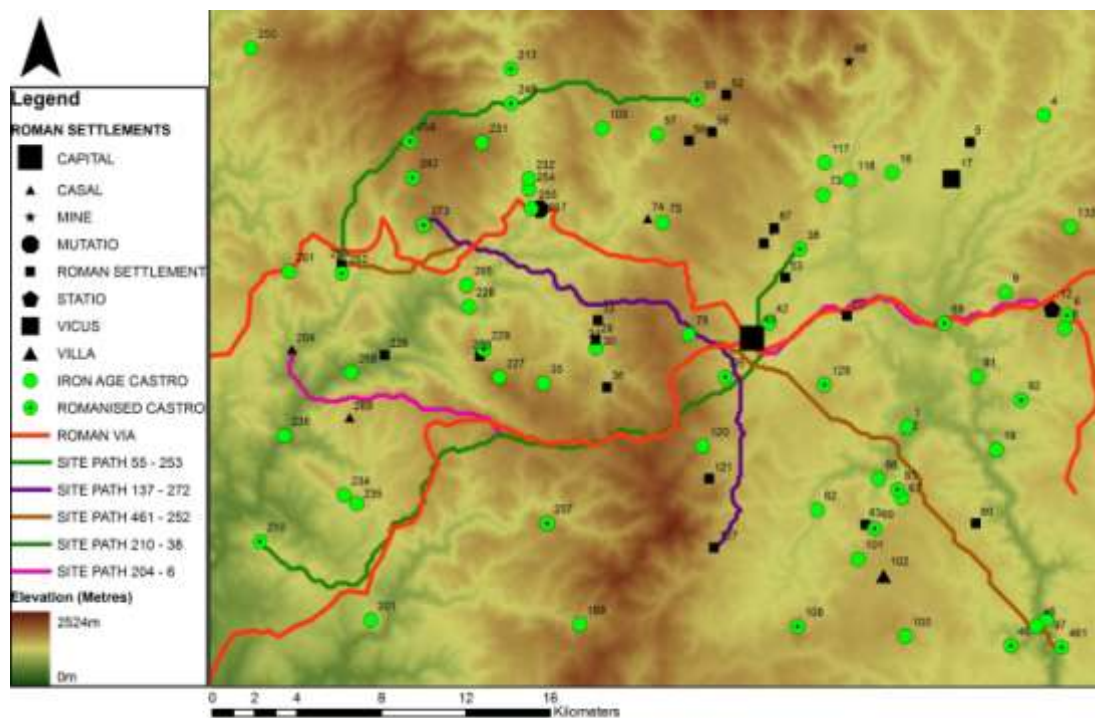


Figure 31. Test least-cost paths generated for the Trás-os-Montes North Study Area.

In validating the methodological application of least-cost paths in this thesis, a pilot study was conducted, in which a series of trajectories were generated around the Roman-period settlement in the Trás-os-Montes Study Area, utilising Llobera's (2000) slope versus energy formula. The diagram (see Figure 31 above), shows that the trajectory of the Roman *via* in red from the centre right of the image to the *civitas* capital corresponds closely with the pink site path (204-6) running across the centre. Material evidence suggests that this may correspond to a pre-Roman route linking a series of *castro* sites to the east with an as yet undiscovered native religious centre located beneath the *civitas* capital of the *Zoelae* confederation (Tranoy 1981, 52).

Where the Roman road bifurcates, its southern trajectory is closely matched by the least-cost path in green (site path 210-38).

6.3.3. The Practical Application of Least-Cost Paths and the Roman Road Network

Combining the insights of the pilot study outlined above with those conducted by Bell and Lock (2000), Madry and Rakos (1996), and Vermeulen *et al.* (2000), permitted the development of a methodology to map possible terrestrial communication routes between known settlements. For the purpose of analysis, a series of least-cost paths were generated from the periphery of each study area to ensure that computer-based trajectories were not site-biased. An external software system, Hawth's Tools, was used to create a series of points at 5000 metre intervals around ArcGis generated shapefiles for each study area. Using the friction map created using Llobera's (2000) relative (human) energy expenditure versus slope formula, a cost-surface was produced for each point and a series of least-cost paths were created between adjacent positions on the three other sides of the shapefile.

By projecting these least-cost paths and the established Roman road network on a digital interface, a four-stage analysis can be conducted. Firstly, the importance of the optimum paths can be examined against existing pre-Roman sites and settlement patterns. Secondly, the aforementioned analysis can be examined further against the known Roman arterial road system and Roman central places. Thirdly, in dating the Roman road network, a more detailed analysis can be undertaken as to whether: (a) Imperial authorities utilised possible indigenous central places in developing the early Roman settlement pattern; (b) to what extent the location of these native settlements fashioned the Roman road network and subsequent settlement pattern; (c) or if, Roman roads linked up strategically-located *ex-novo* Roman centres. Fourthly, the Kolmorov-Smirnov (or K-S) test (see section 5.3.4), was used to examine the statistical relationship between pre-Roman and Roman settlements and the established Roman road network.

6.4. Analysis

6.4.1. Introduction

In this section, for the sake of consistency the five study areas are examined in the following order; Trás-os-Montes North, Trás-os-Montes South, Trás-os-

Montes East, Chaves and Viana. The analysis includes an examination for each study area of the least-cost paths, and the Roman arterial road network (Maps 36-40), and lastly the results for the K-S tests conducted on the relationship between the Iron Age and Roman settlements and the Roman road system. All maps discussed in this chapter are to be found in Volume II of this thesis.

6.4.2. The Roman Road network

Analysis of Study Area North during the Late pre-Roman Iron Age shows that a series of *castro* settlements were positioned on the most cost-effective terrestrial routes. These include sites 96 (Map 36, bottom right), 9 and 69 (centre right), 124 (top right), 28, 57, 216 and 213 (top centre), and 241 (top left). There appears to be no discernible relationship with regards to their chronological standing; that is to say their Iron Age / Roman period status, and their position within the landscape. However, a clear pattern emerges if the *civitas* capital (site 43, centre), was built upon a pre-Roman religious / administrative centre for the *Zoelae* tribe (Tranoy 1981, 52), with those *castros* located at its periphery possibly controlling the passage of people and commerce along the route, towards this native central place. Furthermore, least-cost paths running from the north (see site 57), to the east of site 43 and south past site 137 (bottom centre), as well as a second optimum route running northwest from site 124 (top right), to the south of site 43, and continuing in a southwest direction, strengthens the argument for a tribal centre located at this space. Such a theory is given further credence as the pre-Roman space at site 43, was also linked by a least-cost path running east, around which *castro* sites 69, 9 and 8 were positioned.

With the establishment of Imperial Roman control in the region of Study Area North, the strategic routeway and least-cost path linking the probable tribal centre at site 43, with those fortified hillforts, 69, 9 and 8, became a Roman road. Other stretches of established Roman road also emerged along least-cost pathways, notably, the route south guarded by a *statio* (site 12, centre right), as well as large tracts of road between the newly established *civitas* capital, the *civitas Zoelarum* (Study Area North, site 43), and site 630 (bottom left), where the route heads south to the *civitas Baniensium* in Study Area South. Nevertheless, the northern trajectory of the bifurcated Roman highway, while appearing superfluous and negotiating the uneven topography between the *civitas* capital and sites 252 and 253 (centre left),

provided a means to link up with an optimum routeway heading southwest (see site 251), and thereafter west to the *civitas* capital / *municipium* of *Aquae Flaviae*. Additionally, those Roman satellite towns, located to the far north of the *civitas* capital (sites 52, 56 and 59), to the north (sites 51, 53 and 87), to the west (sites 29, 33 and 36) and the south (sites 121 and 127), were all located near to least-cost paths, which may have functioned as secondary roads to access the *civitas Zoelarum*. Also of interest is the *vicus* settlement (site 17), and the adjoining Roman town (site 5), located to the northeast of the *civitas* capital, where a series of least-cost paths converge, suggesting that the *vicus* settlement may have operated to monitor the passage of people, as well as offering a cost-effective route to market for surrounding communities. To the south of Study Area North, Roman town 137, and *villae* settlement 102 and 125 were both located along multiple least-cost paths, strongly suggesting that these sites took advantage of passing trade as well as opportunities to take their produce to market. Given that large sections of the Roman road network follow an optimum routeway, many of these cost-effective corridors could have constituted local roads, *viae vicinales*, built and maintained by local magistrates, or at the very least established routeways.

As with Study Area North, in Study Area South (Map 37) a series of hillfort settlements are located on least-cost paths. These include sites 690 and 710 (bottom right), 508, 519 and 680 (centre right), 608 and 620 (top right), 838 (top left) and 802, 814, 815 and 828 (centre left). Again, there appears to be no correlation between the proximity of a hillfort to a least-cost path and its Iron Age / Roman period status. Nevertheless, to the west of Study Area South where a series of large and medium-sized *castros* dominated the landscape, large hillforts 802, 806 and 814, were all linked by a series of least-cost paths. Of importance here was medium-sized *castro* 815, which occupied a strategic position at the junction of various optimum routeways connecting large hillforts 802, 806 and 814, and which had a commanding view over the valley of the River Tinhela below (Teixeira *et al.* 1990). It is therefore possible that the cost-effective passages, which linked hillforts 802, 806, 814 and 815, played an important role in their continued occupation into the early Roman period.

In the north and east of Study Area South, where medium and large hillforts were more isolated, their continued use into the early Roman period was again allied to their proximity to least-cost paths. Where optimum routeways were remote, as

with large *castros* 607 (top right) and 613 (top centre), those hillforts were abandoned, while site 608 (top right) with a least-cost path running near continued as a Roman-period *castro*. With medium sized hillforts, sites 600 (centre), 611 (centre right), 620 (top centre), 842 (top centre) and 740 (centre right), their close proximity to least-cost paths may have ensured the survival of their communities into the early Roman period. In contrast, 626 (top centre) and 775 (centre), which were relatively isolated from optimum routeways, may have been abandoned because of their isolation from communication routes. Lastly, sites 901 and 532 are anomalies to the rule, with the former continuing to be occupied during the early Roman period, but distant from any least-cost path, and the latter an abandoned Iron Age *castro* on a routeway which may have connected the west and the east regions of Study Area South.

Unlike Study Area North, which exhibits a complex series of Roman roads, within the context of Study Area South (map 37), only a single highway, a *via publica*, exists. However, this routeway provides a strategic passage linking the River Douro with the *civitas Zoelarum* to the northeast, and *Aquae Flaviae* to the northwest. Furthermore, its trajectory closely follows one of a series of cost-efficient routes which snake their way north. The other, which begins at the *civitas* capital, the *civitas Baniensium* (site 667, bottom right) and follows a north-westerly route past villa settlement 772 (centre) before progressing north to the west of Roman-period *castro* 615 (top right), was clearly not a sufficiently important route. The reasons for locating the principal Roman road along the river valley were probably threefold: firstly, to access the prime agricultural land along the valley to ensure that transportation costs were kept to a minimum; secondly, to allow for a more efficient means of supplying the *civitas* capital with food and other amenities, as well as transporting goods further afield. This would have been of considerable importance for seasonal traffic as river levels dropped during the summer and rose in the winter. As a result, those engaging in the movement of goods had the option of utilising the river or the road as a way of reducing transportation costs. Lastly, the route of the main Roman road provides commercial and strategic access to the mines located to the north and south of the *civitas* capital, allowing for mined ore and precious metals to be safely transported elsewhere.

Asides from the principal Roman road linking the *civitas Baniensium* with the *civitas Zoelarum* and *Aquae Flaviae*, it is likely that secondary routes played a key

role in linking important settlements in Study Area South. While a series of agricultural centres can be found on these computer-generated least-cost paths, especially in the area to the north of the *civitas* capital, and the region to the west of Study Area South along the River Douro, many Roman towns appear to have operated as strategic centres in controlling and monitoring the movement of peoples and goods, especially in the early Roman period. In the centre right of Map 37, Roman settlement 681, replaces abandoned *castro* site 680, positioned along a strategic passageway emanating from the western region of Study Area East (see Map 23), an area rich in mining activity. To the west of Study Area South, a second Roman settlement (site 830) is found at the junction of various cost-efficient routes, where its role may have been to monitor the cluster of Roman-period *castros* further west, and curtail and confine the activities of those larger hillforts, which utilised the pathways which converged on Roman hillfort 815. Whether the founding of this Roman settlement was a deliberate act by Roman authorities is difficult to establish. Nevertheless, the location of Roman settlement 830 at the territorial boundaries of large Roman-period hillfort 806 (as discussed in section 5.3.3.1), and medium-sized Roman-period *castro* 815, strongly suggests that this early Roman structure fulfilled an administrative function.

Unlike Study Area North, the two *vici* settlements in Study Area South do not appear to have exploited least-cost pathways. Rather their position within the landscape may have corresponded to other criteria, such as the need to administer the space to the west of the *civitas* capital, and thereby command a central location, as with *vicus* settlement 549 (centre left), or the need to control the mining activity of a given area, as with *vicus* 552 (bottom centre).

In Study Area East (Map 38; note that the network of lines to the right of diagram and the River Douro represent the residue of the least-cost path analysis), there appears to be little direct relationship between the location of pre-Roman *castros* and least-cost paths. Large hillfort 391 (Map 38, top right), which is located near to a series of cost-effective routeways continued to be occupied into the early Roman period, while the second large *castro* in the region, site 327, located on the River Douro (top right) was abandoned in the Late Iron Age. Roman-period *castros* 302 and 323, in the top right of the diagram, may also have benefited from the proximity of an optimum routeway, which connected the two sites to the established Roman road. Nevertheless, other *castro* sites were not as well integrated into these

cost-effective pathways, which may have contributed to the abandonment of many hillforts in the region, and explain the low numbers of Roman-period *castros* in Study Area East. Equally, the lack of any least-cost paths running through the cluster of Roman-period *castros* in the centre of the diagram, may have been a key reason why indigenous forms of control, coupled with the absence of any Roman settlements, defined this area.

It can also be seen that many Iron Age communities did not choose to locate on these cost-effective thoroughfares, especially those pathways which ran from the northwest to the southeast of the region. Here the trajectory of the main Roman road loosely follows the route of a series of least-cost paths, particularly the path running from the south of villa settlement 392 (centre), to the area east of *casal* 425 (centre). Also of interest is the *vicus* settlement located to the top right of the diagram and 2.8km from the main Roman road, which may have taken advantage of nearby optimum routeways to access surrounding settlements, as well as the early Imperial highway. This *vicus* settlement, along with other Roman settlements, such as 329 (top right), 324 (top right), 173 and 451 (top centre), 394 (centre), and 422 and 433 (centre right), appear to have been positioned along a series of least-cost paths in a similar fashion to those Roman settlements in Study Area South. Nevertheless, it is unlikely that they fulfilled a strategic function, as with site 830 in Study Area South (Map 37, centre left), whose inhabitants probably monitored the cluster of indigenous settlements in the west of the region, but rather took advantage of these cost-effective corridors to move more effectively through the landscape.

Clearly, the principal Roman road provided the main means of communication in Study Area East, but it is also likely that secondary roads played an important role. Among these, Roman mining settlements 695 and 676 were located on a least-cost path, which snaked northwest and linked up with Roman settlement 681 (Map 37, centre right), as discussed above, thereby providing a secure route for the transportation of mined ore. Other secondary roads are, however, less visible in the landscape. The linear trajectory of *casals* 405 and 408, villa 410, Roman settlements 400 and 404 and possibly Roman habitat 404 in the top centre of Map 38, strongly suggests that these sites were linked to the principal Roman highway by a secondary road. In the absence of any visible optimum paths, it is likely that other factors, such as the propensity to cultivate olive oil and vines on this forested land / scrubland, constituted the principal reason to construct and maintain

such a route. If this is true, it is likely that the upkeep for the path came from a centrally-administered apparatus controlled by magistrates living in nearby towns, along with more privately funded enterprises symbolised by the villa settlements and the smallholdings shown by *casals*.

In Study Area Chaves (Map 39), all large *castro* settlements located to the east of the Tâmega Valley are to be found near least-cost paths, perhaps replicating the pattern found in the western region of Study Area South (located to the south of the Study Area Chaves diagram), where large hillforts made extensive use of these cost-effective routeways. To the east of the Tâmega Valley large *castros* 320 (top right) and 603 (centre right) are positioned on least-cost paths, which may have been a contributing factor to their foundation, as well as their continued occupation during the early Roman period. The other large hillfort, site 340 (centre right), also continued to be occupied during the early Imperial era, but its location on what would become the northern Roman highway along with *castro* sites 342, 314 and 258 may suggest that a pre-Roman road ran along this path. While a cost-efficient path along this route is absent, the presence of a route linking a series of *castro* sites leads to a possible pre-Roman central place at the site that would become *Aquae Flaviae*. Such a scenario is not dissimilar to Study Area North, where the pre-Roman pathway followed a least-cost pathway and along which a series of *castro* sites led to a possible pre-Roman central place of the *Zoelae* tribe. In the Roman period, the pre-Roman centre would become the *civitas* capital and the pathway would be converted into a *via publica*. Other large hillforts, notably 715 (bottom centre), continued to be occupied into the early Roman period, despite being a considerable distance from any least-cost paths, while 614 (centre right) located near to main Roman highway was abandoned and a Roman settlement, site 615, was established nearby.

With medium-sized *castros*, site 346 (centre right) near to the *via publica* was abandoned in the Late Iron Age, as was 722 (bottom centre) located on a series of optimum routeways, and site 301 (top centre) located a little distance from a series of least-cost paths. In contrast, site 548 (centre) was located far away from any optimum routeway and *via publica*, as was 805 (bottom centre), which was positioned near a level four river, and continued to be occupied into the early Roman period. In this way, it is difficult to find any pattern to the location or continued occupation of medium-sized fortified hillforts in the Roman period and their relationship with possible routeways in the landscape. However, the optimum

pathway may have played a role in the foundation and continued use of some larger Roman-period *castros*.

To the west of the Tâmega valley, all three large hillforts, 54 (top centre), 201 (top left) and 402 (centre left), are characterised by their remote location to least-cost paths. Of these large hillforts only site 402, and perhaps the nearest of the three settlements to a least-cost path, continued as a Roman-period *castro*. Of the medium-sized hillforts, 155 (centre left), 158 (top left) and 505 (centre), also became Roman-period *castros*, but were relatively isolated from cost-effective routeways. In contrast, other medium-sized hillforts, 157 (top left), 160 (centre left) and 419 (centre left), all within easy access of an optimum routeway and the *via publica* were abandoned during the Late Iron Age. This would suggest that during the early Roman period, the communication network had a strong impact in terms of new ideas and practices on those communities, which were linked or had access to least-cost paths. Where indigenous settlements and their inhabitants were not integrated into this cost-effective network, native practices and forms of living may have continued to predominate although the material culture of these Roman-period hillforts does not record whether their communities were actively hostile to more Roman forms of authority, or merely continued to reside on the periphery of more established Roman settlements.

A final point of interest with respect to the Late Iron Age landscape are the similarities between Study Area Chaves and Study Area South in both the presence of large and medium-sized hillforts and the possible hierarchical settlement pattern that entailed. Nevertheless, these regions do not appear to have exhibited shared concerns, given that the system of least-cost paths which originate from Study Area South, do not provide a logical route into and through Study Area Chaves. This is especially relevant for those large hillforts to the west of Study Area South as discussed above, which continued to be occupied into the early Roman period. Of importance here is medium-sized *castro* 815, which may have operated as a communications hub for other hillforts in the area, given its strategic location at a junction of various optimum pathways. The journey north into Study Area Chaves from hillfort 815 could have been achieved in three ways. Firstly, it is possible to negotiate a route which criss-crosses a series of interlocking passageways from site 815 in Study Area South, which join those multiple least-cost paths whose trajectories begin at the *civitas Baniensium*, past villa settlement 772 (see Map 37,

centre), and head north to emerge from alongside abandoned hillfort 806 (Map 39, bottom right). A second route originates next to hillfort 815 in Study Area south and curves round to pass by medium-sized abandoned *castro* 722 in Study Area Chaves (Map 39, bottom centre). And lastly, there is a route which crosses the River Tâmega and links up with medium-sized hillfort 419 (Map 39, bottom left).

While two of the three routes above link the cluster of hillforts located around site 815 with two medium-sized *castros* in Study Area Chaves, there is no evidence to suggest the two areas were practically unified for strategic, commercial or political reasons. Rather, where the western region of Study Area South joins with the southern area of Study Area Chaves, there are a discernible lack of Iron Age structures, with 843, and medium-sized *castros* 842 and 901 (Map 37, top left) seemingly occupying a frontier area and operating as border towns. Furthermore, with the establishment of Imperial control in the region of Study Area Chaves, the foundation of a Roman fortified settlement, site 850 (bottom centre), may have been a conscious act by the authorities to control the activities of the cluster of Roman-period hillforts in the western region of Study Area South. This is especially relevant given that those medium-sized *castros* which controlled the least-cost paths emanating from the south were abandoned during the Late Iron Age.

As discussed in Chapter Five, the River Tâmega played a central role in orientating and developing Roman agricultural production and in turn shaping the settlement pattern for the region as a whole. Nevertheless, the Roman road network played an equally important role, but one which was more strongly fashioned around the strategic needs of the area. As argued above, the most northerly of the two western-bound *viae publicae* emanating from Study Area North did not pursue available least-cost paths, but followed a trajectory which would link the *civitas Zoelarum* and *Aquae Flaviae* along the shortest possible distance, and so provide a higher degree of connectivity between the two central places. In the case of the second western-bound *via publica* emanating from Study Area North, its trajectory closely adheres to available least-cost paths as it links up with the Roman highway running north from the *civitas Baniensium* in Study Area South. Thereafter, this *via publica* proceeds in a south-westerly route before heading north to cross the River Rabaçal, near to the strategic *statio* outpost, before heading northeast towards *Aquae Flaviae*. When analysed further, both these Roman highways, which converged at *Aquae Flaviae*, may have offered very different forms of communication. In the case

of the former, the shortest path offered by this *via publica* between *civitas Zoelarum* and *Aquae Flaviae*, entailed a northerly crossing of the River Rabaçal, where the easterly land approach records a slope angle of 27 degrees. In contrast, the steepest angle recorded along the southern crossing into Study Area Chaves, returns an angle of only 16 degrees. To what extent this impacted on the transportation of produce is difficult to establish. However, it is likely that heavier loads in negotiating the journey between the *civitas Zoelarum* and *Aquae Flaviae* may have taken the longer, but more manageable southern route.

While there is little evidence for Roman secondary roads in Study Area Chaves, it is probable that the communities within the region took full advantage to locate their settlements on the optimum trajectories. Among these are those least-cost paths to the north of *Aquae Flaviae*, which may have been utilised by agricultural producers, in conjunction with the adjacent River Tâmega, to transport their goods to market. Also of interest is a least-cost path, which runs alongside villa settlement 60 (top centre), *casal* 203 (top centre), *villae* 208 (top left) and 162 (centre left) and Roman settlement 163 (centre left). Other agricultural producers, such as *villae* 650 (bottom left), 418 and 704 (bottom centre), 315 (top right) and 523 (centre) can all be found on visible cost-efficient routeways. In the case of *casals* 540, 536 and 535 (centre), their linear position within the landscape, strongly suggests they were linked by a secondary route, which may have crossed the River Tâmega to incorporate *villae* sites 514, 504 and 503. Again, a similar pattern can be seen in the bottom centre of Study Area Chaves, where a secondary road may have run through the cluster of *casals*, sites 703, 707, 708, 712 and 713 (bottom centre), to provide access elsewhere.

Where Roman settlements in the adjacent Study Area North were positioned on least-cost paths to provide surplus produce and services for the *civitas* capital, the same cannot be said for Study Area Chaves, where Roman settlements emerged next to Iron Age hillforts, which were themselves physically distant from optimum routeways. However, the *vicus* settlement, site 607 (centre right), appears to conform to the *vicus* settlement in Study Area North and the most northerly of those in Study Area East, site 309, and is located on a series of cost-efficient pathways, but within a few kilometres of the main Roman road.

In the last region to be analysed, Study Area Viana (Map 40), there appears to be little discernible relationship between the least-cost paths which criss-cross the

landscape and the location of Late Iron Age settlements. This is evident along those optimum routes which hug the Atlantic coast (Map 40, bottom left), but where many of the hillfort settlements are located further inland exploiting the rich agricultural land. Again the cluster of Late Iron Age and Roman-period *castros* positioned in the top right of the diagram, do not appear to be arranged within the landscape to exploit the least-cost paths. It is therefore likely that land use capacity was a more important criteria for the location of these fortified hillforts than the accessibility provided by optimum routes. This can also be shown by the trajectory of Antonine Itinerary XIX, which ran from one *conventus* capital, *Bracara Augusta* to another, *Asturica Augusta*, and whose trajectory passes to the left of the *vicus* and *mansio* settlement 252 (bottom centre) before heading north past the cluster of abandoned hillforts, 70, 64, 81 and 80 (centre). Running parallel to *Via XIX* and to the left of *vicus* and *mutatio* settlement 75 is a least-cost path, which would have provided a more suitable route for this Roman highway, with the highest gradient of 12 degrees, but most gradients falling between two and five. In contrast, the highest gradient along the *Via XIX* is 20 degrees, with average gradients perhaps between five and ten. The reasons for adopting the actual path of the *Via XIX* and not the least-cost path, which would have aided the transportation of goods and movement of people, appear to be influenced by the patches of rich Type A and C farmland which the Roman highway crosses (see Map 10). In contrast, the least-cost path negotiates a route through Type F forested land / scrubland. Where the *Via XIX* follows an optimum route further north to the east of Roman-period *castro* 54, the trajectory again passes over and through additional concentrations of Type A prime farmland. Whether the route of *Via XIX* was designed to link up those fortified hillforts, which continued to be occupied into the early Roman period cannot be established; nor can the probability that this section of the *Via XIX* followed an established native routeway (see section 2.4.1).

Elsewhere in Study Area Viana, the Roman road network appears to have utilised optimum communication routes, as is the case with the Roman pathway which follows the east-west trajectory of the River Lima (note; *vicus/mansio* settlement 252 is located along this passageway). Another route further inland, and which passes alongside Roman-period *castro* 57 (centre), also appears to have utilised a series of cost-efficient pathways embedded within the landscape. Nevertheless, it is perhaps *vicus* settlement 168 (centre right), which is of most

interest. As with the *vici* of Study Areas North, East and Chaves, this settlement is located on a key least-cost path linking Study Area Viana with the mountainous region to the east, and as with the aforementioned examples, is positioned near to a principal Roman highway.

Lastly, Kolmorov-Smirnov (or K-S) statistical tests were conducted to analyse the distance between Iron Age sites and the main Roman roads, and Roman settlements and main Roman roads (see section 5.3.4 for an outline of its use). This data can be found Appendix B and was collected by projecting Iron Age and Roman settlements onto a map using ArcGis 9.2 and measuring the distance to the nearest Roman road. The calculations for each study area are presented in Appendix B, and the results are shown below in Table 14.

Study Area	K-S test p-values
North	p-value. 0.9607
South	p-value. 0.05652
East	p-value. 0.003597
Chaves	p-value. 0.9554
Viana	p-value. 0.007482

Table 14. The statistical analysis of the distance between Iron Age sites and the main Roman roads and Roman settlements and main Roman roads.

Given that a significance level of 95% is utilised here, only when $p = <0.05$ can the null hypothesis be rejected, and the statement made that both datasets are drawn from separate populations. Consequently, the null hypothesis can be rejected for Study Area East and Study Area Viana, showing that the distance between the Iron Age settlements and the early Roman road network and the Roman dataset and early Roman road network were drawn from different populations. In the case of Study Areas North, South and Chaves, the null hypothesis can be accepted and we can conclude that both Iron Age and Roman datasets, with respect to their distance to the Roman road network were drawn from the same populations. This therefore implies that in Study Areas East and Viana a more linear settlement pattern materialised during the Roman period, which appeared to converge around the Roman road network. However, the extent to which the location of Roman-period structures determined the trajectory of the *viae*, or alternatively whether the major

roads established the early Roman settlement pattern is a more complex question and is addressed in the following section.

6.5. Discussion

The analysis outlined above strongly suggests that the persistence of pre-Roman movement and communication was more prevalent in some areas than others, and goes some way to dispel the hypothesis developed by Sastre Prats (2008) and outlined in Chapter Two. Such a theory proposes that Late Iron Age society in northwest Iberia was predominantly characterised as internally ‘antidivisional’, but more importantly for this discussion, externally ‘antiunificational’ (note while the terms ‘antidivisional’ and ‘antiunificational’ are not English words they are employed by Sastre Prats in her 2008 English language paper on Late Iron Age northwest Iberia and hence included here), and thereby hostile to peripheral communities. Nevertheless, the close proximity of a more socially and politically dynamic culture in the western Meseta suggests that these communities may have had an impact on the societies which inhabited northwest Iberia. Cross-cultural interaction and regional connectivity are evident in those optimum paths generated for Study Area North, which ran from the region to the west of the Meseta, along a route of Late Iron Age *castros*, sites 6, 8, 9, 69, towards a possible pre-Roman religious centre of the *Zoelae* tribe (Tranoy 1981, 52), where a *civitas* capital, the *civitas Zoelarum*, would be established in the early Roman period. The importance of this route can be further substantiated by the passage of the Roman road, which closely follows the least-cost path, as well as the *statio* and its position at the junction of two optimum routes, one which led east, and the other to the southeast. Adjoining the territory of the *Zoelae* were the *Vaccaeii*, a tribal confederation whose principal settlements, according to Ptolemy (*Geographia*, II. 5. 6), writing in the second century AD, included *Helmantica/Salmantica* (modern-day Salamanca), *Arbucala* (Zamora), *Pincia* or *Pintia* (Padilla de Duero-Valladolid) and *Intercantia* (Paredes de Nava). The close proximity of these *oppida* to the territory of the *Zoelae* (see Figure 3, page 21), and more importantly their subjugation by Rome in the early second century BC (Livy, 40.47.1; 40.50.6), strongly suggests that certain communities, notably the *Vaccaeii*, bordering this region of Roman control, would have had contact with the Late Iron Age societies, among them the *Zoelae*, on the periphery of northwest Iberia. Of further significance are references made to wheeled vehicles of the

Vaccaei during the campaign by Sempronius Gracchus in 179 or 178 BC, which refer to wagons (*plaustra*) placed in a circle for defensive purposes (Frontinus, *Stratagems* 4.7.33). In establishing that such wheeled transportation was utilized by the *Vaccaei* prior to their conquest by Rome, we can also infer that pre-Roman roads were established to facilitate their movement, and that one of these routes may have originated in *Vaccean* territory and headed west to link up with a possible pre-Roman religious centre of the *Zoelae*. Such an exchange route would have brought with it new ideas and practices, but above all it would have brought those peoples who lived on the periphery of *castro* society into the cultural sphere of the *Vaccaei*, and thereafter Republican Rome, following their pacification in the mid second century BC. Additionally, we should also acknowledge that the *Vaccean* culture and social practices were very different from the systems of equality suggested by Sastre Prats (2008) for the people who constituted the so-called ‘*Castro Culture*’. While there is little evidence for a social structure in the *Vaccean* settlement pattern (they occupied *oppida*, which functioned as independent city-states), the excavation of complex burials, at *Pintia*, modern-day Las Ruedas, in the area east of Valladolid (see Figure 3, page 21), also establishes the existence of a *Vaccean* social stratum. The contents of Tomb 75, which contain intricate and highly prized metal objects and weaponry, as well as a sophisticated saddle with a bone handle, probably represented the grave goods of a *Vaccean* chief or leader. Other less ornate grave goods characterised by imported weaponry symbolised a less wealthy elite, while the lowest rank of burials were marked by an absence of treasured possessions (Sanz Mínguez *et al.* 2003). In this way, the Late pre-Roman Iron Age *Vaccaei* developed a complex social hierarchy characterised by unequal access to wealth and resources, whose ideas and practices would have no doubt influenced to a greater or lesser extent those peoples located at the margin of their territory, among them the *Zoelae*.

In other regions of pre-Roman northwest Iberia, contact with outside cultures would have been more limited because of the cultural buffer provided by neighbouring societies, as well as the geographical limitations of accessing the interior. This is visible in the western region of Study Area South, where native settlements, especially the large fortified hillforts, were physically isolated from the River Douro to the south. There also appears to have been limited interaction between these large *castro* settlements and the medium-sized hillforts in the south of Study Area Chaves, which were connected by existing cost-efficient routeways.

Further analysis, which shows a paucity of settlements in the region between where Study Areas South and Chaves join, strongly suggests that a buffer territory was established between the two regions. In form and structure such a hypothesis corresponds with a reconstruction of territorial boundaries, which may have existed in the region to the south of the Serra da Nogueira and the Serra de Bornes, corresponding to the area equidistant between Study Areas North and East, where a strip of land running east to west is largely devoid of *castro* settlements. Lemos (1993 vol. I, 490), proposes that this territory marked the southern limits of the *Zoelae* confederation, supporting his hypothesis by affirming that no *Zoelae* epigraphy has been found south of the Serra de Bornes. Such an assertion is further supported by the existence of the indigenous *Baniensis*, who occupied the territory further south, and whose capital, the *civitas Baniensium*, was established during the early Roman era. The presence of a boundary would support the argument that this space between the *Zoelae* and the *Baniensis* was negotiated at a tribal level, between kinship-based confederates, and not by territory-based systems shown by the *castellum*, or individual hillfort, which were more representative of those communities found to the west and north of pre-Roman northwest Iberia. Consequently, the absence of hillforts between the west of Study Area South and the south of Study Area Chaves, is strong corroboration that competing kinship-based groups made up from multiple supra-familial units established a regional boundary in this area.

With the occupation of northwest Iberia by Rome, these tribal boundaries quickly lost their importance as the landscape was restructured by Imperial agents with the aid of the local elite. Within the context of Study Area North, the pre-Roman religious centre for the *Zoelae* tribe became the seat of their *civitas* capital, the *civitas Zoelarum*. While such an action may be seen as a deliberate policy to replace native structures of control with Roman ones, in much the same way as late Roman Christians, such as the Bishop of Tours, would build churches on the ground of consecrated pagan temples (*vita XIII, On the Life of St. Martin*), the position of the *civitas* capital also took advantage of those strategic least-cost paths embedded into the landscape. Many of these optimum communication routes ran through or near to the *civitas Zoelarum* and would be exploited by local communities who founded satellite towns to supply the *civitas* capital. Other least-cost paths, especially the route which ran west along *castro* settlements 6, 8, 9 and 69 (see Map 36, centre

left), which extended into *Vaccaei* territory to the east, were altogether more important, and this one may have represented one of the earliest Roman roads in the region. A Roman milestone found near Soeira (see Map 36, site 257, centre), on the northern route east from the *civitas Zoelarum*, with the weathered inscription *TRIB(uncial) POT(estate) XXI*, has been attributed to the years 3-2 BC of Augustus (27 BC-AD 14), although it could equally apply to another long-serving Emperor (Alarcão 1988, 40; Lemos 1993 vol. II, 461). However, firmer dating can be provided by a milestone inscribed with the name of the Emperor Augustus and found west of *Aquae Flaviae* along the *Via XVII* of the Antonine Itinerary. While this is not conclusive evidence that a Roman highway ran east from *Aquae Flaviae* during the Augustan period, it does suggest that such an established routeway existed. The prime importance of the *civitas Zoelarum* and its surrounding territory was not solely economic or political, but also strategic, and during the Cantabrian Wars (29-19 BC), and the delicate peace which ensued, terrestrial communication with the western Meseta would have provided a vital gateway to northwest Iberia for both soldier and civilian alike. Further evidence that the northern passageway west from the *civitas Zoelarum* was an early military road, is evident where the road avoids those optimum pathways utilised by the more southern route, and instead negotiates a more direct route west and criss-crosses the mountainous terrain, before linking up with a more cost-effective trajectory heading southwest after *castro* site 251 (Map 36, centre left). Where this Roman highway heads west towards *Aquae Flaviae* and crosses the River Rabaçal, slope angles as high as 27 degrees are recorded, in contrast to the longer and more southerly route west, where the gradient is a more manageable 16 degrees. As a result, the more northern of the two routes would have incurred greater financial outlay, as well as making the transportation of heavy loads cumbersome and costly. Nevertheless, the undoubted advantage of this route was to squeeze space-time thereby creating quicker and more efficient journey times between the outlying *civitas Zoelarum* and the more economic and strategically important *Aquae Flaviae*.

With the compression of time and space between central places, the Roman road network both within early Roman northwest Iberia and the Roman empire as a whole, fashioned an ideological divide between those native communities integrated into the Roman sphere of control and those detached from it (Witcher 1998, 63). However, the degree of that ideological divide created by the Roman road network was far from uniform and varied from one region to another. In Study Area East, the

Iron Age settlement pattern, which had been divided into three spatial zones (the area along the River Douro, the region between the River Douro and the River Sabor to the north and the area around the River Sabor and beyond), now became compressed along a single Roman highway running northeast to southwest. The importance of this single Roman road can be illustrated by the Kolmorov-Smirnov test, which shows that the Iron Age and Roman settlements, with respect to their distance from the Roman road, were drawn from different populations. In other words, Roman settlements were orientated around the major Roman road, while Iron Age settlements were not. The second region to reject the null hypothesis for the Kolmorov-Smirnov test is Study Area Viana, where large clusters of Roman-period *castros* continued to be occupied along the Atlantic coast and towards the interior. This was in sharp contrast to the river basin around the River Lima and the region to the south towards *Bracara Augusta*, which were heavily populated by Roman settlements and agricultural centres and interconnected through a network of Roman roads.

However, the Kolmorov-Smirnov test does not fully explain the intricate and complex relationship between Iron Age and Roman settlements and the arterial Roman road network. In Study Area Viana, a disproportionate number of Roman settlements located in the Lima Valley (Map 40, centre) are clustered around the network of roads, while in other areas, especially those towards the interior, few settlements are found. Equally, in Study Area East, where the Roman settlement pattern was redrawn around the main Roman road, the physically distant fortified hillforts were abandoned, but a cluster of *castros* (Map 38, centre), near to the principal communication route in the region and equidistant between two *vici* settlements, continued to be occupied.

The pattern of clusters of Roman-period *castros* positioned away from the Roman central places, but located near to a major Roman road, is not confined to Study Area East alone. In Study Area North, a loose grouping of hillforts from the early Roman era are represented in the area along the more northerly route west. This would confirm that some native communities in Study Areas East and North, which continued to occupy fortified hillforts and exhibit a degree of indigenous control, albeit under Imperial authority, were very much integrated into the early Roman communication system. However, in other areas, such as the western region of Study

Area South, those communities were physically distant from the established Roman road network, and the power-bases the *viae publicae* connected.

It is also probable that many pre-Roman sites played a central role in orientating the subsequent Roman settlement pattern. How the Roman arterial road network developed, and whether it linked already established central places, or was instrumental in creating the early first century landscape, constitutes an altogether more difficult question. In the case of Study Area North, Imperial agents exploited an existing central place, the religious centre of the *Zoelae*, and in conjunction with established indigenous routeways, both expanded and constructed a clear trajectory for the *viae publicae*. In all likelihood, the *civitas Zoelarum* was founded at the same time that those early Roman roads were being constructed to transport troops. In doing so, Roman authorities and the native elite began to dismantle indigenous social structures and tribal affinities, and bring those peoples under central control. As with the *civitas* capital of *Bracara Augusta*, it is also probable that other tribal confederations, or territorial units, were incorporated into this newly-founded space, but the *Zoelae*, whose name and territory constituted the *civitas*, became the dominant native partner. In other study areas, notably Study Area Chaves, it is apparent that the trajectory of the Roman road was strongly influenced by the location of a possible pre-Roman central place on the site which would later be occupied by *Aquae Flaviae* (as discussed in section 5.4). Consequently, Roman authorities repeated the same policy they had realised with the *civitas Zoelarum* by constructing a Roman central place over a probable native one, and in the process quickly establishing Imperial hegemony over the region. The secondary advantage of the location of *Aquae Flaviae*, for the native community and Roman authorities alike, was its position along a series of least-cost paths from the east, and the lower water level at this point would have facilitated the crossing of the River Tâmega.

In other study areas, the existing pre-Roman structures did not play such an important role in defining the Roman settlement pattern, as with Study Area East, where the native settlement pattern was strongly orientated around a series of waterways, and their fluvial networks. The construction of the *via publica* in this region does not appear to have exploited any existing indigenous communication routes connecting native settlements, but rather, Imperial authorities utilised those available cost-efficient passageways within the landscape to map and construct the main Roman highway. Thereafter two *vici*, one at either end of this communication

route, were founded to provide for the administrative and strategic needs of the region.

In Study Area South, a more complex pattern emerges, with the *civitas Baniensium* established at the strategic and commercially important confluence of the Rivers da Vilariça and the Sabor. The location of the *civitas Baniensium* also took advantage of optimum pathways adjoining the valley basin of the River da Vilariça, to provide a route north to join with the southern trajectory of the Roman highway heading west from the *civitas Zoelarum* to *Aquae Flaviae*. Nevertheless, the course of this route north from the *civitas Baniensium* was not solely conditioned by the lay of the land, and the availability of cost-efficient passageways, but also representative of the strategic and commercial needs of the region. Where the Roman road would logically deviate to the west and run past villa 772, or along another optimum passageway near Roman-period *castro* 611 (Map 37, centre), the route instead heads north through a cluster of mining sites 730, 760 and 627, thereby affirming the importance of mining activity within the region, over cost-efficient routeways. Such practices are repeated in Study Area Viana, where the logical route of the *Via XIX* would be to follow a least-cost path with low average gradients and a maximum of 12 degrees, in contrast to the actual trajectory of the *Via XIX* where average gradients are between five and ten degrees, with a maximum of 20. Without doubt, the actual path of the *Via XIX* would have presented difficulties for the haulage of goods, particularly on steep slopes where rudimentary braking systems and slow moving tractions animals would have made such journeys more dangerous, longer and therefore more costly. While it could be suggested that this section of the *Via XIX* integrated a series of Roman-period *castros* into the Imperial transport network, it is more likely the route took advantage of the patchwork of prime Type A and C farmland.

While *viae publicae* dominated the landscape and linked up the major metropolitan centres, local roads or *viae vicinales*, as well as private and estate roads, *viae privatae*, also played an important role in integrating local communities into the Roman arterial road network. In the absence of epigraphic evidence and archaeological remains to substantiate the nature of these routeways, it is impossible to discern where the majority of these local roads ran, nor to identify whether they were *viae vicinales* under the responsibility of local magistrates, or *viae privatae* owned by private estates. Nevertheless, the linear pattern of agricultural settlements

in Study Area East (Map 38, top centre) and Study Area Chaves, where *casals* 540, 536 and 535 (centre) may have been linked by a bridge or fordable route across the River Tâmega to *villae* sites 514, 504 and 503, strongly suggests the presence of secondary roads. In the case of those agricultural centres located on a series of least-cost paths to the north of *Aquae Flaviae*, there may have been a degree of connectivity between these terrestrial routes and adjoining waterways, thereby allowing access to these fluvial networks. This strongly suggests that both terrestrial and fluvial communication routes were interchangeable, and seasonal factors as well as the direction of travel may have played an important role in the use of one form of transportation over another.

It is therefore important that we move away from the strict dichotomy of fluvial and terrestrial transportation, as well as established major roads versus secondary routes and pathways. Many of the actors undertaking daily activities would have utilised a myriad of different communication routes in their movement around the landscape, as illustrated by the location of *vici* settlements. The position of these small administrative and commercial centres on least-cost paths but within a few kilometres of the main Roman highway, as shown by Study Areas North, East, Chaves and Viana, demonstrates the interconnection of pathways and established routeways. It is also probable that these *vici* sites monitored and controlled communication routes through the landscape, especially if those optimum passageways constituted trackways (*calles*) for the large-scale movement of animals from one area to another. So important were these *calles* that they were known as *calles publicae*, or set routes, and were officially recognised and therefore subject to regulation by the state (Varro *R.R.* 2.1.16 and 2.9.6-7). In this sense, the *vicus* site 17 in Study Area North (Map 36, top right) and *vicus* settlement 168 (Map 40, centre right) in Study Area Viana, were both positioned at the margin of the mountainous terrain towards the east, and may have operated as a strategic outpost to monitor indigenous activity, as well as manage interregional transhumance, in the early Roman period.

6.6. Conclusions

In summary, a series of points can be made about the nature and importance of the pre-Roman communication routes and central places in northwest Iberia, and

their role in defining the Roman arterial road network and the early Imperial settlement pattern.

1. The presence, use and impact of passageways in northwest Iberia during the late pre-Roman period was very much constrained and conditioned by the geography of the region, as well as the juxtaposition of neighbouring tribal confederations and Roman authorities. This is especially true of the *Vaccaeii*, who were pacified by Republican Rome in the second century BC, and undoubtedly had contact, possibly extending to commercial exchange, with the *Zoelae* in Study Area North. The existence of four fortified hillforts, two on either side of the River Sabor (see section 4.7.2), supports the idea that trade networks between modern-day Trás-os-Montes most likely extended into the central Iberian peninsula, through the western Meseta. This further substantiates the existence of a routeway further north, which connected *Vaccaeii* territory with a possible pre-Roman religious centre of the *Zoelae*. The consequences of this passageway would not only have brought with it new ideas and practices, but more significantly would have generated considerable profits for those individuals who controlled these networks of exchange, and access to prestige goods. The continuity of such systems over the short-term would have created inequality within the community, and over the longer term hierarchical social systems, with a prominent elite.

2. However, political, social and above all commercial links with adjoining communities were not uniform within pre-Roman northwest Iberia. In the western region of Study Area South, where a cluster of large hillforts would continue to be occupied into the early Roman period, the archaeological evidence strongly suggests that this community had isolated itself from neighbouring tribal and territorial affiliations. Firstly, the settlements in this region do not appear to have utilised the River Douro, preferring instead to locate away from it. Secondly, there appears to be a border area, characterised by the presence of a few medium-sized hillforts between the southern area of Study Area Chaves, and the western area of Study Area South. Located on the periphery of this borderland, these medium-sized settlements appear to have occupied territory near to least-cost paths, suggesting their function was to provide an element of strategic control. Equally, these medium-sized *castros* may have functioned to administer and control commercial activity. Either way, the proposed boundary between these communities of western Study Area South and the southern area of Study Area Chaves, are representative of other tribal borderlands for

other cultures in the region. It is therefore probable that two tribal kinship-based groupings, much like the *Zoelae*, created and consolidated a loose boundary along the margins of their respective territorial concerns.

3. With the pacification of northwest Iberia, established routeways and pre-Roman central places were exploited by Roman authorities. In Study Area North, the passageway west from the Meseta was transformed into a major road, a *via publica*, while a *civitas* capital was established on the space occupied by the pre-Roman central place of *Zoelae*. This confirms that the Iron Age community who inhabited this space and Imperial agents alike recognised the political and economic-benefits of the existing road and settlement patterns, which exploited a series of well-defined least-cost paths. Furthermore, by constructing a *civitas* capital on a pre-existing native structure, Roman agents were able to control the strategic junction, where the Roman road bifurcates, and so command control over the region as a whole. Such a policy was not limited to Study Area North, but was also visible in Study Area Chaves, where the optimum route west crossed the River Tâmega at the location controlled by a probable Iron Age settlement of the *Turodi* (see Chapter 5.5.2), and where a series of Roman central places would emerge culminating in the *municipium* of *Aquae Flaviae*.

4. The construction of the Roman arterial road network was also a gradual and continuous process in northwest Iberia, as in the Roman empire as a whole. In Study Area North, the early date of the northern route west from *civitas Zoelarum* lends support to the view that this was a military road which linked the eastern Meseta with Study Area Chaves and beyond. The military provenance of this passage is apparent in the mountainous terrain and the steep gradients this road negotiates, where a more cost-effective routeway, which would become the southern route west from the *civitas Zoelarum*, was available further south. The benefit of such a financial outlay for the Roman authorities was to compress space-time and offer a faster, although more expensive, route between strategic central places. Whether the road was ever used for its original purpose, to provide a temporal advantage for the transportation of troops and supplies, as well as logistical information, is difficult to establish. Nevertheless, with the pacification of the region, such a route may not have benefited long-distance hauliers, who may have utilised the longer but more cost-efficient southerly route.

5. While the construction of the Imperial road network and the establishment of Roman central places in Study Areas North and Chaves was very much orientated towards exploiting pre-existing routeways and tribal centres, Study Areas East, South and Viana illustrate a series of very different decisions. In Study Area East, where the native settlement pattern was strongly orientated around a series of waterways, the main Roman road followed a series of least-cost paths which ran inland from the River Douro. With a clear absence of indigenous structures located on these least-cost paths, it is impossible to establish how the *via publica* exploited this optimum route. What can be said with more certainty is the chronology of this major communication route, with the foundation of two *vici* settlements at either end of the *via publica*, was undoubtedly a later addition. In other regions, notably, Study Area South, it is likely that the *civitas Baniensium* was located at the strategic confluence of the Rivers da Vilarica and the Sabor, and thereafter a major Roman road was constructed.

6. The impact of these established Roman highways on native communities varied from one region to another. In Study Areas North and East, clusters of native communities in the early Roman period who continued to live in fortified hillforts, can be found near to established *viae publicae*. In other areas, notably, the western region of Study Area South and those more isolated regions such as Study Area Viana, there does not seem to have been a deliberate policy of isolating these native people. Rather the economic needs and the logistics of transporting goods, dictated that agricultural and non-agricultural settlements be located near to good communication routes, and within easy access to market. In Study Area South, the impetus was altogether different, with the *civitas Baniensium* established to control the confluence of the River Douro and Sabor and monitor the mining activities in the region, which subsequently gave rise to a series of smaller agricultural and non-agricultural settlements to supply the local area and the *civitas* capital.

7. Where no waterway or main Roman road was present, secondary roads were constructed by local towns or private estates to provide a level of connectivity between different areas to help in the transportation of goods and exchange of information. The relative isolation of many of these secondary roads linking multiple agricultural producers, from larger Roman settlements and urban areas, points to long-distance haulage, and the existence of regional exchange networks. It is also likely that these agricultural producers utilised a multitude of different transport

routes, from fluvial to overland passage, as well as trails, paths, secondary roads, and major highways.

8. In acknowledging that movement employed multiple communication routes within the landscape of early Roman northwest Iberia, the location of *vici* settlements at the margins of multiple least-cost paths and within a few kilometres of a major Roman road, now take on an additional meaning. While such settlements are likely to have operated as strategic outposts to monitor indigenous activity, they may also have functioned to coordinate and manage transhumance along established pathways. As Varro establishes (*R.R.* 2.1.16), unregistered flocks being taken to summer pastures were reported to the tax-collectors because they contravened Roman law. In this respect, *vici* settlements, which were located away from *civitas* capitals, may have operated as tax collectors for those shepherds utilising centuries-old summering pasture.

Chapter Seven. Discussion. Continuity and Change in Northwest Iberia

7.1. Introduction

This discussion brings together the key themes arising from the discussion of and empirical data examined in the three core analytical chapters of this thesis. In incorporating the principal findings of Chapters Four, Five and Six, this work also seeks to draw upon other analytical frameworks, particularly those developed in Chapter Two, to generate a clear understanding of the changes evident in the landscape and settlement pattern of northwest Iberia between the Late Iron Age and the early Roman period. In doing so, the principal aim of this chapter is to discuss the most fundamental research findings of this study, and provide a means to answer the key aims and objectives generated at the beginning of this thesis, and addressed in the subsequent chapter.

7.2. Models of Iron Age Society

At the outset of this thesis, two competing and diametrically-opposed theoretical frameworks were outlined as providing the current basis of understanding for Late pre-Roman Iron Age society in northwest Iberia. The first of these two theories is the model put forward by Parcero Oubiña (2003), which seeks to explain change, and above all the emergence of systems of inequality, as a consequence of native reaction to the arrival of Rome. However, as a basis for understanding the nature of *castro* society, Parcero Oubiña's (2003) hypothesis draws heavily on the regions, which had close contact with Roman authorities, and in this respect, the argument he presents is more relevant to those communities located along the Atlantic coast. For this reason, I shall incorporate Parcero Oubiña's (2003) model of *castro* society later in this chapter, when discussing the nature of my study areas located near to the Atlantic coast, particularly Study Area Chaves and Viana. The second hypothesis, advocated by Sastre Prats (2008, 1023-1024) proposes a model of late *castro* society, which encompasses the region of northern and western León, western Zamora and most importantly, for the sake of this thesis, the region of Trás-os-Montes (see Figure 3, page 21), which is represented in this thesis through Study Areas North, South and East.

Underpinning Sastre Prats' (2008) model is the identification of a series of 'familial' enclosures which are interpreted as evidence of social distance and tension between family groups and thereby limited the accumulation of surplus produce and

the consolidation of power (see section 2.2.1). As I have argued there are inconsistencies with the identification of these storage units (see section 1.5.4 and 2.2.2.3), the identification of ‘familial’ units (see section 1.5.4) and the consolidation of surplus production and power in pre-Roman northwest Iberia (see sections 2.2.2.3 and 2.2.2.4). Moreover, the theoretical framework that Sastre Prats *et al.* advance is not convincingly represented in the empirical research conducted for the study area.

In comparing Sastre Prats’ (2008) model against the empirical evidence generated in this thesis for the Late Iron Age settlement pattern of Trás-os-Montes, as well as other available archaeological evidence, a series of problems emerge. Firstly, the findings from Study Area North, which falls into Sastre Prats’ (2008) geographically-determined zone of isolated and independent fortified hillforts, illustrate that many Late Iron Age *castros* existed within close proximity of one another. Possible cooperation between adjacent hillforts can be seen in the early Roman period, where the Late Iron Age settlement pattern broke down and one *castro* was often abandoned, while the other continued to be occupied as a Roman-period *castro*. The relationship between these neighbouring hillforts can additionally be seen in Study Area North where Roman agricultural centres, the *villae* and *casals*, began to emerge on the margins of Iron Age boundaries (on lower ground where the gradient of the land was less steep (see Tables 12 and 13, see section 5.3.4), as communities with a common ideology began to share their resources and manpower. While these activities may at best reflect the close economic cooperation between adjacent hillforts, they may also symbolise more ingrained and important shared concerns, which perhaps extended as far as political affiliation. The notion of political cooperation between individual settlements is not based solely upon analysis of Study Area North, but also finds support from other evidence, notably epigraphic evidence from the early Roman period, and more specifically the Edict of the *Zoelas*, recording a treaty between two hillfort communities. This hospitality pact, dating to AD 27, affirms the renewal of an undisclosed declaration of friendship between the *gentilitates Tridiuorum* and *Desoncorum* who both belonged to the *gens Zoelarum*, or the *Zoelae* tribe. Here the term *gentilitas* probably equates to a single settlement or *castro* (Mangas 2000, 50, 52), and thereby supports the argument conceived from Study Area North that close cooperation and a high degree of connectivity existed between individual hillforts, which were in turn incorporated into a larger tribal entity, the *Zoelae*, through lineage and kinship-based ties (see sections 4.4 and 4.7).

The political affiliations which existed between the as yet unidentified hillforts of the *Tridiuorum* and *Desoncorum*, as well as other neighbouring *castros* located within close proximity to one another, as shown by the analysis of Late Iron Age structures in Study Area North, are likely to have extended to include mutually-beneficial strategic concerns. While the Edict of the *Zoelas* dates from the period after the conquest of the region by Imperial forces (AD 27), the friendship concluded between two communities was in the process of being renewed (Sastre Prats 1998, 65). This demonstrates that an earlier treaty existed between the *Tridiuorum* and *Desoncorum*, which may have been initiated during the Late Iron Age, when indigenous forms of governance and control administered the landscape. The question therefore remains as to why friendship pacts existed between neighbouring hillforts and why these *castro* settlements, within the context of Study Area North, were often found within close proximity of one another. I believe the basis of that friendship was to provide a strategic answer to conflict and the threat of violence within the region.

7.2.1. Violence in Late *Castro* Society

The suggestion that the Late pre-Roman Iron Age communities in parts of northwest Iberia were engaged in orchestrated warfare, is nevertheless a moot issue. A second fundamental argument within Sastre Prats' (2008) model of *castro* settlements in the region to the west of the Meseta concerns the nature of conflict between competing fortified hillforts, in particular her interpretation of Clastres (1999) to argue that late *castro* society was not inherently violent. Her argument that belligerent activity was largely confined to pillaging and small-scale raiding is problematic, especially in Trás-os-Montes where a series of large and organised tribal confederacies, such as the *Vaccaeii* and the *Vettones*, were located on their borders. A more logical interpretation would suggest that *castro* settlements needed advanced weaponry of the day to defend themselves against these larger, more organised and experienced tribal groupings.

One interesting aspect about the study region is evidence for *cheavaux-de-frise* (see section 1.5.1 for introduction), or defensive structures used to obstruct cavalry, present in a number of fortified hillforts in northern Portugal. *Cheavaux-de-frise* (singular: *cheval-de-frise*) can be found at: sites 4, 27, 30, 82, 100, 228, 235 in Study Area North; sites 327, 336, 357, 364, 393, 487, 509, 573 in Study Area East;

as well as large hillfort 802, located to the west of Study Area South (see Lemos 1993 vol. II). *Cheavaux-de-frise* structures have also been discovered as far west as Study Area Chaves, at sites 155 and 160, but at other locations, for example sites 335, 413 and 603, their identification continues to be debated (Teixeira 1996, 61, 70, 97). The majority of *cheavaux-de-frise* within the study region have been located in Study Areas North and East, leading to the suggestion that the inspiration for such defences originated in the Meseta (Fonte 2008, 18). In addition to *cheavaux-de-frise* many settlements incorporated multiple ditches (Fonte 2008, 22), but how the defensive structures operated continues to be debated. Ruiz Zapatero (2003) argues that the stones of the *cheavaux-de-frise* designed to impede movement were located too close to the defensive walls for archers to effectively eliminate attackers. Such a hypothesis is in my opinion invalid, as attackers do not necessarily need to be slowed down below as they can be shot with an arrow, and secondly, other weapons, for example the spear (rock art near the *citânia* of Sanfins shows a horseman hunting deer with a spear (Queiroga 2003, 59)), may have been used along the defensive walls. Another theory put forward by Moret (1991, 11-12) is that *cheavaux-de-frise* were initially constructed to impede warriors on foot rather than cavalry charges, arguing that mounted horsemen appeared at a later date. However, Moret's (1991) study focuses on the Meseta region where the dating of settlements through burials and other means is more precise. Certainly, there is no firm evidence as to when mounted horsemen were present in Study Areas North and East, and the study region as whole.

Material evidence for the existence of military hardware in Late Iron Age northwest Iberia is, however, lacking. This is perhaps due to the nature of the caustic soil in the region, which consumes both organic matter, leaving little evidence of osteological remains for both humans and animals, while also corroding non-organic forms, such as metal weaponry (González Ruibal 2006, 159; Parcero Oubiña 2003, 291; Queiroga 2003, 58, and see section 2.2.2.5). An additional consideration is the complete absence of burial sites within the context of Late Iron Age northwest Iberia (Martins *pers. comm.* 03/03/2008), which suggests that extramural internment, where both organic and non-organic material (possibly in the form of weaponry) may have been broken down over the passing of time. We should also consider how burials were conducted among *castro* communities. In the case of the *Vaccaeii*, funerary practices testify that those who died from old age were burned, while those slain in

battle were regarded as noble, and cast to the vultures for excarnation (Aelian X, 22). If such activities were commonplace amongst neighbouring *castro* communities, this would go some way to explain the absence of burial sites within the region during the Iron Age.

In adopting a comparative approach, it is interesting to note that many of the issues confronting scholars, especially those examining violence in northwest Iberia during the Iron Age, are present within the context of Iron Age Britain. Of particular importance is the nature of the Iron Age, which has been traditionally depicted as agrarian and by this very premise peaceful, as the assumption has been that farmers do not engage in violence (Hill 1996, 8). Other scholars, notably Sharples (1991), have implied that some level of violence must have existed in Iron Age Wessex, but his argument is tempered by the limited number of weapons found within the landscape. Nevertheless, the absence of evidence is not evidence of absence, as weapons rarely appear to have been deposited where they could be preserved, a fact borne out by the limited number of Republican and Imperial weapons unearthed (Bishop and Coulston 1993). James (2007, 161), develops this discussion further and argues that scholarly interpretation of Iron Age Britain rests on a series of simplistic assumptions and omissions, which emphasise the passive nature of the period and reflect modern-day distaste for violence, and so depict society as having been composed of small-scale egalitarian communities. The widespread pacification of the past, particularly in British archaeology, and which may have provided both an inspiration and direction for Sastre Prats' (2008) hypothesis of an egalitarian and predominantly non-violent society (see Hill (1996) for a non-violent Iron Age), has in recent years been questioned (see Keeley 1996; Sharples 1991). James (2011, 132-133) contends that this demilitarisation of the British Iron Age and hillfort settlements stems partly from a more postprocessualist agenda, which took hold at the end of the twentieth century and stressed ideology and symbolism over martial functions and violence (see Hill (1995, 55)). Consequently, there has been little investigation both in terms of research and excavation into the carnage and brutality which may have characterised the Iron Age (James 2011, 135-138). More recent discoveries of Iron Age hillfort, such as the Fin Cop in the English Peak District, would appear to justify James' (2007; 2011) hypothesis. In this case, the limestone geology of the region has preserved a series of mass graves lying outside the settlement, which point to a large-scale massacre of the Iron Age inhabitants of Fin

Cop (BBC News. 18/04/2011). How widespread such violence was in Iron Age Britain, or northwest Iberia during this period is impossible to establish, but it does suggest that hillforts and their fortifications were not simply symbolic structures but served a very real function to protect their inhabitants.

Other forms of archaeological evidence present in Late Iron Age northwest Iberia contribute to our understanding of the region. These include stone warrior statues complete with a dagger and a shield (see section 2.2.2.5), found generally among those *citânias* located between the Rivers Douro and Minho, and which may represent depictions of Late Iron Age warriors, who invested in a political economy strongly orientated around war (González Ruibal 2006, 155). Textually-derived evidence would seem to affirm the presence of organised conflict with Strabo's account of native light-armed soldiers, heavily armed soldiers, and cavalry organised by those communities inhabiting the region of northwest Iberia during the Late Iron Age (*Geographia* III, 3, 7). We should acknowledge that although Strabo (c-63 BC-AD 24), wrote the *Geographia* following the conclusion of the Cantabrian Wars (29-19 BC), his source for much the Iberian Peninsula was another classical writer, Poseidonius (135-51 BC) (Ellis 1998, 49-50), and in this respect *Geographia* may reflect the dynamics of *castro* society in the first century BC before the pacification of the region by Rome.

7.2.2. Long-Distance Exchange Networks and the Influence of Neighbouring Tribal Confederations

The armed warriors alluded to by Strabo, imply that hillfort communities were more than capable of defending themselves against hostile forces. In the case of those *castro* settlements in Study Areas North and East, the use of violence, or equally the threat of violence, may have been deployed by *castro* communities to protect long-term exchange networks emanating from the east. In Study Area North, the most northern of these terrestrial routeways connected a possible religious centre of the *Zoelae* (Tranoy 1981, 52), the future *civitas Zoelarum* (Study Area North, site 43), along a series of optimum pathways, with the Meseta and the *Vaccaei* and the *Vettones* to the east, as discussed in section 6.5. Located along this least-cost path were a series of Late Iron Age fortified hillforts, which may have provided strategic support in controlling and monitoring the passage of people and goods. Further south in Study Area North, four *castro* settlements, with one medium-sized *castro* and one

small *castro* on either side of the River Sabor, appear to have monitored an important river-crossing, which again may have linked the modern-day Trás-os-Montes with those tribal confederations to the east. In terms of the general settlement pattern of Study Area North, the presence of two *castros* on either side of the river crossing suggests that these settlements operated as closely affiliated communities with perhaps the medium-sized *castro* the dominant partner (see sections 4.7.2 and 4.8). Certainly, the abandonment of one hillfort either side of the river and continued occupation of the other during the early Roman period, may imply that there was an element of shared economic as well as political concerns (see discussion 5.4). The excavation and analysis of the circular defensive wall has shown that many of these hillforts were small; they held no more than 200 occupants (Alarcão 2003, 25; Lemos 1993 vol. I, 199), with the population of medium-sized hillforts rising to between 250 and 1000 inhabitants (Lemos 1993 vol. I, 199). The limited number of warriors each *castro* settlement could supply (Almagro Gorbea and Lorrio Alvarado 2004, 89-90), would therefore have obliged these communities to share their resources in order to provide for their security, particularly weapons and mounted horsemen which required a high initial cost and subsequent maintenance. In the case of those two communities located on either bank of the River Sabor, payment collected from the possible passage of goods or people would have provided the necessary capital for providing security for the settlements. Where other less economically-dynamic settlements arose, political co-operation would have been an absolute necessity to provide a united front against a changing and often violent world.

Further evidence for long-distance exchange networks are evident along the River Douro in Study Area East, where a series of *castro* settlements were positioned along those steep cliffs carved by the passage of the river (see Figure 32 below). Given the complete absence of Late Iron Age settlements located along the River Douro in Study Area South to the west, it is likely that these *castro* sites located along the River Douro in Study Area East, were affiliated in some way with the second century BC large fortress of Villalcampo (see section 4.7). Located at the strategic confluence of the Rivers Duero (Portuguese Douro), and the River Esla (see Figure 3, page 21), this large settlement was positioned on the possible territorial margins of the aforementioned *Vettones* to the southeast and the *Vaccaeii* to the northeast (Esparza Arroyo 1987). The importance of these boundaries located around

the *castro* of Villalcampo and established during the Iron Age, if not before, helped to define and delineate border areas and margins of control to the present day. During the early Roman period three *conventus*; the *conventus Cluniensis*, *conventus Asturicensis* and *conventus Bracaraugustanus* (Curchin 2004, 56) all converged at this point, as does the modern-day border between Portugal and Spain. It is therefore highly probable that the border between the *conventus Cluniensis* and the *conventus Asturicensis*, defined a borderland in the Late Iron Age represented by those smaller *castro* settlements of the *Zoelae* to the west, and the larger *oppida*-style hillforts of the *Vaccaeii* and the *Vettones* to the east.

Figure 32. The steep canyon walls and passage of the River Douro through Study Area East (Photo. Ricardo Melgar).

The importance of these neighbouring tribal groupings, the *Vaccaeii* and the *Vettones*, and their possible interaction with *castro* settlements on the margins of their territory has already been discussed above. However, we should also acknowledge that the *Vettones* located on the opposite bank of the River Douro in the region of Study Area East may have played a more significant role in shaping the Late Iron Age, and subsequent early Roman settlement pattern of the region. The *Vettones* were officially incorporated into the province of *Hispania Ulterior* around

134 BC, but they continued to exert a degree of self-autonomy, raiding more established Roman settlements towards the south of their territorial control, and providing auxiliary troops for Sertorius' rebel army in 77-76 BC, during which time they fought to wrest the Spanish provinces from Republican authority (Keay 1988, 42). Within the context of Study Area East, the presence of zoomorphic structures in the form of boars/pigs or bulls known as berrões (singular: berrão) in Portuguese and verracos in Spanish (see sections 3.6.3 and 5.3.2), may testify to the presence of *Vetton* culture and settlements north of the River Douro. The most contentious of these sites is *vicus* settlement 565 (Map 23, bottom left), which Santos (1975, 129), identified as an Iron Age *castro*, thereby ascribing a pre-Roman Iron Age date to the 15 zoomorphic forms found at the settlement, an argument which Lemos (1993 vol. II, 163) disputes on account of the absence of Iron Age artefacts found on the site. Rather, Lemos attributes an early Roman date for those berrões found along the Douro river in Study Area East, arguing that zoomorphic sculptures can only be found in early Roman-period structures, such as the large hillfort of Picote (site 329, Map 3, top right), possibly established during the reign of the Emperor Augustus (27 BC-AD 14), and the necropolis located near to Roman settlement 433 (Map 23, centre) (Lemos 1993 vol. II, 236-237, 328).

Nevertheless, the presence of seven granite berrões at the Late Iron Age / Roman-period *castro* of Cabanas de Baixo in Study Area South (site 661, Map 2), strongly suggests that these zoomorphic sculptures also had a pre-Roman provenance (Santos 1975, 129), and in the light of the argument above, the popularity of these funerary objects may have continued into the early Roman period. In incorporating these findings with the analysis conducted for this thesis, a *Vetton* or possibly *Vaccean* presence (both cultures produced berrões / verracos symbols) would help to explain the Late Iron Age and early Roman settlement pattern. The discussion in section 6.5 established that the territorial margins of the *Zoelae* only extended as far as the Serra de Bornes, which lies north of Study Area East, Lemos (1993 vol. I, 490). With the presence of another tribal grouping to the west, which was consolidated in the early Roman period under the *civitas Baniensium*, there existed a Late Iron Age administrative and power vacuum in the territory around Study Area East. However, the founding of a large hillfort at Picote in the early Roman period and a *vicus* settlement complete with berrões may be indicative of an earlier *Vetton* or *Vaccean* presence, which could have been engaged in commercial activities with

local communities. Lastly, the idea briefly discussed above that *vicus* settlement 565 was not a pre-Roman structure because, (a) no Late Iron Age material evidence was found at the site, and more importantly, (b) no fortifications were uncovered (Lemos 1993 vol. II, 163), puts forward the idea that open settlements (without defensive walls) did not exist in the Late Iron Age. However, the identification of a *vicus* at Santa Marta de Lucenza (Ourense, Galicia) with evidence of an Iron Age settlement (Rodríguez Colmenero 1976), demonstrates the existence of open settlements within northwest Iberia during the Iron Age and questions the number of as yet unidentified pre-Roman open settlements which may have developed as early Imperial settlements.

7.2.3. The Settlement Pattern in Northwest Iberia during the Late Iron Age

If the people in Study Areas North and East did invest heavily in commercial activity with their neighbours, both regions achieved this aim in very different ways, as shown by their distinct settlement patterns. This is especially evident when comparing the location of hillfort settlements along the River Douro in Study Area East, with the *castro* sites in Study Area North, and in turn may indicate the presence of very different social structures in the two study areas. In the case of Study Area East, the hillfort settlements are positioned at intervals of 2 to 6km along the River Douro (see Figure 33 below), which implies that its inhabitants enjoyed a degree of political and economic autonomy (see section 4.8). In this respect, the model of an isolated *castro* developed and championed by Sastre Prats (2008, see section 2.2.1), could be applied to the socio-political makeup of these settlements, which appear to be physically isolated from one another. Nevertheless, we should also acknowledge that several of these cliff-top settlements may have been affiliated to some degree in the Late Iron Age with those tribal confederations (the *Vettones* or *Vaccaeii*, see previous section) on their borders. This region still presents a sharp contrast to the settlements in Study Area North, many of which were located in close proximity to one another (see Figure 34 below) and represented communities, which probably shared economic and political affinities bound together by established kinship ties.

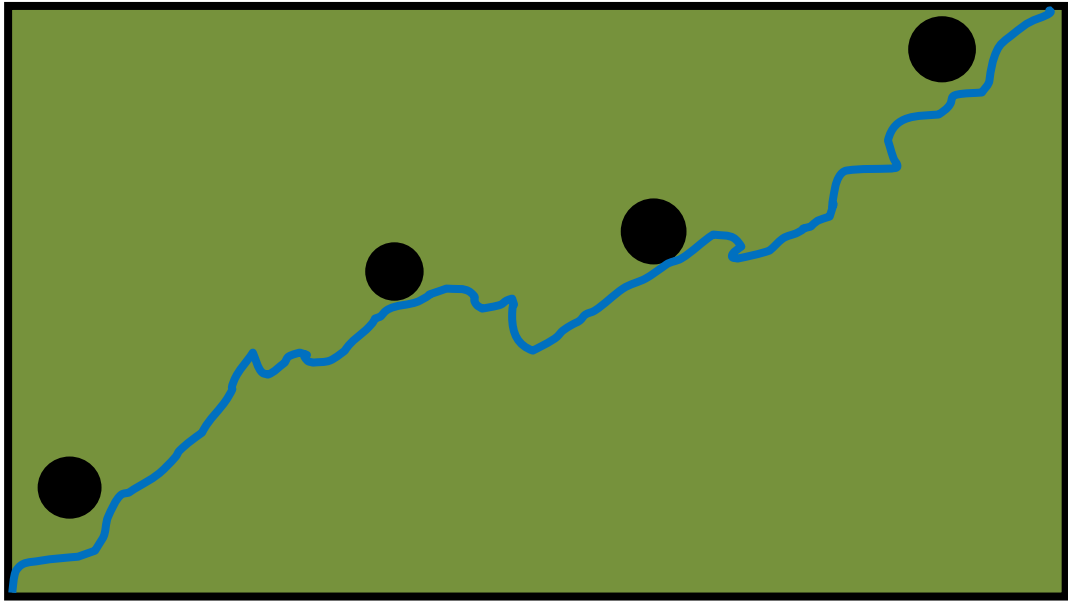


Figure 33. Model representing the Late Iron Age settlement pattern in Study Area East along the River Douro (in blue) with *castros* (in black) positioned at 2 to 6km internals.

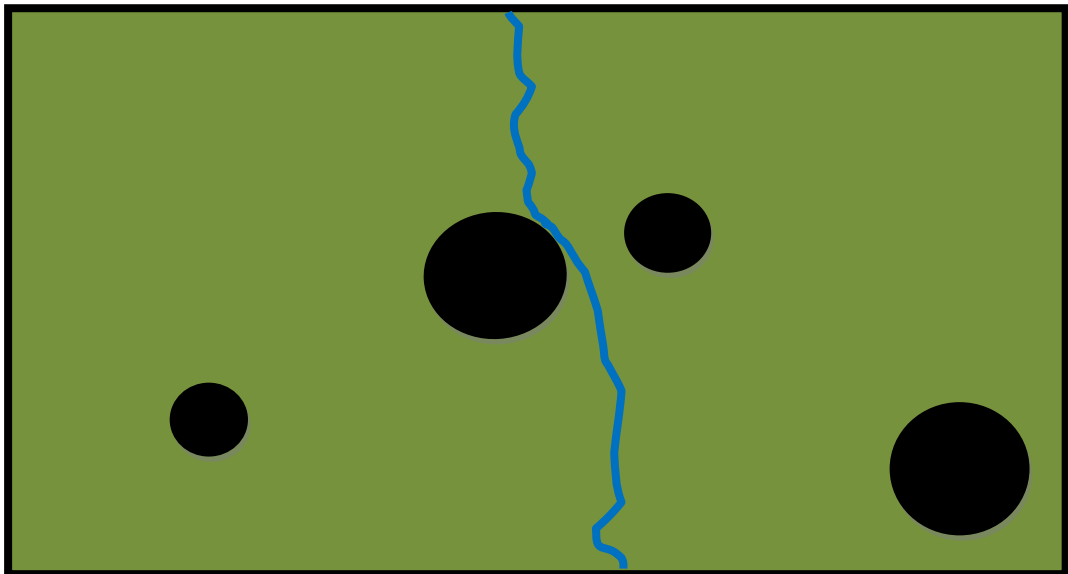


Figure 34. Model representing the Late Iron Age settlement pattern in Study Area North with one medium-sized and one smaller affiliated *castro* (in black) either side of the River Sabor (in blue). During the early Roman period each of the *castros* nearer the river was abandoned, while the two hillforts furthest from the river became Roman-period *castros*.

Study Area North, characterised by the bunching of a series of Late Iron Age hillforts, also shared a similar Iron Age settlement pattern to Study Area Viana, where clustering was shown to exist among *castro* sites (see sections 4.7.2 and 4.8, and Figure 35 below).

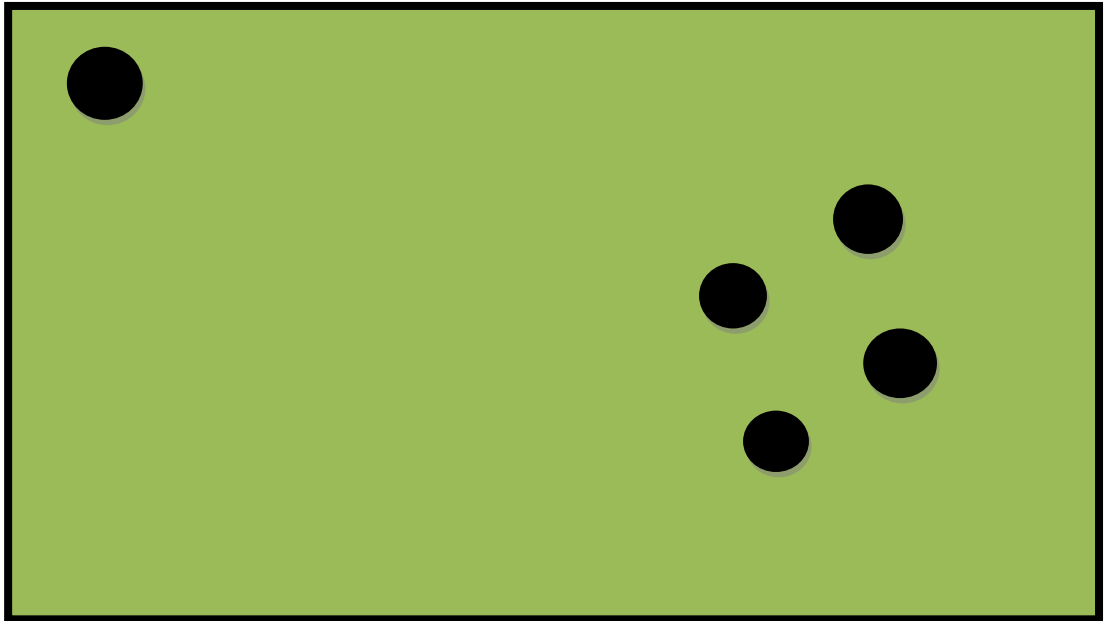


Figure 35. Model representing the Late Iron Age settlement pattern in Study Area Viana with a cluster of four *castros* (in black) isolated from their nearest neighbouring hillfort (in black, top left).

As with Study Area North, many neighbouring *castros* in Study Area Viana were grouped in pairs, but unlike the region around northern Trás-os-Montes there was also evidence of multiple Late Iron Age settlements within close proximity of one another. Perhaps the most interesting of these settlement groupings are the four small *castros* (sites 64, 70, 80 and 81, Map 5, centre; see section 4.6.2), which can be dated to the pre-Roman period on account of the absence of Roman material evidence, and appear to have functioned as agricultural centres exploiting the surrounding fertile land (Almeida 1990, 151-154; Carvalho 2008 vol. II). In terms of the possible relationship between these four fortified hillforts, the distance of their nearest neighbour, which can be measured as 264m, 206m and 262m (it cannot be established what the similar distance between settlements may have represented), may be indicative of settlements which preserved their own political independence, thereby conforming to the territorial-based system shown by the inverted C, \supset , in the epigraphic record, but at the same time sharing economic resources and manpower.

One of the principle sources of evidence for this territorially-based social structure which existed in northwest Iberia in the Late Iron Age comes in the form of hospitality pacts (see sections 1.5.5 and 4.4), such as the Edict of Bierzo, which has

been dated to 15 BC through the two Roman consuls mentioned at the foot of the text (Sánchez Palencia and Mangas 2000, 9, 19).

Figure 36. Epigraphic evidence for territorial-based *castros* (shown by the inverted C, \supset , within a circle) and territorial-based *castros* affiliated to larger *civitas* groupings (shown by boxed ethnic groupings, for example *Grovii*, centre left) (Sastre Prats 1998, 81).

The edict testifies to the legislative transfer of the *castellani Aliobrigiacini* from the *gens Gigurri* to the *gens Susarri* by Roman Imperial authorities, in recognition of an unstated native initiative. While the *gens* represent the kind of kinship groupings which characterised the region to the east of northwest Iberia, the notion of the *castellum* represented in early Roman epigraphy as an inverted C, \supset , strongly suggests that the core identity and social base was invested in the political economy of the individual *castro* settlement (Pereira Menaut 1983). The spatial confines of the territorial-based social system can be shown by the discovery of inverted C epigraphic evidence, which occurs across western, northern and north-eastern parts of northwest Iberia, as well as in the region around modern-day Chaves

shown on Figure 36 above as *Aquae Flaviae*. Evidence for territorial-based power structures can be broken down further to incorporate; (a) hillforts which solely exhibited an inverted C in their epigraphic representation, and (b) *castro* settlements, which contained a reference to an inverted C as well as the affiliated *civitas*, or tribal grouping to which the *castro* belonged. These two territorial social structures are shown on Figure 36 above.

The location of the four small *castros* (sites 64, 70, 80 and 81, Map 5), in the territory of the *Levni* and *Sevrbi* along the Atlantic coast and the *Coelerni* (as discussed in sections 1.5.6 and 1.5.7) and *Quarquerni* towards the interior (Figure 36, bottom left), suggests that these four hillforts were not incorporated into larger territorial groupings, such as the *civitas*, and therefore may have operated as independent settlements. This is in contrast to the social structure further north, and in the area outside of Study Area Viana (see Figure 36, centre left), where epigraphic evidence shows a single *castro* settlement was affiliated to a supra-regional body, the *Grovii* (*CIL* II, 774), one of the twenty-four states (or tribal units) that would emerge under the jurisdiction of the *Bracari* (Pliny *N.H.* IV; Carvalho 2008 vol. II, 130-131), and later become incorporated into the *conventus Bracaraugustanus*. Nevertheless, there is a central flaw with the methodological approach used to generate the ethnic and political boundaries of Late Iron Age northwest Iberia. This approach was based on the central and straightforward assumption that if an individual was buried outside their homeland, then funerary inscriptions made references to their origin and tribal affiliation, whereas if a person dies in their homeland only minor ethnic references are included (Pereira Menaut and Santos Yanguas 1980, 122-126). As a result, if an important individual was buried within their homeland and an inscription was erected, the material evidence would identify the minor ethnic grouping, but not the supra-regional body to which the *castro* settlement was affiliated (Sastre Prats 1998, 83).

It is therefore likely that many of the *castro* settlements in Study Area Viana in the Late Iron Age were beginning to become associated or incorporated to some degree within large social structures present within the region, but this information was not unrecorded on tombstones. During this period, the presence and activities of Republican Rome in the region to the south of the River Douro may have acted to consolidate tribal groupings. Of particular importance were the campaigns of Decimus Brutus around 138 BC, which in common with Caesar's second expedition

to Britain in 54 BC, had the ultimate effect of securing the cooperation of native kings and chiefdoms, and the tribes they represented for the purposes of Rome (Almeida 1983, 187; Gilliver 2002, 49). In the region between the Rivers Douro and Minho, the cataclysmic short-term defeat of various tribal units by Brutus' army would dramatically shape the historical patterns of northwest Iberia acting to create and consolidate centres of power, and commercial activity under the control of prominent families. Among these large hillforts, three *citânias* emerged within Study Area Viana, as discussed in section 4.8: *castro* da St. Da Vista (site 39, Map 5, bottom left), *Citânia* de Santa Luzia (site 133, Map 5, bottom left) and Cividade de Âncora (site 12, Map 5, bottom left). The latter of these large hillforts has been dated to the period between the first century BC and the reigns of the Emperors Tiberius and Claudius (AD 14-54) (Hawkes 1971, 283-286), suggesting that many of the smaller hillforts may have been incorporated into the sphere of control of these larger emerging *citânias* over the course of time. However, whether these large hillforts represented the central place of the tribal confederations, such as the *Levni* and *Sevrbi* as shown by epigraphic evidence (see Figure 36, bottom left), is not demonstrated by the available archaeological evidence. Additionally, the degree of authority they had over many of those physically distant smaller hillforts, in particular the four small agricultural *castro* settlements discussed above, is also difficult to establish with the available material evidence. What can be determined is that over time individual hillforts in Study Area Viana would become incorporated into one of the twenty-four states (or tribal units) under the jurisdiction of the dominant tribal grouping of the region, the *Bracari* (Pliny *N.H.* IV; Carvalho 2008 vol. II, 130-131).

7.2.4. Agricultural Systems in the Late *Castro* Period

What can be established with more certainty in Study Area Viana, is the manner of exploitation of the physical environment by these Late Iron Age communities. This extended from the salt-producing *castros* located near to the Cividade de Âncora, through to hillfort communities taking advantage of maritime, agricultural and mining-based opportunities the region offered. In the Late Iron Age, competition for fertile terrain was fierce with *castro* settlements showing a tendency to locate on or around prime agricultural land and the rich soils adjoining the coast of the Atlantic Ocean (see section 4.6.3 and Chart 5 for analysis, and section 4.7 for

discussion), while avoiding the less productive highland around the Serra de Agra (Map 5, centre left), as well as the mountainous region of the Serra da Peneda, to the east of the study area.

The location of those *castro* settlements in Study Area Viana within verdant and productive zones and very much aligned to generating economic surplus, was in sharp contrast to the other study areas examined in this thesis, which often demonstrated a range of different strategies, among them a tendency to establish defended settlements on forested land. The reasons for locating on non-agricultural land appears to have reflected two key priorities. The first concern was the defensive capabilities offered by locations on steeper gradients, which favoured scrub / forested land over prime agricultural terrain. The second factor would have been the need to harvest the resources which scrub / forested land offered for the inhabitants of the settlement, as well as providing wood pasture access as feed for the community's livestock. Located immediately adjacent to many of these sites was land suitable for agricultural purposes, which reflects the findings of recent studies of *castro* settlements from the Middle to Late Iron Age, where hillforts were positioned at the boundary of productive / forested and scrubland (Fábrega Álvarez 2005, 129). In this respect, these Late Iron Age *castros*, in contrast to Early Iron Age sites, were beginning to exploit more fertile soils with a lower incidence of summer drought, and less possibility of freezing, which would provide for greater agricultural production (Parcero Oubiña and Cobas Fernández 2004, 26-27). At the same time, many of these hillfort settlements were located away from good agricultural land, which may have reflected the lack of suitable farming land within a given region, but more importantly a preference for defence over agricultural production (see sections 4.6.2 and 4.7). As a result, those communities which choose defence over agricultural production may have struggled to generate surplus wealth and so create more economically-dynamic and socially-complex societies, which had begun to emerge in regions such as Study Area Viana.

The strategy of locating away from prime agricultural land and exploiting less fertile but defensible terrain can be shown in Study Area South, where only a limited number of Late Iron Age *castro* settlements developed around the confluence of the River da Vilariça and the River Sabor (see Figure 37 below, and discussed in section 4.7).

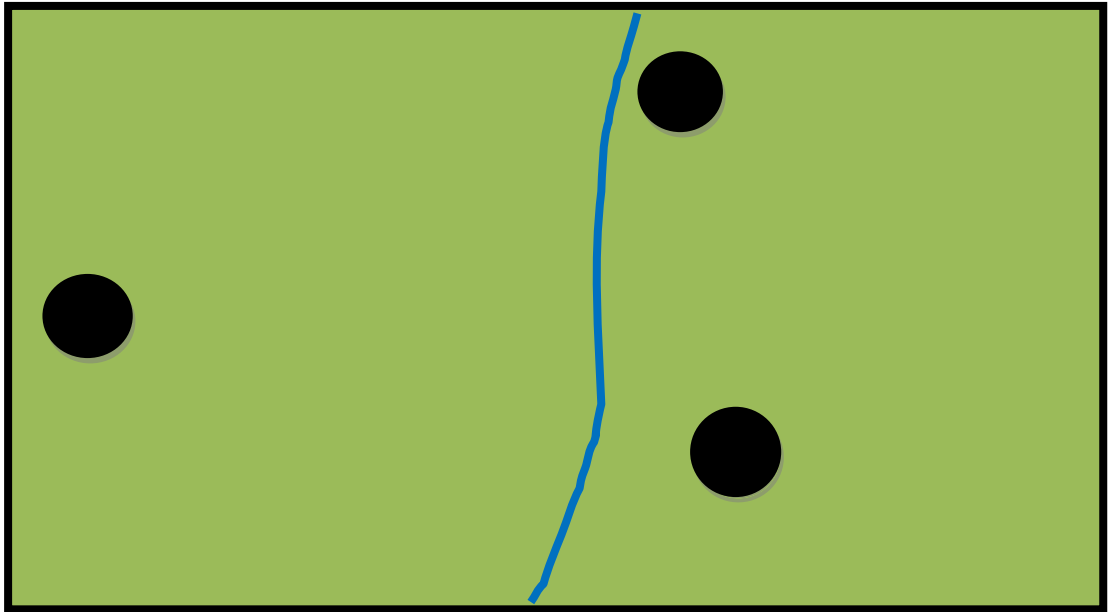


Figure 37. Model representing the Late Iron Age settlement pattern in Study Area South near the Rivers da Vilariça and River Sabor (in blue) where *castro* (in black) settlements were limited in number and showed no evidence of shared political or economic interests.

During the early Roman period this area, particularly the fertile valley along the River da Vilariça, was exploited by *villae* and farming settlements and developed into a regional economic powerhouse (see section 5.3.2). The reason for the limited number of Late Iron Age settlements along the River da Vilariça can be primarily attributed to the fordable river valley and the inability to exploit this terrain for defensive purposes. Moreover, if there was a *Vetton* or *Vaccean* presence in this area, as shown by a series of zoomorphic sculptures found in a hillfort settlement near the River Douro, competing ethnic units may have been unwilling to enter and settle in the area.

7.2.5. The Role of Social Structures in Shaping the Late *Castro* Landscape

In Study Area Chaves, the utilisation of land resources also played a sizeable role in the development of the settlement pattern, with larger hillforts located on the periphery of the Tâmega Valley dominating smaller *castro* settlements located on their territorial margins, as established in section 4.6.5. In this way, the smaller hillforts located around the fluvial boundary were engaged in the accumulation of resources, the possible transportation of goods and above all the monitoring of neighbouring *castro* settlements on behalf of those larger hillforts to which they were

allied. The River Tâmega, formed the boundary between these large competing structures in the same way that the Rivers Cávado and Ave, further west, also acted as a frontier between large Iron Age settlements (Martins 1990, see sections 4.6 and 4.8). However, the nascent hierarchical settlement pattern was not uniform throughout Study Area Chaves as I established in Chapter Four, but appears to have been more developed to the west of the River Tâmega, where medium-sized *castros* may have acted as subordinate structures to larger hillforts, while at the same time other independent medium-sized hillforts may have begun to develop their own territorial hierarchy (see section 4.6.5.1).

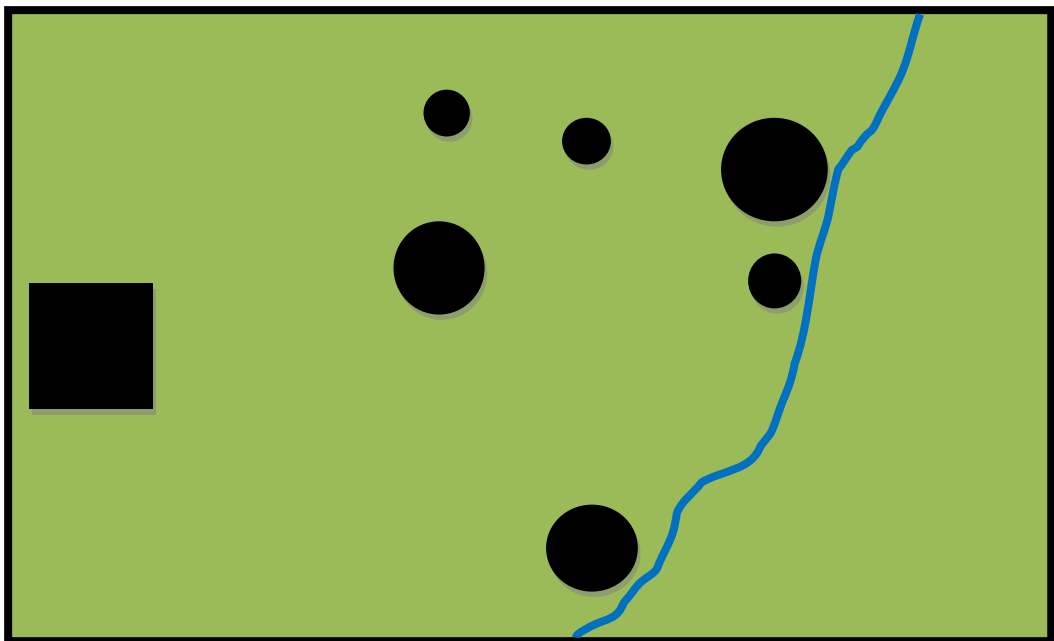


Figure 38. Model representing the probable Late Iron Age hierarchical settlement pattern in Study Area Chaves where large *castro* site (black square) controlled medium-sized and small *castros* (black circular) located on the River Tâmega (in blue).

To the east of the Tâmega Valley, the corresponding settlement pattern was more orientated towards larger hillforts with a series of smaller *castro* sites located at their territorial margins (see Figure 38 above). The area directly to the east of the Tâmega Valley, was further characterised by a series of medium-sized Iron Age hillforts, which most likely acted as independent concerns given the general absence of other settlements on or within their territorial margins. As result, the settlement pattern of Study Area Chaves shows an emerging hierarchical organisation to the west, but the development of a less structurally complex model towards the east of

the region, which is more symbolic of those intersettlement relationships found between fortified hillforts in Study Area North (see section 4.8)

The different settlement structures which materialised in Study Area Chaves in the Late Iron Age can best be explained through the presence of kinship and territorial-based social systems as shown by epigraphic material, as well as the activities and influence of Roman authorities and an emerging native political elite in the area between the Rivers Douro and Minho. Within Study Area Chaves, four Roman inscriptions, each displaying an inverted C, \supset , testify to the existence of a territorial-based social structure in the region. Three of these funerary inscriptions are found to the east of the River Tâmega, with the first (*CIL* II 2494) sculpted on a boulder near to the small hillfort of 606 (Map 19, centre right), while a second inscription (*CIL* II 2480), dated to the late first century AD (Le Roux 1982, 250) was found between *castro* sites 548 and 715 and gives the name of a settlement as *Iureobriga / Tureobriga* (Map 19, centre). A third inscription has been identified at the Late Iron Age hillfort and Roman-period *castro* of Cigadonha de Monsalvarga (site 800, Map 19, bottom centre), although doubts remain as to its authenticity given the difficulty in reading the weatherworn inscription (Lemos 1993 vol. II, 574-575; Rodríguez Colmenero 1988a, 190). Lastly, to the west of the River Tâmega a single funerary inscription (*CIL* II 2484), was found near to Late Iron Age *castro* site 415 (Map 19, centre left).

The information presented above strongly suggests that the region to the west of the Tâmega Valley was structured along territorial-based social systems, and this is further supported by other inscriptions, each featuring an inverted \supset symbol found in the region around *Bracara Augusta* (see Figure 36, bottom left). Consequently, it is probable that a territorial-based social system stretched from *Bracara Augusta* along the Atlantic coast to the region west of the Tâmega Valley, strongly influenced the settlement pattern of western Study Area Chaves, where a nascent hierarchical settlement pattern emerged as large hillfort settlements located on the periphery controlled those small settlements located at the valley's edge.

In eastern Study Area Chaves, the interrelationship between *castro* settlements was altogether more complex. The presence of four granite stones each engraved with the names *PRAEN* and *COROC* (*CIL*, II, 2489) on opposing sides, have been interpreted as representing supra-familial groupings, and therefore suggest

that a kinship-based social system existed along the eastern margins of the Tâmega Valley (see section 4.4). Similar functions have been proposed for these inscribed stones, as establishing borders between settlements (Tranoy 1981, 375), and / or guaranteeing control and access to agricultural land (Silva 1986, 276). Moreover, the presence of a series of tessellated Thiessen polygons converging at the place where these four granite stones were uncovered, implies that these division markers correspond to four settlements, among them fortified hillfort 548 (Map 29, centre; see section 5.3.3.1). This points to a kinship-based social system in the area to the north of site 548, but juxtaposing these familial groupings with a territorial-orientated structure in the region between sites 548 and 715, as shown by the aforementioned funerary inscription displaying an inverted C, \supset (*CIL* II 2480). Silva (1981-1982, 87-88), has sought to explain the anomaly of a kinship-based structure within the accepted area of territorial-based social systems as relating to a series of families which were relocated to Study Area Chaves during the early Roman period. However, we must question the motives or benefits of replacing an assumed Late Iron Age territorial-based system in the region around the Tâmega Valley with a social structure oriented around familial groupings and tribal affiliations. Certainly, there is further evidence for a kinship grouping in the region as shown by a *terminus*, or Roman boundary (site 803, Map 29, bottom centre), to the southeast of the *PRAEN* and *COROC* inscriptions, which testifies to two familial groupings, the *Trebuos* or the *Trebilos* and the *Obilios*, possibly from the early Roman period (Rodríguez Colmenero 1987, 641-642). This would suggest that a patchwork of lineage-orientated and territorial-based social systems competed for the landscape of eastern Study Area Chaves (see section 4.8). As a result, these competing systems produced a settlement pattern which was both characteristic of the area controlled by the tribal confederacy of the *Zoelae* to the east with interdependent communities but no visible hierarchy, as well as large hillforts controlling those smaller *castros* on their territorial margins, as shown by the region to the west of the River Tâmega.

In western Study Area South, immediately below Study Area Chaves, a similar settlement pattern emerges to that found west of the River Tâmega with large, and in some cases medium-sized *castros*, controlling smaller hillforts located at their territorial margins (see section 4.6.5.1 for analysis). Further similarities between western Study Areas South and Chaves exist in their exploitation of the landscape

with many of the fortified hillforts in both regions located on the boundary of agricultural terrain, as well as forested and scrubland (see section 4.6.3), as shown by other Late Iron Age hillfort communities within northwest Iberia (Fábrega Álvarez 2005, 129; Parceró Oubiña and Cobas Fernández 2004, 27). In the case of western Study Area South, access to prime agricultural land for the purposes of farming and forested / scrubland for harvesting, fuel and feed for animals may partially explain why the area to the south near to the River Douro remained largely unoccupied during the Late Iron Age. An alternative hypothesis is that these communities sought to isolate themselves from outsiders, thereby creating a physical distance between their settlements and those cultures which utilised the River Douro to transport people, goods and ideas. This premise is supported by the absence of *castro* sites to the immediate north of western Study Area South, and bears similarities to the region between Study Areas North and East, where a strip of land running east to west is largely devoid of *castro* settlements. Lemos (1993 vol. I, 490) has interpreted this borderland area as the southern limits of the *Zoelae* confederation, and argues that the absence of *Zoelae* material evidence to the south of this buffer area corroborates his line of reasoning. A further piece of evidence that a border area existed between western Study Area South and eastern Study Area Chaves are the trajectory of least-cost paths, which do not appear to provide a direct passage between the two regions. Where optimum routeways snake their way north from western Study Area South, medium-sized *castro* settlements in eastern Study Area Chaves are often found near or alongside these least-cost paths, which indicate that these passageways may have been controlled for strategic and / or commercial reasons in the Late Iron Age period (see section 6.4.2).

It is therefore probable that a border area existed between western Study Area South and eastern Study Area Chaves, which replicated the strip of land devoid of settlements marking the southern margins of the *Zoelae* confederation further east, and represented a borderland between two kinship groupings. The existence of a border between two kinship groupings can be supported by two pieces of archaeological evidence. Firstly, the presence of familial grouping and kinship structures demonstrated by the existence of a *Terminus*, or Roman boundary in the southern part of eastern Study Area Chaves (site 830, Map 29, bottom centre). Secondly, among the territorial-based social system of western Study Area Chaves, as well as the territorial and kinship-orientated structure of eastern Study Area

Chaves, there are no discernible border areas between these settlements. This line of reasoning strongly suggests that border areas devoid of *castro* settlements are negotiated and develop between competing kinship groupings as determined by the southern territorial margins of *Zoelae* control.

7.2.6. The Influence of Rome on the Settlement Pattern of Late Pre-Roman Northwest Iberia

The nature of a possible kinship-based grouping in western Study Area South in many ways partially vindicates the hypothesis advanced by Sastre Prats (2008, 1025) that *castro* settlements were inherently isolated and fiercely independent. While such a rationale was rejected for individual settlements in Study Area North (see section 4.7), such a model can be applied more successfully on a regional scale, where western Study Area South appears to have been physically isolated itself from those communities to the north in eastern Study Area Chaves, as well as the strategic River Douro to the south. Similar issues emerge in applying Parcero Oubiña's (2003) model of Late Iron Age society in northwest Iberia to the information generated in this thesis. A central tenet of Parcero Oubiña's (2003, 290) model is the belief that late *castro* society was shaped and created through contact with Roman authorities. A fundamental problem with this assumption is that contact between Rome and individual communities, as well as tribal groupings, was by no means uniform in the period before the region was pacified in the late first century BC (see the discussion on the *castros* of Castrovite, Laias and Saceda in sections 2.2.2.3 and 2.2.2.4). Moreover, where Rome had greatest contact with *castro* communities was in the region between the Rivers Douro and Minho through the aforementioned campaigns of Decimus Brutus in the second century BC (see section 7.2.3), and later with the gradual encroachment and influence of Rome in the adjoining province of Lusitania (Almeida 1983, 187). A direct result of the activities and influence of Roman agents was the emergence of a warrior elite, which acted to consolidate both resources and territory, which led to larger and more centralised communities orientated around ethnic groupings (Silva 1995, 275). As I have discussed in the previous section, it is probable that these *oppida*-style hillforts located in the region between the Rivers Douro and Minho were orientated around territorial-based social systems. However, their size and the settlement pattern they exhibited is not replicated further east in western Study Area Chaves, where similar territorial-based social systems were also

active in the Late Iron Age. The largest settlements in western Study Area Chaves approximated 2.5ha of internal space in sharp contrast to the larger *oppida*, such as the *citânia* of Sanfins whose intramural space was approximately 15ha. An additional difference between them was the territorial domain of *citânias* such as Sanfins which appeared to encompass distances of 25km, or a day's journey by foot, to their nearest neighbour (Silva 1995, 275), but no evidence of hierarchical settlement structure (see section 5.2.2). In comparison, in Study Area Chaves settlements were altogether smaller, but by the late first century BC began to exhibit a nascent hierarchical settlement pattern.

Figure 39. Two of the four warrior statues found at the *castro* of Outeiro Lezenho (Pedro Formosa 2008).

A further discrepancy between Study Area Chaves and the region to the south of Study Area Viana, is the presence of warrior statues along the Atlantic coast, which have been found in large number, particularly in *oppida*, such as the *citânia* of Sanfins. Parceró Oubiña (2003, 291) has attributed the presence of these sculptures to the increasing ritualisation of violence in the area between the Rivers Minho and Douro, as conflict was increasingly represented through symbolic acts. Towards the interior, and in the region of western Study Area Chaves, these warrior statues become less prevalent with four found at the *castro* of Outeiro Lezenho (see Figure 39 above) located immediately to the west of Study Area Chaves, and another

figurine found at Monte do Crasto near to Vila Pouca de Aguiar (see Figure 3, page 21).

The similarity in style and form of these warrior statues found at the *oppida* along the Atlantic coast, such as Sanfins, and the *castro* of Outeiro Lezenho, and the notion of social institutions built around an emerging warrior elite has led some to propose that the River Tâmega formed a cultural and political frontier (González Ruibal, 2006-2007, 447). Evidently, we should acknowledge different histories for those peoples along the Atlantic coast compared with the area of western Study Area Chaves, which despite the shared territorial-based social system of the region may have acted to shape local identities and settlement patterns. Certainly, along the Atlantic coast between the Rivers Minho and the Douro, as well as in the area possibly controlled by the *Vaccaeii* bordering Study Areas East and North, large *oppida* emerged in response to increasing centralisation of commercial activity in response to the encroaching Roman military machine, the consolidation of scarce resources, and the burgeoning population of these *oppida* as people moved from rural to urban settings (Álvarez Sanchís 2005, 273; Silva 1995).

As a result, the different settlement patterns created and shaped by different historical events, social structures, and environmental opportunities and constraints, the assimilation of northwest Iberia by Rome and the process of change would vary from region to region. In Study Area North, which had evolved independently of the peripheral influence of Rome, the transformations within the landscape were very much influenced by the dominant kinship-based social structure of the locality. Firstly, where two fortified hillforts were located in close proximity, one was often vacated while the other continued as a Roman-period *castro* (see section 5.4). The presence of neighbouring *castros* in other regions of northwest Iberia during the Iron Age was not uncommon, although the reasons for fragmentation within the community and the foundation of a secondary settlement are difficult to establish (González Ruibal 2006-2007, 310). However, the increased cultivation of more fertile terrain in Study Area North, shown by *castro* settlements locating on the periphery of productive agricultural and forested / scrubland may have provided the means to increase the population of these small hillforts. With defensive walls a symbol of prestige within the community and their preservation limiting the hillfort's size (Queiroga 2003, 46), additional *ex-novo* settlements were often established nearby, which may have shared strategic concerns, economic opportunities and

perhaps a degree of political union. As epigraphic evidence from the early Roman period has shown, these political and social affiliations lasted well beyond the second century AD (Mangas 2000; Sastre Prats 1998), when the remaining Roman-period *castros* were probably being abandoned or remodelled as ‘Roman-styled’ settlements. As a result, those political affiliations between neighbouring Late Iron Age hillforts not only ensured the community could concentrate their resources into one Roman-period *castro*, it also shaped the later rural settlement pattern as *villae* settlements and farming communities emerged on the territorial boundaries of abandoned *castro* sites (see section 5.4).

Along the Atlantic coast a similar pattern of settlements to those found in Study Area North emerged within the landscape with clusters of Late Iron Age *castros* investing in agricultural and mining activities. Exactly how these communities interacted cannot be proven, but the territorial-based social system which existed in Study Area Viana implies that individual settlements were more independent and outwardly hostile to outsiders. Nevertheless, from the late second century BC, *castro* settlements were increasingly incorporated into *populi*, a social superstructure associated with ethnic groupings, which evolved into *civitas* units. While there is no epigraphic evidence of *civitas* groupings (see Figure 36) within Study Area Viana this does not refute the existence of regional organisations within this space. Equally, we must acknowledge that the social and political transformations of this region were neither uniform nor constant and it is therefore possible that individual *castro* settlements were incorporated into the larger *civitas* system over the process of time. In this sense, the socio-political system which operated in Study Area Viana may be compared to pre-contact Hawaii where the paramount ruler controlled the exchange of prestige goods and the allocation of territorial units to subordinate chiefs. However, these elite activities did not impact on those agents engaged in subsistence activities, with little evidence for redistribution by local chiefs (Earle 1977). Consequently, fortified hillforts in Study Area Viana may have been politically affiliated to the *citânias* in the region, but economically dependent and strategically entwined with neighbouring *castro* settlements. The disintegration or survival of local power structures may explain why clusters of fortified hillforts continued as Roman-period *castros*, while other groups of Late Iron Age settlements were abandoned en masse.

In Study Area Chaves, which constituted a borderland between the largely kinship-based social structure towards the east and those territorial divisions orientated around the *castro*, a complex settlement pattern emerged with the disappearance of indigenous hillforts. To the west of the Tâmega Valley, many *castro* sites were abandoned in favour of nearby Roman settlements, suggesting that the community relocated to lower ground and areas of more productive and accessible terrain (see Map 24 and section 5.3.2). This pattern would imply that the territorial boundaries established around these fortified hillforts in the Late Iron Age, if not before, continued to exercise importance within the psyche of the community. It is therefore interesting to note that in the region of eastern Study Area Chaves, a similar pattern is repeated, where a number of Iron Age *castros* are vacated in favour of *ex-novo* Roman settlements located in close proximity, which corroborate the argument presented above that there was no clear boundary between territorial-based social systems and those communities built around lineage and kinship ties.

Epigraphic evidence in the form of stone granite territorial markers found near to the eastern banks of the River Tâmega testify to the presence of two supra-familial units, the *PRAEN* and the *COROC* who occupied nearby *castro* settlements. It is probable that these territorial markers date from the early Roman period (Teixeira 1996, 81), during which time the landscape was being formally allocated to those indigenous and non-indigenous communities now under Roman authority (Parcero Oubiña 2003, 290; Sastre Prats 2008, 1027). How prominent these territorial markers were in the early Roman period, with the transition from indigenous rule to governance by the native elite and their Roman overlords is hard to ascertain, but they appear to be more frequent in Study Area Chaves than the other study areas. In the case of the fertile Tâmega Valley with the rich farmland and opportunities it offered, the *PRAEN* and *COROC* boundary markers can be seen to represent intense competition over securing prime agricultural territory (see section 5.4). An additional consideration is the location of those kinship-based groupings represented by the *PRAEN* and *COROC* boundary markers, which were sandwiched between a largely territorial-based social structure in the region towards the Atlantic coast, but with pockets of *castro*-centred structures in eastern Study Area Chaves. With the absence of any substantial tribal grouping in Study Area Chaves, for example the *Zoelae*, the *PRAEN* and the *COROC* may have occupied a hostile environment where large *populi* and *civitas* organisations, such as the *Turodi*, who

would be renamed and emerge as the *Aquiflavienses* (Tranoy 1977, 232-233), would begin to consolidate their position in the first century BC and first century AD. Moreover, if the *municipium* of *Aquae Flaviae* was constructed on an *oppidum* and central place of the *Turodi*, an idea supported by Alarcão (1998, 6-7), then the familial groupings of the *PRAEN* and the *COROC* may have begun to function more like those *castro* settlements found to the west of the Tâmega Valley, where individual fortified hillforts fiercely guarded their territorial borders in the absence of any supra-familial kinship structure.

As discussed above, a kinship-based social structure most probably occupied the region from the centre of the Study Area Chaves down to the south-eastern corner of the study area, where further evidence of familial-based systems are evident through boundary marker 803 (Map 24). What is especially evident is the continued occupation of many of these *castro* sites into the early Roman period, but also the general absence of Roman structures in the region, which showed a tendency to cluster around the Tâmega Valley (see section 5.3.2 for an overview, 5.3.4 for analysis and 5.4 for discussion). This settlement pattern continues south to the region of western Study Area South, where a series of large fortified hillforts with their subordinate medium-sized and smaller *castro* settlements dominated the landscape in the early Roman period. The continued occupation of these fortified hillforts, especially the larger *castros*, demonstrates that the Late Iron Age settlement structure was largely unaltered during the early Imperial period, and most probably illustrates the early Roman policy of reinforcing local centres instead of creating new structures, where the economic and political outlay would be substantial. In this way, Roman authorities were able to administer outlying provinces more effectively and with the passage of time many of these native communities would adopt more Roman-orientated social, economic and political practices (Queiroga 2003, 39). Nevertheless, we should acknowledge that pockets of possible indigenous control shared very different characteristics. In the case of western Study Area South, the community of Roman-period *castros* was very much isolated from the Roman urban centres and the satellite towns and agricultural communities which emerged in their orbit (see section 6.6). However, in the case of Study Area Viana, and particularly in Study Area East (Map 38, centre), where a pocket of Roman-period hillforts can be found near to the principal Imperial road network, indigenous communities

inhabiting Iron Age dwellings appear to have integrated well into the emerging early Roman settlement pattern (see section 5.4).

7.2.7. The Founding of Roman Administrative Centres

In Study Area South, as a whole, social activity and political power began to shift away from the isolated cluster of hillforts to the west and concentrate around the newly founded *civitas Baniensium* located towards the east. From a commercial perspective, the location of *civitas Baniensium* at the confluence of the Rivers da Vilariça and Sabor connected the urban centre through the nearby River Douro with other prominent settlements, thereby allowing heavy loads to be transported along this established river network. Also integrated into this fluvial transportation system were a series of agricultural producers located along the fertile valley of the River da Vilariça, to the north of the *civitas Baniensium*, who utilised the river network to transport their goods to market (see section 5.4). Further north, where the River da Vilariça narrowed and may not have provided a perennial water source capable of transporting goods, the main Roman road running alongside the aforementioned river (see section 6.4.2) would have provided a secure, albeit a more expensive method of transportation (see section 6.2.1). Also located along the main Roman highway and connected to the *civitas Baniensium*, were a series of mines, where ore was most probably refined on site before being transported south to the *civitas* capital for shipment elsewhere along the River Douro (see section 5.4). A further cluster of mining activity to the south of the *civitas Baniensium* near to the River Douro testifies to the importance of this waterway, which would have been employed by commercial agents to reduce transportation costs and augment profits.

From a strategic perspective, the *civitas Baniensium* would have provided a means to centralise the disparate tribes in the region, such as the *Banienses* and the *Interamici*, who appear on several inscriptions and may have occupied the area to the north of Study Area South with their capital at S. Juzenda (Sanches and Santos 1987, 39-42). Over the longer term the *civitas Baniensium* would have provided a strategic base, as well as an administrative centre and commercial market, for mining activities taking place within its immediate territory and beyond. This is evident in the least-cost path, which begins to the north of the *civitas Baniensium* and runs in a south-easterly direction crossing the River Sabor and heading towards a series of mining communities located on this optimum route in Study Area East (Map 38,

bottom left, see section 6.4.2). A *castro* settlement was located at the point where this passageway crosses the River Sabor and was abandoned in the early Roman period in favour of a nearby Roman settlement. It is therefore probable this pathway was actively utilised in the Late Iron Age and secured by Imperial agents to provide a terrestrial routeway east towards western Study Area East. Moreover, the high level of connectivity offered by this least-cost path and a series of other optimum routes emanating from the area around the confluence of the Rivers da Vilarica and Sabor (whose paths converged around mining centres 676 and 695), enabled the *civitas Baniensium* to exert a degree of control over western Study Area East, where Roman administrative and strategic authority was limited to *vicus* settlement 565.

However, we should not discount the role played by *vicus* 565 in shaping the landscape of Study Area East. As I have argued above in section 7.2.2, *vicus* settlement 565 may have operated as a pre-Roman centre for either the *Vettones* or *Vaccaeii*, who occupied the land immediately to the south and the east of Study Area East. While no fortifications have been found on this site, leading Lemos (1993 vol. II, 162-164) to question Santos' (1975, 55-69) assertion that the settlement was founded in the Iron Age, we must acknowledge that it was not uncommon to find *vici* established upon open Iron Age settlements within the region of northwest Iberia (González Ruibal 2006-2007, 321). In this way, a possible Iron Age site in the form of a *Vettones* or *Vaccaeii* central place at site 565, may have provided the basis for the subsequent Roman settlement pattern in the region, given the key attributes the settlement afforded. Firstly, it was located upon a series of least-cost paths emerging from the northwest of the study area (see Map 38, see section 6.4.2), where another *vicus* settlement was established in the early Roman period, as shown by an *as* from the reign of Tiberius (AD 14-37) (Centeno 1987, 133-134). Consequently, it is probable that *vicus* settlement 565 played a key role in establishing the route of the main Roman highway, which began at site 565, and followed a series of optimum pathways towards the northwest of the study area and the second *vicus* settlement at site 309. A second advantage of the location of *vicus* settlement 565, was its close proximity to the mining settlements to the west, which it may have administered in conjunction with the *civitas Baniensium*.

7.2.8. The Emergence of Agricultural Centres in Early Roman Northwest Iberia

These strategic and communicative benefits offered by the Roman road network and the two *vicus* settlements in Study Area East, also translated into commercial opportunities for Roman agricultural producers, who began to exploit the landscape to establish farming communities and *villae* settlements. Where the Iron Age settlement pattern was divided between the *castro* settlements situated along the River Douro, between the River Douro and Sabor and along the tributaries of the River Sabor, Roman settlements, in particular agricultural producers now began to locate along the vicinity of the main Roman highway (see section 6.5). Not only did the principal communication route enable farming communities to transport their goods to market, it also ran through forest / scrubland, which provided ideal terrain for many of the staple crops of the Roman economy, among them olive oil. Consequently, three of the five *villae* sites and fifteen of the seventeen *casals* are found on Type F, forested / scrubland, and there appears to have been an active policy among the farming community in this ‘microregion’ not to exploit the more fertile terrain of the region (see section 5.3.4). This strongly suggests that agricultural products grown on intensive land were not profitable given the small population of Study Area East, and the absence of large central places, nor conducive for export, in direct contrast to less perishable products, such as olive oil and wine grapes, which were a major economic concern within the Roman empire. Furthermore, Roman northwest Iberia was gradually integrated more effectively into the wider Roman world through established communication systems and commercial centres where agents could trade and negotiate on behalf of agricultural producers, which allowed regions to invest in and benefit from economies of scale. In this way, the connectivity offered by the River Douro and the suitability of the land may have encouraged agricultural producers in Study Area East to develop products such as olive oil and wine at the expense of other key goods such as cereals, where production was concentrated more towards central *Hispania* (Curchin 2004, 166; Keay *et al.* 2000, 205, and section 2.4.2.2).

A similar settlement pattern to that found in Study Area East was replicated in south-western Study Area South with a concentration of *villae* and *casals* along the River Douro. Given the absence of Roman settlements in south-western Study Area South, the agricultural centres exploited the principal waterway in the region, the River Douro, to transport their products to market. The importance of the River Douro as an effective conduit of goods and people can be seen with the continued

occupation of a fertile pocket of land by the cluster of *castro* settlements to the north in western Study Area South. While the archaeological record shows that these hillforts continued to be inhabited into the early Roman period, there is no evidence the area was developed by large-scale agriculturalists and farmers from the second century onwards. Rather, *villae* and *casals* appear to have exploited the two key interdependent attributes of south-western Study Area South. The first was the proximity of the River Douro and the second the terrain, which was characterised by scrub and forested land as well as soil suitable for extensive farming. Consequently, the area provided the means to produce staple crops such as olive oil, wine grapes and nuts, which could be effectively transported to market utilising the River Douro (see section 5.4).

The importance of cost-effective access to market for the agricultural producers is also visible in the landscape of Study Area Viana, where a series of Roman settlements and adjoining *casals* and *villae* emerged within the landscape. The position of these farming communities, located around the River Lima (bottom left, Map 25) as well as the River Coura (centre, Map 25) demonstrates the importance of these river valleys, which would have provided not only fertile land, but also the means to utilise the waterways to transport their produce elsewhere. Additionally, the Roman arterial road network further integrated these pockets of intensive agricultural production into the wider landscape, thereby providing a secure transportation system regardless of the season (see section 6.5). Section 6.4.2, and a detailed analysis of the trajectory of *Via XIX*, demonstrated that main Roman roads incorporated prime agricultural land into their trajectory, often at the expense of negotiating more level but less fertile terrain. Within Study Area Viana, the concentration of settlements around the Lima valley, especially to the south of the river, illustrates that both the agricultural centres and adjoining Roman habitats were heavily orientated to supplying the region to the south, constituting the *conventus* capital of *Bracara Augusta* and its satellite towns (see section 6.5). In the area around the River Coura, the road network and the waterways, among them the River Minho, would have provided the means to supply markets elsewhere. As a result, the fertile areas once inhabited in the Late Iron Age, but without access to large river valleys, such as the centre north of Study Area Viana, or physically distant from key markets, for example the area along the coast between the Rivers Minho and Lima, were not colonised in the Roman period.

Although there is considerable variation between the landscape, terrain and agricultural produce and crop yields of Study Area Viana and the south-western region of Study Area South and Study Area East, all three regions display similar settlement structures with agricultural centres gravitating towards communication routes and / or large markets. This pattern is again replicated in Study Area Chaves with a large number of *villae* and *casals* located immediately around the fertile Tâmega Valley, and no doubt utilising the River Tâmega to supply the central place which would be renamed *Aquae Flaviae* in the late first century AD. In many respects the River Tâmega operated very much as a commercial concern allowing agricultural producers to ship their goods to market, in contrast, to the strategic role of the Roman arterial road network, which connected *Aquae Flaviae* with other regional centres within northwest Iberia. In the light of new archaeological evidence it is probable that an element of the *Legio VII*, which would later be garrisoned further north and subsequently give its name to the modern-day settlement of León, was stationed at the site that would develop into *Aquae Flaviae*. Finds ranging from a Roman bronze coin dated to 27 BC and featuring the bust of the Emperor Augustus, to ceramic containers inscribed with ‘*Legio VII*’ testify to a military presence around Largo do Arrabalde in Chaves (Roman *Aquae Flaviae*). The strategic importance of a possible Roman garrison at this site can be illustrated by the River Tâmega located 150m to the southeast where a Roman bridge still stands, which may have replaced a yet older wooden structure (Teixeira 1996, 133). Moreover, the close proximity of the Roman garrison at Largo do Arrabalde to the *Via XVII*, which linked *Bracara Augusta* with the military camp and later *conventus* capital *Asturica Augusta* (Sastre Prats 2001, 139), suggest that the settlement which would develop into *Aquae Flaviae* was established by the Roman military during the Cantabrian Wars (29-19 BC) (*Diarioatual*, 28 06 2011).

7.2.9. The Importance of Movement and Communication in Early Roman Northwest Iberia

The garrison on the banks of the River Tâmega may also have been connected through a Roman military road in the late first century BC to the *civitas Zoelarum* in Study Area North. This can be demonstrated by the two roads which emanate eastwards from the Tâmega Valley, with the southern route following a series of least-cost paths and smoother gradients suitable for the movement of heavy

loads, such as agricultural produce, in contrast to the steeper angles, but shorter distance negotiated by the more northerly of the two routes. A milestone found along this northerly passage and most probably dating to 3-2 BC (see section 6.2.3), implies that this road may have had a military origin, and connected a Roman garrison along the River Tâmega with an Imperial presence at the site of the *civitas Zoelarum*, where an early Roman inscription dates the site to 2 BC, during the reign of Augustus (Lemos 1993 vol. II, 69). In turn, the Roman military road followed a least-cost path east towards the Meseta and towards more established Imperial domains, which would have provided logistical support as well as supplies of goods and personnel, in order to pacify and gradually incorporate northwest Iberia into the wider Roman empire (see section 6.5).

Consequently, the Roman road network began to link possible military garrisons and Roman centres of power, which would act to consolidate the immediate area and provide a Roman presence in the area. Nevertheless, whether there was a conscious policy by Roman authorities to break the control of tribal groupings, such as the *Turodi* whose central place may have occupied the future site of *Aquae Flaviae* (Tranoy 1977, 232-233), and the *Zoelae* of Study Area North, or if these sites simply developed from Roman military garrison towns with subsequent approval and encouragement from Imperial authorities, is more difficult to ascertain. Certainly, in some regions of northwest Iberia, most notably Study Area South, it appears that the *civitas Baniensium*, although established within or near to the territory of the *Banienses* tribe, was essentially an *ex-novo* settlement aimed at securing the strategic waterways and passage to the River Douro, as well as the mining activity of the region. Nevertheless, despite the strategic importance of the waterways around the *civitas Baniensium*, it does appear that these fluvial networks operated more as commercial arteries, connecting disparate regions both within northwest Iberia and beyond, as shown by the concentration of agricultural activity around the Tâmega Valley in Study Area Chaves and the Lima Valley in Study Area Viana. In contrast, established overland routeways functioned more as strategic concerns linking emerging centres such as *Aquae Laiae* (a possible pre-Flavian *Aquae Flaviae*) with other regional capitals, which had the effect of shrinking space-time between urban structures. This had the effect of consolidating those regional centres often established through garrisoned troops (*Aquae Laiae*), the need to secure

lucrative mining activity (*civitas Baniensium*), and secure supply routes (*civitas Zoelarum*) (see section 6.5).

The interconnectivity provided by the Roman arterial road network meant that early *civitas Baniensium* was more effectively connected to the more physically distant *Aquae Laiae* through the existing major Roman road network, than to neighbouring settlements, such as the cluster of Roman-period *castros* in western Study Area South. Consequently, where agricultural production showed a tendency to concentrate in areas adjacent to important markets with good communication routes, so principal urban structures linked by the Roman arterial road network would have shared information, as well as new ideas and practices. The net effect of this circulation of new ideas would have been the creation of hierarchies of information (Morley 1997, 49), where urban structures built upon their regional supremacy as communication and administrative hubs (see section 6.2.3). However, we should not assume that all regional centres were equal in terms of their provincial importance. Some regional centres, for example the *civitas Zoelarum*, appear to have been little more than strategically located settlements controlling and monitoring their immediate territorial domain, and in the process securing the passage of goods and people from the western Meseta to those areas to west of Study Area North. Furthermore, the Roman towns in Study Area North appear to have operated as satellite settlements with many located on least-cost paths, which gravitated towards the *civitas Zoelarum*, enabling them to effectively supply the regional centre with agricultural produce and the raw materials needed to survive. In contrast to the *civitas Zoelarum*, a more dynamic regional centre, such as the possible early Roman settlement at *Aquae Laiae*, would have consolidated its role as an important administrative and political entity through its commercial activities, leading to the settlements being renamed *Aquae Flaviae* and acquiring *municipium* status in the late first century AD (Alarcão 1988, 7). Although artefacts testifying to commercial activity are lacking within *Aquae Flaviae*, on account of the limited excavation undertaken at modern-day Chaves, archaeological evidence in the form of a 70cm diameter stone mill found on Rua (Road) de Maria Rita, suggest important urban enterprises (for processing rural products) in an area where most stone mills found in the region are between 45 and 55cm in diameter (Amaral 1993, 21, 124). The presence of industrial-scale stone mills also implies small-scale manufacturing activities, highlighted by Hopkins (1983), where low-value, high bulk rural raw

materials were purchased and transformed by urban workshops into high-value, low-bulk products. *Aquae Laiae* and to a greater degree *Aquae Flaviae*, demonstrate a high level of connectivity with the surrounding hinterland and thereby provide a central place where products could be sold and also refined for sale elsewhere. In this sense, *Aquae Flaviae* operated in a similar way to other successful Roman centres, for example Oxyrhynchus (see section 2.4.2.1), in both stimulating a ‘microregion’ agricultural centres located along the River Tâmega, but also deriving its success from the produce that flowed into town.

In spite of the difference in size, importance and commercial activities of these dynamic regional centres in Roman northwest Iberia such as *Aquae Flaviae*, and less successful administrative focal points, for example the *civitas Zoelarum*, common features can be identified across the five study areas between the settlement pattern of these large urban structures and their relationship with smaller *vici* sites. In the case of Study Area North, the *vicus* settlement (Map 36, top right) is located away from the main Roman road along a junction of least-cost paths (see section 6.4.2). This is a feature repeated for the *vicus vagornicense* (site 607, Map 39, centre right) which was positioned on a series of optimum pathways near to the principal Roman road to the east of *Aquae Flaviae*. This would strongly suggest that these *vici* functioned as administrative centres for the larger urban settlements in the region. Moreover, their location on least-cost pathways adjacent to major roads, a scenario repeated in Study Area Viana with *vicus* settlement 168 (centre right, Map 40) positioned at the margins of the mountainous area to the east, and *vicus* 329 in Study Area East (top right, Map 38), indicates that these sites may have controlled pre-Roman communication routes and / or transhumance trackways (see section 6.5). More established transhumance routeways were officially recognised as *calles publicae* in the Roman era and subject to regulation by the state (Varro *R.R.* 2.1.16 and 2.9.6-7), and therefore the *vici* positioned along their route may have acted as a market place for sale of livestock. This point concurs with classical sources, notably Festus (508L), who distinguished *vici* acting as rural marketplaces. Moreover, Festus’ (508L) assertion that these small *vici* settlements elected annual magistrates (Stek 2009, 142, 145), and the presence of Roman inscriptions testifying to pre-Roman ethnic groupings, such as the aforementioned *vicus vagornicense* (Teixeira 1996, 98), in Study Area Chaves (site 607, Map 39, centre right) and the *vicus Labr(enses?)*, (Lemos 1993 vol. I, 393) site 549, overseeing the cluster of Roman-

period *castros* in western Study Area South (see Map 37), implies that these *vici* sites constituted formal Roman settlements administered by pre-Roman ethnic groupings (see section 3.6.1). In this way, many of these *vici* may have operated as small *civitas* capitals, housing the collective remnants of local tribes, whose political elite now administered as Roman magistrates. Moreover, in the same way that *civitas* capitals differed in form and function, it is likely that these *vici* settlements performed a multitude of different tasks. It is probable that one native grouping established at the *vicus Labr(enses?)* (site 549, Map 22) monitored the cluster of Roman-period hillforts located to the west of Study Area South. In contrast, another *vicus* settlement (site 552, bottom centre, Map 37), dating to the first century AD, and located along the River Douro may have functioned as an important centre for mining activity in the region, and the nearby modern-day settlement of Santa Maria may have served as a forum to conduct commercial activity in the absence of any large and accessible urban centre. A similar pattern emerges in Study Area East, where *vici* 565 and 309, located at either end of the study area, as well as *vicus* 552 in southern Study Area South, provided the means to administer the domain, where it is likely that the region could neither support a large urban centre nor was one needed. Such was the flexibility of these small administrative centres that their role in Study Area Viana, extended to incorporating elements of the *cursus publicus* as with *vicus/mansion* (site 252, centre left, Map 40) and the nearby *vicus/mutatio* (site 200) (see sections 5.4 and 6.5).

In conclusion, the landscape of northwest Iberia illustrates a pre-Roman culture which was varied in its social, political and economic practices, which were in turn shaped by surrounding forces, and in particular Rome, whose influence would be paramount in determining the structure and settlement pattern of the region. In many respects, Roman authorities adapted and modified native approaches, but they also introduced new practices into the region, for example, large-scale agricultural production, which can be identified in other regions assimilated under Roman control. It therefore remains to conclude this chapter with a brief analysis of how Late Iron Age and early Roman northwest Iberia was comparable to other cultures, and therefore provide some context to help identify the key features and practices of the region.

7.3. Settlement Patterns in Northwest Iberia and the Iberian Peninsula

The final section of this chapter concludes with an analysis of the settlement pattern of the pre-Roman era and how its development and structure corresponds with other regions in Iberia which Rome incorporated under its control. Thereafter the argument moves on to the relationship between the study area and other regions of the early Roman empire and questions how and why these similarities and differences emerged.

In seeking to examine how settlement patterns may have evolved and changed in the pre-Roman period the findings from the study region are first compared to other studies within the immediate area, as they offer a means to understand regional differences in settlement development within northwest Iberia. The region of the Ave Valley is of particular interest as it lies to the south of Study Area Viana and west of Study Area Chaves. The findings of the Ave Valley Project (which have already been discussed briefly, see Strutt section 4.6) suggest that during the Iron Age many settlements were located near the valley edge (Millett *et al.* 2000, 7a. Conclusions) with the region showing a number of clustered communities in contact with surrounding groups which may have functioned as loose confederations (Millett 2001, 164). These results closely resemble Martins' (1990) findings for the same region where a series of Late Iron Age sites (Type C hillforts, see section 4.6) allied to larger and more established Type A settlements which emerged during the second century BC, and exploited the rich alluvial land around the valley edge. Both studies share similarities with the settlement patterns in Study Area Chaves where large hillforts located away from the valley's edge (as shown by Martins' (1990) study although the absence of information concerning settlement size in the Ave Valley Project makes it difficult to discern a site hierarchy) controlled a series of smaller sites located at its territorial borders and fluvial boundaries (as shown by Thiessen polygon analysis, see section 4.6.5.1).

The settlement pattern of northwest Iberia further illustrates that a series of *citânias*, such as Sanfins (see section 1.5.6) located north of the River Douro, emerged in the Late Iron Age. It is likely that similar hierarchical settlement patterns developed further north along the Atlantic coast (as with the *castros* of Laias, Castrovite and Saceda, see sections 2.2.2.3 and 2.2.2.4), as well as nascent *oppida* emerging further inland, for example along the Tâmega Valley. What is unusual

about this settlement pattern is its relationship with the area immediately south between the Rivers Douro and Vouga where the sites are generally smaller and only two sites are larger than six hectares (Silva 1999, 406). Furthermore, the absence of warrior statues within this region (see sections 1.5.6, 2.2.2.5 and 7.2.1) strongly suggests that the people inhabiting the region to the north and south of the River Douro were culturally distinct (Silva 1999, 410).

It is likely that the denser settlement pattern that developed north of the River Douro may have been a result of the encroachment of Rome which offered new economic opportunities and created alternative political powerbases (Almagro Gorbea 1995, 177; Wells 1999, 117). However, it is difficult to substantiate why the region to the south of the River Douro did not develop similar *oppida*-style structures to those found north of the river. These developments would appear to contrast with other cross-cultural contact, in particular those confederations which were located on the boundary of the study area and therefore the margins of late *castro* society. The conquest and gradual assimilation of the *Vettones* and *Vaccaeii* (see sections 4.8, 7.2.1, 7.2.2 and 7.2.3) by Republican Rome, and its need for local produce, stimulated the local economy and gave rise to a series of large *oppida* which controlled both exchange and production (Álvarez Sanchís 2005, 271). It would appear that these practises did not filter down to the margins of the territory of the *Vettones* and *Vaccaeii* along the east part of the study region where there is little discernible evidence for large hillforts apart from the settlement of Villalcampo (as discussed in section 7.2.2) (Esparza Arroyo 1983-1984). It is possible that Villalcampo, located on possible neutral territory at the convergence of a series of tribal confederations (the *Asturs*, the *Vettones* and the *Vaccaeii*, see section 4.8), served as a centre of commercial exchange which may explain why larger hillforts settlements did not emerge here, nor further east in Study Areas East, South and North. Alternatively, it may be the case that the catalyst of change, Rome, and its insatiable need for produce as a means to stimulate local economies and create new political orders did not influence those cultures located further towards the interior.

Where Rome played an important role in the development of *oppida* to the north of the River Douro (and with the possible development of larger structures in Study Area Chaves) as well as the territory of the *Vettones* and the *Vaccaeii*, such practices are also evident among other societies in Iberia. In the south of the peninsula *oppida*-type structures developed among the cultures located along the

Guadalquivir Valley at the periphery of the Tartessian civilisation from the fifth century BC (Ruiz Rodríguez *et al.* 1991, 31). However, while this process may have begun before the arrival of Rome around the late third century BC it appears to have accelerated thereafter. In the area around the modern-day Spanish province of Extremadura a powerful military elite emerged in the late first century AD, perhaps as a consequence of the Lusitanian Wars (155-139 BC), and established a series of *oppida* to further their military and commercial needs (Berrocal Rangel 2005, 486-488). Further east in the region around modern-day Valencia in eastern Spain a similar process of change was underway with the agricultural landscape increasingly allied to large *oppida* centres operated by a native Iberian elite, which functioned as a centre of refuge in times of crises, but also as centres of exchange and redistribution (Grau Mira 2011, 163-167). Parallel developments were taking place further north among the communities along the central Catalonia coast where a well-defined ranked settlement pattern developed from the fourth century BC. Such a settlement pattern may have been strongly influenced by the commercial and strategic needs of the region which was heavily integrated into Mediterranean exchange networks, acting as agents for commerce emanating from Rome and Greece and directed towards the Iberian interior (Miret *et al.* 1991, 47).

The rise of increasingly centralised settlement systems characterised by *oppida*-type structures appears to have been a result of dynamic civilisations located on the periphery, which acted to stimulate economic activity as well as create new political orders. Rome played a pivotal role in this process (Wells 1999, 117) as it slowly extended its influence from southern and eastern Iberia towards the interior of the peninsula. In areas such as the Guadalquivir Valley in southern *Hispania*, native civilisations once assimilated by Rome were adapted to wider pan-Mediterranean systems of control. Larger *oppida* and central places such as *Obulco*, *Urso* and *Gades*, which had played key regional roles, continued to perform a similar function under Roman control, while smaller *oppida* within the indigenous settlement pattern evolved into *vici* settlements, fulfilling a commercial role, while acting as administrative subordinates to larger towns (Choclán Sabina and Castro López 1986-1987).

In northwest Iberia, in particular in the study region, the absence of a network of large central places (perhaps due in part to the limited influence of Rome) meant that smaller settlements were often adapted to become Roman centres of power. For

example a possible *oppidum* of the *Turodi* became *Aquae Flaviae* (see sections 4.5, 5.3.2, 5.4 and 7.2.6) and the religious centre of the *Zoelae* became the future *civitas Zoelarum* (see sections 5.2.3, 5.3.2 and 6.5), while other focal points, in particular the *civitas Baniensium* (see section 6.5), appear to have been founded by Imperial authorities. As Tranoy and Le Roux argue, the early Roman cities of northwest Iberia functioned as administrative and political extensions of Rome and acted not only to control the surrounding indigenous communities, but also as a means to integrate disparate peoples into a wider Roman political system (Le Roux and Tranoy 1983-1984, 200; Tranoy 1981, 190). It should be said that Le Roux and Tranoy highlight the importance of the administrative and judicial functions of these nascent Roman centres (Queiroga 2003, 11) over their commercial activities and roles within the emerging settlement hierarchy. This is especially relevant to the *vici* of the study region which show evidence of having been managed by native communities who most likely provided an element of administrative control (for example the two *vici* settlement in Study Area East, see section 5.3.2), and acted as hubs for the *cursus publicus* (see section 5.5), but also provided an important role as market places (see section 7.2.9).

The assimilation of peripheral cultures by Rome into wider Mediterranean commercial networks had a diverse and dynamic impact on settlement structures creating a fusion of different native and ‘Roman’ practices. In the case of the Zamzam region of modern-day Libya, native hilltop villages continued to be occupied alongside more Roman-style dwellings in the more fertile lowlands (Barker and Jones 1980-1981). The continued occupation of hilltop sites is also reflected in Roman Italy, and particularly the *Ager Cosanus* study, centred around the Roman town of Cosa, northwest of Rome, where small hilltop sites from the Republican period survived well into the Imperial era (Greene 1990, 108). This would appear to contrast with the study region, especially the western part of Study Area South, where a cluster of *castro* settlements occupying a patchwork of prime agricultural land continued to be inhabited perhaps into the second century AD. The low level of connectivity in this area, as shown by the absence of an effective communication network and nearby ‘Roman’ central places to sell its goods probably contributed to preserving native practices among these communities.

In other regions, for example the region of southern Etruria to the north of Rome, where a dense network of *villae* and farming communities emerged during the

early Imperial period (Dyson 1978, 262), the high level of interconnectivity tied rural producers and urban consumers together. Such activities are representative of Study Area Viana, and particularly the area around the fertile Lima Valley with its excellent terrestrial and fluvial communication system, where a high density of *villae* and *casals* emerged, and displaced native *castro* settlements, to supply metropolitan centres such as *Bracara Augusta*. The communities producing perishable products needed accessible markets and when they were not present did not thrive. This may well have been the case with the early Roman communities located around the fertile lowlands of the Ave Valley where the density and size of sites is inferior to those found in the region of Catalonia in northeast Spain with the important Roman settlement of Tarraco (the capital of the *conventus* *Tarraconensis*), as shown by the Tarragona Survey (Carreté *et al.* 1995; Millett *et al.* 2000, 7. Conclusions). Similar practices appear to have taken place in the study region where pockets of fertile land were not extensively exploited. These include the small fertile region to the northeast of Study Area East where few agricultural centres developed, perhaps on account of the limited number of towns in the area, and the aforementioned productive region in western Study Area South which was largely isolated from Roman centres.

Where perishable products may have constrained regional development, it was not the case with staple products produced throughout the Roman empire. As Horden and Purcell (2000) make clear (see section 2.4.4.2) the interplay of geology, soils and the climate that made up the Mediterranean world had a powerful impact on regional development. Demand for staple Roman products played a strong role in shaping the settlement pattern of the Guadalquivir Valley in southern *Hispania* where *villae* occupied higher land which favoured olive cultivation. This was supplemented by cereal producing farms which occupied the low-lying fertile plain with urban settlements squeezed onto escarpments and terrain not necessarily conducive for agricultural practices (Ponsich 1974). The Guadalquivir Valley demonstrates similarities with those ‘microregions’ of agricultural centres located along the River Douro in Study Area East and South which invested heavily in olive oil production and grape cultivation. Moreover, both regions were heavily dependent on river networks (the River Guadalquivir in the Guadalquivir Valley and the River Douro in the study region) to transport their produce, in a similar way to the large nucleated rural sites that produced olive oil and which emerged along the northern African coast and made ready use of the Mediterranean sea to transport their produce

(see the Ksar el-Guellal site which covered in the region of 53ha and incorporated 20 industrial olive presses (Mattingly and Hitchner 1995, 192)).

The landscape of early Imperial Rome was therefore very much a product of the interconnectivity between ‘microregions’ and the commercial opportunities such relationships offered which subsequently played a strong role in shaping the individual nature of regional settlement patterns. For example, in the densely populated countryside of central Roman Gaul, it has been argued that the villa was the principal unit of production while *vici* manufactured and distributed goods (Leday 1980). This model would appear to contrast with the findings from the five study areas where *vici* served a function as marketplaces and distribution centres, but fulfilled a primary role as administrative centres for large urban settlements. Additional evidence shows that *villae* played an important and central function in more fertile areas, for example, Study Areas Chaves and Viana, but that role may have diminished in importance in other areas as shown by Study Area North, where few agricultural settlements have been identified.

7.3.1. Summary

In summarising this section, a series of points can be made which help us understand the study region from the Late Iron Age through to the early Roman period. Central to the development of the late *castro* society was the presence of peripheral cultures, chief among them Rome, which acted to stimulate economic activities, create new political orders and more centralised settlement patterns as shown by *oppida*-styled structures. Settlement pattern analysis and archaeological research would suggest that these activities were more profound in those areas located along or near to the Mediterranean basin. These changes did not permeate into Late Iron Age northwest Iberia and for this reason the development of a hierarchical Roman settlement pattern may have taken longer to come into being than other regions assimilated by Rome. However, while the study region was shaped by the fusion of Late Iron Age practices, the pre-Roman settlement pattern and the needs of early Roman administrators, it appears that northwest Iberia shared many of the characteristics of other regions assimilated by Rome. This is particularly relevant in the inclusion of the study region into a wider commercial realm and can be seen by the development of ‘microregions’ strongly orientated around generating surplus produce which was transported to other regions in the Roman world.

Chapter Eight. Conclusion

8.1. Introduction

This final chapter is divided into three sections. The first section addresses the research questions and objectives generated from an analysis of the principal debates concerning settlement patterns in late pre-Roman and early Roman northwest Iberia and listed at the end of Chapter Two. For the sake of clarity and expediency, the objectives contained within each research question are answered in sequence and thereafter there is a general summing-up. In the last part of this chapter, section 8.5 explores further avenues of research, while section 8.6 outlines this thesis' original contribution to knowledge.

8.2. Did a Late pre-Roman Iron Age settlement hierarchy exist in northwest Iberia?

Objective One. To define the people of northwest Iberia according to the socio-economic, political and settlement structures of their communities.

- Although each *castro* community was ostensibly different from another in terms of the size, structure and position of their fortified settlement, relative to the surrounding landscape, which would have influenced daily routines and practices, such as farming and food gathering, general traits can be identified, which shaped the regional activities of the pre-Roman peoples who inhabited northwest Iberia.
- Perhaps the most important of these were two different social structures, with kinship-orientated groupings inhabiting the eastern region of northwest Iberia and territorially-based social units occupying the area to the west, as shown by epigraphic evidence. The research conducted in this thesis has been successful in establishing that a series of overlapping lineage and territorially-based social systems converged around the Tâmega Valley in Study Area Chaves, with the former largely occupying the area to the east, and the latter the region to the west of the River Tâmega (see section 4.7). The findings from Thiessen polygon analysis (see section 4.6.5.1 for the analysis and section 4.7 for the discussion), suggest that a more developed hierarchical settlement pattern emerged on the west bank of the Tâmega Valley where large hillforts dominated smaller fortified settlements located on their territorial margins, particularly along the River Tâmega. As a result, to the west of Study Area Chaves, power may have become

increasingly centred in the hands of an indigenous elite who emerged to govern alongside Roman authorities with the pacification of the region by Imperial forces. In contrast, the research conducted in Chapter Four and Five show that the area immediately to the east of the Tâmega Valley is characterised by a patchwork of territorial and lineage-based social systems (see section 7.2.5), with the latter becoming the dominant social structure in eastern Study Area Chaves, and Study Areas North, South and East, where a less developed hierarchical settlement pattern emerged.

- Analysis of the five study areas has shown that overlapping the framework of socio-political kinship and territorial-based structures were communities which invested strongly in economic activities. These included not only those hillforts farming the area around the fertile Tâmega Valley in Study Area Chaves (see section 4.6.5.1 for analysis, and section 4.7 and 7.2.5 for discussion) but also those *castros* along the Atlantic coast, which exploited not only the prime agricultural land of the region, but also took advantage of their proximity to maritime resources to generate surplus produce (see section 4.6.3 and Chart 10 with chi-squared analysis and discussion in section 7.2.4).
- In other areas, notably Study Areas East and North, the findings from an analysis of the communication system and settlement patterns point to long-distance exchange with other *castro* communities as well as the large tribal confederations on the border areas of northwest Iberia (see discussion 4.7 and 7.2.2).
- The argument presented above suggests we can therefore speak of multiple social practices within the study region. Epigraphic evidence, as well as analysis carried out in section 5.3 suggests that within territorial-based hillforts activities were very much centred around the settlement's members, whereas in kinship-orientated communities were integrated into wider supra-communal relationships at settlement and / or tribal level. Additional forms of group affiliation overlay these two regional social systems with long-distance exchange evident among the communities of Study Area East and North (see section 4.7), which may have incorporated elements of *Vaccaeii* and *Vetton* culture, for example the zoomorphic berrões found in both regions (see section 7.2.2). Analysis on Study Area Viana shows that this region was economically active and that communities generated surplus produce (see section 7.2.4). This may have come about through the

construction of new practices in the region through greater connectivity with the Mediterranean world, as shown by the large numbers of Iberian and the Roman Republican coins in the region (see section 3.6.1).

Objective Two. To analyse the degree to which late pre-Roman settlement structures were conditioned by environmental, socio-economic and political factors.

- The findings from analysis conducted in Chapter Four, suggest that commercial activity around Study Areas East and North played an important part in shaping the relationship between individual *castros* and their immediate landscape, and therefore helped to define the settlement structure in many areas. In the case of Study Area East, a series of *castro* settlements were located on the high cliffs overlooking the River Douro, which provided not only an extra element of security against hostile concerns, but also fluvial access to other regions (see discussion 4.7 and 7.2.2).
- Archaeological studies also suggest that *castro* settlements were being progressively shaped by increased agricultural production from the Middle Iron Age onwards. Over the long-term, the number of people inhabiting these small fortified settlements rose and they founded new fortified hillforts nearby, thereby preserving the symbolic importance of the original intramural space and walled structure (see section 4.5). Evidence for *castro* settlements located in close proximity to one another has been shown from analysis conducted in Study Area North (see section 4.6.2). In this instance, kinship ties were preserved and good relations established between these adjacent hillforts which probably shared resources, particularly military apparatus and manpower, to preserve and protect their interests (see section 7.2.1), which may have extended to commercial exchange with other tribal units (see section 4.6.2, and the evidence for two settlements either side of the River Sabor controlling a possible the river crossing of a trade route).
- Analysis conducted in this thesis for other regions, such as Study Area Viana, suggests that economic activity began to increasingly shape the landscape with clusters of small hillforts investing in farming, mining and the gathering and harvesting of maritime resources beginning to define the region (see discussion 4.7). It is also possible that these groupings of late pre-Roman *castros*, like the

fortified hillforts in Study Area North, represented communities which were to some degree affiliated along political and economic lines, sharing defensive concerns as well as pooling resources to maximise commercial activity (see section 7.2.3). In this respect, the political and economic union of these clusters of small settlements may have represented a united front against the activities of larger hillforts, especially in Study Area Viana, where larger social units, the *populi* and *civitates*, possibly grouped around *citânias*, began to emerge (see section 7.2.6).

- Commercial and political concerns were also important in shaping the communities of Study Area East, as shown by analysis conducted in section 4.6. Of particular relevance were neighbouring tribal confederations, the *Vaccaeii* and the *Vettones*, who may have founded open settlements in the region, which were then subsequently occupied in the early Roman period and later emerged as *vici* settlements. The *Vaccaeii* and *Vettones* may also have controlled the fertile region around the confluence of the River da Vilariça and the River Sabor in Study Area South where an examination of landscape showed the terrain offered limited opportunities to build defensible structures and where few *castro* settlements emerged in the Late Iron Age (see section 4.7). It is therefore possible that a *Vetton* or *Vaccean* presence in Study Areas East and South, was a primary reason why spatial analysis undertaken in Chapter Four shows a cluster of *castro* settlements emerged in western Study Area South, located away from the principal transport network, the River Douro, and largely isolated from surrounding settlements (see sections 4.7 and 7.2.4)

Objective Three. To examine the argument advanced by Parcero Oubiña and Sastre Prats as to whether a nascent pre-Roman settlement hierarchy, orientated around tribal networks, was evident in the landscape of northwest Iberia.

- Of the five study areas analysed in this thesis, only Study Area Chaves could be judged to display any semblance of a nascent hierarchical settlement pattern. However, it is difficult to establish whether smaller hillforts located on the periphery of larger *castro* settlements were affiliated concerns or forcefully subject to some form of control (see section 4.6.5.1 for analysis and 4.7 for discussion). Moreover, this ranked settlement pattern does not appear to represent

the social structure of the whole region, where a territorial-based system existed to the west of the River Tâmega, and a kinship-orientated structure prevailed to the east (as I have already established above in Objective One), but may have been shaped by competition over agricultural and mining resources. In this sense, the settlement structure of Study Area Chaves and associated activities which suggest growing inequality contradict Parceró Oubiña's (2003) notion that contact with Rome created an elite, and thus inequality (see section 1.5.4), within the *castro* community.

- Equally, while Sastre Prats' (2008) model of isolated *castro* settlements (see section 2.2.1) is evident from analysis of fortified hilltop settlements located along the River Douro in Study Area East, and at a regional level with the community of hillforts in western Study Area South, it cannot be applied to other areas. This is most notable in Study Area North and Viana, which despite their different social structure developed clustered settlements in response to commercial, political and social concerns (see section 4.7 for a discussion of analysis conducted above).

To sum up this first research question, an examination of the five study areas showed that only the fertile region of Study Area Chaves displayed any evidence of a nascent hierarchical settlement pattern, with environmental factors playing a more prominent role than social structures. Furthermore, Parceró Oubiña's (2003) and Sastre Prats' (2008) models can be seen as limited in their scope as explanations of Late Iron Age society in northwest Iberia, and other investigations, conducted primarily in Chapter Four, have shown that each study area, and often regions within study areas, are fundamentally different at a political, social and commercial level. For this reason, we must acknowledge that multiple *castro* cultures existed, each shaped by multiple features.

8.3. To what degree did the administration of early Roman northwest Iberia adopt and exploit the landscape of pre-Roman northwest Iberia, and how did the Roman settlement structure differ from the pre-Roman Period?

Objective. One. To determine the location, type and pattern of early Roman settlement structures in northwest Iberia and determine the degree to which they were shaped by environmental, political and socio-economic factors.

- Environmental and commercial factors placed an important role in shaping the early Roman landscape, which was particularly evident in Study Area Chaves, where recent surveys suggest a small military camp evolved into a regional economic and administrative centre, the *municipium* of *Aquae Flaviae*. In other regions, notably Study Area South, analysis conducted in Chapter Five suggests there was a conscious policy to establish a strategic centre, the *civitas Baniensium*, to: (a) administer the surrounding tribal groupings and provide a central place for their activity; (b) develop the profitable fertile terrain and mining activity in the region; (c) monitor and provide control for mining activity and also in the adjoining region of Study Area East (see section 5.3.2 for analysis and 5.4 for discussion).
- Located near to these central places were *vici* settlements, which may have been established by the indigenous elite with the primary function of administering outlying areas on behalf of *civitas* capitals and *municipia*. In the case of Study Area East, *vici* settlements formed the most important centres in the region, as shown by the variety of roles they may have fulfilled e.g. acting as points on the *cursus publicus* (Roman postal service). An examination of the study area shows *vici* settlements in Study Area East were connected by the main Roman road (see section 6.4.2) and probably played a critical role in administering the region. Further analysis in Study Area North, demonstrates the *vicus* settlement may have been positioned on an established Iron Age routeway and therefore acted to control the passage of people and livestock as well as offering a market for the sale of surplus produce (see section 6.4.2).
- Located around these central places were a series of satellite towns and agricultural producers (as shown by a brief analysis of each study area in section 5.3.2). In the case of *Aquae Flaviae*, the intense agricultural production along the Tâmega Valley contributed to the economic and subsequent social and political success of the settlement. In other areas, particularly in Study Area North, the relatively poor soil, inaccessible and costly transportation routes, and limited local demand for produce, given the small number of settlements in the region, acted to contract the settlement pattern around the *civitas Zoelarum* (as established in the analysis of land use capacity in section 5.3.4).

- Where other areas offered lower cost transportation, especially the region around the River Douro in Study Area East and the southwest area of Study Area South, an investigation of the study region showed that agricultural producers exploited the land to produce staple goods such as wine grapes and olive oil (see section 5.3.2 for an overview, section 5.3.4 for an analysis of the agricultural landscape and section 5.4 for a discussion). As with Study Area North, few central places developed in the southwest area of Study Area South and Study Area East, with the limited exploitation of prime agricultural land suitable for growing a wide variety of products demonstrating the restricted demand for such food items.
- In other regions such as Study Area South, Viana and Chaves, the Roman settlement pattern increasingly clustered around fertile regions, such as the Lima Valley in Study Area Viana and the Tâmega Valley, as agricultural producers responded to: (a) commercially-accessible markets and settlements; and (b) cost-effective transportation networks, especially waterways to transport bulky agricultural produce (see 5.3.2 for an overview and 5.4 for a discussion).

Objective Two. To explain the continuity and discontinuity of pre-Roman and Roman structures according to: (a) environmental constraints; (b) location, plan and form of urban and rural settlements; (c) socio-economic and political factors.

- As I have outlined above, the analysis conducted in this thesis shows demand and transportation increasingly shaped the rural landscape of the study region, and had the effect of compressing the early Roman settlement pattern around a series of central places and transport networks (discussed in greater detail in answer to research question three below). This pattern was especially evident in Study Area Viana, where *castros* from the Roman period continued to be occupied in northwest and western regions of the study area. In the case of the latter, the harvesting of the salt marshes and rich marine life, as a principal form of economic activity, does not appear to have continued once the fortified hillforts were abandoned in the first and second centuries AD (see section 5.4).
- The process of abandonment of these *castro* settlements was therefore dependent on a variety of factors, as demonstrated by an examination of the five study areas. In Study Area North, where two Iron Age hillforts had existed in close proximity, one was abandoned during the early Roman period, while the other continued to

be occupied, affirming the close kinship-based ties between adjacent communities. Moreover, during the first and second centuries AD, the close proximity of Roman-period *castros* to *villae* and Roman settlements, as shown in the analysis of the study region, suggests that many of these Late Iron Age settlements relocated to lower ground to found new agricultural settlements. This is demonstrated by the presence of a series of torques found in a Roman settlement 744, in Study Area South, which probably came from the nearby abandoned Roman-period *castro* 773 (see section 5.3.2). Further investigation using Thiessen polygon analysis (see section 5.3.3.1), shows that *villae* and *casals* in Study Areas North and East were established on shared territorial boundaries of Late Iron Age hillforts, suggesting that kinship ties played an important role in the pre-Roman period, and continued to exert a strong social influence during the early Roman period.

- To the west, in Study Area Viana, an analysis of the transformations among Late Iron Age communities appears to have been more abrupt with entire clusters of *castros* either abandoned or continuing to be occupied during the early Roman period (see section 5.3.2 and the discussion in 5.4). As such, this may reflect the pace of change in the region, where epigraphic evidence points to social groupings which were increasingly merging to form *populi* and *civitas* units (see section 1.5.5), but also new commercial opportunities brought about the rapid emergence of *Bracara Augusta* and its affiliated satellite towns to the south.
- Where continuity appears to have been more established between the Late Iron Age and early Roman period is through the location of central places. This is shown by *Aquae Flaviae* where recent excavations suggesting the site developed from a first century BC military camp (see section 7.2.8) located on a possible Iron Age *oppidum* of the *Turodi* tribe (see sections 4.4 and 5.3.2). Similar activities are evident in Study Area North, where analysis suggests that a possible religious centre of the *Zoelae* became the *civitas Zoelarum*, and in Study Area East with *vici* settlements possibly developing from open settlements established by the *Vaccaeii* and the *Vettones* in the Late Iron Age (see sections 5.3.2 for an analysis and 5.4 for a discussion). In this sense, the founding of Roman settlements on Iron Age central places could be seen as a deliberate policy to establish an element of strategic and political control over late *castro* tribal

groupings. Equally, the continued occupation of these Iron Age centres can be seen as a testament to their location along important communication routes, as shown by studies of *Aquae Flaviae*, which controlled the access of a strategic crossing of the River Tâmega (section 7.3). Detailed analysis conducted in Chapter Six also reveals that other central places, for example the *civitas Zoelarum* and *vici* settlements in Study Area East, all of which were positioned on cost-effective pathways on which Roman roads were established (see discussion 6.5).

Objective Three. To analyse the continuity of pre-Roman structures under the guise of Roman-period *castros*, based on their specialised role as centres of mining and/or agriculture, and the locational criteria for the development of these settlements.

- No definite model can be proposed for the continued occupation of *castro* settlements into the early Roman period. An examination of the study area during the early Roman period, suggests that the cluster of hillforts in western Study Area South, which was isolated from *Aquae Flaviae* to the northwest and the *civitas Baniensium* to the east, most likely contributed to continued occupation of many of these native settlements (see section 6.6). In other study areas, Roman-period *castros* continued to operate in those regions which were detached from the main focus of commercial activity during the early Roman era, as shown by Study Area Viana (see section 5.3.2). However, not all Roman-period *castros* continued as peripheral concerns with clusters of hillforts in central Study Area East and the area to the northwest of Study Area North, positioned near to the main Roman road (see section 6.5). Why the communities of these hillforts did not relocate and establish Roman settlements on lower ground may be associated with more robust practices which emerged among kinship-based communities during the Late Iron Age, and which continued to play an important role in the early Roman period (see section 7.2.6).
- Where mining activity was practiced during the Late Iron Age, related settlements were often abandoned in preference for Roman settlements located on lower gradients, as is evident in western Study Area Chaves, where increased production required greater manpower and hence new and larger settlements (see Table 12, section 5.3.4). Consequently, it appears that pre-Roman mining was limited in

scope and application and it was only in the Roman period that much mining activity was introduced to certain regions, for example Study Area South.

To sum up, early Roman authorities established central places on existing Late Iron Age sites, but as the analysis in this thesis has shown many of these settlements already exploited and controlled strategic communication routes. In addition to this, it also appears there existed an early Imperial policy of creating central places as shown by *civitas Baniensium*. Whereas the settlement pattern of the Late Iron Age is more focused around the individual hillfort and its members, in the early Roman period the landscape is more orientated around commercial agricultural practices and access to markets.

8.4. To what extent did Roman fluvial and terrestrial routes exploit the pre-Roman communication network and how did this impact on the development of the Roman settlement structure?

Objective One. To define the terrestrial and fluvial communication network of pre-Roman and Roman northwest Iberia.

- Classical sources, archaeological studies and the analysis conducted in this thesis have all demonstrated that the River Douro forms the dominant waterway in northwest Iberia providing a border, as well as a fluvial passageway to the Iberian interior to the east and the Atlantic Ocean to the west. A series of key rivers connect to the River Douro, among them the Sabor in Study Area South and the Tâmega in Study Area Chaves. Study Area Viana was shaped by a series of waterways, which run through its territory, among them the Rivers Lima and to the north the River Minho.
- The Roman road network complements the river system, providing adjoining passage as in the case of the River Lima in Study Area Viana, and the River da Vilariça, which runs north past the *civitas Baniensium* in Study Area South. However, the principal role of the arterial roads was to provide a quick and effective means of connecting the main Roman centres to one another, and in this way analysis of the Roman road network in the study region shows that it addressed strategic concerns over commercial needs (see discussion 6.5).

Objective Two. To explain the continuity and discontinuity of the pre-Roman and Roman communication system in terms of: (a) environmental constraints; (b) the location, plan and form of urban and rural settlements; (c) socio-economic, political and strategic factors; (d) its degree of connectivity with the wider Roman world.

- Little is known of the exact nature of movement during the pre-Roman era, however, least-cost path analysis would suggest that most cost-efficient routeways became established during the Late Iron Age, if not before. This is especially visible in Study Area East, where the two *vici* settlements, and possible pre-Roman structures, were connected through a series of optimum routeways, on which a Roman road was later constructed. Equally, in Study Area North the *civitas Zoelarum*, which may have functioned as a tribal centre for the *Zoelae*, was connected to the east along an optimum pathway, which became an established Roman *via* around the turn of the first millennium (see section 6.4.2 for analysis and 6.5 for a discussion). However, not all earlier terrestrial routeways were utilised by the Romans, as can be shown by the river crossing over the River Sabor in Study Area North, which appears to have fallen into disuse in the early Roman period (see section 4.6.2).
- During the late *castro* period, pre-Roman sites used fluvial networks as defensive barriers rather than as a means of movement, as shown by an examination of Study Area Chaves and the north of Study Area East (see section 4.6.2). However, in the case of those settlements located along the River Douro in Study Area East, their proximity to tribal confederations located on the River Douro may again point to long-distance exchange facilitated along established and easily negotiable waterways (see section 4.7).
- In contrast, analysis has shown that these fluvial networks were extensively employed in the Roman period to export mining ore and agricultural produce, particularly along the Rivers Douro, Tâmega and Lima. In doing so, the waterways provided the connectivity to establish multiple ‘microregions’ throughout the study area. Along the River Tâmega a symbiotic relationship developed between the agricultural centres located along the valley’s edge and the burgeoning commercial centre that would become *Aquae Flaviae*. In contrast, in Study Areas East and South where a dense network of *villae* and *casals* emerged which produced staple products such as olive oil and wine for export elsewhere in

the Roman empire, a smaller number of minor central places materialised. In addition to this the road network, which strategically linked the Roman central places, provided another communication route if the river was inaccessible or offered only a limited seasonal passage (see discussion 6.5).

Objective Three. To explain continuities and discontinuities of the pre-Roman and Roman arterial road network and fluvial transport system against economic opportunities and political hegemony.

- Perhaps the most important aspect of the Roman road network was to strategically connect Roman central places, the majority of which were founded on important pre-Roman sites (see 6.5 for the *civitas Zoelarum* and 7.2.6 for *Aquae Flaviae*). This is especially symbolic in Study Area North, where an investigation of the northern Roman road negotiated a shorter passage than the southern route, but over steeper terrain suggesting it was built during the pacification of the region by Imperial forces (see discussion 6.5). While such a route may not have been suitable for all forms of transport, especially traction animals pulling large loads, it did have the desired effect to condense space and time and favour troop movement and thereafter civilian passage. In this respect, the Roman road network functioned to connect large central places, which profited from newer practices and ideas and thereby benefited from greater commercial activity, which over the longer term would consolidate the importance of these settlements.
- The Roman arterial road network therefore functioned to provide political rule over the most important and economically viable regions. Where major Roman roads were absent, such as in western Study Area South, it is possible that many of these settlements were self-administered, but under Roman supervision. Over the course of time these communities would abandon their fortified hillforts and settle in the lowlands, where more Roman-orientated settlements were established.

Objective Four. To analyse the role of pre-Roman and Roman structures in determining the trajectory of Roman roads and the role and importance of Roman communication routes in shaping the settlement pattern of northwest Iberia.

- In many instances the Roman settlement pattern simply exploited existing indigenous sites and natural pathways, which can be seen in the investigation of

Study Area East, in section 6.5 where two *vici* and possible pre-Roman structures are joined by a series of optimum routeways. A similar blueprint is also visible in Study Area North, where a probable native centre became the *civitas Zoelarum* and a Roman road was established along the pre-Roman routeway.

- Further analysis in section 5.3.2, suggests that *Aquae Flaviae* was established on a pre-Roman *oppida* and near a crossing point on the River Tâmega, and that a possible pre-Roman terrestrial communication route existed, which connected the site with *Bracara Augusta* to the west and the *civitas Zoelarum* to the east, as argued in section 6.5.
- An analysis of Study Area South, points to *civitas Baniensium* being an *ex-novo* site, which extensively exploited the surrounding river network, above all the River Douro, to transport agricultural produce as well as metal ores to market, as established in section 6.4.2. In this respect, the *civitas Baniensium* represents a regional centre which was established in response to early Roman administrative and commercial needs. An examination of the early Roman communication systems in section 6.4.2 shows that the road which snaked north from the *civitas Baniensium* to connect with the *civitas Zoelarum* to the northeast and *Aquae Flaviae* to the northwest, was in all probability established at the same time in the late first century BC, or early first century AD.
- Lastly, while many of the Roman central places appear to have been constructed on pre-Roman structures which utilised native pathways (as discussed above), the opposite is true for smaller settlements, particularly agricultural producers, who showed a tendency to locate close to fluvial communication routes. This can be seen extensively in analysis conducted in section 6.5 for Study Areas South, Viana and Chaves. The exception to this rule was in Study Area East, where the main Roman road ran along a series of least-cost paths and offered farming communities in the region a cost-effective means to transport their produce to market.

To sum up, the people of pre-Roman northwest Iberia appear to have exploited elements of the fluvial network, but the development and use of an indigenous road network was limited to a series of pathways. During the Roman era the Roman road network strategically connected the major Roman towns, while the

waterways operated more as a commercial concern, allowing produce to be efficiently and cheaply transported.

8.5. Further Research

While this thesis provides an important template and methodological approach to conduct a comparative diachronic analysis of regional settlement patterns, it also suggests a number of other potential future directions.

Firstly, other regions should be examined within Iberia, particularly the Roman mining area known as Las Médulas, in the modern-day province of León, Spain, whose data remains the property of the Spanish academic division, CSIC, and which was requested, but not available for use. Moreover, although datasets are available for many regions in northern Portugal, the same cannot be said for northwest Spain, where research into the Late Iron Age and early Roman periods show a tendency to focus on small study areas. Without doubt there has been a division in academic practices between northern Portugal and northwest Spain, which is slowly being reconciled, but closer cooperation and shared practises would enable catalogues of settlements and finds to be produced and subsequently examined.

Secondly, more attention should be paid to intramural excavations of *castro* settlements. Sastre Prats' (2008) theory of *castro* society as discussed in sections 1.5.4 and 2.2.2, rests firmly on a few excavated settlements and it would be especially relevant if these internal structures could be found in other fortified hillforts in the region of León and beyond.

Thirdly, more emphasis should be placed on identifying possible burial sites, whether extra or intramural, to establish the degree to which, if any, a warrior class or members of society invested in warfare as a means to defend their territory and / or establish an element of control over neighbouring communities. A greater emphasis on locating and excavating burial sites would prove very beneficial in providing additional information about Late Iron Age social structures in northwest Iberia.

Fourthly, more analysis and excavation is needed for the region bordering Study Areas South and East where a *Vetton* and / or a *Vaccean* presence may have been established in the Late Iron Age. Moreover, it is possible that open settlements, perhaps affiliated to the *Vettones* or the *Vaccaeii*, may have existed in the Late Iron

Age, and locating such structures would require a different methodological approach, given that the majority of Late Iron Age sites are fortified settlements and for this reason easily identifiable.

Finally, and in respect to the early Roman period, fieldwalking as conducted by Keay and Millett in the late 1980s for the Ager Tarraconensis project in northeast Spain (see Carreté *et al.* 1995), would provide the means to cheaply and effectively catalogue small finds and augment our knowledge of the settlements. This is especially relevant within the context of the countryside where farming communities can be identified through the presence of *imbrices* and *tegulae* (Roman roof tiles). This data could then be utilised against least-cost paths to generate a more complete understanding of the workings and configuration of the rural landscape.

8.6. Original Contribution to Knowledge. Rome and Cultural Change

This thesis provides not only a valuable contribution to our general understanding of the processes which characterised Late Iron Age and early Roman northwest Iberia, but also presents a more detailed insight through an analysis of the settlement pattern as to how new practices and the use of power transformed the region. By examining five distinct study areas with different physical attributes and challenges, each of which was shaped to a greater or lesser degree through its contact with Rome and other neighbouring tribal confederations, the pace of change can be measured and analysed within the context of the region as a whole. As a result of employing a regional comparative analysis, this thesis builds on those regional studies conducted in Trás-os-Montes (Lemos 1993), the area around the River Cávado (Martins 1990) and *Aquae Flaviae* (Amaral 1993; Teixeira 1996).

The incorporation of other methodological approaches, namely, GIS and computer-based analysis, have also allowed me to examine the landscape of northwest Iberia in greater detail than previous studies. This has not only generated a more accurate understanding of the landscape of northwest Iberia, but also permitted more specific and dynamic questions to be addressed. While the models of the Late Iron Age in northwest Iberia advanced by Parceró Oubiña (2003) and Sastre Prats (2008) provide a valuable insight into pre-Roman northwest Iberia, the concepts they advance do not fully explain late *castro* society. Rather, analysis conducted in this thesis has shown that we should speak of multiple *castro* societies which were shaped by a series of factors, among them; the environment; the political and social

structure; contact with neighbouring tribes and Roman authorities; and long-distance commercial exchange. In addition to this, territorial and kinship-based social structures ensured that different types of activities and settlement structures developed within the landscape. In this way, within some areas territorial-based *castros* showed evidence of pooling their resources and demonstrated support for a nascent settlement hierarchy, while other cultures, especially those towards the east of the Tâmega Valley, opted to isolate themselves from surrounding hillforts. The diverse nature of late *castro* society, in conjunction with a pace of change which was neither spatially nor temporally uniform, would play an important role in transforming the study region in the early Roman period.

The notion that early Roman northwest Iberia was shaped largely by a native elite at a provincial level (see Downs 2000, 209), or through a native elite acting alongside Imperial agents (see Millett 1990), is not reflected in the examination of the study region. Rather, the analysis conducted in this thesis points to multiple practices, which emerged during the early Roman period with native communities existing in isolation (western Study Area South), alongside Roman communication systems (Study Area East), but also the emergence of new settlements during this period. This demonstrates that the activities of the people of northwest Iberia during this period (and during the Roman empire as a whole) were both multiple and fluid (Revell 2009, 23), but also requires that we begin to employ more flexible concepts of the past (see Gardner 2007, Chapter One, for a criticism of Romanisation; and Hingley's (2005b, 118-120) suggestion that the Roman empire and its culture cannot be effectively understood through the framework of 'globalisation').

Where the impact of Rome can be seen at work in the study region, is through the theme of connectivity, where the peoples of the region could participate in the wider social and commercial activities offered by the Roman empire. In Study Area East, agricultural producers of olive oil and wine grapes emerged along communication routes as seen in other Roman provinces (see section 7.3). Moreover, the export of goods in Study Area East, also ensured the region was devoid of large settlements. However, heightened levels of connectivity also existed at the local level as demonstrated by the multitude of agricultural centres located along the Tâmega Valley which benefited from a strong symbiotic relationship with *Aquae Flaviae* and helped this settlement to develop into an important regional centre. The economic exploitation at both a local and regional level was largely the result of the way in

which Rome devised policies to suit its own interests (see Mattingly 2011, xx). Early Roman authorities employed a range of powers to pacify local ethnic groups and create new centres, for example the *civitas Baniensium*, which would act to exploit its immediate surroundings. Subordinate to these Roman central places were a series of *vici* settlements, which acted as minor administrative hubs and markets, but were strategically connected, along with other principal Roman centres of the study region to an extensive Roman road network. In this sense, the early Imperial landscape was increasingly shaped by Roman power strategies, shown by economic exploitation, the founding of strategic centres and an integrated communication system which had much in common with many other provinces assimilated by Rome at a similar time. Where the study region differs from other provinces in the Roman empire is the identification of distinctive local and regional practices shown by the regional comparative settlement analysis conducted in this thesis.

Bibliography

It should be noted that the referencing of Spanish authors who traditionally have two surnames is as follows. Where a Spanish author refers to their two surnames, for example, Sastre Prats (2001), they are referenced in this way. When a Spanish author only uses their first name in an English language publication, for example Sastre (2008), they are referenced as Sastre Prats (2008) to ensure continuity. In the same way where a Spanish author uses hyphenated surname in an English language publication, for example González-Ruibal (2006), the surname is presented as two according to Spanish custom. Lastly, where a Spanish author has chosen to use a single surname, for example Mangas (2000) in Spanish language publication, or alternatively in a British one, for example Aubet (1995), they are presented in this way.

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