

**MAPPING SOCIETY:  
SETTLEMENT STRUCTURE  
IN LATER BRONZE AGE  
IRELAND**

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ARCHAEOPRESS ARCHAEOLOGY

ARCHAEOPRESS PUBLISHING LTD

Gordon House  
276 Banbury Road  
Oxford OX2 7ED

[www.archaeopress.com](http://www.archaeopress.com)

ISBN 978 1 78491 243 7  
ISBN 978 1 78491 244 4 (e-Pdf)

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Printed in England by Oxuniprint, Oxford  
This book is available direct from Archaeopress or from our website [www.archaeopress.com](http://www.archaeopress.com)

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## Acknowledgements

This publication is the result of my PhD thesis which was undertaken at Queen's University Belfast from 2009–2012. The viva voca took place in 2012 and the doctorate was awarded in 2013. Thanks therefore go first and foremost to my primary supervisor Dr Gill Plunkett and my second supervisors Professor Jim Mallory and Dr Chris Lloyd (Queen's University Belfast). Their help, advice, and comments on previous drafts of the thesis and also on oral presentations and written articles are very much appreciated. Dr Lloyd's advice on the Geographic Information Systems (GIS) and production of the Cross-L programme was instrumental in the analyses. Libby Mulqueeny kindly improved the quality of many of the non-map illustrations, especially the outputs from OxCal. Several people read and commented on parts of the thesis, including: Dr Mark Gardiner, Dr Finbar McCormick, Dr Alastair Ruffell, and Dr Dirk Brandherm (Queen's University Belfast), and Dr Neil Carlin (University College Dublin). Dr Eoin Grogan (National University of Ireland, Maynooth) very kindly read and commented on parts of the thesis, granted me permission to critique his research with The Discovery Programme, and provided constant motivation and support throughout the entire journey. Thanks also to my viva voca examiners Professor Susan Hamilton (University College London) and Dr Eileen Murphy (Queen's University Belfast).

Thanks to Dr Phil MacDonald (previously Centre for Archaeological Fieldwork) for helping me obtain, and to Professor Paula Reimer and The Chrono Centre (Queen's University Belfast) for granting, new radiocarbon dates for Corrstown. Lorna O'Donnell kindly identified the wood species. Lorraine Barry and Conor Graham (Queen's University Belfast) have both been very helpful with GIS-related advice. Dr Anne Kandler and Dr Luke Premo (University College London) showed endless patience at the Centre for the Evolution of Cultural Diversity Summer School: *Modelling of spatial diffusion and dispersal processes in social science* (attended September 2010). Assistant Professor Shawn Graham (Carleton University, Canada) graciously continued my education in the world of agent-based modelling, and answered all my questions regarding his TravellerSim model in record time. Professor John Waddell read and commented on my article for *Journal of Irish Archaeology*.

None of the research would have been possible without the sharing of excavation reports and data from the commercial archaeological companies. Several individuals in particular were most helpful: Donald Murphy of Archaeological Consultancy Services (Ltd); Rob O'Hara and Aidan O'Connell of Archer Heritage; Fintan Walsh, Paul Higgins, Aoife McCarthy, Maeve Tobin, Gill McLoughlin, and Tim Coughlan of Irish Consultancy Services Ltd; Cia McConway of Archaeological Development Services; Sara Nylund and Colm Moloney of Headland; Colin Dunlop and Robert Chapple of Northern Archaeological Consultancy; and Rory Sherlock of Sheila Lane and Associates. The dedication and expertise of the excavation directors over the last two decades has led to the data which have completely altered our perceptions of Bronze Age Ireland. Thanks to those who willingly shared their reports.

Thanks also extend to The National Roads Authority, who was at the forefront of many of the excavations. Again, certain individuals were most helpful, particularly James Eogan, Jerry O'Sullivan and Richard O'Brien. When excavation reports were not available from either the companies or the National Roads Authority, Martin Reid from the National Archives Ireland, and Paul Logue from the Northern Ireland Environment Agency, kindly supplied with me with hard copies. Dr Katherina Becker, University of Bradford, graciously forwarded me a copy of her appendices from her thesis; Dr Neil Carlin, University College Dublin, let me read versions of his PhD thesis, and gave me a copy of his database, for which I am most indebted.

Various government departments provided relative information and digital datasets for use within the GIS. These included The Environmental Protection Agency and The Geological Survey of Northern Ireland. Dr Eileen Murphy (Queen's University Belfast) provided a copy of the *INSTAR: The People of Prehistoric Ireland* database. Thanks extend to the support staff at Queen's University Belfast, especially Gillian Johnson and Martin Stroud. Prizes awarded by the Soulby

Research Fund and the 75th Anniversary Fieldwork Prize within the School of Geography, Archaeology and Palaeoecology, Queen's University Belfast, were instrumental in carrying out the fieldwork. The research was funded by The Department of Education and Learning.

# Chapter 1

## Study Overview

This introductory chapter briefly examines contemporary understanding of Bronze Age Ireland. It outlines the research questions behind this study, and the accompanying aims and objectives. The theoretical background to the research provides justification for the analysis of the settled domestic landscape.

### Introduction

Over the last three decades there has been a considerable rise in the number of excavations which have revealed evidence for Middle–Late Bronze Age (*c.* 1750–600 BC) settlement in Ireland. Previously the known settlement record had been relatively limited, despite the prominence of Ireland’s status and role in the later European Bronze Age. The importance of the island is attested by the remarkable corpus of fine metalwork with Irish origins; this includes numerous gold adornments found throughout Ireland, Britain and beyond, even as far as Lower Saxony (Eogan 1994: 95, 107). Due to an increase in development-led excavation the situation has since changed dramatically, however. The direct evidence for settlement now includes over 300 individual sites, although details for the majority currently remain unpublished. The sites include an increasing number of habitations in wetland settings, and several hillforts previously considered to have their origins in the Iron Age. Indirect evidence for settlement is even more widespread and considerable than hitherto, and well-dated burnt mounds, ringditches, and cremation cemeteries are known from throughout Ireland. Published syntheses of the Bronze Age buildings associated with settlement are notably absent, although John Ó Néill’s (2009) study places such buildings within a developed typological framework (explored in Chapter 6). Some archaeologists have attempted to assess the social context of the settlement patterns (albeit based predominantly on undated material), and to examine how the direct and indirect evidence for settlement interrelates in particular regions, most notably in north Munster (Grogan 2005a; 2005b). Grogan’s publications remain at the forefront of Bronze Age syntheses; however, the north Munster analyses were conducted prior to the recent upsurge in excavations. The lack of published detailed and systematic attempts to understand the settlement evidence now available for this period in the whole of Ireland — in terms of site location, site distribution, settlement patterns, regionalism, hierarchy, and chronological developments — means that the

social, economic, and political context of the Middle–Late Bronze Age is not at all well-understood.

The term Middle–Late Bronze Age is taken to represent the latter part of the Bronze Age. This period encompasses the emergence of functionally and spatially distinct settlements which are apparent in the archaeological record by the Middle Bronze Age (*c.* 1750–1250 BC), the emergence of hillforts in the Late Bronze Age (*c.* 1250–600 BC), and ends with the widespread adoption of iron in the Iron Age (*c.* 600 BC–AD 400). The Middle and Late Bronze Ages are particularly well-suited to analysis as these periods are chronologically distinct from the preceding and succeeding eras. For much of the Early Bronze Age (*c.* 2200–1750 BC) domestic architecture did not leave a durable footprint, and social, stylistic, and architectural changes in the Iron Age culminated in the relationship between people and the landscapes in which they lived taking on ‘an entirely different aspect in the Iron Age’ (Armit 2007: 135). The combination of the large-scale development-led excavations and the scientific dating of recovered associated material mean that it is now appropriate to re-examine Bronze Age society through the domestic record. The prime goal of this research is therefore to analyse the settlement structure of Middle–Late Bronze Age Ireland, thereby producing a model(s) of contemporary society.

### Research Questions, Aims, and Objectives

The research focuses upon three main research questions (RQ) in order to analyse the settlement structure of the Middle–Late Bronze Age:

- RQ 1:** What are the readily identifiable and explainable spatial patterns regarding settlement location?
- RQ 2:** How did settlements operate within their landscape?
- RQ 3:** Can the settlement data be incorporated into any known or developed models regarding Bronze Age society?

Four aims have been formed in order to answer the three questions; at least one objective has been developed to facilitate achieving each aim.

- Aim A:** – to provide a current and comprehensive account of the available settlement evidence pertaining to the Middle–Late Bronze Age.

**Objectives:** – define settlement in relation to this study;  
 – use Ó Néill’s (2009) gazetteer as a platform to create a comprehensive Geographic Information Systems (GIS)-based database.

**Aim B:** – to identify any relationships with the sites’ setting in the landscape: chronologically and spatially.

**Objectives:** – develop understanding of theoretical background;  
 – record and interrogate information on dating and chronology: include radiocarbon and dendrochronological dating as well as artefact typology (where secure) and stratigraphy;  
 – use a GIS to determine landscape patterns based on a series of propositions.

**Aim C:** – to examine wider settlement patterns, particularly in relation to the distribution of other elements of the archaeological record (burnt mounds, field systems, funerary monuments, hoards and single finds, stone monuments, hilltop enclosures, and hillforts) — at least some of which have been the subject of recent analysis, and some of which are distinctly regional developments — and to bear in mind indirect evidence for settlement from pollen records.

**Objectives:** – use digital datasets downloaded from the Record of Monuments and Places (RMP: Republic of Ireland) and Sites and Monuments Record (SMR: Northern Ireland) from which the relevant data can be extracted to create GIS-map layers;  
 – extract data regarding single metal artefacts and hoards from Becker (2006) to create relevant GIS-map layers;  
 – record excavated and dated indirect settlement evidence where possible (this is not carried out on an island-wide, systematic level as to do so is beyond the scope and timeframe of the research);  
 – conduct six regionally disparate case studies in order to demonstrate patterns on a micro-level which may prove transferable to a macro-level (typification), and vice versa.

**Aim D:** – to interrogate the data to test any hierarchical patterns of settlement, any possible associated explanations of societal development, and to elucidate information regarding Bronze Age identity.

**Objectives:** – analyse established theoretical social models;  
 – apply models to Irish data;  
 – pay particular attention to potential self-conscious acts of difference which may shed light on identities.

The research questions were addressed by using the aims and objectives outlined above. A settlement was defined as a site containing functionally diagnostic material of a domestic nature and/or definite structural remains. In other words, a settlement is a place where people probably slept and cooked or consumed food (Chapter 3). A series of working propositions based upon the published literature was generated (Chapter 3) and provided the basis for the data collection. All current and available data relating to Middle–Late Bronze Age settlements were then collated; information on Early Bronze Age settlements was recorded to provide a backdrop to the later periods. The majority of the material was derived from commercial archaeological companies and archived excavation reports (Chapter 3). The data were standardized and entered into a GIS. It was imperative that an accurate and precise, evidence-based chronology was developed. For this reason, all radiocarbon dates were systematically reviewed in light of sample-type issues and site stratigraphy, and were analysed using Bayesian statistical software (OxCal: Bronk Ramsey 2009; 2001; 1998; 1995). This enabled diachronic variations in patterns to be discerned. This process fulfilled the objectives outlined in Aims A and B, thereby facilitating an understanding of settlement distribution patterns.

The RMP and SMR data were downloaded and merged to create all-Ireland datasets of the desired monument types (Chapter 3). Some excavated and dated burnt mounds, enclosures, and burial sites — which provide indirect evidence for settlement in their locality — were recorded and mapped within the GIS. With the exception of the case-study areas, no attempt was made to record these systematically. The increased excavation of burnt mounds and burials, such as urns and ringditches, now renders the monument types so numerous that they warrant substantial research projects of their own. Six case-study areas were chosen on the basis of the available excavated and dated material. This enabled the totality of human actions in a particular landscape to be examined; Aim C was addressed using these data. To assess Aim D, theoretical social models were reviewed and analysed. The patterns highlighted by the case studies were used to comment upon the social structure of Middle–Late Bronze Age society. Agent-based modelling and social network analysis proved beneficial in the understanding of settlement patterns on an island-wide scale.

### Theoretical Research Rationale

The justification for using settlement evidence to analyse social structure is predominantly theoretical. It is through the symbolic orderings of space and time that roles in society are experienced (Bourdieu 1972). People establish individual and collective identity by manipulating spaces and places; in this way spatial order is created through dwelling, social activity or existence. Houses, as central places, are well-suited to topoanalysis (the exploration of identity through place — see e.g. Buttimer 1980: 167). The interaction between spatial configuration, cognition, and behaviour, and the physical environment, means that houses and settlements are inherently associated with social constructs and identities.

The very importance that domestic dwellings represent within the daily spatial experiences of their inhabitants justifies the rationale for studying settlement structure within a landscape-orientated perspective. Houses ‘form a nexus for expression as well as perpetuation and reiteration’ (Roberts 1996: 5). House characteristics are constructed from physical and socio-cultural processes, and ‘perhaps more than any other physical construction, the house embodies and emphasizes links between materiality, people and ideas’ (Downes and Richards 2005: 57). In sum, ‘the houses [and settlements] in which people live are an integral part of their lives, and can be factors expanding or limiting the human spirit’ (Roberts 1996: 69). The manner in which settlement occupies and forms part of the landscape reflects culture, custom, technology, wealth, and beliefs and attitudes, and is crucial to understanding the mechanisms of past societies.

Often, houses and their surrounding environment have a close relationship: there exists a shared socio-cultural relationship between the uses of buildings and their setting. In other words, structure function, settlement form, and location are connected (Martin 2000). As such, settlements are characterized as a product of location and environment, and subsequently serve as foci where environmental character is condensed. Accordingly, settlements become concrete phenomena related to place (Norberg-Schultz 1979). The relationship between the environmental setting, the organization of the settlement, and the perception of the settlement is known as legibility, or intelligibility. According to Lynch (1960), if a settlement is legible, recognized symbols are in an organized pattern, and the inhabitants can easily organize life into a coherent mental representation. Legibility may play a decisive role in acquiring a sense of spatial control (*ibid.*).

Such an approach can be multi-scalar. The manipulation of space and place and the creation of spatial order cover three tiers: one internal to the house and settlement; one between settlements and their surrounding environmental

and monumental landscape; and one on an inter-regional level (akin to those propounded by Trigger (1967), Fletcher (1978), Wason (1994), and Clarke (1976)). Such order may not necessarily be represented by durable and extant remains, and it may not be possible to perceive it fully, partially, or at all.

This study examines settlement structure from a spatial point of view. Of course the spatial perspective is partially based on site plans, as this is the principal medium available for study. In essence, this study forms an analysis of settlement plans and patterns, rather than settlement itself. By examining the spatial structure of settlement, it is possible to gain an insight into how Bronze Age society organized itself: mentally, socially, and environmentally. The approach assumes that spatial concepts are integral to the workings of society, and to its creative self-definition. The expression of societal definitions will alter according to the particular modes of communication, to the environment, to the cultural landscape, and to the use of space throughout various periods.

Spatial structure can be inherently associated with power, social control, and domination, and often provides a metaphor for prevailing social orders. For example, to be ‘on high’ or ‘higher up the chain’ is a metaphor for authority and power, while to be ‘lower down’, at the ‘base’, or ‘debased’, suggests depravity and submission. Concepts of left and right have equally powerful resonance: to be right is to be correct, to be ‘the right-hand’ person is to be an invaluable assistant, while if something has gone ‘up the left’ it has gone awry. The association between the left and negativity has a wide resonance in Indo-European languages, including Celtic, and the old Irish word *clé* can mean ‘left; inauspicious, bad’ (Jim Mallory, pers. comm.). Such vertical and horizontal matrices ‘may be purely notional or may coincide with an actual space’ (Crabtree 1988: 253) and have implications for the position of particular monuments in the Bronze Age, especially the elevations of hillforts.

### Theoretical Background

It has been necessary to develop an understanding and appreciation of the theoretical background regarding landscape archaeology and spatial studies in order to analyse Middle–Late Bronze Age settlement structure successfully. The background has then permitted current and relevant definitions to be made of salient terms, such as landscape, place and space, which will, in turn, underpin the GIS analysis. An understanding of the current debates among geographical and archaeological theorists within the domain represents a pivotal role in the formation and formatting of a methodology for the subsequent data collation and analysis, both qualitative and quantitative (Chapter 3). It provides a background

to the critical summary of Bronze Age settlement studies (Chapter 2).

The research takes a landscape approach to the data. The importance and dominance of landscape archaeology was felt within the theoretical domain from the early 1970s onwards, when the term was coined by Ashton and Rowley (1974: 11). Landscape archaeology is an approach ‘commonly used to characterize those areas of archaeological research and interpretation that consider the landscape as opposed to the site, the interrelationship between sites, and the physical spaces separating them’ (Chapman 2006: 11). In essence, the landscape within this approach can be interpreted in two ways: as a natural, empirical construct existing outside of human existence, and as a cultural experience.

### **‘Natural’ Landscape**

In empirical Cartesian terms, the ‘natural’ landscape refers specifically to the unaltered elements of the environment, represented by Nature, which are external to, and independent of, humanity. Nature, or ‘the environment’, has a set of essential characteristics which precede any immediate human presence (Zimmerman 1993: 261). It can be mapped and measured in Euclidean terms, and can be composed of geometric planes and relationships. The natural landscape, or environment, has varying degrees of influence upon site location choice. The terrain, climate, geology, and native animal and vegetation species in each area would have contributed greatly to the economic resources and lifestyles of the local inhabitants, and hence to settlement location. These factors were ever-fluctuating, and the role of the natural landscape in settlement location may have altered over time.

Some archaeologists (e.g. Mallory and McNeill (1991), Baillie (1989), Baillie and Munro (1988)) maintain that natural events, such as the Hekla 3 eruption (1159 BC; 1300 km north of Ulster), heralded major alterations in the Irish landscape. Certainly, the development of significant social changes has, in other countries, been explained by an upturn in environmental conditions (e.g. Price and Feinman 1995). Others (e.g. Plunkett *et al.* 2013) argue against an association between climate change and land-use patterns, or see such a correlation as unnecessary (e.g. Bradley 2007: 184). Unfortunately, due to the scale and nature of the available data for the research, the precise extent to which specific environmental factors influenced the choice of prehistoric site location will never be known; however, it is possible to model some of the factors, with varying success, within the GIS.

### **‘Cultural’ Landscape**

The ‘natural’ landscape as an independent entity — separate from all human agency — could be perceived

as an impossible construct: no environments, even in prehistory, exist which are not altered by either human action or by human perception (Tilley 2004: 24). Landscape is instead experiential, and nature is seen by many to be a social construction (e.g. Roberts 1996). As Relph (1981) describes, cultural landscapes form rich repositories of human values, embodiments of the attitudes, ideals, and beliefs of their creators, and are infused with cultural symbolism and imagery. Darvill defines and characterizes culturally specific dimensions of landscape as:

1. the way in which a given territory is perceived by an individual or community;
2. testifying to past and present relationships between individuals and their environment;
3. recognising that an understanding of the landscape helps to mould cultures, sensitivities, practices, beliefs, and local traditions (Darvill 1996: 173).

Spatial relations in a cultural landscape can be coded with social significance (Shields 1997: 186). Understanding interactions with the cultural landscape in turn facilitates comprehension of how society operated. The social and cultural landscape is just as important as the environment when considering settlement location, although obviously factors determining the former are also difficult to ascertain and map in a prehistoric context. Attempts to map social distance and to chart sentient landscapes have been made by archaeologists, including Hamilton and Whitehouse (2006). They developed a phenomenological site catchment analysis regarding the Neolithic ditched enclosures of the Tavoliere in Puglia, southern Italy, noting differences in outward and inward journeys, as well as gender variation in distances travelled (*ibid.*). Yet we must be careful not to place too much emphasis on individual perception and experience, as individuals still operate within a landscape of socially mediated values.

### **A Holistic Approach**

From an archaeological perspective, landscapes are neither purely natural nor purely cultural, but are a combination. By the later prehistoric period, landscapes were not simply places ‘which are first given as geometrical planes and surfaces [and] later have a layer of cultural meaning spread over them’ (Ingold 1993: 83). Instead, the landscape represents the combined, interwoven works of nature and people and is more than just a purely cultural context (Brück and Goodman 1999: 1–19). The dynamism and fluctuation of the interaction between humans, and their environment and cultural landscape, mean that it is incorrect to draw too heavily upon distinctions between natural and cultural landscapes. The reciprocity and continuous interchange between the human body and the world, both cultural and physical, is an inherent part of landscape, although it makes it extremely difficult to analyse objectively.

By combining the mapping of empirical space, the topography of the natural environment, and the accompanying social constructs this research aims to produce the broadest landscape portrayal of settlement structure possible within the remit of this study.

### Validation

People use houses to construct identities and to understand the changing world around them. The concept of identity is central to the creation and maintenance of socio-spatial structures, and this allows the research to explore Bronze Age society. The charting and modelling of the Bronze Age settled landscape is therefore a valid exercise, providing the occasion and the means to survey the organization of settlement space, and thus to understand more clearly and profoundly the ways in which Irish Bronze Age society functioned.

### Organization of the Study

This study examines the settlement structure of Middle–Late Bronze Age Ireland predominantly using a GIS. The outputs of the majority of the analyses are presented in maps and graphs which are located throughout the volume. In Chapter 2 the importance and significance of the research questions are highlighted by placing them within their wider Bronze Age context. Chapter 3 addresses the methodology used in the research, and outlines the propositions generated from the account of the published material in Chapter 2. In Chapter 4 an evidence-based settlement chronology is established,

and this forms the basis for analysis of diachronic change throughout the rest of the study. Chapter 5 examines the environmental and social setting of settlement location, and Chapter 6 analyses how settlements functioned by looking at habitation, resources, and the economy. In Chapter 7 the scope is broadened, and the wider landscape is approached through the themes of territory, movement, and regionalism. Case studies are used in the chapter to facilitate the exploration of the landscape at a micro-level approach. Agent-based modelling and social network analysis attempt to move the interpretations beyond the map in Chapter 8. A discussion of how Middle–Late Bronze Age Irish society developed and was constructed is presented in Chapter 9. In Chapter 10 the applicability of established social models is examined. Chapter 11 summarizes the main findings and conclusions and suggests further potential research.

All of the radiocarbon determinations are calculated using the calibration curve of Reimer *et al.* (2009) and the computer programme OxCal v4.1 (Bronk Ramsey 2009; 2001; 1998; 1995). Calibrated date ranges are presented at two sigma (95% confidence level). Following convention, all modelled date ranges are given in italics.

A list of all the sites within the database is given in Appendix 1; references for each site are located here, rather than given throughout the text. An interactive map containing details and references for each site can be located at:

<http://www.arcgis.com/home/item.html?id=2b191714b11b41c082e97f662bebcd01>