POTS, PRACTICE AND SOCIETY:
AN INVESTIGATION OF PATTERN AND VARIABILITY IN THE POST-DEVEREL RIMBURY CERAMIC TRADITION OF EAST ANGLIA

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Abstract

Pots were once the basis on which most understandings of British prehistory were founded. In the middle decades of the twentieth century, ceramic studies were fundamental to tracking the origins, history and extent of cultural traditions throughout Britain and beyond. But over the course of the last 40 years, this once central role of pottery has significantly diminished, to the extent that today, we rarely see pottery as anything but a dating tool. This was not always the way, and though we might query the equations made between pots and people by previous generations, we have arguably lost sight of how to harness this material to other forms of social narrative. Despite having more pottery than ever before, with few exceptions, we have reverted to asking a restricted range of questions of this material, and as a result, have yielded answers which seldom chime with the interests of those beyond a narrow specialist community. In short, pots rarely seem to matter anymore, and like other categories of artefact, are accorded far less significance when compared to the evidence of landscapes and settlement architectures.

This thesis redresses some of these imbalances in the context of later prehistoric research. It brings pottery back into focus as a material that allows us make substantive statements about the past. Specifically, it tracks the character and regional development of Late Bronze Age (c. 1100-800 BC) and Early Iron Age (c. 800-350 BC) *Post-Deverel Rimbury* pottery in East Anglia, and establishes the social context of ceramic production and consumption. In doing so, it draws together a vast body of published and unpublished material amassed in the last few decades, and tackles the issue of how ceramic traditions were implicated in the constitution of social identities.

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Author's declaration

I Matthew Brudenell confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged

Chapter 1

Introduction

Figure 1.1. Boxes of pottery at Colchester Museum store rooms.

This is a photograph of just two of the dozens of shelving units in Colchester Museum which hold hundreds of boxes of prehistoric pottery; material collected, curated and catalogued as a consequence of fieldwork in Essex in the last 25 years. It is a picture echoed in archaeological units, county stores and museums across East Anglia, many of which are rapidly running out of space to hold the flow of new material from excavations.

As one of the principal finds from later prehistoric sites, pottery often constitutes the bulk of this archive. In relative terms, huge amounts of time, effort and money are spent on recording and ordering this material, and yet despite this, the actual contribution that it makes to our understanding of later prehistoric society seems disproportionately small. More often than not, the only question that we ask of our assemblages is what they can tell us about the date of the contexts from which they have been recovered (Morris 2002, 54). That may be vital. But as problems of space reach a head in curatorial circles, it is time to ask whether our current approaches to later prehistoric pottery really justify its continued collection and curation? Are we making the best use of our ceramic assemblages? Are we really ensuring that this material speaks to issues which are central to current research?

This thesis has been undertaken to answer these questions in a positive and substantive manner. It aims to track the character and regional development of Late Bronze Age and Early Iron Age *Post-Deverel Rimbury* (PDR) pottery in East Anglia, and establish the social context of ceramic production and consumption. It draws together a vast body of published and unpublished material amassed in the last few decades, concentrating on the analysis of attribute data recorded on over 90,000 sherds of pottery from 40 site-assemblages. Nonetheless, at the heart of this study is a concern with how ceramic traditions were implicated in the constitution of social identities in the past.

The need for a project such as this is a direct consequence of historical shifts in the nature of archaeological enquiry, and broader changes in the emphasis given to different categories of material evidence over time. Over the last few decades, artefacts have largely fallen from favour in later prehistoric research, accorded less significance when compared to the evidence of landscapes and settlement architectures. It was not always this way. There was a time when ceramics were a vital cornerstone of our understanding of British prehistory; a means of characterising the nature, extent and history of cultural traditions in both time and space. Whilst we might now question some of the ways in which equations between pots and people were once drawn, archaeologists working in the middle decades of the twentieth century saw pottery as something with a potential that went some way beyond dating. There are many reasons for this loss of interest, or perhaps of confidence, in pottery as a material that can be used to make substantive statements about the past, reasons that will be explored in some detail over the course of this study. But the fact remains that we currently ask a very restricted range of questions of our ceramics, and, with a few exceptions, have lost sight of how we might harness this material to broader social narratives.

The problems that we face are by no means exclusive to ceramic studies. Most artefact categories have arguably occupied relatively marginal positions for some time, not least because of significant shifts of scale in the focus of research. One of the characteristics of much recent work on the Late Bronze Age and Iron Age has been a focus on fine gained contextual studies; the close analysis of individual sites and features directed towards understanding how the details of material practice were harnessed to social memory, and implicated in the local reproduction of basic social categories: home, close kinship, a sense of belonging and so on. With relatively few exceptions, our narratives tend to maintain this close focus, often failing to consider the broader and highly complex social worlds that people inhabited. One of the goals of this thesis is to bring pottery into focus as a material that allows us to explore those worlds; to establish how ceramic tradition and social identity were articulated at a variety of different social scales.

The thesis presented here is the outcome of a number of crucial developments in our discipline. On the one hand, there has been a growing sophistication in our approaches to social identity, a critical awareness of how complex, nested, and even overlapping forms of social identification are created and worked upon through material practice (e.g. Jones 1996; 1997; Meskell 2001; Díaz-Andreu *et al.* 2005; Giles 2007; 2008). On the other, there has been a veritable explosion in the character, range and volume of the evidence that we have at our disposal, a consequence of the advent of developer-funded work. This has had an enormous impact, particularly in areas of southeast England where recent development has afforded the opportunity for extensive programmes of large-scale excavation. The outcome of these developments has been, amongst other things, the recovery of a truly vast quantity of well-recorded later prehistoric pottery from a wide range of different sites and settings.

Dealing with this abundance of new material has become an issue in itself. With over 20 years of commercially funded archaeology behind us, there is now a pressing need to synthesize the wealth of regional pottery data that we have at our disposal. The importance of a more synthetic, comparative approach is widely recognised, particularly in regional and national reviews and research frameworks (e.g. Haslegrove *et al.* 2001; Medlycott 2011). More often than not, however, material still tends to be dealt with on a site by site basis; a level of analysis fostered by the growing professionalisation and standardisation of the post-excavation process. Having worked for some years as a ceramic specialist in the commercial sector, I have often found myself frustrated by the prevailing expectation that pottery studies should, or could, only address questions specific to the individual sites from which the material derived. Certainly, it is unusual to find broader comparative analyses given adequate funding in standard post-excavation programmes, a restriction that compounds our existing interpretative tendency towards the close grained and the local.

It is against this background that the research presented here has been developed. Drawing on a wealth of material generated by work in the commercial sector, my aim in this study is to track the changing character and significance of ceramic traditions *in detail* across time (the Later Bronze Age and Earlier Iron Age) and space (East Anglia). The basic motivation for the approach taken here is the argument that analyses have to be pitched at these broader scales because social life at the time was also extensive. That said, the social worlds with which we are likely to be dealing were most likely composed of a bewildering variety of communities, resolved at an equally complex variety of scales. For that reason, regional-scale analyses form the frame within which more locally and materially specific work is situated. What is offered here is, in effect, a multi-scalar approach; a synthesis of analyses which allow us to explore how social identities were constructed, through practice, at a variety of scales of spatial and temporal resolution.

A study of this kind requires careful situation in relation to broader historical traditions of enquiry. This is by no means the first attempt to make later prehistoric pots 'speak', and it is therefore essential that the approach taken here is situated in relation to earlier research and existing models. Put simply, we need to understand how current practice has come to take the form that it does, and how my arguments relate to broader academic traditions. It also requires a critical appreciation of our evidence. We may now have a wealth of material at our disposal, quantities and varieties of pottery that earlier scholars could have only dreamed about. But there still remain important problems regarding sampling, coverage, representation and analytical balance, all of which need to be tackled head on if a project such as this is to be successful.

The structure of this thesis has been designed with these requirements in mind. To begin with, Chapter 2 charts the changing contribution that pottery studies have made to our understanding of later prehistoric society since the late nineteenth century. This historical review critically examines the attempts to comprehend the relationship between pots, people and identity, tracking the extent to which ceramics have featured in previous and present approaches to the social. In tracing these relationships, I explore the reasons why pots have assumed a much less prominent role in recent discourse, and identify a series of problems with the current resolution of our social focus in later prehistoric studies. This critique frames an agenda for how we might address certain imbalances in contemporary approaches to the social and material, and situates pottery as a potential lens through which to understand the ways identity was constructed through practice at varying social scales.

Following on from this, I set out the logic for conducting a regional study which explores trends in the way that PDR pots were made, used, and deposited at different spatial and temporal scales. Chapter 3 then introduces the study region of East Anglia itself, and examines the conditions that have shaped opportunities for excavation and pottery recovery. Attention here is given to how biases in the geography of development have structured the character, quantity and contextual integrity of the material evidence from different parts of the region. In particular, I explore the impact that commercial archaeology has had on our understanding of the period's settlement record, enabling us to contextualise pottery assemblages much more closely than ever before. These discussions provide a platform for a fresh characterisation of the settlement evidence, which identifies some quite distinct intra-regional differences in the nature of occupation and the patterning of landscape sequence in East Anglia. This variability challenges some of our expectations of landscape change in the late second and early first millennium BC, demonstrating a more complex set of associations with different forms of settlement and land division. More importantly, it points to variability in broader social geographies, which may be examined further with the aid of ceramic analysis.

The patterns gleaned from this review serve to structure a more specific set of questions to be asked of the pottery from East Anglia. These are laid out in Chapter 4 where I also detail the analytical approach to the thesis, as well as my methodology for recording pottery attributes themselves. This chapter touches on the difficulties of ceramic classification, and outlines some of the many problems of compiling comparable pottery data sets from archive sources and catalogues recorded by different specialists. The methodology is geared with a view to data integration and compatibility, making the most of what is routinely recorded by ceramicists.

Ultimately, some of the different schemes of classification prove easier to align than others. A more pressing problem of compatibility, however, relates to the way that pottery assemblages are dated by traditional typo-chronological means. The sequence of ceramic changes which occur across the later second and earlier first millennium BC in East Anglia are only understood in outline terms. Dating some assemblages or judging whether pottery groups from different areas are contemporary with one another can therefore be difficult. This is partly because the Late Bronze Age-Early Iron Age transition coincides with a significant dip in the precision of radiocarbon dating. The well-documented problems with the radiocarbon curve, coupled with the rarity of deeply stratified settlement sites with metalwork associations, have hampered efforts to refine ceramic chronologies. That said, there are more fundamental problems associated with our basic models of ceramic succession. In East Anglia, these are conventionally structured by John Barrett's phasing of Late Bronze Age PDR pottery in southern England (Barrett 1980a), and Barry Cunliffe's identification and dating of various regionally-specific Early Iron Age pottery 'style-zones' (Cunliffe 1968; 2005).

Problematically, the framework of these schemes is primarily conditioned by material and sites from southern and not eastern England, with regional sequences built in reference to a relatively small body of type-site assemblages available for analysis prior to the late 1970s. As the number of excavated assemblages in East Anglia has increased - significantly so in the last few decades - it is becoming ever more apparent that there are problems with positioning certain ceramic groups within these frameworks. These issues are addressed in Chapter 5, where I construct a new regional model of ceramic succession based on a comprehensive survey of the content, currency and chronology of the region's PDR pottery assemblages. Importantly, this is an independent ceramic sequence, which does not rely on patterns from Wessex or the Thames Valley. Moreover, it charts temporal changes to a range of pottery attributes, instead of simply concentrating on shifts in vessel form or decoration which loom large in Cunliffe and Barrett's models.

The legacy of work by these scholars is further taken to task in Chapters 6 and 7. In Chapter 6, I explore spatial variability in ceramic traditions across the region. Here I evaluate the theoretical and material basis of Cunliffe's regional ceramic style-zone model, and the social inferences he draws from pottery distributions in East Anglia. My critique centres upon the definition of discrete, homogenous and stable style-zones, and the notion that these equate to static ethno-tribal entities. In my attempt to deconstruct this argument, I plot the regional distribution of a wide range of ceramic traits, and discuss how their spatial patterning could arise from a variety of social mechanisms, each operating at different, but sometimes overlapping geographic scales. Rather than seeking a single social correlate for these trends, I use the patterns as a window into understanding the scale at which different social networks and communities may have worked.

In the following chapter the focus of analysis shifts away from broad regional patterning to consider the topic of assemblage variability. As the ceramic record of the Late Bronze Age and Early Iron Age is essentially split by a distinction between fineware and coarseware jars, bowls and cups, there is a tendency to assume that this basic range of vessel categories constitutes a ubiquitous and undifferentiated 'ceramic package'. Although regional variation in the character of Early Iron Age ceramics has long been recognised, our enquiry into variability is often directed towards the finer details of vessel form or decoration. These approaches stem from the study of un-quantified and de-contextualised type-assemblages, collected and published in the first half of the twentieth century. However, now that a much large number of sites are available to study, basic assumptions about the composition of assemblages can be tested. For the first time it is possible to investigate the degree to which pottery groups vary between different types of site and in different parts of the region. The aim of Chapter 7 then is to establish a secure characterisation of ceramic variation and examine the extent to which this can inform upon the nature, scale and social significance of activities conducted in these settings.

Having focused on different aspects of pottery production and use in Chapters 6 and 7, emphasis in Chapter 8 is given to deposition. Deposition has emerged as major theme in later prehistoric studies in the last three decades, but most of our attention has been directed towards the identification and interpretation of formalised acts of interment. These are important to our understandings of ritual practice and schemes of symbolic order in the past (e.g. Hill 1995). They are not, however, responsible for the way that all pottery enters the ground. Missing from our accounts is an appreciation of how pottery deposits can be configured and buried under different circumstances. Put simply, not every group of material is assembled and deposited with the same degree of care and consideration. Nor is every act of interment necessarily performed with the intention of making explicit symbolic statements. In some instances practices were carried out without much conscious design or greater sense of purpose. These deposits are rarely considered in the literature, although the pottery they incorporate can potentially tell us a great deal about the material conditions of life in this period.

At a more basic level, we lack a clear understanding of the constitution of our ceramic record, tending to discuss aspects of pottery deposition without adequate consideration of the content, condition and history of the materials implicated. The aim of Chapter 8 is to address these issues and characterise a range of pottery deposits from settlement features. The analysis also tracks the different ways that pots enter the ground, illustrating the various pathways with a number of case studies. Here I explore the extent to which pots were made to matter in different forms of deposition, and discuss patterning in the treatment afforded to certain types of vessel.

The thesis concludes with Chapter 9, which reviews what ceramic analysis can tell us about social and material traditions in East Anglia during the Late Bronze Age and Early Iron Age. Here I return to issues of scale identified in Chapter 2, offering a series of observations which expose the limitations of existing models. The picture is complex and by no means complete. But the evidence that we now have at our disposal demonstrates that there was indeed a world beyond the household and the farmstead; a world that can be tracked by adopting a flexible and contextually sensitive analytical focus. The data are also reviewed in terms of their implications for ways of thinking about the formation of archaeological deposits, a critique which situates formal acts of interment along a continuum of deposition, and highlights what we can learn from deposits created in a less explicitly considered manner. Finally, the work is used as a vantage from which to consider future developments. The potentials of complementary forms of analysis are identified, and directed towards some of the specific problems/questions raised by this research. The thesis concludes with a series of observations about current working methods, arguing that the potential of pottery studies cannot be realised by shifts in our conceptual frameworks alone; these must be accompanied by a restructuring of our own routine practice.

Chapter 2

Material matters: exploring the role of pottery in studies of Late Bronze Age and Iron Age social life

2.1 Introduction

This chapter explores the history and role of ceramics in studies of the Late Bronze Age and Iron Age in southern England. Sections 2.2-2.5 chart the changing directions later prehistoric[1] pottery studies have taken over the last 150 years, demonstrating how approaches to ceramics have changed in relation to broader paradigm shifts. More specifically, they focus on the different, but progressively diminishing contributions that ceramic studies have made to our understandings of Late Bronze Age and Iron Age society. Following a critical review of current 'atomising approaches' to the social, section 2.6 addresses the need to put pottery studies back into mainstream discourse on later prehistoric society. In this section, it is argued that ceramicists must explore the ways that pottery was caught up in social life, and consider the role that the production, use and deposition of ceramics played in constituting social relations. Finally, I consider the implications of these arguments for a study of Late Bronze Age and Early Iron Age ceramics in East Anglia.

2.2 The birth of ceramic studies: Antiquarians, art history and the establishment of collections

At first, pots were not really part of the picture. The collections of Iron Age artefacts which amassed in museums and private collections throughout the 19th century focussed almost exclusively on weapons and objects of 'Late Celtic' art (Kemble *et al.* 1863; Read 1905). Despite patterns of artefact recovery being largely haphazard and accidental (mainly from rivers and lakes), it was the rarer objects of metalwork that filled museum display cases, fuelling enquiry into the stylistic evolution of Britain's 'Celtic' artistic products. In the mid 19th century, individuals such as Samuel Birch, Augustus Wollaston Franks, and John Kemble were the first to systematically assemble and describe collections of Celtic metalwork; culminating in the publication of *Horae Ferales* in 1863, in which Franks coined the term 'Late Celtic' period, identified as belonging to the Iron Age.

[1] The term 'later prehistory' is used in this chapter to denote the Late Bronze Age and Iron Age. Discussions of Late Bronze Age society are only considered from the late 1970s when the period was linked with the Post-Deverel Rimbury ceramic tradition (Barrett 1980a).

Although the methods of these scholars may be described as broadly art historical, their focus on the classification of artistic styles proved instrumental in establishing a relatively autonomous artefact-based approach to archaeology in the following decades (Morse 2005, 139). The study of pottery, however, played a marginal role in these early developments. In the 50 years that lapsed between Franks (1852, 9) highlighting the British Museum's deficiency of 'Celtic Pottery', and the publication of the first edition of the museum's *Guide to the Antiquities of the Early Iron Age* (Read 1905), ceramics had not attracted a great deal more concern (Figure 2.1). Indeed, other than the then recently discovered 'urns' from the Aylesford cemetery (Evans 1890), pots scarcely featured in the description of cabinets detailed in the museum guide. Rather, the focus was on a combined chronological and art-historical overview of the more spectacular trappings of the 'Celtic races', i.e. their metalwork. These decorative objects were presented with an eye to tracing the origins of styles back to their classical sources, whilst at the same time conveying something of '*the beauty and variety of such designs, as they were gradually developed in our islands*' (Read 1905, 102).

*FIG. 23.—Late-Keltic urns, Shoebury, Essex.

Figure 2.1. 'Late Keltic urns'. Illustrated in the British Museum *Guide to the Antiquities of the Early Iron Age* (after Read 1905, 26, Fig. 23).

Although British prehistoric ceramics had attracted antiquarian interest, collectors tended to be enamoured with the decorated 'sepulchral' urns and beakers of the earlier Bronze Age (e.g. Greenwell 1877; Colt Hoare 1812; Thurnham 1871). Unlike most later prehistoric pottery, complete or substantially intact early Bronze Age vessels could be reliably recovered from barrows; which in some areas had been extensively plundered since the mid 18th century (Marsden 1999). Understandably, these urns had a more immediate appeal than the casual discoveries of predominantly plain sherds of 'Late Celtic' pottery, whose artistic merits were comparatively 'crude' when set against contemporary pieces of metalwork.

The wider appeal of British Celtic art and metalwork can be understood within the broader context of 19th century nationalism, which fuelled interest in tracing the Celtic origins of races responsible for Britain's pre-Roman monuments and objects (Diaz-Andreu and Champion 1996; Jones 1997). This study of the historic Celts formed part of an established scholarly tradition, and notions of Celtic peoples conjured during the romantic and nationalist eras of the 18th and 19th century went on to have a lasting impact on both popular and academic perceptions of the Iron Age (Chapman 1992; Collis 2003; Hill 1989). However, whilst the study of Celtic art first arose within the context of ethnology, by the end of the 19th century it had developed into a programme of research which examined the development of Celtic culture and civilisation through the study of artefacts (Morse 2005, 127); embracing a new agenda of material culture classification in a social-evolutionary framework. As these ideas took hold, Celtic art and technology were no longer viewed as signatures of race, but as a 'stage of culture' (Giles 2008, 332).

Where discussions of 'Late Celtic' metalwork featured more prominently than pottery, an understanding of the character and chronology of later prehistoric ceramics remained in its infancy. Thomsen's 'Three Age System' had provided a skeletal framework with which to order the broad technological and material changes in the archaeological record. However, the dating of British Iron Age finds only gained a more secure footing by the periodization of the continental Hallstatt and La Tène epochs, which provided a simple scheme with which to align the British material (Harding 2000, 9-14; Cunliffe 2005, 3). More significantly, the typological methods developed in ordering European sequences stimulated a concern with classifying a much broader range of British artefacts - including pottery - and paying closer attention to their material and contextual associations (Daniel 1981; Trigger 1989). Professing that '*the everyday life of the people is, beyond all comparison, of more interest than their mortuary custom*' (quote derived from Morse 2005, 165), Pitt-Rivers embarked on the investigation of several Iron Age settlement sites, which not only set new standards for excavation and finds publication, but gave the study of pottery greater prominence (Figure 2.2). The new agenda to recover, classify and date the everyday artefacts of Celtic culture was further fuelled by the Glastonbury Lake Village excavations, which transformed the understanding of Iron Age life (Bulleid and Gray 1911). The wealth of material generated from these contexts helped shift studies of material culture away from purely art-historical concerns, and heralded what Orton, Tyers and Vince (1993, 8) have dubbed 'the typological phase' of ceramic enquiry.

Figure 2.2. Pottery and other artefacts from Mount Caburn, Sussex (after Pitt-Rivers 1881, Pl. XXV).

Epitomising the new direction for Iron Age studies at the turn of the century was Evans' (1890) publication of the 'Belgic' cemetery at Aylesford. This combined a detailed typological discussion of the pottery and metalwork, through which Evans traced the origins of an intrusive 'Aylesford people' back to northern France, establishing their ancestry in the Illyro-Italic cultures of the fifth century BC. Importantly, Evans connected the Aylesford burials with Caesar's Belgae invaders, establishing the link between the appearance of new artefact types, a 'people' and a known historical event. This represented a culmination of ideas about implement typology, Celtic ethnicity, chronology and history circulating at the turn of century, in which the causes of change were explained by reference to external influences of migration and invasion; notions firmly rooted in the ideology of Victorian imperialism (Cunliffe 2005, 9). Over the next 70 years, Evans' Belgic invasion would become just one of several identified prehistoric incursions into Britain, all of which would connect the appearance of new artefacts and structural types with the arrival of continental migrants.

2.3 The 'golden era' of ceramic studies: Culture history and the invasion hypothesis

In the first three decades of the 20th century, British archaeologists continued to consolidate their typological schemes and refine approaches to artefact classification. This was in part a response to targeted excavations on hillforts and rural settlements across southern England (see Champion 2001 and Cunliffe 2005, 4-15 for overview), which, for the first time, generated a substantial body of later prehistoric material, including new pottery types whose Hallstatt and La Tène affinities were immediately apparent (e.g. Budgen 1922; Bushe-Fox 1915; Cunnington 1922; 1923; Fox 1923; Smith 1927; 1928).

As artefact taxonomies began to crystallise, resulting in the 'typing' of the most basic categories of earlier prehistoric pottery (e.g. Smith 1910; Abercromby 1902; 1904), attention turned towards exploring the regional spatial distributions of ceramic types and other classes of find. Though the first use of this of technique was by Abercromby in 1904, it was Crawford (1912; 1921) who pioneered the 'geographical approach' to British prehistory, with Fox arguably employing distribution maps the most effectively in his two seminal surveys *Archaeology of the Cambridge Region* (1923) and *The Personality of Britain* (1932). These 'horizontal' studies of pottery tied together sequences of related sites within a region, creating a 'master' chronological frame (Orton *et al.*1993, 9), whilst simultaneously mapping the area in which the pottery types were used. As the archaeological concept of the culture-group emerged in these early years of the 20th century, this became the principal methodological tool for delineating cultural entities and their geographic boundaries.

Giles (2008) has charted the origins and early use of the term 'culture' in Iron Age studies, demonstrating its parallel application in anthropology, where it was used to convey '*custom and any other capabilities and habits acquired by man as a member of a society*' (Tylor 1871, 1). She suggests that Tylor's concept of culture captured the sense of an integrated 'expressive totality', that provided anthropologists with a means of characterising and bounding groups through the manner of their traditions and ways of life, without recourse to 19th century notions that ethnicity was racially innate. The archaeological equivalent was to recognise such totalities in material form (Giles 2007, 104). With prehistorians requiring an overarching scheme to interpret what their ordered but static artefact typologies and distributions meant in *social terms*, an 'archaeological culture' came to be understood as a set of material traits that were thought to correspond to homogenous ethnic groupings or 'peoples':

> '*We find certain types of remains - pots, implements, ornaments, burial rites, and house forms – constantly recurring together. Such a complex of associated traits we shall call a "cultural group" or just a "culture". We assume that such a complex is the material expression of what today would be called a people.*' (Childe 1929, v-vi)

Whilst Childe is credited with the first formal definition of the culture-group, making explicit the relationship between material categories and ethnic entities, the concept was already alluded to, and partially elaborated upon, by several British prehistorians in the early 1920s (e.g. Crawford 1921; 79; Crawford and Wheeler 1921, 137; Fox 1923, 85). Childe's normative view of culture, however, was more transparent than that of his contemporaries. In his various works, he presented culture as a regulatory body of ideas, beliefs and customs held collectively by society. These norms were perceived to determine socially acceptable forms of action and behaviour which dictated or 'constrained' practices responsible for the production of material things - pots, implements, ornaments and so forth. In other words, artefacts were the direct '*concrete expressions of the common social traditions that bind together a people*' (Childe 1950, 2). For Childe, these behavioural regularities - resulting in, and identifiable from, the existence of distinct material traditions - constituted culture; and cultures unequivocally corresponded to the social groups which sanctified these conventions (Childe 1948 [1942], 20).

In very general terms, artefacts were of direct *social* relevance in this scheme. This meant that the traditional approaches to finds classification were not dead-end pursuits. On the contrary, it was only by cataloguing, comparing and mapping variation in material attributes that archaeologists could define the spatial and temporal extent of prehistoric cultures. For ceramic studies, this was a 'golden era' in which pottery featured prominently in narratives of British prehistory (e.g. Childe 1940; Clark 1944). This was not simply because the temporal and regional variability in ceramic styles made pottery more amenable to typological and cultural sequencing than other categories of artefact. Though this no doubt contributed (as did the fact that pots were most frequent find on later prehistoric sites), of greater significance was the widespread belief that ceramics were a *more reliable* guide to cultural affiliation than other classes of artefact:

> '*The wide range of possibilities open to the potter makes the choice of particular styles and methods of outstanding significance.....Of pottery it can truly be said that it bears the imprint of culture*' (Clark 1944, 46),

'When pottery is a domestic product, as it was in the earlier part of the British Iron Age, it is pre-eminently representative of a whole people' (Brailsford 1961, 93).

There were two interrelated reasons why pottery acquired its status as the prime cultural marker. The first was the assumption that ceramics were purely domestic products, which, unlike items of metalwork, were rarely traded outside of the culture groups in which they were made and utilised. Distributions of a type were therefore thought to demarcate the boundaries of cultural entities in ways other forms of material culture might not. Whilst there were several potential explanations as to why metalwork styles might change within a period (shifting 'fashions', the arrival of warriors, changes to trade routes), the idea that ceramic traditions were locally rooted meant that a change in pottery style was a litmus test for identifying immigrant cultures:

'where metal implements or small cult objects alone were carried, these are evidence only of trade, while when pottery is found, as it were, on the move, this indicates a movement of the potters, hence a migration of people' (Peak 1922, 100).

The second reason why ceramics were treated as key cultural signifiers was the assumption that potting was a highly conservative social tradition, resilient to change. As Childe (1936, 105) observed, clay was a plastic medium capable of being moulded into an infinite number of forms. Yet, the fact that prehistorians were not overwhelmed by a variety of ceramic types suggested there was some determining social mechanism which limited choice (Barrett 1991, 202). Childe (1940, 2) explained this conservatism by proposing that pots and other artefacts were 'social products' whose form was 'constrained' by a set of norms held collectively. In other words, pots were created in reference to a set of rigid, socially approved conventions which dictated their overall shape and style. As a consequence, differences in vessel decoration or form were of 'outstanding significance', because they were perceived to express 'real' differences in cultural norms, and hence 'real' distinctions between cultural groups or peoples. By virtue of this reasoning it became necessary to explain material change by references to an external source, such as migration, invasion or diffusion, because society - as it was envisaged - contained no internal mechanism for transformation. By this logic a change in prehistoric pottery represented a change in culture and a change in people.

Ceramics remained central to Iron Age studies until the end of the 1960s. The part they played in Hawkes' understanding of the divisions of the British Iron Age was particularly important (Hawkes 1931; 1959; Kendrick and Hawkes 1932). In his essay *The earliest Iron Age culture of Britain* (Hawkes 1930), Hawkes used ceramics to plot the extent of Hallstatt 'penetration' in southern England, mapping *'the geography of culture'* (*ibid*, 161), and formally defining a Hallstatt immigration horizon (Figure 2.3).

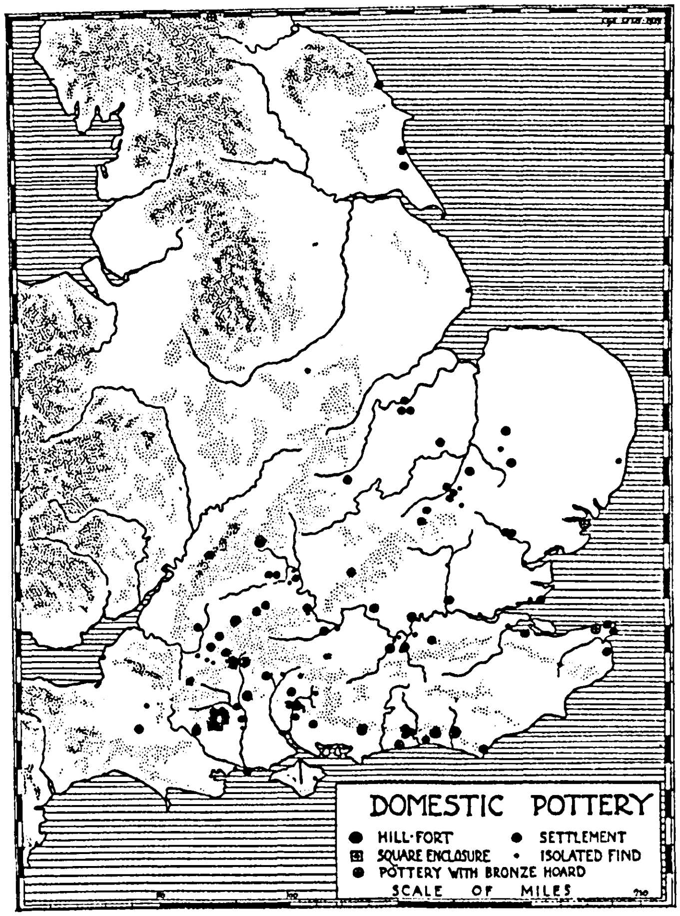


Figure 2.3. Hawkes' distribution map showing the extent of Early Iron Age culture (after Hawkes *et al.* 30, 162, Fig. 16).

Subsequently abandoning the straightjacket of continental nomenclature, Hawkes divided the British Iron Age into three successive cultural entities; each identified as a new Celtic immigrant culture/ceramic series labelled A, B and C respectively (Figure 2.4). In this framework 'A' was instigated by 'Hallstatt adventurers', who brought Hallstatt-style material culture; 'B' by 'Marnian warriors' who introduced La Tène-style material culture; and 'C' by 'Belgic' invaders, who brought cremation burials, wheel-tuned pottery and Late La Tène metalwork. Though the scheme was later subdivided by period and province (Hawkes 1959), following decades of regional modification (e.g. Wheeler 1935; 1937; Curwen 1937a, 263-282; Ward Perkins 1938; Hawkes 1939; Kenyon 1952), the system remained cultural rather than purely chronological.

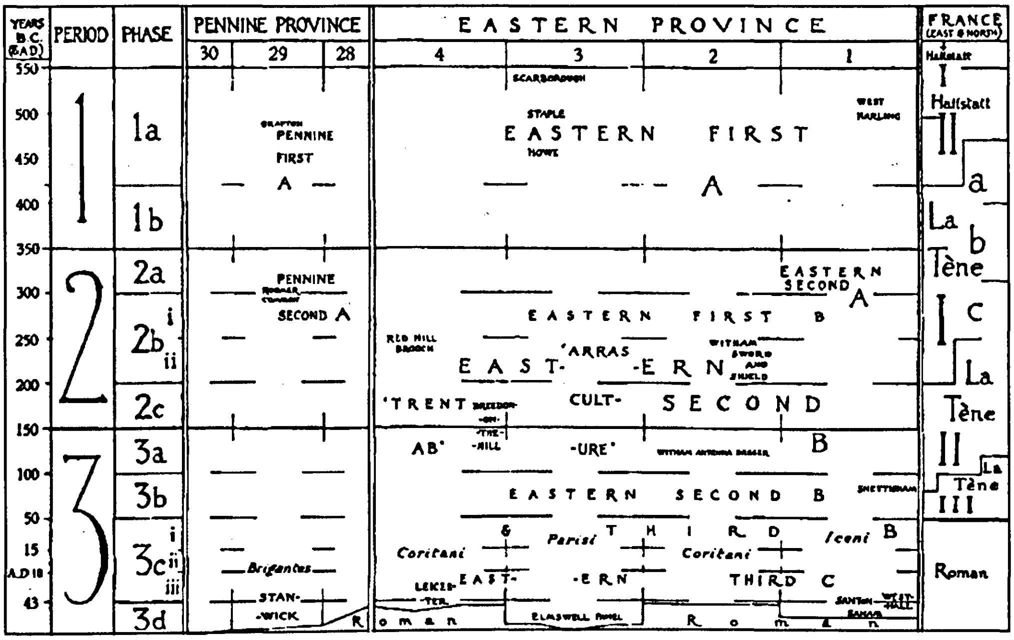


Figure 2.4. Scheme for the Eastern Province (after Hawkes 1959, 176, Fig. 2). Hawkes' cultural charts were laid out in a time-space grid composed of periods, phases and provinces, through which the migratory cultures of the ABC were threaded. By fixing cultural migrations to historic 'events' the chronological sequence of the period became distorted, giving the Early Iron Age an unduly late start date (550 BC) and correspondingly stretching out the Late Bronze Age (Frere 1961, 90).

Trawling the literature of this period, one notes the implicit correlation between cultures and ethnic entities manifest in the interchangeable labelling of Iron Age peoples, Iron Age cultures and Iron Age pots. This blurring of pots and people, ever-present in the use of the ABC scheme, was made most explicit in Curwen's rather forced allegory of the ceramic sequence in Southern Britain:

> '*The handsome foreigner, Mr Hallstatt, came to Britain in his old age and married Mrs Deverel-Rimbury, who was coarse, fat and ugly. Shortly before the death of Mr Hallstatt Mrs Deverel-Rimbury gave birth to a son, Mr A1, who was a boorish youth possessing traces of this father's handsome features, but much of his mother's clumsiness. In later life he grew more sober, discarded his mother's cheap ornaments, grew rather more polished, and changed his name to A2. Finally he married a pretty and artistic French girl, Mlle B, who had recently settled in the southwest; by her he had a son, Mr AB, who had much of his mother's good looks but not much originality. Mr AB married a Belgian girl, Mlle C, who presented him with a son, Mr ABC, who resembled both his father and his mother.*' (Curwen 1937b, 86)

In this story the direct connection between pots, people and the Hawkes' cultural labels are laid bare. Whether intentional or not, the passage demonstrates that ceramic attributes, such as vessel finish or decoration, were conceived of as fragments of inherited cultural information which announced the ancestry and affinity of groups to particular places of continental origin. Childe[2] (1940, 204-6), for instance, regarded the Iron Age A haematite pottery from southern England as the cultural manifestation of Jogassian immigrants, subsequently linking the Eastbourne 'A' ceramics with a south-west German 'homeland', and the West-Harling 'A' ceramics with the Lower and Middle Rhine region.

These external references provided both an explanation for material similarities and a means of dating, ultimately perpetuating the dependence of chronology on historical interpretation. This was one of the major criticisms levelled at the ABC scheme by Hodson (1960; 1962; 1964), who argued that cultures should be defined and classified by 'objective' reference to type-sites and material type-fossils, rather than supposed historical events (a Hallstatt colonizing era, or a Marnian invasion etc.). As Champion later noted (1975, 128), in these readings of the material record, archaeologists too readily '*constructed a "culture" from nothing more than a single pottery type, and invoked the ethnic interpretation for its distribution*'. Similar sentiments were voiced by Clark, who saw interpretation as gripped by a 'neurosis' in which '*hypothetical invasions became so real that they, instead of the archaeological material itself, were actually made the basis of classification*' (Clark 1966, 173).

Critical of the ABCs interpretative dependency on pottery typologies (Hodson 1962, 142; 1964, 99), Hodson's alternative cultural classifications followed a Childean format, in which roundhouses, ring headed pins, and weaving combs formed the type-fossils of the Woodbury Culture (Figure 2.5). More importantly, this scheme emphasised the indigenous nature of much of the British Iron Age material, demonstrating a broad cultural continuum stretching back into the Bronze Age. Hodson's recognition of 'indigenous development' found favour amongst a new generation of archaeologists dissatisfied with a prehistory in which invasion and diffusion were cast as the sole causes of social change. Whilst authors such as Harding (1972; 1974) clung onto the Hawkesian framework, the culture-historical paradigm was no longer in vogue by the early 1970s, and the normative concept of culture had been largely abandoned.

Overall, culture-history saw the inception of the idea that ceramics were linked to the social. Even though the relationship between pots and people was resolved somewhat simplistically, there was nevertheless a recognition that material traditions were caught up with the expression

[2] In adapting Hawkes' ABC scheme in *Prehistoric Communities of The British Isles*, Childe (1940) waived his own strict definition of a culture-group, basing cultural categories on pottery types alone.

of group identity. These groups, however, were perceived as bounded, homogenous entities, discussed as peoples, Celts or cultures, with seldom any reference to structural conditions - the sorts of societies people or potters belonged to. In the following decades, emphasis shifted towards trying to reconstruct these social formations, and understanding the social processes which led to their emergence and transformation. With the recognition that people '*did not live in "cultures" but rather acted culturally*' (Giles 2008, 336, her emphasis), the 'archaeological culture' was downgraded to an abstraction or heuristic device.

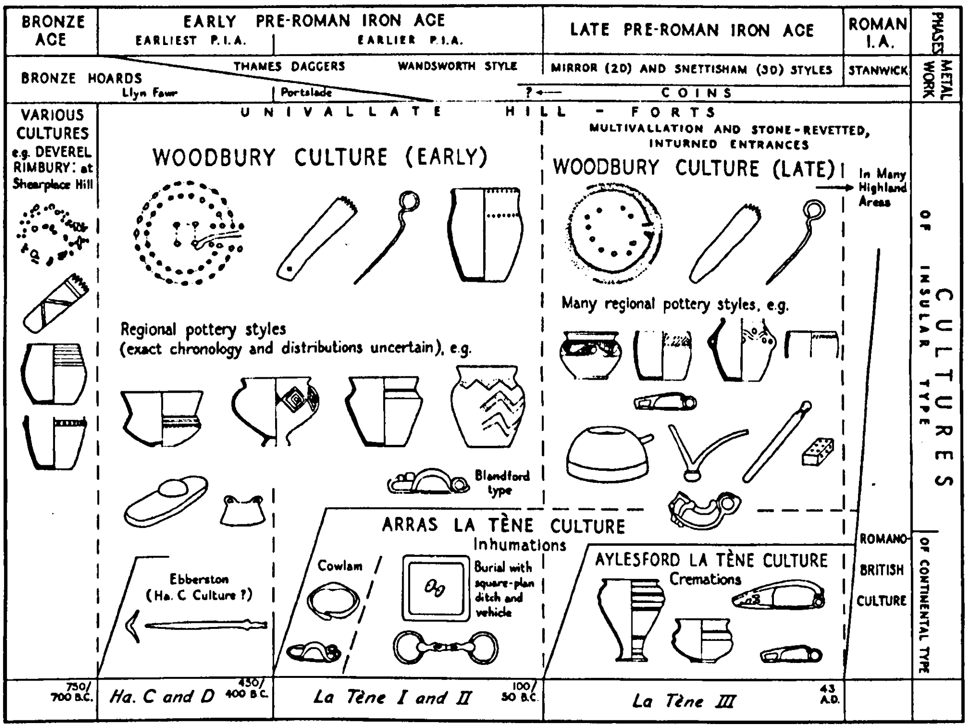


Figure 2.5. Hodson's diagram illustrating the main elements of the 'Woodbury Culture' (after Hodson 1964, 108, Fig. 1).

2.4 Old and new approaches to ceramics studies: Processualism and social totalities

Culture-historical archaeology was criticised for the assumption that patterns in material variability were exclusively determined by cultural norms. In a context where ceramic studies had gained their importance from the notion that pottery was a prime indicator of normative values, the attack on this concept undermined the significance attached to traditional avenues of ceramic research. Consequently, with the demise of the culture-historical paradigm, pottery studies began to lose their central role in narratives of British prehistory; in most domains relegated to the position of chronological marker, used only to define or demolish site-based or regional sequences (Hill 2002a, 75).

In Iron Age studies, however, the 'cultural school' of pottery studies was never completely abandoned, but rather repackaged. The new format was epitomized by the work of Barry Cunliffe, who defined a series of ceramic 'style-zones' which he used to distinguish regional groupings (Cunliffe 1968; 1974, 29-57). A detailed discussion of this style-zone concept is reserved for Chapter 6 in this thesis. Here though, it is important to note that there are few explicit or consistent statements by Cunliffe as to what these groupings meant in social terms, particularly in the first two editions of *Iron Age Communities in Britain* (Cunliffe 1974; 1978). Cunliffe (1974, 29) acknowledged that style-zones may simply represent regions of contact/interaction, or the exchange pattern of production centres. But at the same time, it is implicit throughout these volumes that the delineation of style-zones was a means of dividing up the cultural map of Iron Age Britain. In the few instances where a direct reference to a social correlate was made by Cunliffe in the 1970s, the regionalisation of pottery traditions was argued to reflect the '*early stages in the emergence of formalised tribal territories*' (*ibid*, 303). For instance, in his analysis of ceramic styles in southern Britain, Cunliffe deployed distribution maps to demonstrate the correlation between ceramic types and named tribal entities (Figure 2.6). Like his predecessors, he assumed that ceramic categories were a normative expression of social identity, but one which reflected the bounded totality of the 'tribe' as opposed to the 'culture' or 'people'.

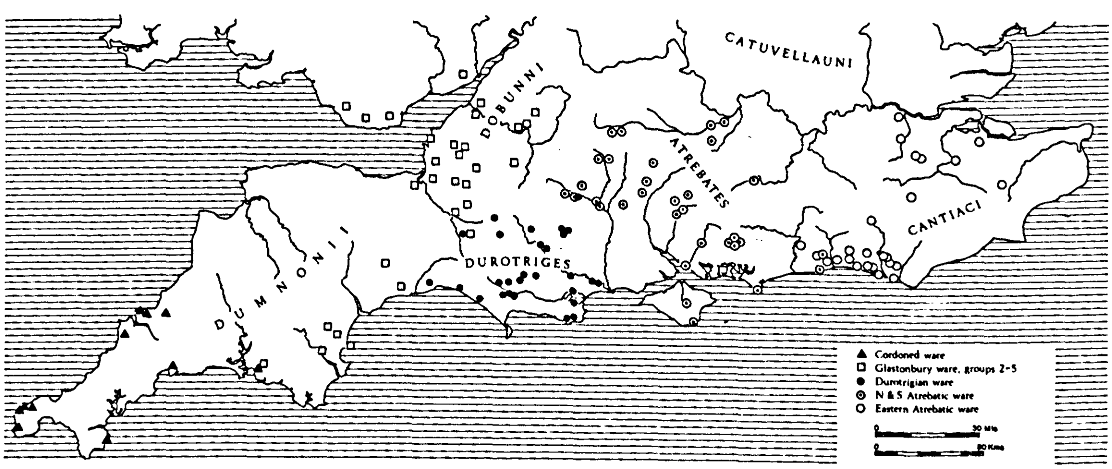


Figure 2.6. Pottery styles and tribal territories (after Cunliffe 1978, 99, Fig. 7:22).

Cunliffe's own blend of cultural and quasi-historical approaches to the material record created a picture of a regionally diverse Iron Age Britain, inhabited by a mosaic of ethno-tribal groups.

As I shall chart in Chapter 6, his interpretations of this relationship between style-zones and ethno-tribal entities became increasingly transparent in his publications from the early 1980s (e.g. Cunliffe 1982, 168; 1984a, 23, 32; 1991, 535; 2005, 591). Collis (1977a), however, was critical of the style-zone concept and its ethnic interpretation, claiming that similar material patterns could arise from other 'non-cultural' spatial processes. For Collis the style-zone distributions did not reveal ethnic boundaries, but an amalgam of socio-economic networks though which ceramics passed. This perspective reflected the new agendas of a processual archaeology, which sought to study the social and economic processes which lay behind material configurations, and endeavored to understand how those processes were determined by the totalities in which they functioned. Following Clarke (1968) these totalities were conceptualised as bounded, integrated *social-systems*, comprising externally adapted and functionally interrelated sub-systems (Renfrew 1984).

This 'systems thinking' of the 1970s developed amidst a more explicit concern with explaining the dynamics of social change in terms of local social and economic processes, rather than by reference to migration or diffusion. Although Cunliffe's approach to the ceramic record was rooted in a traditional and particularistic 'cultural school' of artefact studies, his attempts to model broader transformations in Iron Age society showed a debt to the language and thinking behind Systems Theory. This is most evident in his modelling of the emergence of hillforts in southern Britain, where Cunliffe (1971) constructed a trajectory of change instigated by a combination of interrelated causal factors, which fuelled the process of centralisation (Figure 2.7).

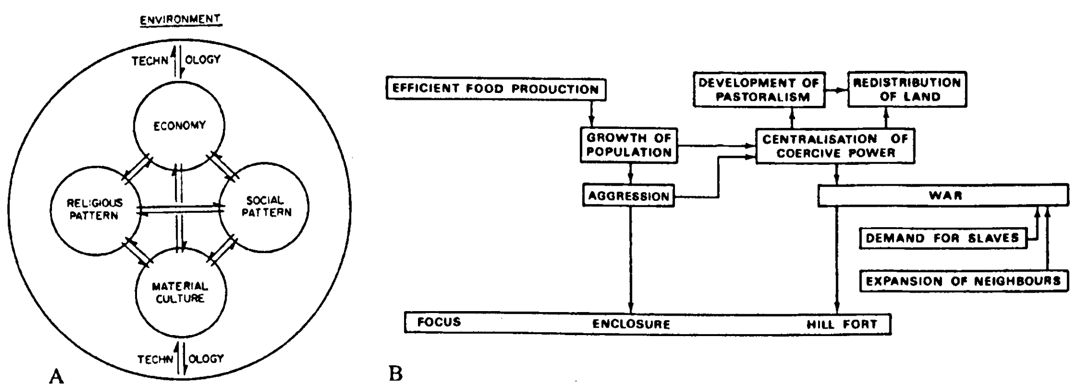


Figure 2.7. Modelling systems. Left: Systems thinking in theory (after Clarke 1968). Right: System thinking in practice (after Cunliffe 1971).Very similar models were used to illustrate 'trajectories of change' in the Danebury landscape (Cunliffe 1995, 95-97).

Cunliffe's model was an example of the processual approach to social analysis, which placed emphasis on understanding the workings of society, and the emergence of social complexity. In light of these goals, a generalised scheme of societal classification had been adopted from neo-evolutionary anthropology, which provided archaeologists with a typology of socio-political forms (e.g. Sahlins 1958; Sahlins and Service 1960; Service 1971; 1975; Fried 1967) - bands, tribes, chiefdoms and states; or egalitarian and ranked societies - argued to have distinct material signatures which archaeologists could observe with appropriate methodologies (Renfrew 1984).

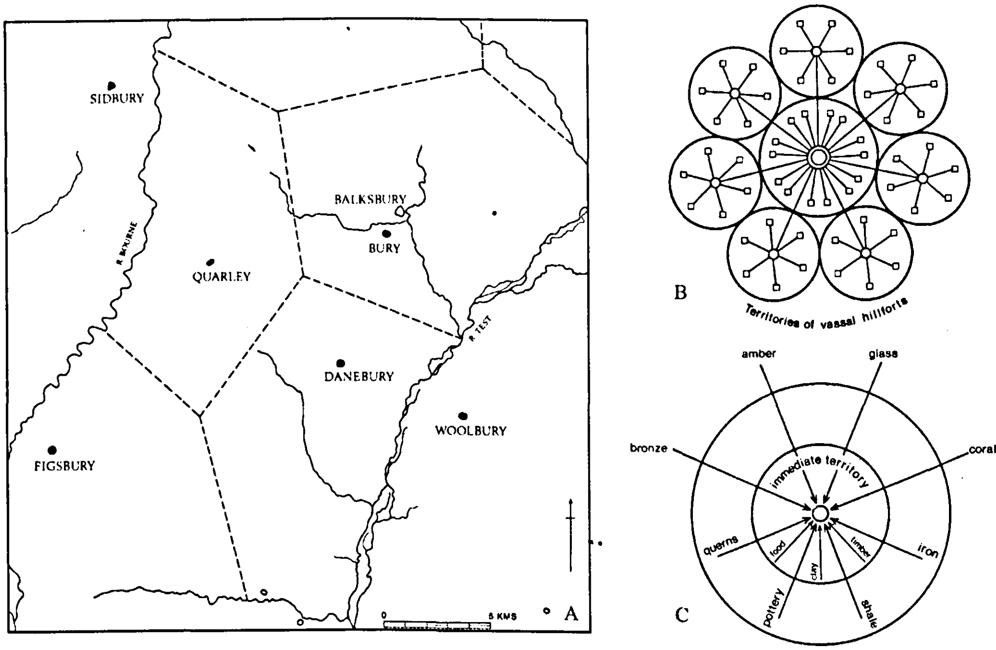


Figure 2.8. Cuniffe's conceptualisation of Danebury's role in the socio-economic landscape. A. The theoretical territory of Danebury (after Cunliffe 1976, 137, Fig. 1). B. Model of the settlement hierarchy, with Danebury at the centre (after Cunliffe 1984b, 559, Fig. 10.4). C. Diagram of the imports into the settlement (*ibid*, 557, Fig. 10.3).

For most scholars, chiefdom-type political structures were envisaged in later prehistory; ranked societies with an economy based on centralised redistribution. In Iron Age studies, a range of geographical approaches adopted from New Geography were used to 'read off' this social hierarchy in patterns of land use, territory, and settlement size (Collis 1994, 131). Often the social and political order was assumed to be mapped-out in two-dimensions across the landscape. For example, in Cunliffe's now classic study of Danebury, Central Place Theory and Thiessen polygon analysis (Figure 2.8) served to underpin his interpretation that Danebury was the physical and political centre of a well-defined territory (Cunliffe 1976;

1983; 1984b; 1995). Overlain onto this model of settlement hierarchy was a reconstruction of a Celtic chiefdom society, whose particular social complexion derived from an amalgam of historical accounts of Celtic tribal organisation (drawn from Welsh and Irish medieval texts, and classical sources). Danebury was therefore identified as the residence of the chieftain and his nobility, with a territory of client farmsteads and small enclosures in the surrounding landscape (Figure 2.9B).

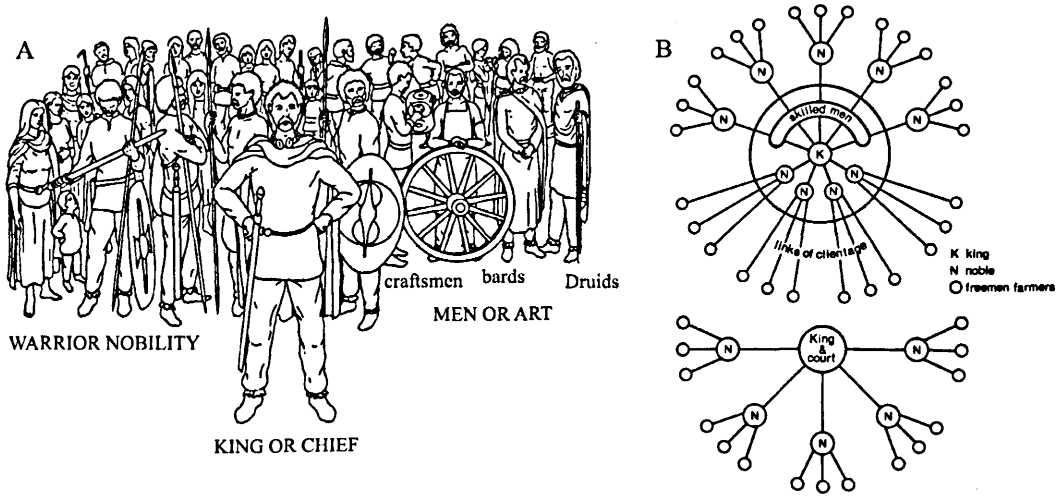


Figure 2.9. Hierarchical reconstructions of the Iron Age social order. A. The generic 'Celtic community' (adapted from James 1993, 53). B. Cunliffe's modelling of social structures relating to Danebury (after Cunliffe 1984b, 561, Fig. 10.5). In these pyramidal reconstructions, the chief or king is supported by a class of warrior nobility, who provide protection and patronage for ritual specialists and skilled craftsmen. At the bottom of the social ladder are labouring freemen (farmers) linked through bonds of clientage.

In the modelling of chiefdom-type societies, structures of power and status were commonly argued to be articulated through ranked spheres of exchange. Danebury, for instance, was perceived to be the nodal point in the economic landscape (Figure 2.8), receiving and storing a range of local commodities, and redistributing those from beyond its territory (Cunliffe 1984b, 559-562). Towards the end of the 1970s, archaeologists also began to explore the role that other long distance exchange relations played in determining social evolution (e.g. Frankenstien and Rowlands 1978; Rowlands 1980; 1984), particularly in the Late Bronze Age and Late Iron Age of southern Britain, where continental trade was deemed responsible for restructuring regional social systems (e.g. Barrett and Bradley 1980; Cunliffe 1987; Haselgrove 1982). Emphasis was placed on the interconnectedness of past socio-economic networks - sometimes over vast distances - and the fragility of dependence relationships between 'core' and 'periphery' areas. Rowlands' (1980) model of a 'prestige goods economy' in later Bronze Age Europe proved highly influential, and continues to shape reconstructions of British Bronze Age society today (e.g. Yates 1999; 2001; 2007). He argued that the distribution of bronze artefacts reflected competitive networks of status procurement that were articulated through and within regionally connected exchange systems that extended across Europe. In a series of publications, Barrett and Bradley explored the dynamics of these systems within the context of the British later Bronze Age (Barrett and Bradley 1980; Bradley 1984). Drawing on a new range of settlement, fieldsystem and cemetery data, they demonstrated how differential access to long distance exchange networks shaped the emergence of contrasting socio-economic systems in Wessex and the Thames Valley.

In many respects the publication of their edited volume *Settlement and Society in the British Later Bronze Age* (Barrett and Bradley 1980) heralded the emergence of a more settlement and landscape-orientated approach to the study of later prehistory, which still dominates today. It was only from the late 1970s that 'Late Bronze Age archaeology' in the form we currently recognise began to take shape, mainly as a result of a new wave of large-scale research and rescue excavations conducted in Wessex and the Thames valley. As Bradley (1984, 96) has noted, prior to the 1970s the Late Bronze Age lacked any real archaeological identity beyond the presence of elaborate metalwork (Burgess 1969, 29). It was only with a combination of new excavations, radiocarbon dates and finds re-appraisal that the period acquired a settlement record to accompany its bronzes.

Crucial to these developments was Barrett's identification of a new Late Bronze Age ceramic sequence which saw the backdating of assemblages previously thought to belong to the Early Iron Age (Barrett 1975; 1979; 1980a). In response, Iron Age pottery chronologies were also restructured, largely in reference to sequences established from the Danebury excavations (Culiffee 1984b). These not only provided a new chronological framework for Wessex - in which the Iron Age was divided into Earliest, Early, Middle, Late and Latest phases (Cunliffe 1984a, 13, Fig. 2.1) - but one that was loosely adopted for other regions of southern Britain.

Despite the prominent use of ceramics in constructing these regional chronologies (e.g. Knight 1984), pottery seldom featured in the major models of how society was ordered and articulated. As demonstrated, these were primarily approached through either spatial studies of settlement patterns (particularly for the Iron Age), or studies of exchange systems in which non-ceramic 'prestige goods' were the focus (particularly for the Bronze Age). This is not to argue that ceramic studies stagnated during this period. On the contrary, there were a series of important methodological developments which contributed to new approaches to ceramic production and exchange, and other 'functionalist' interpretations of ceramic use.

At the heart of these developments was a concern with producing an objective account of ceramic assemblages prior to interpretation. In light of new demands for comparable quantified data on pottery groups (Brailsford 1960, 94; Collis 1977b), it was clear that traditional culture-historical approaches to recording were antiquated, unsystematic and highly descriptive in nature. As a result, the 1970s witnessed the development of standardised pottery recording systems, which employed formalised classificatory schemes, including a new emphasis on the description and codification of fabric types (Woodward 1997, 26; 2008a, 291-2; 2008b, 81). This repackaged the study of ceramics as more objective and systematic; one of many contemporary transformations in archaeological methods, aimed at making the discipline more empirical. As a consequence, ceramic studies matured into an independent specialist field with its own set of conventions and procedures.

The processual agenda, however, did more than just impact upon methodologies. Along with other categories of material culture, it treated the ceramic record as a static residue of past human actions, whose patterning documented the adaptive processes of the social system. The archaeological objective was to elucidate the behavioural mechanisms responsible for material patterning, and understand how these mechanisms were functionally determined by the social systems in which they operated. Ceramicists were therefore encouraged to seek economic and functionalist explanations for the patterning of pottery, fuelling interest in studies of production and exchange, and the functional organisation of settlement space.

The analysis of ceramic exchange was made amenable by two developments: firstly, a battery of new scientific techniques which allowed the characterisation and sourcing of clays and tempering agents, and secondly, the development of testable quantitative models for classifying mechanisms of exchange (e.g. Hodder and Orton 1976; Earle and Ericson 1977). In later prehistoric studies, the significance of ceramic petrology was highlighted by Peacock's (1968; 1969) study of Glastonbury ware fabrics (Figure 2.9). The distributions of differently sourced ceramics were interpreted as highlighting the existence of discrete production centres supporting specialist potters. Most importantly, the results challenged the idea that distributions invariably conformed to the boundaries of ethno-cultural groupings (Collis 1977a, 2-3), showing that patterning could result from other types of spatial processes (e.g. Hodder 1977a, 9; 1977b, 286).

Understanding which processes were registered by the patterning of ceramic remains was a key concern (e.g. papers in Howard and Morris 1981). It was evident that different types of pottery circulated within and between groups at different scales, and through different spheres of exchange. Ellison's (1980, 1981a; 1981b) analysis of Deverel-Rimbury pottery, for example, showed that functionally-related categories of urn in southern Britain had distributions indicative of three overlapping production and exchange networks. Different distributions were linked to scales of specialisation, and were tied into settlement patterns suggesting enclosures were nodal points in the regional exchange system (Ellison 1980, 132; 1981). Morris (1981) showed that the exchange of Iron Age pottery in western Britain was equally complex, but was not just limited to the operation of centralised systems. Her analysis demonstrated that site type and size did not always influence distribution. Instead there was a complex interplay between physical and social distance from production sources, with pottery type and function intervening in patterns of exchange.

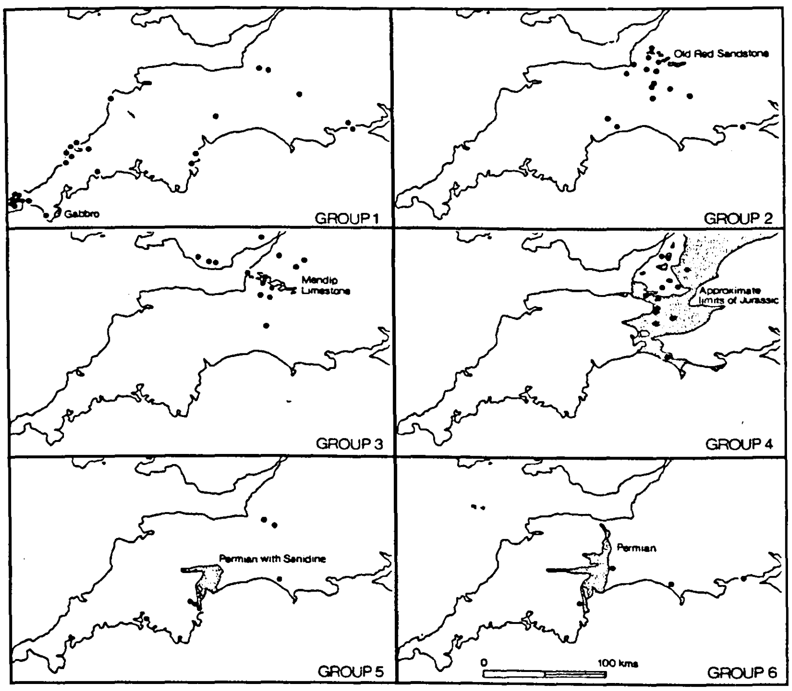


Figure 2.10. Peacock's (1969) distribution of Glastonbury style pottery (after Cunliffe 1991, 464, Fig. 17.17).

In parallel with these studies of exchange, ceramicists began investigating intra-site patterning of pottery as a means of illuminating the functional and social organisation of settlement space. Clarke (1968, 601-5) was the first to discuss the potential of these approaches in defining the function of structures and the location of activities zones in settlement contexts. The theory was put into practice in his Glastonbury Lake Village model (Clarke 1972), where he distinguished functionally-related buildings using artefact inventories - his distributions being given an overtly social dimension by assigning male and females roles to activity areas, and equating the extended family to his 'modular unit' (Figure 2.11A). This programme of research developed alongside the growth of settlement archaeology throughout the late 1970s and 1980s (Woodward 2002). In a number of studies, the function and status of roundhouses and other activity areas were differentiated by the varying concentrations of pottery (Figure 2.11B-C), or differences in the frequencies of functionally related vessel categories; such as those presumed to be used for cooking, storage and serving (e.g. Bradley and Ellison 1975, 212; Ellison 1978; Drewett 1979; 1982; Pryor 1984; Falsham 1985, 127-130; Barrett and Bond 1988, 34).

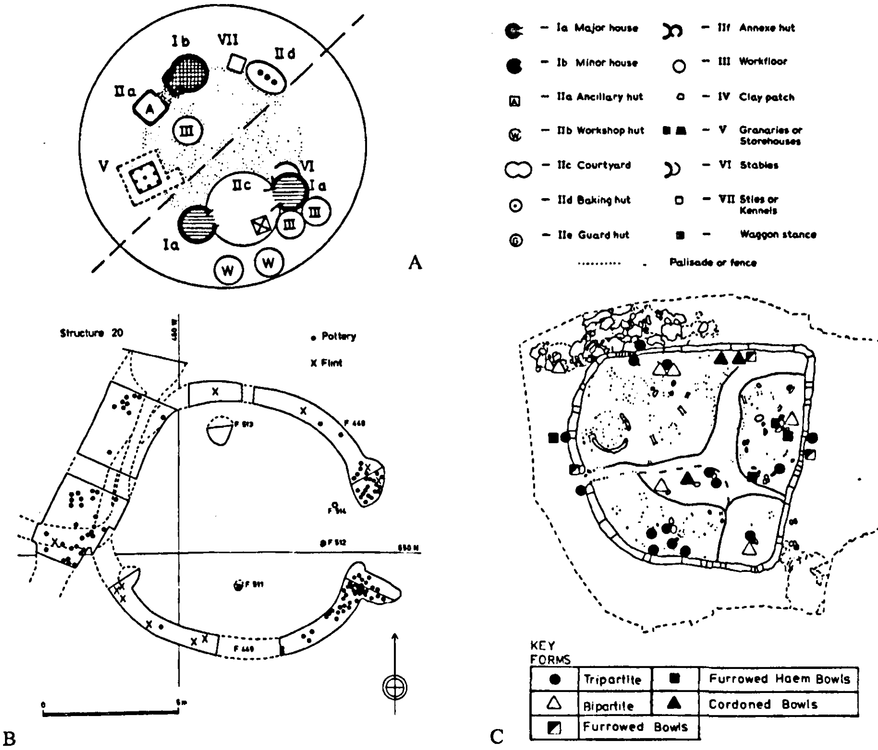


Figure 2.11. Pottery distributions and the functional organisation of settlement space. A. The Glastonbury 'modular unit' (after Clarke 1972, 815, Fig. 21.1), described as the '*architectural building block*' of settlement (*ibid*, 815). B. Sherd distribution in structure 20, Cat's Water, Fengate (after Pryor 1984, 62, Fig. 47). Pryor used artefact distributions and phosphate analysis to distinguish between structures used as dwelling and animal byres (*ibid*, 218). C. Distribution of select pottery forms within the four identified 'activity areas' at Winnall Down, Winchester (after Falsham 1985, 128, fig 84f). Each area was interpreted as having a specialist function, including weaving, bone working, butchery and grain storage (*ibid*, 129).

By the end of the 1980s, social interpretations of ceramic patterning in Britain were effectively divided into two different schools. On the one hand, traditional cultural understandings of stylistic variability persisted through Cunliffe's concept of style-zones, thought to reflect the ethnic identities of regional tribal groupings. On the other, economic and functionalist interpretations of ceramic patterning were explored under the agenda of processualism[3]. In some respects, the contrasts in approach were bound up with the different types of ceramic attribute each school focussed upon: the cultural school studying the appearance of vessels (forms and decoration); the economic and functionalists school studying either what vessels were made from (fabrics), or what vessels were used for (sizes and surface treatments).

On a more general level, neither of these approaches involved a very sophisticated understanding of the relationship between pots and people. The same criticisms levelled at the culture-historical readings of material culture were equally applicable to Cunliffe's ethno-tribal interpretations of ceramic style-zones. Although ceramics were argued to be a communicative device in this scheme, there was no discussion of the social settings in which 'messages of identity' were supposedly conveyed. Similarly, it was never made clear how such uniform meanings could be controlled or reproduced across time and space. Rather than question how social identities were constructed through the practices of making and using ceramics in different contextual settings, the assumption remained that pots were simply a passive reflection of those pre-existing identities. Economic and functionalist approaches to ceramics suffered from an equally impoverished understanding of the cultural and symbolic dimensions of pottery production, use and discard. Discussions of exchange often included reference to least-effort models of 'supply-zone behaviour' (Renfrew *et al.* 1968, 327), in which material patterns were understood in terms of a universal 'economic rationality'. Transportability, value, bulk, use-life and function were therefore cast as the only significant variables determining the distance over which ceramics or other objects might be exchanged (Renfrew 1977; Hodder 1980). This failed to explain why certain types of pots were circulated and not others, or why particular clay sources seemed to be favoured for production. Equally, functional interpretations of on-site pottery distribution paid almost no regard to practices of deposition. With few exceptions, formation processes were given only scant treatment, and most studies assumed a simplistic relationship between the location of objects and the activities which produced them.

The lack of any 'cultural' dimensions to these studies was symptomatic of processual approaches to the material record in general. In attempting to understand categories of behaviour, primacy was given to the consequences of that behaviour in functional terms – i.e. what it achieved in the operation of the social system. Artefacts like pottery were 'good to

[3] The only notable attempt to bridge the divide between the strictly 'cultural' and 'functionalist' schools of ceramic study was Hodder's 'symbolic functionalist' approach to ceramics and ethnicity. This considered the conditions under which pottery styles could have been used to symbolise and communicate group identity and affiliation, but was not developed in detail for British later prehistoric pottery (e.g. 1977c; 1982).

study', but only because their patterning either disclosed the articulation of subsystems within the social totality, or fulfilled functional roles in activities adapted to the workings of the system. As Barrett (2001, 146) notes, of secondary importance was the *style* of people's actions, or the manner in which they were executed. Like the ideological and symbolic meaning of artefacts, such dispositions were generally perceived to be beyond recovery. Moreover, they were thought to amount to little more than a 'cultural froth' that concealed the underlying regularities of human behaviour which processualists sought to illuminate.

Overall, the kinds of social questions asked of ceramics in the 1970s and 1980s remained relatively limited in scope. Despite setting new standards of recording and valuable contributions to our understanding of chronology, pottery was largely sidelined in broader discussions of later prehistoric society.

2.5 Post-processualism, practice and identity: where did the pottery go?

Under the banner of post-processualism, the last 20 or more years have seen the development of varied critiques of totalising models and social evolutionary approaches. In the context of later prehistoric studies, generalising and typically static models of ranked or chiefdom-type societies have come to be regarded as both simplistic and limiting. In Iron Age studies, reactions were channelled through a critique of the material and theoretical basis of Cunliffe's (e.g. 1983; 1984b) reconstructions of a Celtic chiefdom society. The empirical evidence unpinning the interpretation that sites such as Danebury were elite residences and central places was widely contested (e.g. Hill 1995; 1996; Sharples 1991; Stopford 1987). In tandem, various authors challenged the concept of a timeless and unified pan-European 'Celtic' identity, which perpetuated stereotypes from classical and historical texts (e.g. Champion 1987; Collis 1985; Fitzpatrick 1991; Hill 1989; 1996; Merriman 1987). Early chroniclers had homogenised and exoticised their subjects (Giles 2008, 339), describing modes of kinship and tribal organisation that were historically contingent. The uncritical use of these sources had therefore fostered simplistic interpretations of Iron Age social organisation (e.g. Cunliffe 1984b).

Meanwhile, as a consequence of a growing number of excavations beyond Wessex and the Thames Valley (now mainly in the commercial sector), it was becoming increasingly apparent that Britain was inhabited by a range of later prehistoric societies, characterised by marked regional differences in material expression and landscape organisation (Gwilt and Haselgrove 1997; Bevan 1999). Against this tide of evidence, it was untenable that one overarching model of Iron Age social organisation could account for such regionalism; whether inspired by the

Celtic literature or not. This diversity was glossed over in conventional reconstructions of later prehistoric society, which ignored cultural variability at the level of everyday practice. Whilst this was a criticism levelled at processual approaches in general, Hill (1993, 62) regarded this neglect as part of a more deeply rooted assumption that the routines of everyday life in prehistory were '*simple to understand, essentially unchanging, and merely a backdrop against which the more important action was played out'*. For Hill, this outlook cast the archaeology of day-to-day activities as overtly familiar, as if structured by purely secular concerns and common-sense reactions to functional needs (Hill 1995, 4).

Hill's call for the 'Neolithicisation' of Iron Age studies (1989, 16; 1995, 4) was an attempt to problematise the archaeology of everyday life. However, beyond this specific agenda, the move towards a focus on 'everyday life' in later prehistoric studies was born out of a wider disciplinary interest in material culture and the role of agency in social reproduction. Drawing on a diverse set of ideas (from structuralism, post-structuralism, neo-Marxism and feminist thought), 'Post-processual' approaches to material culture brought a new awareness of the interplay between material and social worlds, emphasising the different ways in which people used and related to material things (e.g. Hodder 1982; 1986; 1992; Tilley 1990; 1999). This called attention to the symbolic and ideological dimensions of material culture. It also highlighted how artefacts were actively manipulated in the course of social action, serving as a medium through which relations were negotiated and reproduced.

In attempting to understand how material engagements structured social relations, most prehistorians in the last two decades have drawn on aspects of Structuration theory and Practice theory (e.g. Barrett 1988; 1989; 1994; 2001; Hill 1995). This body of ideas, based on an amalgam of works by Giddens (1984) and Bourdieu (1977; 1998), has provided a conceptual framework for understanding how the institutional 'structures' of society are constituted and transformed through practice and human agency. Crucial is the emphasis placed on the role of routine activities in this process, making the study of the 'everyday' central to understandings of social reproduction. As a consequence of these concerns, there have been significant shifts in the scale and scope of most research, much of it concentrating on the choreography of activities on individual sites. For example, a number of authors have considered how the organisation and use of settlement space was structured by cosmological principles and symbolic concerns (e.g. Fitzpatrick 1994; 1997; Giles and Parker Pearson 1999; Oswald 1997; Parker Pearson 1999). Others have called attention to the symbolic dimensions of boundaries and thresholds, emphasising their role in marking discontinuities in social and symbolic space (e.g. Bowden and McOmish 1987; Hingley 1990; Hill 1995; 1996). In addition, a range of studies have examined depositional practices in settlement contexts, exploring the properties and connotational links between things afforded special attention (see Chapter 8 for detailed discussion). Recurrent patterns have been identified in relation to spatial junctures such as boundary ditches, entrances to roundhouses and enclosures (e.g. Fitzpatrick 1994; Hill 1995). These have been interpreted as marking symbolically significant locations (e.g. Parker Pearson 1996), or particular moments in the life history of households and their inhabitants (e.g. Brück 1999a; Webley 2007a).

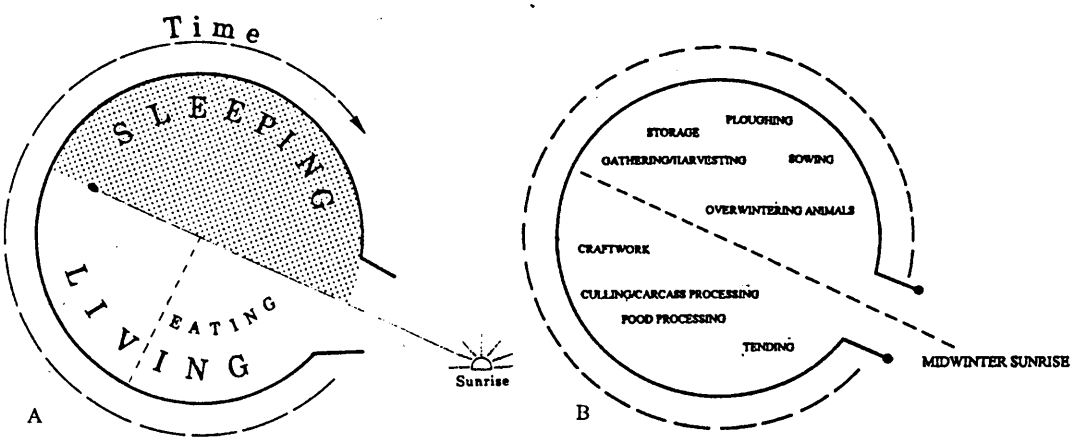


Figure 2.12. Cosmological 'sun-wise' models of roundhouse use. A. After Fitzpatrick 1997, 78, Fig. 9.4. B. After Giles and Parker Pearson 1999, 225, Fig. 13.5.

More broadly, attention has been directed towards understanding how a 'sense of place' and identity was constructed though these practices. Several authors have highlighted how the construction and maintenance of boundaries and buildings was a medium though which groups forged an attachment to place; a sense of home, family, community and belonging (e.g. Brück 2007; Chadwick 1999; Davis 2010; Giles 2007; Sharples 2010; Wells 2007). These studies reflect a growing sophistication in approaches to social identity, and a critical awareness of how complex, nested, and even overlapping forms of social identification are created and worked upon through material practice (e.g. Díaz-Andureu *et al.* 2005; Jones 1996; 1997).

More recently, archaeologists have also begun to explore how the categories and qualities of identity emerge through different arenas of practice, which vary according to what one is doing, where and when one is doing it, and with whom. As Giles (2007, 105) explains, this '*relational approach' to personhood stresses how the ongoing attainment of identity is contextually contingent; 'not something one 'is' or 'has', but that one does*' (her emphasis). This follows Jones' (1997, 13-14) suggestion that cultural identity is the '*shifting, situational, subjective identifications of self and others, which are rooted in ongoing daily practice and historic experience*'. The approach recognises that different aspects of a person's identity are brought into focus in different ways at different times and settings, in practical engagements between people, objects and places (e.g. Fowler 2004; Giles 2007; 2008; Ingold 2000, 145, 318; Insoll 2007, 6). It also emphasises how identity is something that is worked upon at different and often overlapping social scales.

These developments have been critically important. Now, perhaps more than ever before, we acknowledge the likely complexity of social life in later prehistory, and recognize that this complexity was something that was actively worked upon. But a major question remains. If social reproduction is carried forward through material practice, where are the studies of particular materials designed to explore this process?

Nowhere does this question need to be asked with greater urgency than in ceramic studies, a field of research devoted to one of the most ubiquitous categories of artefact that we have at our disposal. To a large extent, pottery studies have remained detached from the dominant themes in academic discourse, particularly those relating to practice and social reproduction. This specific marginalisation is matched by a much broader academic neglect of most classes of non-metallic Late Bronze Age and Iron Age artefacts (worked bone, querns, fired clay etc). The potential of pots to contribute to these debates has certainly been acknowledged, most clearly in the publication of *Prehistoric Britain: The Ceramic Basis* (Woodward and Hill 2002), where contributors considered a range of potential ways in which pottery was caught up in later prehistoric social life. However, it is arguable that we have not yet acted upon these potentials, and are still waiting for a new wave of regional studies dealing explicitly with the social and symbolic dimensions of ceramic production, use and deposition.

How has this situation arisen and why has it persisted? Part of the problem lies in the over-emphasis placed on ceramic recording and reporting procedures in the last three decades (Last 2006). Even today, improving fields of recording and reporting remain a core objective of the Prehistoric Ceramic Research Group (PCRG 1991; 1992; 1997; 1999), which sanctions codes of practice and issues guidelines for minimum standards. Yet whilst the recording of pottery in Britain is now regarded to have reached a very high standard (Woodward 2002, 74), the levering of more data into ceramics reports has not made pottery studies any more relevant to broader discussions of prehistoric society. If anything, interpretation has taken a back seat to classification and description in this agenda, isolating the internal concerns of the specialism from the broader social issues being tackled by the wider archaeological community. In this context, it is unsurprising that ceramic reports are increasingly relegated to appendices or CD ROMs. At best, most later prehistoric pot reports contribute to discussions of chronology, phasing and deposition; whilst at worst they offer nothing but banal descriptions of de-contextualised material, in which schemes of categorisation are used un-problematically in dry reiterations of long established patterns.

At a very general level then, one can see a correlation between the diminishing role of pottery in studies of later prehistoric social life, and the growth of a 'ceramic specialism'. This tendency has been compounded by broader changes in patterns of employment in British archaeology, with most ceramicists now working in the commercial sector as opposed to academia (Hill 2002a, 84). The requirements of the former are such that pottery is normally dealt with on a site-by-site basis. Indeed, in most standard post-excavation projects, there is often very little scope (in terms of time and money) to undertake comparative inter-site or intra-regional analyses.

Current working practices also mitigate against effective integration where specialists are called upon to report on material from sites from different parts of the country. This problem is less acute where specialists work 'in house' in regionally based units, or otherwise maintain a focus on a particular geographic area. Yet even here, the market-driven character of commercial work can still make it difficult to form a sound evidential basis for comparative analyses. More often than not, attempts at synthesis or 'discussion' involve little more than listing site parallels and stylistic affinities. In many respects, this approach is nothing but a vestigial requirement of culture-historical analysis, geared towards the definition and dating of cultural units through tracing stylistic parallels (Jones 2002, 51). The fact that this normative response to material variation remains implicitly fossilised in discussions of material demonstrates more than anything how practices of reporting have not been given the same critical scrutiny as standards of recording. Although the last few decades have seen ceramicists generate a huge body of well recorded attribute data, the use to which this has been put remains extremely limited. This is academically untenable. Even on pragmatic grounds, it is difficult to justify when developers ask about the 'value' of our work. Following John Barrett (1991, 204), we have to acknowledge that pottery specialists '*cannot continue to accumulate archives and catalogues of material as evidence for a past which they have yet to consider*'.

These are significant concerns but they are only part of the problem. No less important has been that academic work on issues of identity and practice has tended to focus on only certain aspects of our record, usually at a close analytical scale. For the most part, mainstream discourse has revolved around the consideration of settlement-related practice, concentrating on the choreography of routine activities across specific sites and landscapes. These developments are partially explained by the growth of large-scale excavation projects which, since the later 1980s, have transformed understandings of the character, range and patterning of later prehistoric landscapes in many parts of Britain. Yet these excavations have also yielded enormous quantities of pottery which contribute very little to broader interpretations. What this tells us is that our problems are not simply to do with the availability of evidence. Rather, they are a result of the choices we have made. In other words, the balance of evidence used to write about Late Bronze Age and Iron Age societies has changed from a weighting in favour of artefacts, to one where settlements, structures, fieldsystems and landscapes now take centre stage.

In investigating current concerns, archaeologists have generally immersed themselves in fine-gained studies of particular settlements, landscapes and practices of deposition. Though this has brought a more enriched understanding of day-to-day social life, particularly in regards to how communities experienced and structured their world at the local household-scale, the contribution of specific forms of artefact analysis to this research has actually been rather limited, particularly in Later Bronze Age and Iron Age studies. Just how much might be gained from integrating the close-grained analysis of ceramics is evident elsewhere, for example in Andy Jones' work on Grooved Ware in Neolithic Orkney (Jones 2007). But when it comes to the second and early first millennia, comparable work is largely missing. Here we tend to find an emphasis on deposition which does not hinge upon any really detailed understanding of the character of the ceramics (or other artefacts) caught up in different forms of interment.

One can also argue that our close-grained understandings have often been won at the expense of broader pictures (Cooper and Edmonds 2008, 149; Moore 2007, 79; Roberts and Vander Linden 2011, 4). With a few exceptions, recent approaches have atomised the study of later prehistoric society, focussing on the specifics of the local social milieu at the expense of broader scales of social analysis. With this 'jeweller's eye' perspective, we have arguably lost a sense of scale, rooting our understanding of the complexity of the social world too exclusively in the study of small-scale individual actions and decisions. As a consequence, we have lost sight of broader institutional relations, and have generally given little consideration to the form, structure and size of the communities in question. As Moore notes (2007, 80), despite the emphasis placed on the role of agency and the individual in recent work, the '*deconstruction of terms such as 'chieftain', 'tribe' and 'household' has frequently left our narratives of the Iron Age bereft of the individuals and communities they attempted to reintroduce*'.

Part of the problem here stems from uncertainties as to how we might replace the 'top down' models of society formulated in the 1970s and early 1980s. With the rejection of abstract social typologies, we now doubt the validity of fixed, bounded and clearly definable social categories, and rightly question the ability of the archaeological evidence to reflect them in any direct manner (Gosden and Lock 2007, 279). Unsurprisingly, the deconstruction of Iron Age (and by extension, Late Bronze Age) meta-narratives has been met by few attempts to formulate alternative models of society which engage with the issue of how communities reproduced themselves at broader scales (through see Hill 1996; Moore 2007; Sharples 2010). Though recent 'community-centred narratives' allude to heterarchical systems of social organisation, these accounts often fail to address how social cohesion worked, giving few clues to the ways local communities were articulated in those wider social worlds. There may be good reasons for this, not least that it is difficult! However, I would argue that unless we begin to address the complexity of broader-scale social structures and relations, there is the danger of visualising past societies as composed solely of discrete and dislocated communities (Moore 2007, 80). The question is, how might we meaningfully reconcile or connect our fine-grained contextual studies to broader understandings? How might we track the historically specific ways in which close-grained communities were articulated in larger social worlds?

2.6 Places for Pots

The role of pottery in narratives of later prehistoric social life has diminished since the late 1960s. With a few exceptions, it is hard to pinpoint what, if anything, ceramic studies have contributed to these discussions in the last two decades, beyond a consideration of date and deposition. Though ceramicists have always been on familiar ground when it comes to typology and chronology, there is arguably a perception that research can be conducted quite happily without the need for pottery specialists to step out of their comfort zone. I would suggest that we have become so familiar with a story structured by narratives of settlement and landscape, that we rarely conceive of other possible approaches in which artefacts could be central. It is perhaps for this reason that Cunliffe's 2005 edition of *Iron Age Communities* has a distinctly 'old-fashioned' feel about it, for, unlike most contemporary overviews, the narrative is fronted by a lengthy discussion of material culture and material patterning. Quite simply, we are now no longer used to reading a prehistory in which 'mundane' artefacts are given much prominence. The mainstream account we have come to expect is readily catered for by the type of grand synthesis provided in Richard Bradley's book *The Prehistory of Britain and Ireland* (Bradley 2007), where social reconstruction rests solely on the evidence of '*settlements, monuments and landscapes <u>rather than portable artefacts</u>*' (*ibid*, 25; my emphasis). The key issue, however, is not that the discipline has turned its back on the subject of pottery. The problem is that ceramicists themselves have often failed to find ways of making pottery matter when it comes to discourse on later prehistoric social life, leaving the subject detached and to some extent irrelevant to contemporary debate.

For this situation to change, it is vital that those of us who work with materials like pottery recognise the full implications of recent approaches to practice and identity. Collectively, these embody the principle that '*society is at once the ever present condition and continually produced outcome of human agency*' (Hill 1995, 6), meaning that 'societies' have no existence outside of peoples performances of the roles and activities (practices) which constitute and carry them forward through time. This necessarily includes practices in which pots were made, used and deposited. To address the roles which pottery played in social life, ceramicists need to recognise that '*social practices are the object of our study*' (Barrett 1988, 27). To make pots matter in this realm of discourse, the focus of research must shift from the description and quantification of ceramic attributes, to an analysis of the social practices and contextual settings in which the manufacturing, use and consumption of pottery was situated. This means looking at the biography of pots from production through to final deposition in the varying social and material contexts of Late Bronze Age and Early Iron Age settlement. Such an analysis would realign the study of later prehistoric pottery with other approaches to material culture circulating since the 1990s.

Making pots matter also requires us to think seriously about questions of scale. The solution to our problems is not simply the addition of material detail to our work on specific locales. That may be valuable, but we also need to recognise that life at even the most intimate and local of scales was almost always entangled in concepts of community and broader institutions. This returns us to an old idea, albeit one which we can now begin to think about in (hopefully) more sophisticated ways. We might hold back from the traditional notion that pots equal people in some direct and transparent manner. But in the wake of recent debate, we can recognize that traditions of making, using and even depositing things like ceramics were most likely implicated in a variety of different aspects of social life. In other words, the character of those traditions had consequences for the ways that people thought of themselves and their relations with others at a variety of social scales. The challenge, of course, is to identify just how ceramic traditions 'worked'; the scales at which they were manifest and the contexts in which they came into focus. At the very least, this requires a contextual approach which situates the detailed characterization of material. But context here has to mean more than just how material was treated in specific features and at certain moments. Instead, it requires a tacking back and forth between those 'events' and the broader patterning of material in space and time. If we have learnt anything from the work of the last thirty years or so, it should be that the aspiration of such work cannot be to reconstruct or map in any neat and self evident manner, the distribution of static political systems, cultures or totalities defined in other ways. Instead, we can use the evidence of ceramics (amongst other things) to more fully explore the character, complexity and dynamics of those broader worlds.

This thesis seeks to answer these challenges by focussing on the evidence for ceramic-related practice during the Late Bronze Age and Early Iron Age in what we now call East Anglia. It attempts to work through some of the possibilities and potentials of the material which later prehistoric ceramicists have recognised, but not yet investigated in any systematic fashion on a regional scale. It is a study of practice *in context* and practice *at scale*, which draws upon the vast but underexploited body of ceramic data generated through commercial archaeology. Such a study gains little from throwing the baby out with the bathwater. The analytical specifics of current approaches to ceramic research remain valuable and need to be retained if new work has any chance of being integrated with existing bodies of data. But if we are to be able to situate ceramic studies more effectively within contemporary debate, then we need to look closely at the scope of our work. We need to establish appropriate scales and contexts across which to track patterning in the ceramic record. And for that to be of any use, we need to be confident that we understand how those patterns have been formed and whether or not existing chronological schemes actually work. These issues are crucial to the study area identified here, arguably a region in which commercial work over the past few decades has had more of an impact than almost anywhere else in Britain. But it is also a region which has suffered from the imposition of models and chronologies derived from work elsewhere. If the pots can in any way be made to 'speak' about the issues that matter, we need to do more than put them in context. We need to understand the conditions in which our understanding of those contexts has itself emerged.

Chapter 3

A context for the pottery: the Late Bronze Age and Early Iron Age settlement record in East Anglia

3.1 Introduction

This chapter characterises the nature and variability of the Late Bronze Age and Early Iron Age settlement record of East Anglia. It aims to build an archaeological context for the study of the region's PDR pottery assemblages, introducing the range of sites, features and deposits that yield late second and early first millennium BC ceramics. Sections 3.2-3.3 give a brief introduction to the study area and its physical landscape setting. This is followed by an historical account of fieldwork in the region, examining the conditions that have shaped opportunities for excavation and artefact recovery (section 3.4). Here, discussion considers the impact of commercial archaeology over the last two decades, demonstrating that our understanding of the material record is influenced by the geography of development. Sections 3.5-3.8 provide for the first time an overview of the region's Late Bronze Age and Early Iron Age occupation record, drawing together information from a wide range of published and unpublished reports to characterise the main categories of site. Finally, the discussion in section 3.9 considers the questions that this overview poses for a study of pottery in East Anglia.

3.2 The study area

As defined here, 'East Anglia', consists of the modern counties of Cambridgeshire, Norfolk, Suffolk and Essex[4] (Figure 3.1). These are of course historical constructs, and in terms of prehistoric research, form a relatively arbitrary frame for analysis (Gardiner and Williamson 1993). However, it has long been recognised that the later prehistoric record of this region shares some distinctive characteristics (Clarke 1939; Bradley 1993; Hill 1999). It is, for instance, an area renowned for being extremely rich in later Bronze Age metalwork (e.g. Evans 1881; Fox 1923; 1933; Lawson 1984; Pendleton 1999). It is also distinguished by its scarcity of earlier Iron Age hillforts and enclosures, and a prevalence of open and agglomerate settlement sites (Bradley 1984, 140; 1993; Bryant 1997, 25-26; Champion 1994, 127; Clarke 1939; Cunliffe1978, 171-175; 1982, 170-175; Hill 1999).

[4] Strictly speaking the geography of the area known as 'East Anglia' should not include Essex (Sealey 2007, 30). For convenience, however, the term is used as a short hand for all four counties in this study.

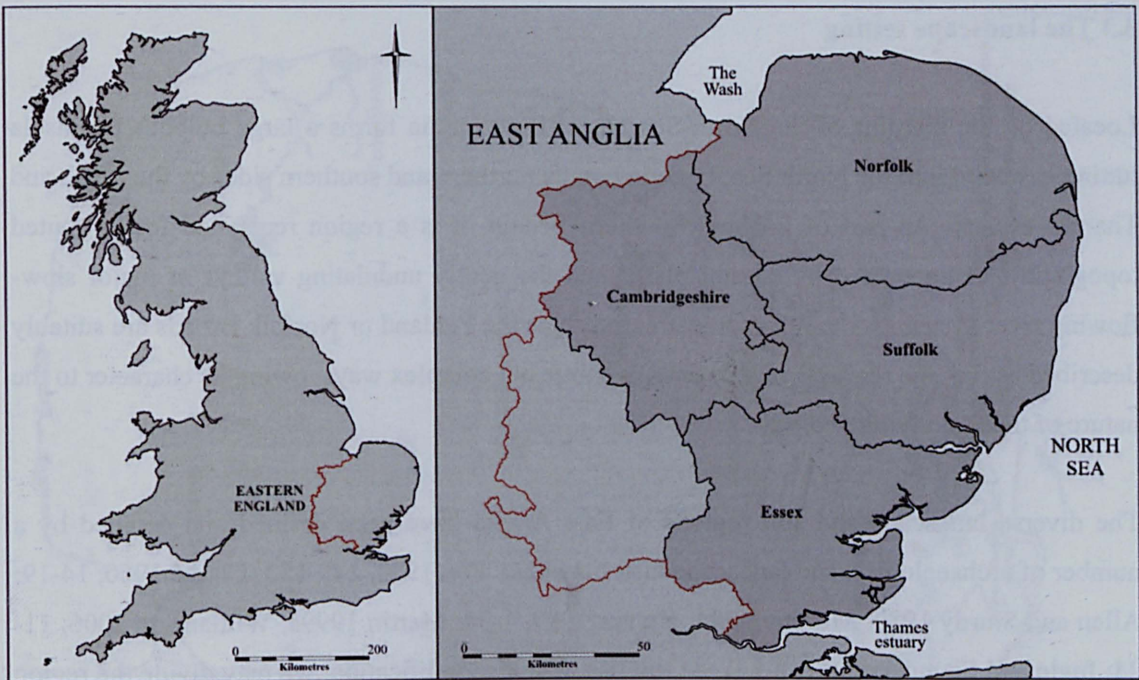


Figure 3.1. Location map of East Anglia.

The sense of a 'coherence' to East Anglia's archaeological signature was one of the main reasons for focussing in on this part of eastern England; an area that has largely escaped the regional scale of analysis that has characterised much recent work on later prehistory in Britain. The decision to concentrate on East Anglia was also guided by my personal experience of living here, and having worked on a range of archaeological sites in Norfolk, Suffolk and Cambridgeshire since the late 1990s. I therefore felt I had the advantage of having some knowledge of the region's landscape, as well as a grass-roots understanding of the benefits and limitations posed by current methods of material recovery and recording. Nevertheless, the choice of boundaries was ultimately dictated by more pragmatic concerns, relating to data collection and my anticipation of what was manageable within the time-frame of the thesis. The decision to define the western limits of the region by county borders, as opposed to natural features (such as the eastern fen-edge or the Chiltern ridge) was a matter of logistical convenience. As the required site information and unpublished grey-literature reports were held by county-based Heritage Environment Record offices (HERs), it was logical to organise collection according to the political boundaries by which the data were arranged. Perhaps more importantly, it was felt that the area selected was in the same instance sufficiently large enough to enable the observation of intra-regional patterning in the ceramic data, but small enough to ensure that most of region's major pottery assemblages could be consulted.

3.3 The landscape setting

Located on the margins of the North Sea basin, East Anglia forms a large bulbous peninsula jutting eastward into the North Sea; bounded on its northern and southern sides by the Wash and Thames estuary. As part of lowland Southern Britain, it is a region renowned for its muted topography, characterised by coastal plains and the gently undulating valleys of major slow-flowing river systems. Although some areas such as the Fenland or Norfolk Broads are suitably described as flat, the region's relief varies in subtle but complex ways, owing its character to the nature of the underlying geology.

The diverse landscape and soil regions of East Anglia have been defined and detailed by a number of archaeologists and landscape historians (e.g. Fox 1933, 149-153; Clarke 1960, 14-19; Allen and Sturdy 1980; Murphy 1984; Hunter 1999, 1-34; Martin 1999a; Williamson 2006; 11-23; Ingle and Saunders 2011, 8-14). At the risk of oversimplification, we may divide the region into an eastern and western landscape zone, separated by a spine of relatively high ground running broadly northeast-southwest across the centre of East Anglia, up to the north Norfolk coast (Figure 3.2A). Approximating to the line of the Icknield Way, this arcing 'ridge' is formed by a tail of chalk flanked by crags, clays and greensands on its eastern and western sides (Figure 3.3). Though most of this solid geology is masked by later fluvial and glacial drift deposits, outcrops of chalk are exposed in west Norfolk, the extremities of northwest Essex, and tracts of southeast Cambridgeshire; the latter characterised by a rolling downland landscape. These areas of high ground not only separate the two principal landscape zones, but also mark an important watershed between rivers which flow east into the North Sea, and those which discharge into the fens and the Wash basin.

The landscape of the western zone is dominated by the low-lying fen-basin, formed in a natural and impermeable dip in the underlying Jurassic clays. This distinctive part of the region has a long and complex history of marine and freshwater inundation (Waller 1994; Hall and Coles 1994). The intercalated Flandrian clays, silts, and peat horizons which fill the fen-basin provide a chronostratigraphy of this landscape's changing depositional environment over the past 10,000 years (French 2003, 133-142). Although the Fenland now presents itself as a somewhat monotonous agricultural flatland, in the Late Bronze Age and Early Iron Age it was an expanse of open water and water-logged marshland, punctuated by several in-fen islands, and numerous fen-edge peninsulas and embayments. The dryland fen-fringes were in close reach of a wide and rich variety of natural resources, attracting settlement throughout prehistory (Hall and Coles 1994).

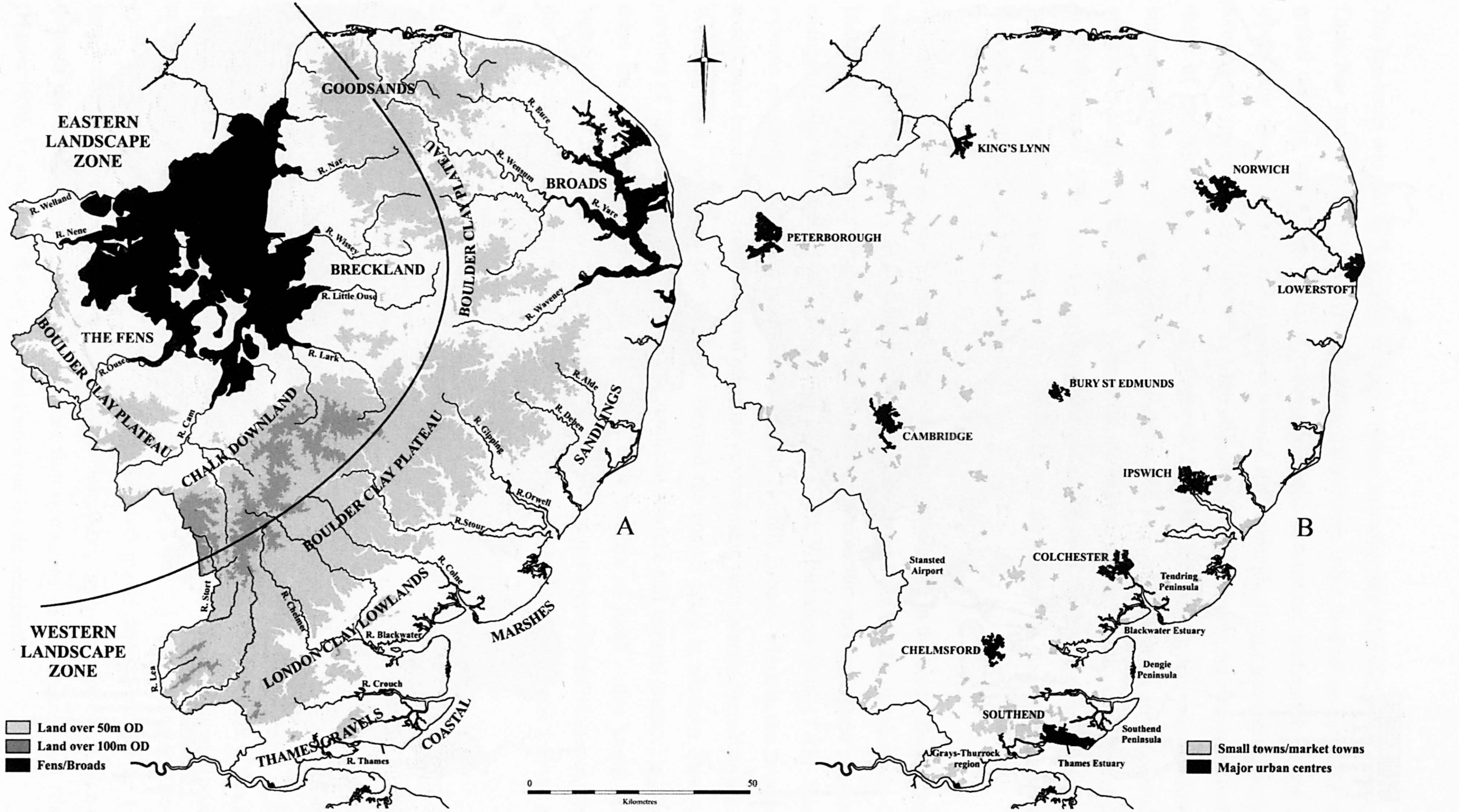


Figure 3.2. Landscape setting. A. The landscape zones and major rivers; B. Major urban areas.

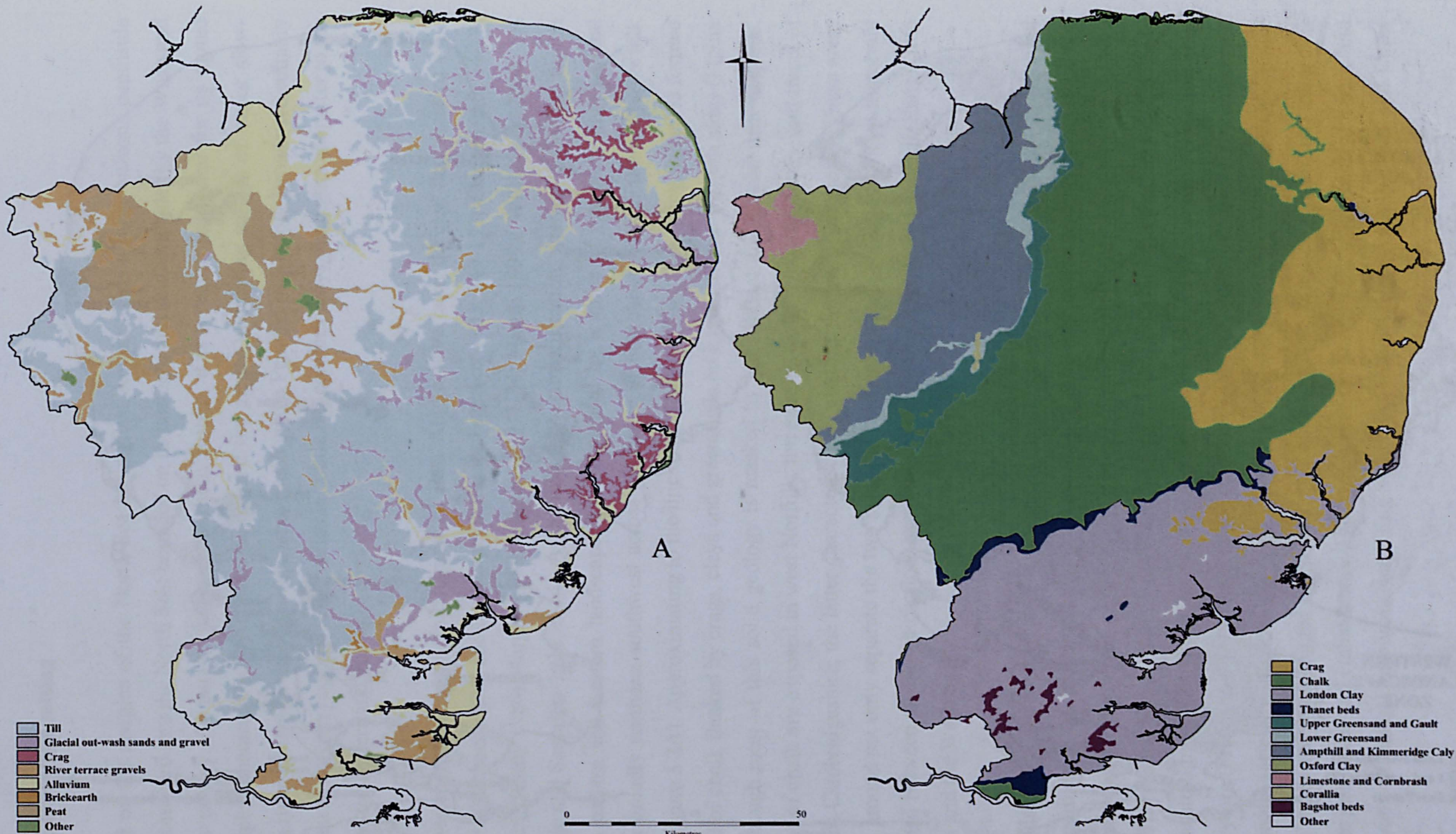


Figure 3.3. The geology of East Anglia. A. The drift geology; B. The solid geology (reproduced by permission of Digimap. Scale 1:625,000).

The fen-basin was fed by a number of major rivers, including the Welland, Nene, Ouse, Cam, Lark, Nar and Wissey. The lower reaches of these rivers were flanked by extensive terrace gravel deposits, which also attracted dense prehistoric occupation, particularly at the points where they discharged into the fen-basin around Peterborough, Huntingdon and Cambridge. Skirting the eastern fen-edge is a broad band of light but variable freely draining soils, including those of the 'Goodsands' region of northwest Norfolk, the Breckland, and the downland landscapes of southern Cambridgeshire. In places, the soils of these areas are calcareous and moderately fertile, whilst in others, such as the Breckland, they are acidic, infertile and desert-like (Williamson 2006, 21). By contrast, the plains between the major river courses on the western and south-western sides of the fen-basin, are dominated by glacial drift deposits of heavy but relatively fertile boulder clay.

The eastern landscape zone is characterised by coastal plains, and in the south, deeply indented estuarine embayments with extensive coastal marshes around the mouth of the rivers Colne, Blackwater, Crouch and Thames. As with the fens, the coastline has undergone considerable changes (Allen and Sturdy 1980, 3-4; Hunter 1999; 15-20; Williamson 2006; 17-18). The most extreme example is in the area now occupied by the Norfolk Broads, which in the Bronze Age, would have been a wet, marshland and estuarine environment, with islands formed by the rivers Wensum, Yare, Ant, Bure and Waveney. Beyond the coastal plain in northern East Anglia, swathes of light free-draining soils occupy northeast Norfolk and eastern Suffolk. In Norfolk, these are combined with some exceptionally fertile patches of loess - also found between Yarmouth and Lowestoft, and areas around Felixstowe and northwest Essex. However, abutting the Suffolk coastline is a narrow strip of infertile and acidic sandy soils known as the 'Sandlings'; an area traditionally characterised by open heaths.

Inland, the eastern landscape zone is dominated by the variable but heavier chalky-tills, which form a fertile boulder-clay plateau extending across large tracts of central Norfolk, Suffolk and north-west Essex. This great mantle of clay is dissected by many of the region's rivers, flanked by glacial-outwash sands, gravels and brickearth deposits, all supporting well-drained loams. In south Essex the boulder clay gives way to the London Clay lowlands, characterised by heavy, fertile, but difficult to cultivate soils, prone to winter waterlogging. The low hills of this region are capped by pebbly clay drift over fine sands of the Bagshot Beds. Soils on these deposits are easily worked but inherently acidic, and of low natural fertility. Finally, along southern and south-eastern margins of the Essex there are extensive river gravel deposits around the Tilbury region of the Thames estuary and Southern End. These, along with the spine of gravel running through the Dengie peninsula, all derive from former courses of the Thames and Medway (Hunter 1999; 5), and support easily worked loams and fertile brickearths.

The diverse geology and topography of East Anglia has had a profound effect on human settlement, land use, and development over the last century. Whilst the generally fertile character of the East Anglian soils has ensured a long history of cultivation, since the 1950s agricultural mechanisation, irrigation, drainage and the use of modern fertilisers have engendered a more homogenous and intensive set of farming practices across this landscape. In the last 40 years the region has also been a centre of economic growth, benefitting from close proximity to the capital, with Essex, Cambridgeshire and parts of south Suffolk served by major road networks and fast rail links. This, alongside a combination of other factors, is responsible for the rapid increase in population and housing in recent decades, particularly in and around the suburbs of its principal towns and cities (Figure 3.2B).

Post-1950s urban and commercial development also prompted the expansion of the aggregates industry; a business inextricably linked to the to the region's geological formations. Quarrying activities have been prolific in East Anglia since the 19th century. Whilst chalk, limestone, clay and carstone were all industrially quarried[5], extraction has focused on the region's extensive sand and gravel deposits (Figure 3.4), where today, there are over one hundred active quarry sites (East of England Aggregates Working Party Annual Monitoring Report 2004). The scale of these quarrying operations is illustrated by the fact that the region is earmarked to produce 24% of England's land-won sand and gravels between 2001-2016 (Department of Communities and Local Government 2003, 7, Table 1).

Activities such mineral extraction, agriculture and commercial development (housing schemes, infrastructural improvement), condition the visibility of the Late Bronze Age and Early Iron Age settlement record, and consequently, the recovery of PDR pottery. Whilst these activities are ultimately responsible for destroying the archaeological resource (Pendleton 1999, 6-7, 60-64), they have nonetheless enabled the observation and recording of the remains of the past. This has given us hitherto unimaginable insights into the region's prehistory. However, development has never been uniform across the East Anglian landscape. Projects such as large-scale housing schemes or quarry expansions are restricted in their distribution; the latter linked to very specific areas and geologies, and this inevitably has an impact on our 'picture' of prehistory.

[5] Between the mid 19th century and the end of World War I, opencast coprolite mining was also prolific along the Greensand belt in southern Cambridgeshire (Grove 1976; O'Connor 2001).

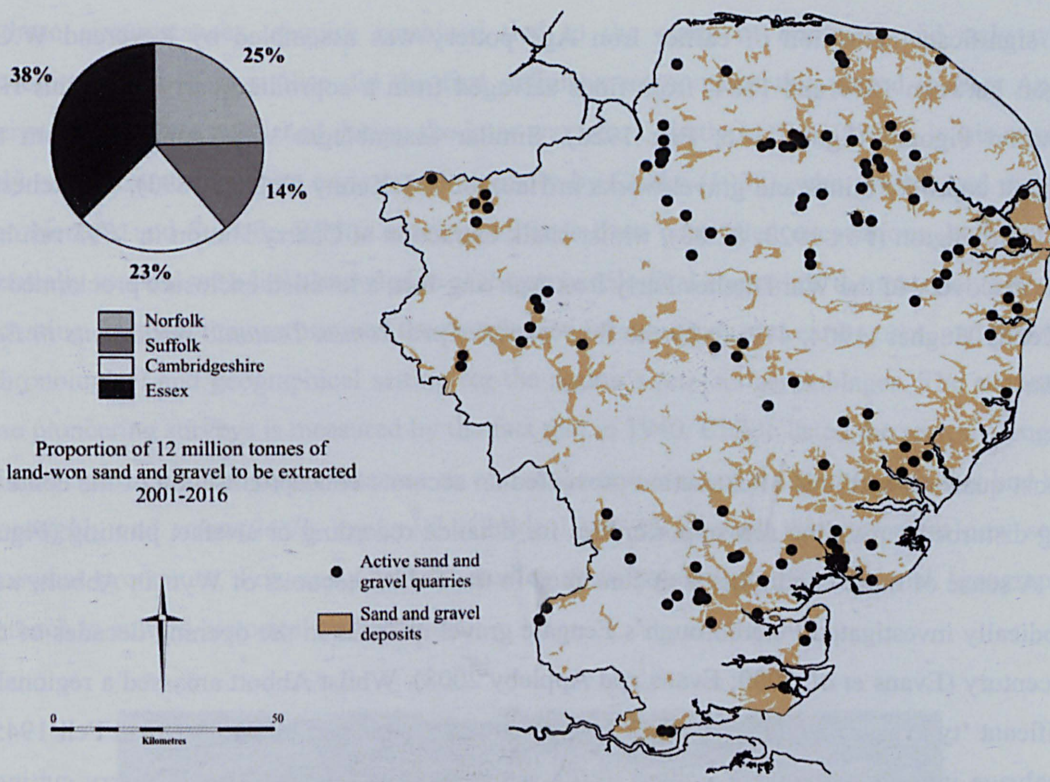


Figure 3.4. Location of the region's active sand and gravel quarries (data from the East of England Aggregates Working Party Annual Monitoring Report 2004, 6). These quarries have been the setting for the some of the largest developer funded excavations in recent decades.

3.4 A history of regional research

3.4.1 Artefact collections and early excavations – archaeology before the 1970s

Prior to the advent of aerial reconnaissance and/or systematic programmes of fieldwork in East Anglia, an understanding of the region's Late Bronze Age and earlier Iron Age archaeology was driven by chance discoveries. Throughout the late 19th century and the first half of the 20th century, knowledge of sites and assemblages accrued in a piecemeal fashion as finds were passed to the regional museums or were acquired by private collectors. In this context, patterns of artefact recovery were shaped by the endeavour of the individuals who periodically monitored extraction sites, ploughed fields and foundation trenches, collecting, and often paying for, objects unearthed in the course of these works. In East Anglia, quarries were an archaeological 'honey pot' for antiquarians and enthusiasts alike, and many of the region's early collections were assembled from finds gathered during extraction. For example, the county's first significant collection of earlier Iron Age pottery was assembled by Reverend W.G.F Piggott between 1879 and 1884, from finds salvaged from a coprolite quarry on Bellus Hill, Abington Pigotts (Pigott 1886; Fox 1924). Similar assemblages were compiled from the opencast coprolite mines and gravel works in Hauxton (McKenny Hughes 1893), Grantchester and Trumpington (Fox 1923; 82-83), whilst chalk extraction at Cherry Hinton in 1893 resulted in the discovery of the War Ditches Early Iron Age ring-fort; a levelled enclosure proclaimed by McKenny Hughes (1904, 479) to be the first '*proof of pre-Roman Teutonic settlements in East Anglia*'.

In most quarries, methods of extraction prevented an accurate conceptualisation of the contexts being disturbed, providing few opportunities for detailed recording or artefact plotting (Figure 3.5). A sense of these conditions is documented in the field notebooks of Wyman Abbott, who periodically investigated Peterborough's Fengate gravel quarries in the opening decades of the 20th century (Evans *et al.* 2009; Evans and Appleby 2008). Whilst Abbott amassed a regionally significant 'type-assemblage' of Early Iron Age pottery (published by Hawkes and Fell 1945), his salvage investigations were limited to the observation of relatively small quarry cuttings, making him heavily reliant upon information and finds provided by the quarry labourers (Evans *et al.* 2009, 28).

Figure 3.5. Quarry contexts and artefact recovery. Left: Coprolite quarrying in Abington Pigotts, Cambridgeshire 1883 (Photo reproduced from O'Connor 2001, 52, plate 6). Note the shallow working faces and narrow trenches. Right: Examples of Early Iron Age sherds recovered from the site (after Clark 1967 [1938], 291, Fig. 24, nos. 1, 4).

In these circumstances, enquiry remained tied to the study of artefacts, and only when typologies began to crystallise did the first definitive accounts of this period in East Anglia emerge. These were published during the inter-war years, firstly by Fox (1923), in his seminal study of the Cambridgeshire region, and secondly by Clarke (1939), who synthesised material from Norfolk and Suffolk. With a scarcity of finds from controlled excavations, both authors essentially worked with little knowledge of the archaeological context of the material they were discussing. Instead, they scrutinized the distribution of stay-finds and earthworks, and provided a chronological and geographical setting for the region's artefact assemblages. The success of these pioneering surveys is measured by the fact that in 1940, Childe listed the region alongside Wessex, Sussex and the Upper Thames, as one of the few areas of lowland Britain that had been '*thoroughly and scientifically explored*' (Childe 1940, 4). Though this statement now seems somewhat premature, Fox and Clarke's studies were exemplars of a regional 'geographic' approach to culture-historical archaeology.

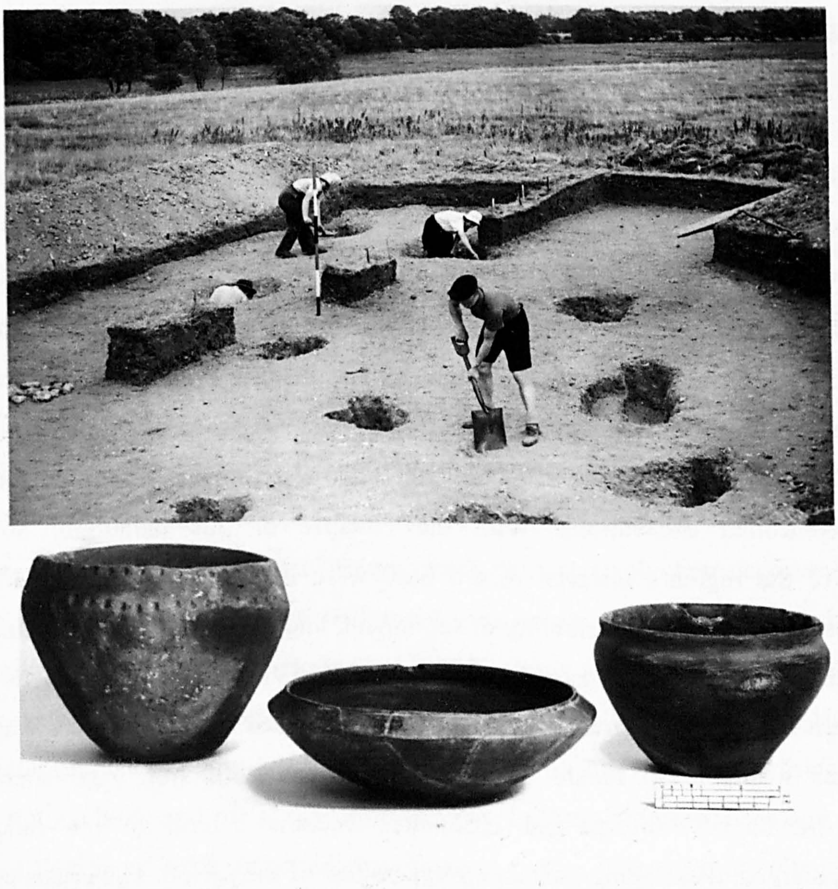


Figure 3.6. 1948-1952 excavations at Micklemoor Hill, West Harling. Top: Excavation of the Enclosure II roundhouse in 1952, following its discovery by Apling twenty years earlier (Apling 1932). Bottom: Reconstructed Early Iron Age vessels (photographs from the West Harling archive, Norfolk HER).

In the following decades, sites continued to be observed and investigated in an ad-hoc manner, with new period overviews sporadically appearing alongside updates on important finds and excavations (Clark 1967 [1938]; Coles and Liversidge 1965; Maynard 1951; Ward Perkins 1937). By the beginning of the 1960s, a range of Early Iron Age settlement sites and earthworks had been investigated through exploratory trenching and small-scale excavation. Foremost amongst them was Clark and Fell's (1953) investigations at Micklemoor Hill, Norfolk responsible for revealing the region's first complete Early Iron Age house plan. Other important investigations had been conducted at Warborough Hill, Norfolk (Clarke and Apling 1935), the War Ditches and Wandlebury Hillfort, Cambridgeshire (Lethbridge 1948, Hartley 1957); Lakenheath and Calke Wood, Suffolk (Briscoe 1949; Wacher 1958), and Linford, Essex (Barton 1962). When combined with the pottery groups recovered from Fengate (Hawkes and Fell 1945), and subsequently Linton (Fell 1953), the material generated from these excavations was instrumental in securing the basic cultural framework of the Early Iron Age period in East Anglia. Moreover, the results of these investigations fed into, and continued to shape, a broader understanding of the origins of Britain's earliest Iron Age 'A' cultures (Hawkes 1959).

3.4.2 The varying geographies of rescue and research excavation –archaeology between the late 1960s and late 1980s

With the academic demise of culture-historical archaeology, East Anglia began to assume a much lower profile in national Iron Age studies. The historical narrative of Hawkes' ABC scheme had given weight to accounts of the period in East Anglia for over 30 years, very often 'bulking out' arguments based on scant de-contextualised remains, and the results from a handful of controlled excavations. With the collapse of this paradigm, however, the inadequacies of the region's material record base were laid bare - there was little reliable information on the character or variability of settlement, and next to no data on the nature of the economy or environment. In the theoretical climate of the 1970s, the research focus returned to central southern Britain where, owing to a legacy of organised fieldwork, there was a body of settlement data available to tackle developing concerns with Iron Age socio-economic organisation. Inevitably, hillforts and enclosures become central to the models which subsequently emerged, these being the classic 'type-sites' of the period. The issues posed by the contrasting character of East Anglian Iron Age landscapes were generally ignored. In a region where '*open and undefended villages*' were thought to be the norm (Clarke 1939, 16), the archaeology fitted awkwardly into the Wessex-orientated, hillfort driven narratives of the period (Davies and Williamson 1999, 8; Martin 1999b, 45; Hill 1999, 185-9).

Subsequent research into the Late Bronze and Early Iron Age of East Anglia was driven as much by development as it was by more overtly strategic agendas. The opening years of the 1970s witnessed the appointment of the first county archaeologists, the formation of archaeological units, and the creation of county-based Sites and Monuments Records[6]. More importantly, this period marked a turning point in the way that prehistorians built an understanding of the Late Bronze Age and Early Iron Age. Whereas in previous decades artefact collections had formed the foundations of knowledge and study, (irrespective of the methods by which finds were obtained), in the 1970s and 1980s understandings of the period were shaped more directly by the results of excavation, with a new emphasis on, and importance attached to, settlement remains.

The excavations of this time were not, however, evenly distributed across the region. Under the 'rescue' agenda, investigation focussed on areas imminently threatened by road construction, housing schemes, and the linked expansion of sand and gravel quarries. This drew attention to very specific parts of the East Anglian landscape, principally the areas in and around the region's major towns and cities, and those cropmark complexes being quarried along the gravel terraces of the Thames estuary and the lower Blackwater valley in Essex (Figure 3.7). Whilst the 'geography of development' had always influenced where archaeological material was recovered, the response made to these new pressures heralded the first large-scale professionally-run excavations. These offered new insights into the character of later prehistoric settlement, offering the first real opportunities to recover large, contextually secure pottery assemblages.

As a consequence of the changing geography of development-led fieldwork in East Anglia, different traditions of enquiry emerged between the counties; many of which still persist today. In Norfolk and Suffolk, development brought forth comparatively few occasions to excavate Late Bronze Age and Early Iron Age settlement sites on any significant scale; the exceptions being the limited investigations at Barham, Little Bealings and Framingham, Suffolk (Martin 1993), and rescue recording along the Aylsham Bypass, Norfolk (unpublished). Here, efforts to understand later prehistory continued to advance through the analysis of stray finds and artefacts collected in fieldwalking and metal detecting surveys. In these circumstances, the distributional approaches of Fox and Clarke remained very much in vogue, with most overviews maintaining an emphasis on the topographic and geological setting of sites and finds (Ashwin 1996; Davies 1996; Lawson 1980a; 1984; Martin 1999b; Rogerson 1999; Pendleton 1999). But with the

[6] SMRs established in Essex in 1972; Norfolk 1974; Suffolk 1974 and Cambridgeshire 1975. For a detailed discussion of the structural changes in archaeological practice in Essex from the late 1960s to the beginning of the 1990s see papers by Wickenden (1996), Rodwell (1996) and Buckley (1996).

limited opportunities to recover large groups of pottery from closed deposits, interpretation was handicapped by the absence of a chronological framework based on a secure ceramic sequence (Davies 1996, 64). Even today, this remains a serious impediment to the understanding of the Late Bronze Age and Early Iron Age in northern East Anglia, distorting our ability to trace patterns across county boundaries.

Figure 3.7. Quarried landscapes in the lower Blackwater Valley. Rescue excavations at Chigborough Farm in advance of gravel extraction, 1981-1990 (after Wallis and Waughman 1998, 102, plate X).

By contrast, landscape-scale quarrying and commercial development in Essex and Cambridgeshire, created the first opportunities to expose large swathes of later prehistoric settlement. In both counties, a surge in rescue excavation brought renewed academic interest in the region's later Bronze Age archaeology. Large-scale investigations along the gravel terraces at Mucking, Essex (Figure 3.8; Jones and Jones 1975; Jones and Bond 1980; Bond 1988; Clark 1993) and Fengate, Peterborough (Pryor 1974; 1978; 1980; 1984) revealed multi-period landscape palimpsests, equipped with Bronze Age fieldsystems, settlement remains, and at Mucking, two Late Bronze Age ringwork enclosures; a new site-type. Rapid publication of interim reports ensured that both sites featured in the new and influential narratives of later Bronze Age settlement and society written in the late 1970s and early 1980s (Barrett and Bradley 1980; Bradley 1978; 1984).

Figure 3.8. Rescue excavations at the South Rings ringwork, Mucking, 1965-1968 (photo from the Mucking archive, British Museum).

Beyond Pryor's excavations at Fengate, Cambridgeshire (and more limited parts of Norfolk and Suffolk) also benefited from research-orientated programmes of fieldwork directed towards the Fens. Between the late 1970s and early 1990s a series of investigations were carried out in this unique wetland environment, largely under the guise of the Fenland Project (Hall and Coles 1994) and its various 'spin-off' research excavations (including The Fenland Management Project, The Lower Welland Valley Project (Pryor and French 1985) and The Haddenham Project (Evans and Hodder 2006a; 2006b). In combination with extensive programmes of fieldwalking, which saw numerous new Late Bronze Age and Early Iron Age sites added to the county's distribution maps (Hall 1987; 1992; 1996), a number of important excavations were undertaken - some as a direct result of field survey discoveries; others instigated through independent research designs. Significant in this context were the British Museum's excavations at Stonea, which revealed traces of a Late Bronze Age settlement sealed beneath alluvium (Jackson and Potter 1996), and Pryor's renowned excavations along the Flag Fen post alignment (Pryor 1991; 2001; Pryor *et al.* 1986); the latter establishing the Flag Fen Basin as a landscape of paramount importance in British Bronze Age studies.

In Essex, it was the archaeological response to remains threatened by mineral extraction, housing developments and road schemes which brought the most significant results. Whilst pockets of settlement were excavated in western Essex prior to the construction of the M11 motorway (Robertson 1975; Miller and Miller 1982) and Stansted Airport (Havis and Brooks

2004), extensive settlement complexes were being exposed in the southern and eastern parts of the county along the cropmarked gravel terraces of the Thames estuary, and the lower Colne, Chelmer and Blackwater valleys (Bedwin 1992; Brooks 2001; Brown 1988a; Wallis and Waughman 1998; Wilkinson 1988; Wymer and Brown 1995). The two most important investigations were conducted on Late Bonze Age enclosures at Springfield Lyons (Brown and Buckley forthcoming; Buckley and Hedges 1987) and Lofts Farm (Brown 1988); both of which have become nationally renowned 'type-sites' of the British Bronze Age.

3.4.3 The impact of developer-funded fieldwork – archaeology since the early 1990s

Though the excavations of 1970s and 1980s provided the first significant insights into the Late Bronze Age and Early Iron Age settlement record, the generally slow pace of post-excavation meant that few of these larger-scale investigations were published until the mid to late 1990s - with some still pending. In some academic quarters, this slow filtering of information has fostered the impression that parts of Essex and Cambridgeshire's western fen-edge remain the only areas with a coherent picture of later prehistoric settlement and land-use. As recently as 2005, Cunliffe described the Late Bronze Age settlement evidence in East Anglia as '*not particularly extensive*' (Cunliffe 2005, 37), whilst subsequently claiming that the Iron Age record was '*something of an unknown*' (*ibid*, 265). These sentiments echoed comments made over a decade earlier, when the paucity of published settlement remains encouraged the opinion that East Anglia was '*virtually a blank area*' (Cunliffe 1991, 89). Indeed, the published Early Iron Age evidence was so slight before the late 1990s that the period presented itself as something of a '*Dark Age*' (Champion 1994, 129).

The picture created by these accounts is now wholly at odds with the evidence that has come to light in the last 20 years. Whilst this is to some extent appreciable from the published literature now available, it is the mass of unpublished 'grey reports' which ultimately testifies to the frequency of archaeological investigations since the early 1990s. Clogging the shelves and filing cabinets of the regions HERs, these reports document the discovery and investigation of a breathtaking multitude of new sites and assemblages. The rash of excavations occurring in this short period have generated such a wealth of material that East Anglia now boasts a settlement and artefact record rivalling that from central southern Britain.

This recent surge in excavation is a product of structural transformations in the practice and funding of archaeological fieldwork in Britain, fundamental to which has been the publication of PPG16 (Darvill and Russell 2002). Since 1990 this has provided the legislative basis for a developer-funded archaeology, linking the protection and management of archaeological deposits to land-use planning and the control of development, whilst placing the cost of any fieldwork requirements at the door the developer. In other words, instead of treating archaeological remains *after* the granting of planning permission, those remains were now a consideration in the process of deciding whether permission should be granted, and/or under what conditions (Champion 2007, 294).

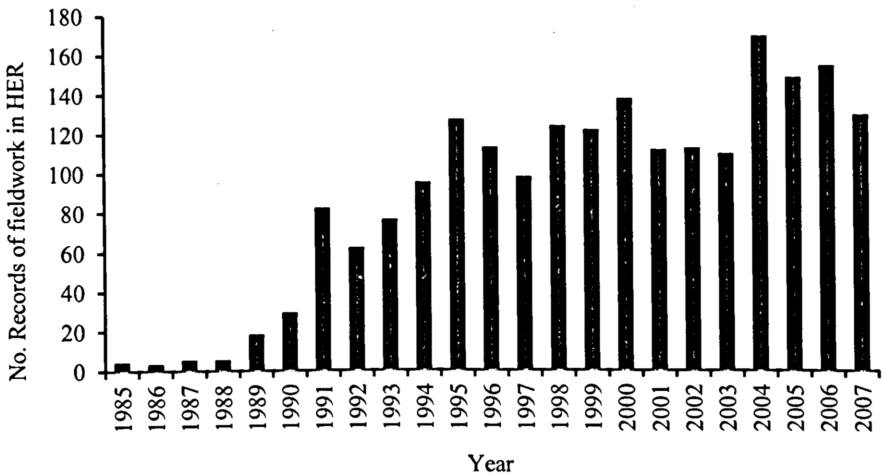


Figure 3.9. The changing frequency of archaeological interventions. Records of fieldwork in Cambridgeshire 1985-2007 (data supplied by Sally Tompson, Cambridge HER).

These changes launched archaeology as a commercial industry in its own right, tying the opportunities for investigation to the fortunes of both the regional and national economy. As an area witnessing sustained growth and commercial development, East Anglia has seen a marked increase in levels of archaeological activity under PPG16 (Figure 3.9). The sudden abundance of new sites and finds has had what Bradley (1993, 6) has referred to as a 'liberating effect' on regional studies of the Late Bronze Age and Early Iron Age, freeing the discussions of the settlement record from those based on deductions in Wessex and the Thames Valley. With this has come the appreciation that there is far more 'past' than was once previously imagined. Given that we currently find ourselves in a situation where county stores are being overwhelmed by material generated from developer-funded projects (see Chapter 1), it is almost absurd to look back upon the gloomy predictions of the 1970s, when it was feared that un-checked development would destroy much of the prehistoric resource by the end of the 20th century (e.g. Taylor 1972, 112).

Whilst an abundance of sites has inevitably meant a greater numbers of dots on distribution maps, insights have been shaped more by the character of certain development-led excavations than the gross frequency of interventions *per se*. In particular, it is the *scale* of certain projects that has allowed us to more fully comprehend and contextualise the remains. Though trenching programmes and pipeline surveys have provided a context for a more regular observation and recovery of material, it has been the opportunities for extensive open-area excavation that have moulded understandings in a more direct manner (Figure 3.10). In particular, it is the investigations afforded by mineral extraction, urban development and infrastructural improvement schemes, which have provided windows into the prehistoric landscape on a scale never before achieved – and one which is now unattainable outside of the commercial sector (Figure 3.11).

Figure 3.10. Examples of how the different types and scales of archaeological intervention present varying opportunities for the observation of later prehistoric settlement. 1. Watching brief along a cable cutting; 2. Evaluation trenching; 3. Strip in advance of pipeline construction; 4. Large-scale open area excavation prior to gravel extraction (no. 3 courtesy of K. Murrell, CAU).

Part of the reason why the period's settlement record was perceived as so '*elusive*' (Davies 1999, 67), '*difficult to identify with certainty*' (Champion 1994, 131) or '*nigh 'invisible'*' (Pryor *et al.* 1985, 306), was because most pre-PPG16 investigations could not be conducted on a scale large enough to visualise the character of their remains. Just as patterns of prehistoric land-allotment were not discernable until areas larger than the boundaries of individual field blocks were investigated, an insight into the nature and variability of settlement has only been achieved in contexts where the scale of excavation has matched that of the occupation scatters themselves. In other words, it is only with the recent opportunities to strip large areas on a *landscape scale* that we have been able to investigate 'complete' settlements, and in some instances, the spaces in between them. In certain cases, the magnitude of these investigations is such that sites uncovered can no longer be represented as dots on maps, because they have become maps in themselves.

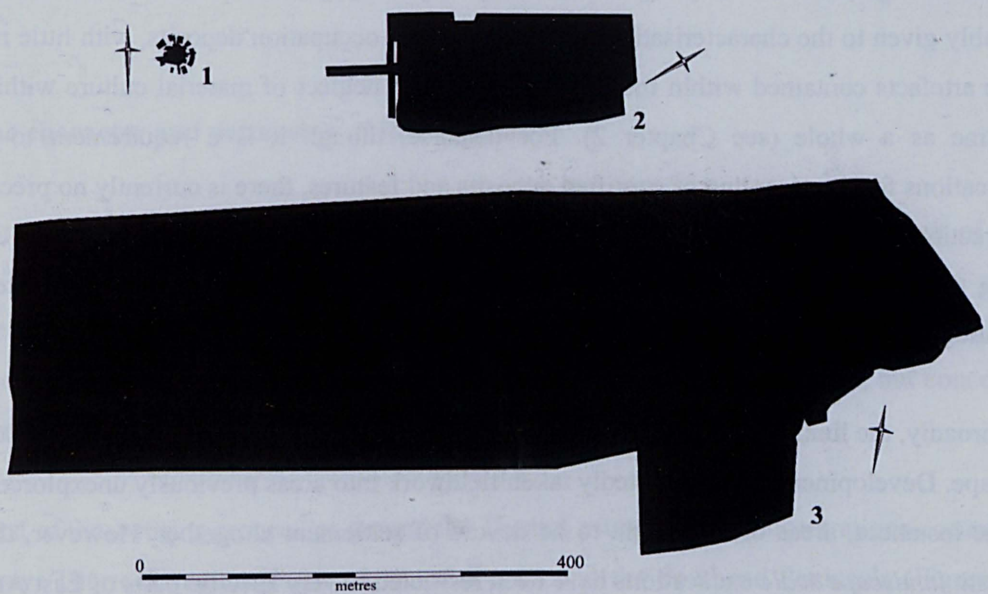


Figure 3.11. The changing scale of excavation. 1. Area excavated at Enclosure II, Micklemoor Hill, Norfolk (1948-1952); 2. Area excavated at Cat's Water, Fengate, Cambridgeshire (1971-1978); 3. Area excavated at Bradley Fen, Whittlesey, Cambridgeshire (2001-2004, courtesy of M. Knight, CAU).

It is through the repetition of these kinds of large scale-projects in East Anglia, that we are, for the first time, beginning to grasp a real sense of patterning; an appreciation of what Evans *et al.* (2008, 198) have called the '*settlement fabric of the past*'. With this has come a familiarity with the basic archaeological signature of later prehistoric settlement remains, as well as an appreciation of how long-term sequences of occupation unfold in particular locales. It has also brought a nuanced awareness of the types of deposits and artefact repertoires that commonly accompany these sites. The provision of this form of context is vital. In order to explore variability in the ways ceramics were made, used and deposited in East Anglia, it is crucial that we first have an understanding of the material contexts in which these practices were conducted, and can furthermore demonstrate with confidence, that these practices operated in patterned ways across a number of sites. Quite simply, this study would not have achievable 20 years ago. Not only did we not have the sites and assemblages to hand, but we lacked the material and intellectual understandings of context to enable such a program of research.

It is important to build an awareness of the biases that development-led fieldwork practices have introduced. Though there is good cause to be optimistic about the impact of commercial archaeology, there are some inherent weaknesses in its operation which create very specific conditions for sampling and analysis. For ceramic studies, one pressing issue is that there are no coherent strategies for the sampling and recovery of pottery in a fieldwork context. Priority is invariably given to the characterisation of landscapes and occupation deposits, with little regard for the artefacts contained within them - part of a wider neglect of material culture within the discipline as a whole (see Chapter 2). For instance, though it is a requirement to issue specifications for the sampling of stratified deposits and features, there is currently no precedent for directing excavation towards specific artefact-based questions posed in the field; these tending to be formulated once the material has been removed and catalogued, long after the excavation has ceased.

More broadly, the linking of fieldwork to development has not provided an even coverage of the landscape. Development has undoubtedly taken fieldwork into areas previously unexplored, and in some instances, areas once thought to be devoid of settlement altogether. However, the all important *landscape scale* excavations have been restricted to very specific parts of East Anglia; namely urban suburbs and gravel extraction sites. In short, most of these larger projects have been confined to the region's lowland river valleys. These biases are important to acknowledge, as they affect for our capacity to track variations in the character of the material record, and ultimately, our ability to interpret broader distributions. Development has therefore afforded archaeology with novel opportunities for observation and artefact recovery, but it has dictated their location, scale and form.

3.5 The Late Bronze Age and Early Iron Age settlement record in East Anglia

The archaeological response to development under PPG16 has transformed the material basis for making interpretations about the Late Bronze Age and Early Iron Age in East Anglia. The possibilities generated by this sudden wealth of data, are however, hampered by our abilities to keep abreast of the information flow, and meet the challenge of synthesis: problems recognised in virtually all recent attempts to survey the region's later prehistoric archaeology (Ashwin 1996; 1999; Brown 1996; Brown and Murphy 1997; Bryant 1997; Champion 1994; Davies 1996; Dawson 2004; Malim 2001; Pendleton 1999; Sealey 1996). In order to explore how recent changes in fieldwork practice have created a new and enriched archaeological context for the analysis of PDR pottery, I attempt here to outline the character of the region's settlement evidence using the published literature and a range of unpublished 'grey' reports. The following review is not intended to be a comprehensive survey of the period's occupation remains. Rather it is a thumbnail sketch of the main categories of settlement evidence (fieldsystems, open settlement and enclosures), detailing variability in their form and distribution. The aim is to characterise the range of contexts and deposits that typify occupation sites, offering an introduction to the different scales and architectures of settlement, and their material repertoires.

3.6 The character and patterning of fieldsystems

The Bronze Age fieldsystems of East Anglia are fossilised in an extensive network of silted linear ditches and fence-lines, which once parcelled-up and allotted large tracts of the prehistoric landscape. These have recently been subject to a survey by David Yates (2007), who has shown that boundary systems were not evenly distributed across the region, but concentrate in three specific areas in the south, southeast and northwest (Figure 3.12).

The first of these major groups lies around the Thames estuary, with concentrations occurring in the Grays/Thurrock region (Figure 3.12, sites 1-4), and the Southend Peninsula (Figure 3.12, sites 5-10). These include the extensive boundary systems uncovered at Mucking (Jones and Bond 1980), North Shoebury (Wymer and Brown 1995), and Clements Park (Wessex Archaeology 2007); the latter characterised by field blocks divided into narrow strips (Figure 3.13). The second concentration is located along the Essex coastline and the lower reaches of its east flowing rivers and estuarine embayments (Figure 3.12, sites 11-24). In this zone, a string of excavations along the cropmarked gravels of the Heybridge Basin and the Backwater estuary have revealed a dense network of field ditches, paddock systems and fenced enclosures (Brown and Adkins 1988; Newton 2008; Wallis and Waughman 1998).

However, the region's third and largest concentration of fieldsystem sites are located along the gravel terraces which skirt the Cambridgeshire fens, particularly at the points where major river systems discharge into the fen basin. Here, landscape-scale excavations afforded by quarrying and commercial development have resulted in vast exposures of Bronze Age boundary systems along the western fen-edge (Figure 3.14), particularly around the lower Nene and Flag Fen Basin, Peterborough (Figure 3.12, sites 26-29, 32; Evans *et al.* 2009; Gibson and Knight 2006; Pryor 1978; 1980; 1984; 2001) and Colne Fen and the lower Ouse valley, at Earith, Needingworth and Over (Figure 3.12, sites 39-43; Brudenell and Evans 2007; Evans and Knight 1997; Evans and Pattern 2003; Evans and Vander Linden 2009a; 2009b).

Beyond these three major 'core' fieldsystem zones, Yates' (2007) distribution maps reveal a scarcity of confirmed prehistoric boundary ditches in Suffolk and Norfolk. Aside from the fieldsystem uncovered at Game Farm, Brandon (Gibson 200), he lists only three other sites in

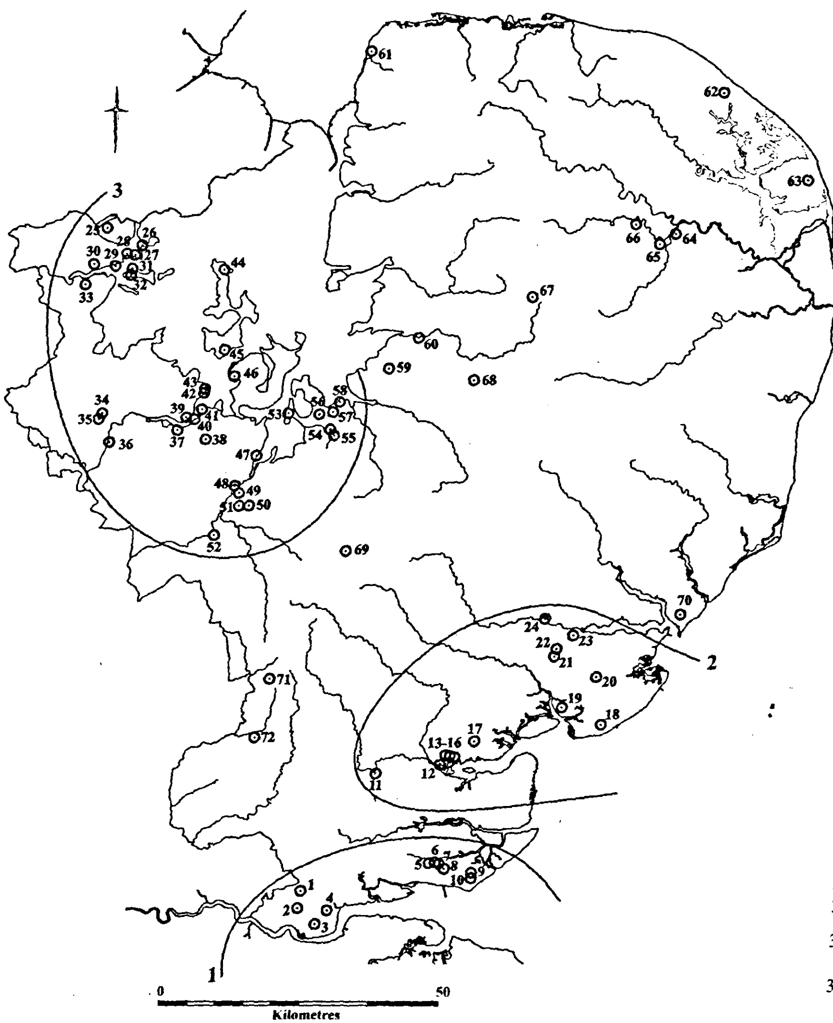


Figure 3.12. Fieldsystem sites and concentration zones (after Yates 2007 with additions)

1. Site 4 Horndon to Barking gas pipeline (Wessex Arch. 1994)
2. William Edwards School (Lavender 1988)
3. Gun Hill (Drury and Rodwell 1973)
4. Mucking (Jones and Bond 1980; Bond 1988)
5. Eastwood (Wymer and Brown 1995)
6. Southend Airport (Essex County Council 1998)
7. Southend Airport (Germany and Foreman 1997)
8. Clements Park (Wessex Archaeology 2007)
9. Alexander Road (Reidy 1997)
10. North Shoebury (Wymer and Brown 1995)
11. Chelmsford Park and Ride (Holloway and Brooks 2007)
12. Hall Road (Newton 2008)
13. Rook Hall (Wallis and Waughman 1998)
14. Slough House Farm (Wallis and Waughman 1998)
15. Chigborough Farm (Wallis and Waughman 1998)
16. Blackwater Sailing Club (Brown and Adkins 1988)
17. Hill Farm (Wallis and Waughman 1998)
18. Bishops Park (Major *et al.* 2005)
19. Moverons Pit (Clarke 1996)
20. Hill Farm (Yates 2007)
21. Martells Quarry (James 2000)
22. Vince's Farm (Brown 1999a)
23. Lawford (Erith 1970)
24. Langham (Yates 2007)
25. Borough Fen (Pryor 1998)
26. Pode Hall (Daniel 2009; Mudd and Pears 2006)
27. Brigg's Farm (Pickstone and Mortimer 2009)
28. Tanholt Farm (Gibson and White 1998; McFadyen 2000; Patten 2002a; 2003; 2004; 2008)
29. Fengate (overview by Evans *et al.* 2009)
30. Peterborough Prison (Knight 2002)
31. Northey Island (Gurney 1980; French and Pryor 1993)
32. Bradley Fen (Gibson and Knight 2006)
33. Orton Longueville school (Casa-Hatton 2001)
34. Huntingdon Racecourse (Malim 2001)
35. Thrapston Road (Malim and Mitchell 1993)
36. Offord Cluny (Kenny 2002)
37. Low Fen (Mortimer 1995)
38. Striplands Farm (Patten and Evans 2005; Evans and Patten 2011)
39. Barleycroft Farm (Evans and Knight 1997; 2001)
40. Over (Evans and Knight 2001)
41. Over Narrows (Evans and Vander Linden 2009a; 2009b)
42. The Holme (Evans and Patten 2003)
43. Rhee Lakeside South (Brudenell and Evans 2007)
44. Whitemore Sidings (Hall 2004)
45. Block Fen (Hunn 1994)
46. Sutton (Yates 2007)
47. Ely Road, Waterbeach (Masser 2000)
48. Jesus College (Whittaker 1999)
49. Clarendon Road (Kenny 2000)
50. Babraham Road (Hinman 2001)
51. Addenbrooke's Environs (Evans *et al.* 2008)
52. Manor Farm (Malim 1994)
53. Dimmock's Cote (Bray 1992; 1993; Gilmour 2009; Kemp and Kenny 2003; Schlee 1993)
54. Fordham Bypass (Mortimer 2005)
55. Landwade Road (A Connor *pers comm.*)
56. Fordham Road Allotments (Connor 2001)
57. Isleham (Malim 2010)
58. Prickwillow Road Isleham (Yates 2007)
59. Lakenheath (Briscoe 1949)
60. Game Farm (Gibson 2004)
61. Redgate Hill (Healey *et al.* 1993)
62. Witton (Lawson 1983)
63. Ormesby (Mortimer *pers comm.*)
64. Valley Belt (Ashwin and Bates 2000)
65. Harford Park and Ride (Trimble 2004a)
66. Little Melton (Watkins 2008)
67. Honeypots Plantation site (Norfolk Archaeology Unit 2007)
68. Gravel Hill (Suffolk County Council Arch. Service 1995)
69. Hales Barn (Bales and Topham-Smith 2002)
70. Blofield Hall (Yates 2007)
71. Stansted Airport (Havis and Brooks 2004; Cook *et al.* 2008)
72. Sites 31 and 35 Hatfield Heath to Matching Tye Rising main (Guttmann 2000)

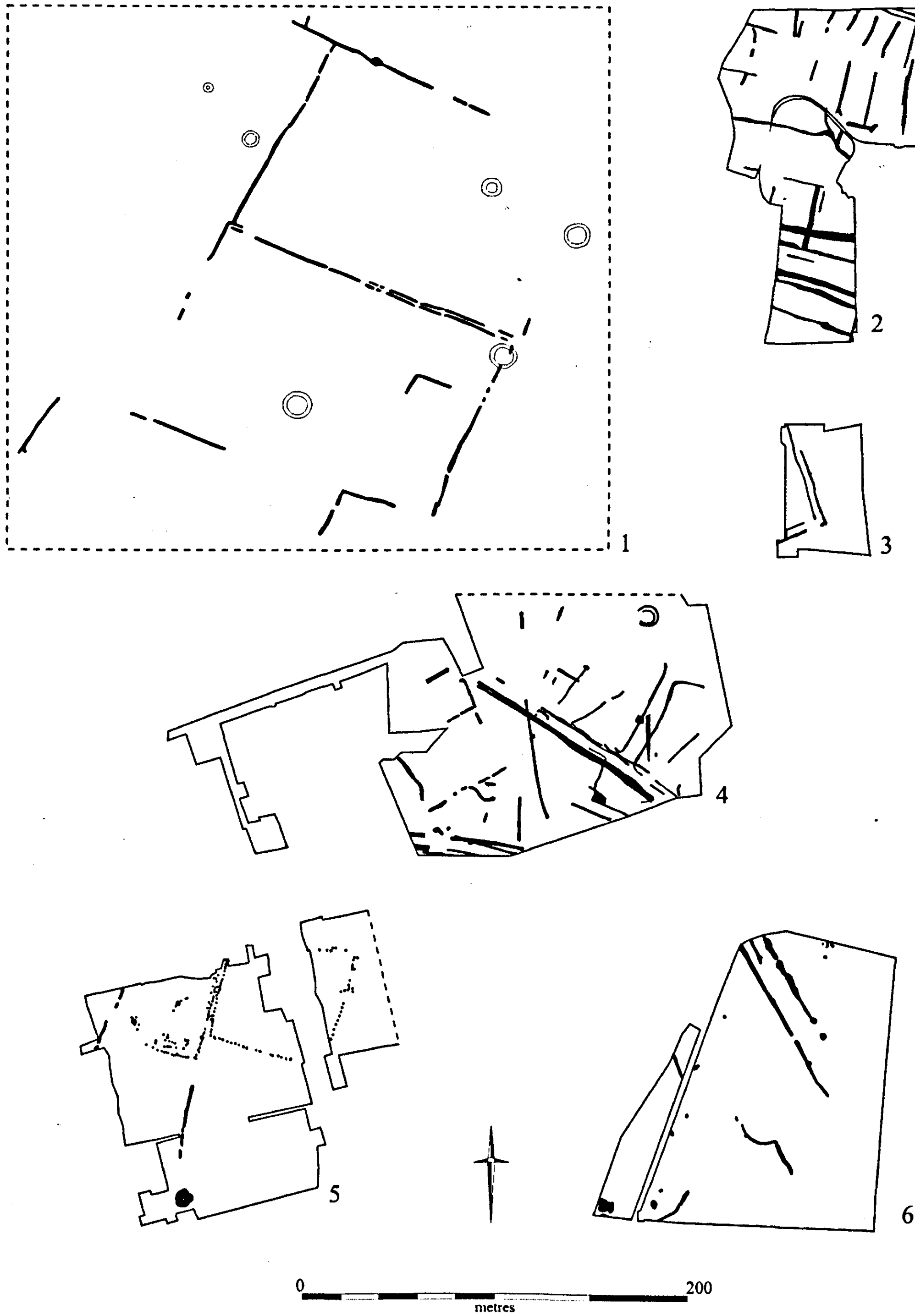


Figure 3.13. Examples of fieldsystems in concentration zones 1 and 2. 1. Mucking (adapted from Jones and Bond 1980); 2. Clements Park (adapted from Wessex Archaeology 2007, Fig. 3); 3. Hall Road (adapted from Newton 2008, Fig. 3.); 4. North Shoebury (adapted from Wymer and Brown 1995, 14, Fig. 5); 5. Chigborough Farm (adapted from Wallis and Waughman 1998, 70, Fig. 55); 6. Bishops Park (adapted from Major *et al.* 2005, 57).

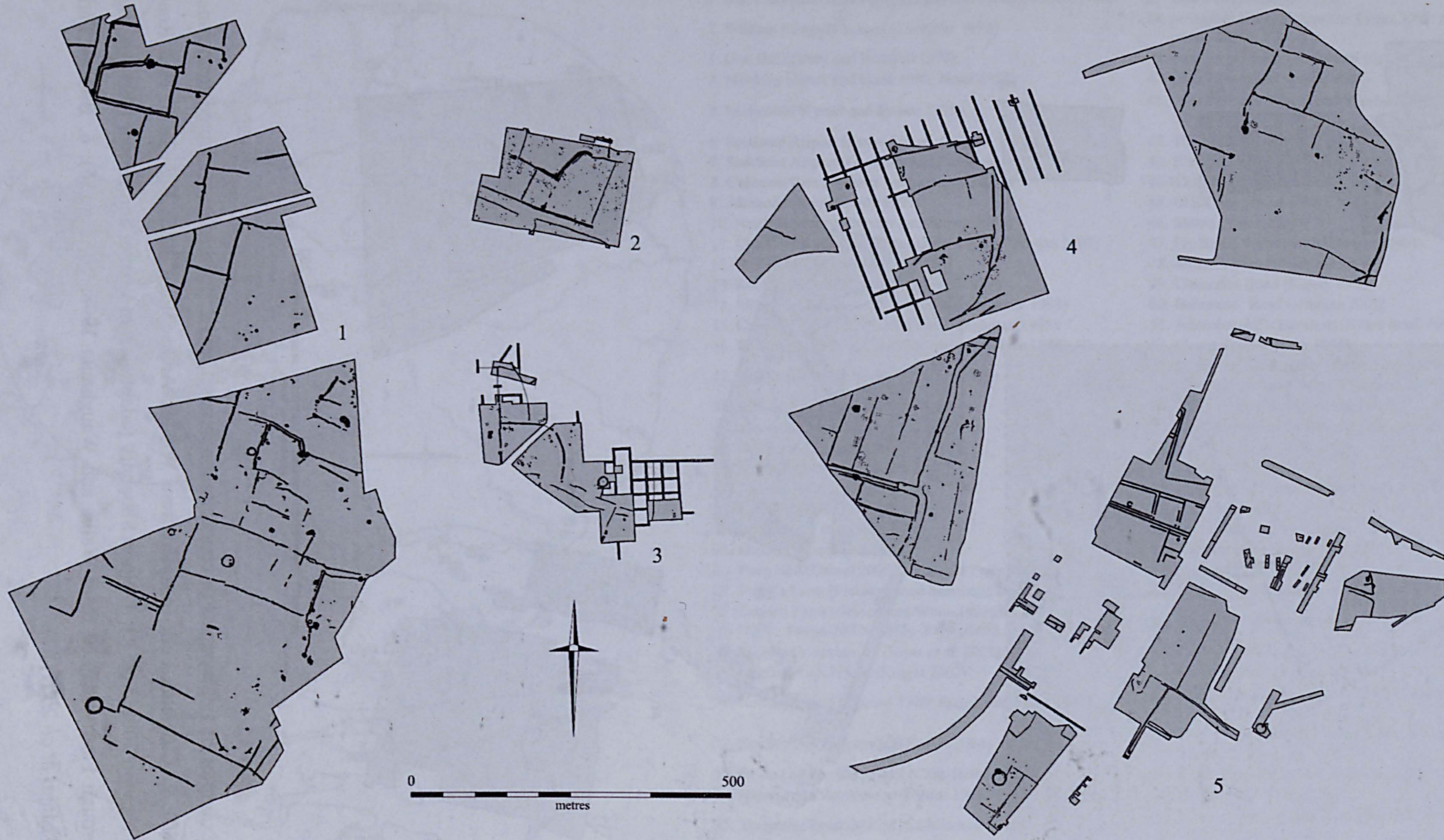


Figure 3.14. Examples of fieldsystems in concentration zone 3. 1. Pode Hall/Tower Fen, Thorney (adapted from Mudd and Pears 2008, 6, Fig. 2); 2. The Holme, Earith; 3. Rhee Lakeside South, Earith; 4. Tanholt Farm, Eye; 5. Fengate, Peterborough (nos. 2-5 courtesy of the CAU).

this region with 'definite' Bronze Age land divisions; all located on the fen-edge, or the zone along the eastern seaboard. The question of whether this picture is truly representative of their distribution is debateable. Whilst Yates (2007, 108) may be correct in his conclusion that distributions are not simply the product of the differential rates of developer-funded fieldwork across the country, in some areas it is likely that the *scale* of excavation plays the more significant role in fieldsystem identification than does the overall number of interventions. This would certainly seem to be the case in East Anglia, where it is quite clear that all three major fieldsystem concentrations lie on those pockets of river terrace gravels subject to extensive quarrying and large-scale archaeological investigation in the last 40 years (Figure 3.15).

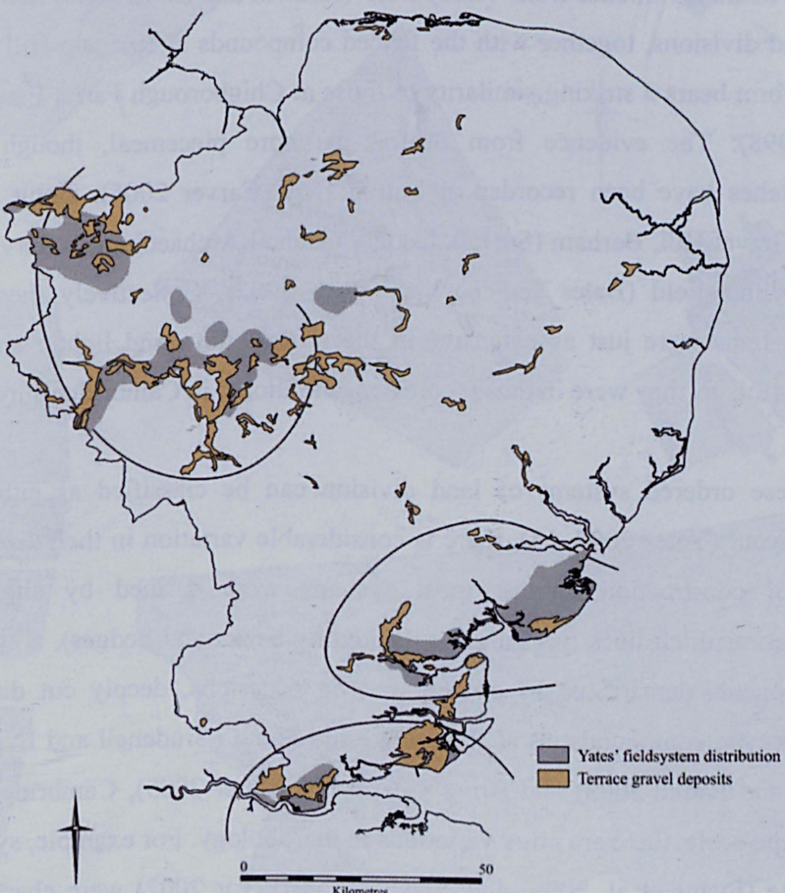


Figure 3.15. Correlation between Yates' fieldsystem distribution plot and the major deposits of terrace gravels supporting large-scale quarry extraction sites (distribution based on Yates 2007, 111, Fig. 12.2).

By contrast, development in Norfolk and Suffolk has not tended to require the same kind of landscape-scale archaeological response, suggesting the scarcity of fieldsystems in this region reflects the rarity of large open area excavations, as opposed to an absence of land division. However, this picture is now shifting as boundary systems are beginning to be identified through aerial photography and other archaeological investigations. In Norfolk, networks of ditched boundaries have recently been excavated at Ormesby (R. Mortimer *pers comm.*) and Little Melton (Watkins 2008); the latter comprising a patchwork of small fields whose finds suggests an Early Iron Age origin[7]. Of a completely different character are the long 'early' parallel ditches uncovered at the Honeypots Plantation site (Norfolk Archaeology Unit 2007) and the Harford Park and Ride site (Trimble 2004a); both with boundaries measuring over 200m in length (Figure 3.16).

In light of these recent investigations, it may also be worth reconsidering whether the published enclosures and boundary ditches from Valley Belt[8] (Ashwin and Bates 2000) relate to a broader network of land divisions, together with the fenced compounds at Redgate Hill (Healey *et al.* 1993), whose form bears a striking similarity to those at Chigborough Farm, Essex (Wallis and Waughman 1998). The evidence from Suffolk is more piecemeal, though Bronze Age fieldsystem ditches have been recorded at Sutton Hoo (Carver 2005), along with potential boundaries at Gravel Hill, Barham (Suffolk County Council Archaeological Service 1995), and Hales Barn, Withersfield (Bales and Topham-Smith 2002). Collectively these 'new' sites suggest fieldsystems were just as extensive in the river valleys and lighter soils regions of Norfolk and Suffolk as they were in those 'core concentrations' in Cambridgeshire and Essex.

Though all these ordered systems of land division can be classified as either *coaxial* or *aggregate* in layout (Yates 2007, 15), there is considerable variation in their size, morphology and manner of construction. Whilst most systems were defined by slight and often discontinuous linear ditch lines (presumably flanked by banks and hedges), a smaller number included components demarcated by fences, and on occasions, deeply cut ditches forming robust, paddock-type compounds; as at Rhee Lakeside South (Brudenell and Evans 2007), the Holme (Evans and Patten 2003) and Brigg's Farm (Mortimer 2005), Cambridgeshire. At the broader landscape-scale, there are other variations in morphology. For example, systems such as those at Fengate (Evans et al. 2009) and Newborough (Pryor 2002) were characterised by a closely integrated network of paddocks, droveways and double-ditched compounds, whilst others, including those from Barelycroft (Knight and Evans 1997), Pode Hall (Daniel 2009;

[7] If this date is correct, then it would be the first evidence of a new fieldsystem being laid-out in the Early Iron Age in East Anglia, or elsewhere in Eastern England (Bradley and Yates 2007, 96). Though Early Iron Age field boundaries are reported at North Shoebury, Essex (Wymer and Brown 1995), these represent a re-cutting, or filling, of boundaries constructed in the Late Bronze Age.

[8] Though the ceramics from Valley Belt are published as Iron Age (Percival 2000a), some resemble Late Bronze Age Plainware PDR forms, and may therefore need backdating. The fenced enclosures at Redgate Hill may also re-dating, as recent excavations immediately adjacent to the sites suggests these compounds are unlikely to be Late Neolithic or earlier Bronze Age origin (Patten 2002b)

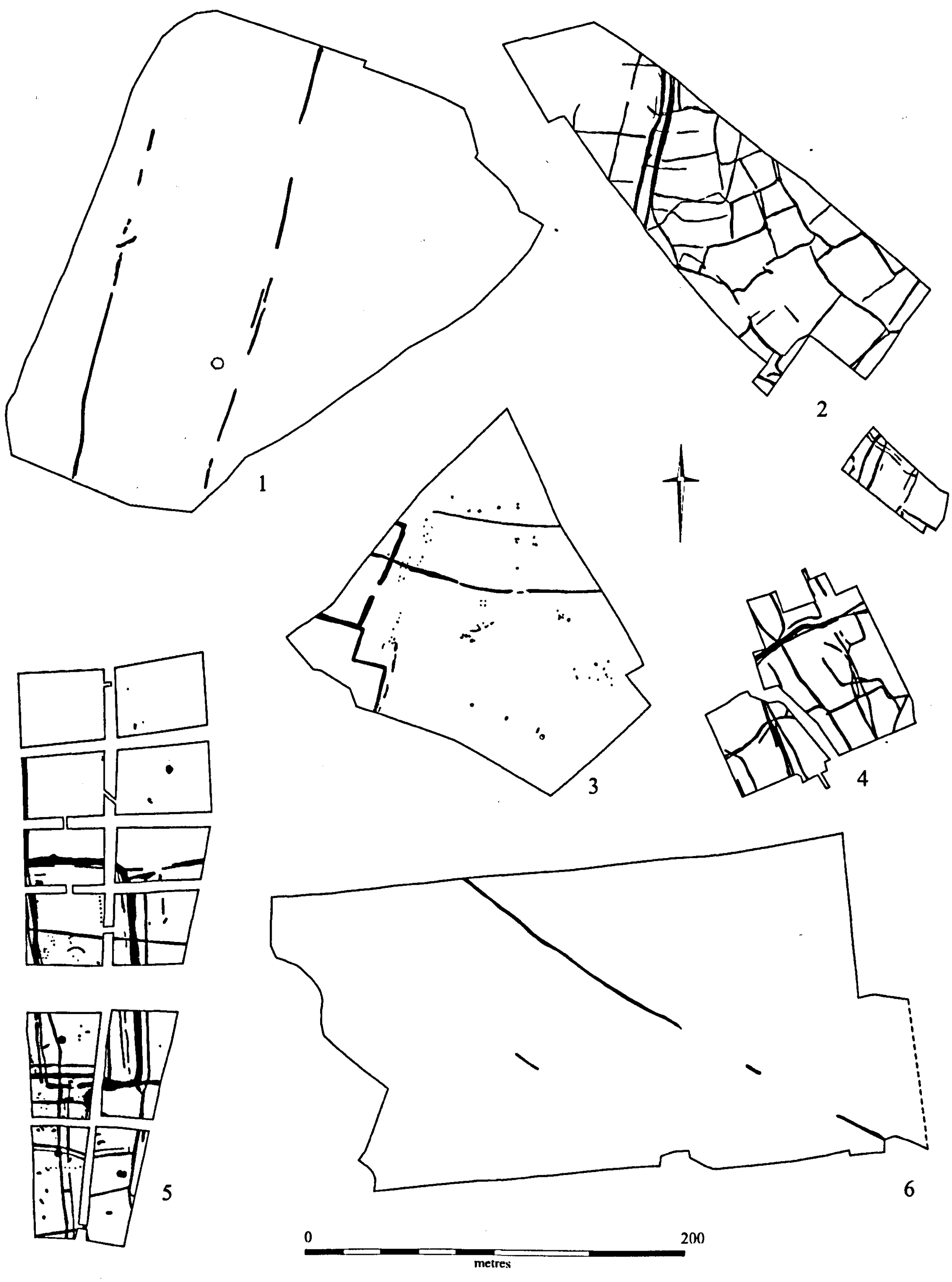


Figure 3.16. Examples of fieldsystems in Norfolk and Suffolk. 1. Harford Park and Ride (adapted from Trimble 2004a, Fig. 3); 2. Little Melton (adapted from Watkins 2008, Fig. 2); 3. Valley Belt, Trowse (adapted from Ashwin and Bates 2000, 159, Fig 126.); 4. Game Farm, Brandon (adapted from Gibson 2004, 11, Fig. 10); 5. Ormesby (courtesy of R. Mortimer OA East); 6. Honeypots Plantation site (adapted from Norfolk Archaeology Unit 2007, 16, Fig. 6).

Mudd and Pears 2008) and Mucking (Jones and Bond 1980), related to a more generalised, but larger-scale axial-blocking of the land. These contrast with some of the long 'ranch-type' boundary systems at Ardleigh (Brown 1999a), Shropham (Norfolk Archaeology Unit 2007) and Harford (Trimble 2004a) as well as the patchwork of small fields at Little Melton (Watkins 2008).

Beyond the commitment to bounding these landscapes in a linear-fashion, there is little to demonstrate that there ever existed a single blue-print for what Pryor (2002, 26) has called an '*East Anglian style of aligned fields*'. The regularity of some systems certainly implies formal planning and co-orientated execution, presumably under some authority. Yet, in the places where we have larger windows into these bounded landscapes, it is also apparent that we are not dealing with a single, unbroken and undifferentiated 'grid'. Plans show that most fieldsystems developed in a piecemeal fashion, as boundaries were re-cut, sub-divided or extended - the most exaggerated example being at Game Farm, Brandon (Gibson 2004); a reworked boundary system unlike any other in East Anglia. In some instances it is clear that the various 'blocks' in a fieldsystem were laid-out on slightly different alignments, leading to awkward twists in their overall axis at the points at which the different sections meshed. This is evidence that fieldsystems were not laid out in adherence to a single overarching plan, but often developed in respect to the local topography, sometimes incorporating in their alignments elements of the existing cultural landscape such as barrows and ring-ditches.

Some of the more subtle relationships within and between these bounded landscapes have been lost in Yates' (2007) broad brush approach to the 'fieldsystem phenomenon'. In particular, his account glosses over intra-regional difference in the chronology, character and duration of prehistoric boundary systems, and fails to adequately explore the implications of these variable sequences. Whilst accepting his conclusions that the main *floruit* of field boundary construction occurred within the Middle and Late Bronze Age (Yates 2007), his tendency to deal with this period as an undifferentiated horizon conflates complex sequences, making it difficult to understand the temporal relationships these systems have with other elements in the settlement landscape.

Admittedly, dating the development and demise of the land divisions is problematic. Despite thousands of slots having now been excavated through the region's field boundaries, ditches are rarely associated with any quantity of non-residual finds (Bradley and Yates 2007, 98). In these circumstances, the date and duration of these features is more reliably gauged by an assessment of their stratigraphic and spatial relationships to other fixtures in the landscape, such as ring-ditches, cremation cemeteries and settlement features (Figure 3.17). Direct relationships are relatively rare, but enough have now been recorded to demonstrate with confidence that not all the region's boundaries systems were established at same time, or displayed the same longevity.

In the fen-region, for instance, the overwhelming weight of the evidence suggests fieldsystem construction was confined to the Middle Bronze Age, with no indication that ditched boundaries were maintained into later periods. Where there is direct association with settlement features of the late second and earlier first millennium BC, as at Newark Road (Pryor 1980), Tanholt Farm (Pattern 2008), Bradley Fen (Gibson and Knight 2004), Rhee Lakeside South (Brudenell and Evans 2007) and The Holme, Cambridgeshire (Pattern and Evans 2003), these components consistently cut the tertiary silts of the field ditches, demonstrating their secondary imposition (Figure 3.17).

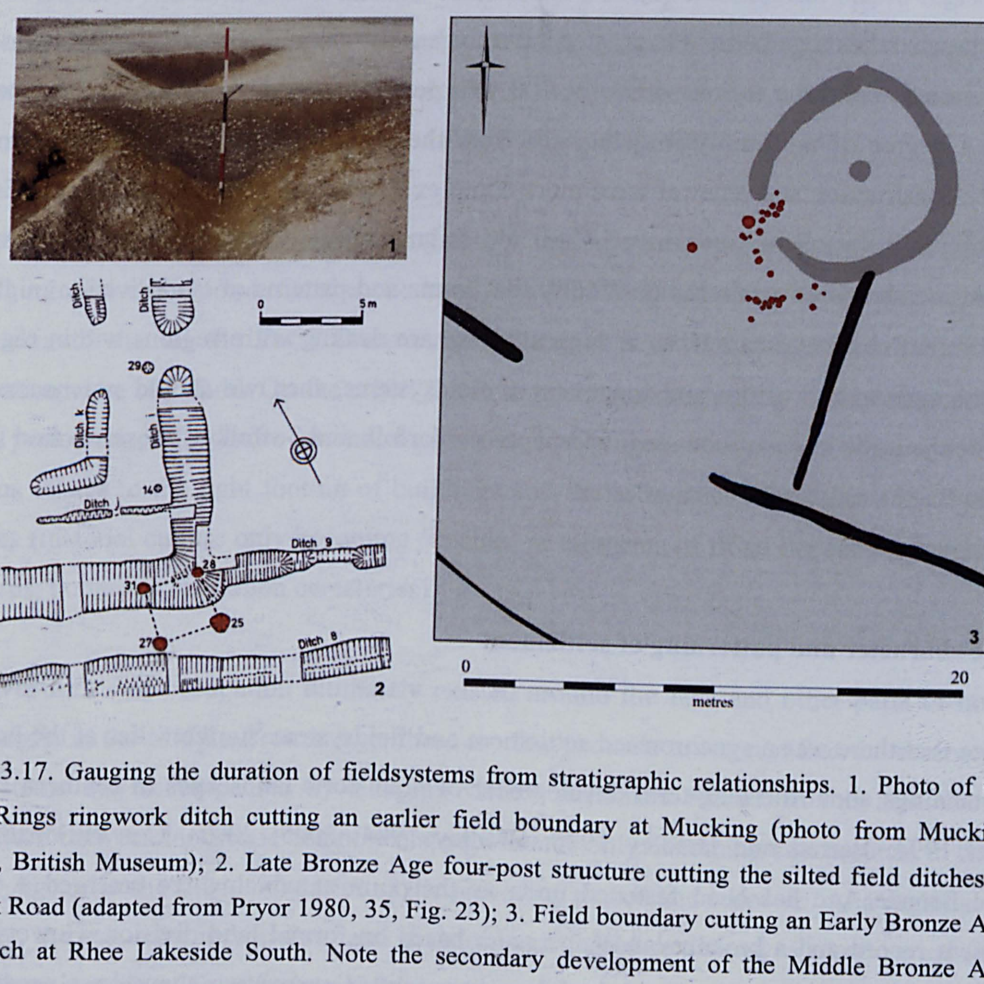


Figure 3.17. Gauging the duration of fieldsystems from stratigraphic relationships. 1. Photo of the South Rings ringwork ditch cutting an earlier field boundary at Mucking (photo from Mucking archive, British Museum); 2. Late Bronze Age four-post structure cutting the silted field ditches at Newark Road (adapted from Pryor 1980, 35, Fig. 23); 3. Field boundary cutting an Early Bronze Age ring ditch at Rhee Lakeside South. Note the secondary development of the Middle Bronze Age cremation cemetery in red (Courtesy of the CAU).

In the south of the region, by contrast, the evidence is more variable. Patterns at Mucking, for example, mirror those in the fens; the ditched field boundaries having silted by the time the

South Rings Late Bronze Age ringwork was constructed (Jones and Bond 1980; see Figure 3.17). At North Shoebury (Wymer and Brown 1995) the paddock system was also abandoned before the end of the second millennium BC, but new networks of ditches were cut in the Late Bronze Age on a different alignment. These continued to be elaborated into the Early Iron Age as the site's settlement 'core' migrated eastward. Elsewhere in Essex there is ample evidence to suggest that field boundaries continued to be constructed and/or maintained throughout the Late Bronze Age. The fills of ditches at Clements Park (Wessex Archaeology 2007), Hall Road (Newton 2008), Chelmsford Park and Ride (Holloway and Brooks 2007), and a host of other sites along the A120 between Stansted Airport and Braintree (Timby *et al.* 2007), all yielded small quantities of Late Bronze Age PDR pottery, suggesting they remained open until at least the beginning of the first millennium BC.

Pulling these strands together is it suggested that the genesis, use and abandonment of boundary systems varied across the region within the 700 year period of the 'later Bronze Age'. Though there is a degree of uniformity in sequences from the fen region, chronological patterns of boundary construction and renewal were more complex in parts of southern and eastern Essex. In Suffolk and Norfolk the evidence is still too fragmentary to draw any firm conclusions. However, we should entertain the possibility that forms and patterns of land division might be quite different in these areas. If, as is suggested, we are dealing with 'regions within regions' when it comes to the nature and longevity of fieldsystems, then we should not necessarily anticipate the same kinds of bounded landscapes in Norfolk and Suffolk as those we find in the Flag Fen Basin or along the Thames estuary.

3.7 The character and patterning of settlement

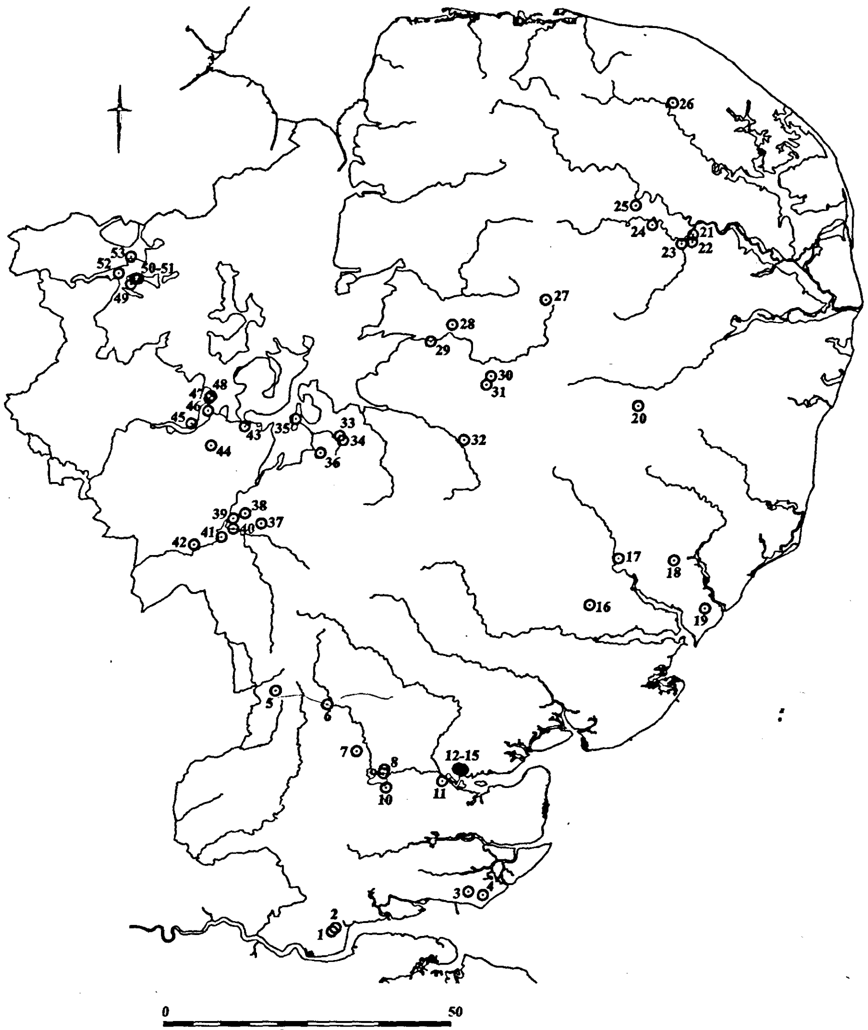
The idea that there was a synchronised settlement and fieldsystem 'horizon' lies at the heart of understandings about the long-term development of prehistoric landscapes in southern Britain (Barrett 1994; Barrett and Bradley 1980; Bradley 1984; 2005; 2007). Conventionally, the Middle Bronze Age has been fastened upon as the point at which there emerged a visible settlement record and a broader landscape order based on formal land division. However, the insights now afforded by two decades of developer funded excavation show these generalised sequences are neither consistent nor uniform across the landscape (Cooper and Edmonds 2007). Even a cursory examination of the settlement evidence in East Anglia shows that palpable and persistent forms of occupation did not always accompany the first construction of land divisions. Just as there is a measure of variability in the date and duration of fieldsystems, so too is there variability in *where* and *when* the first sustained forms of settlement appear in the archaeological record.

In the south of the region, in Essex, there is extensive if fragmentary evidence for visible Middle Bronze Age settlement (Brown and Murphy 1997, 16). Whilst this mostly consists of dispersed scatters of pits and postholes, such as those encountered along the A120 excavations between Stansted and Braintree (Timby *et al.* 2007), the feature agglomerations at North Shoebury (Wymer and Brown 1995), Rook Hall (unpublished) and Stansted Airport (Cooke *et. al*, 2008)[1], are indicative of more sustained modes of occupation (Figure 3.18). In the region's three other counties, by contrast, we are left with remarkably few traces of Middle Bronze Age settlement. Despite a 'presence' carved into the landscape through hundreds of kilometres of field boundaries and countless cremation cemeteries, we have a settlement record registered by little more than isolated pits, postholes and waterholes, generally yielding small scrappy artefact assemblages - the rich midden-type deposits at Grimes Graves, Norfolk remaining an unparalleled exception (Longworth *et al.* 1988; 1991; Mercer 1981).

The extent to which this settlement 'invisibility' reflects transitory patterns of occupation is something of a moot point. On the one hand, the Middle Bronze Age settlement signature is more akin to that of the Early Bronze Age, where it is generally accepted that modes of occupation were still fluid. On the other, the investment in constructing fieldsystems and wells in this period suggests a more grounded existence, implying that the paucity of other settlement remains relates to the light footing of buildings and the infrequent deposition of refuse in cut features (material culture only becoming 'visible' in moments of ritual deposition – metalwork in hoards; pottery in cremation cemeteries).

Whatever forms of occupation ultimately existed around the fens and other parts of northern East Anglia in the Middle Bronze Age, there are few grounds to suggest that the emergence of fieldsystems was accompanied by a highly visible settlement record. In this area there is a disjuncture between landscape components; settlements only becoming conspicuous in the Late Bronze Age *after* the field boundaries of the preceding period had silted up. At a regional level, however, the relationship between land division and visible settlement is more varied (Figure 3.19). Even in parts of Essex, where fieldsystems and settlements become discernible at broadly

[1] Though the excavations at Stansted Airport offer the most 'complete' picture of a Middle Bronze Age farmstead in East Anglia, the phasing of this site is far from watertight. For example, the eaves-gully defined structures are assigned to period on the basis on just 13g of pottery (Cooke *et al.* 2008, 44, figs 4.14-4.15). Morphologically, these would be better placed in the Early-Middle Iron Age.



1. Linford
2. Mucking
3. Fox Hall Farm
4. North Shoebury
5. Stansted Airport
6. A120 Stansted to Braintree
7. Broads Green
8. Boreham Interchange
9. Springfield Park
10. Chelmsford Park and Ride
11. Maldon
12. Lofts Farm
13. RookHall
14. Slough House Farm
15. Chigborough Farm
16. Caple St. Mary
17. Whitehouse Road
18. Barham
19. Flixton Quarry
20. Eye
21. Valley Belt
22. Frettenham Quarry
23. Harford Farm
24. Little Melton
25. Longdell Hills
26. Aylsham Bypass
27. Honeypots Plantation site
28. Grimes Graves
29. Game Farm
30. Snarehill
31. Gravel Hill
32. Ingham Quarry
33. Fordham Bypass
34. Landwade Road
35. Dimmock's Cote
36. Burwell
37. Wandlebury
38. Addenbrooke's Hutchinson site
39. Trumpington Meadows/Park and Ride
40. Rectory Farm II
41. Harston Mill
42. Edix Hill
43. Lingwood Farm
44. Striplands Farm
45. Barleycroft Farm
46. Over Narrows
47. The Holme
48. Rhee Lakeside South
49. Must Farm
50. Bradley Fen
51. King's Dyke
52. Fengate sites (Tower Works; Vicarage Farm; Pre-War gravel pits)
53. Tanholt Farm

Figure 3.18. Location of settlement sites mentioned in section 3.7.

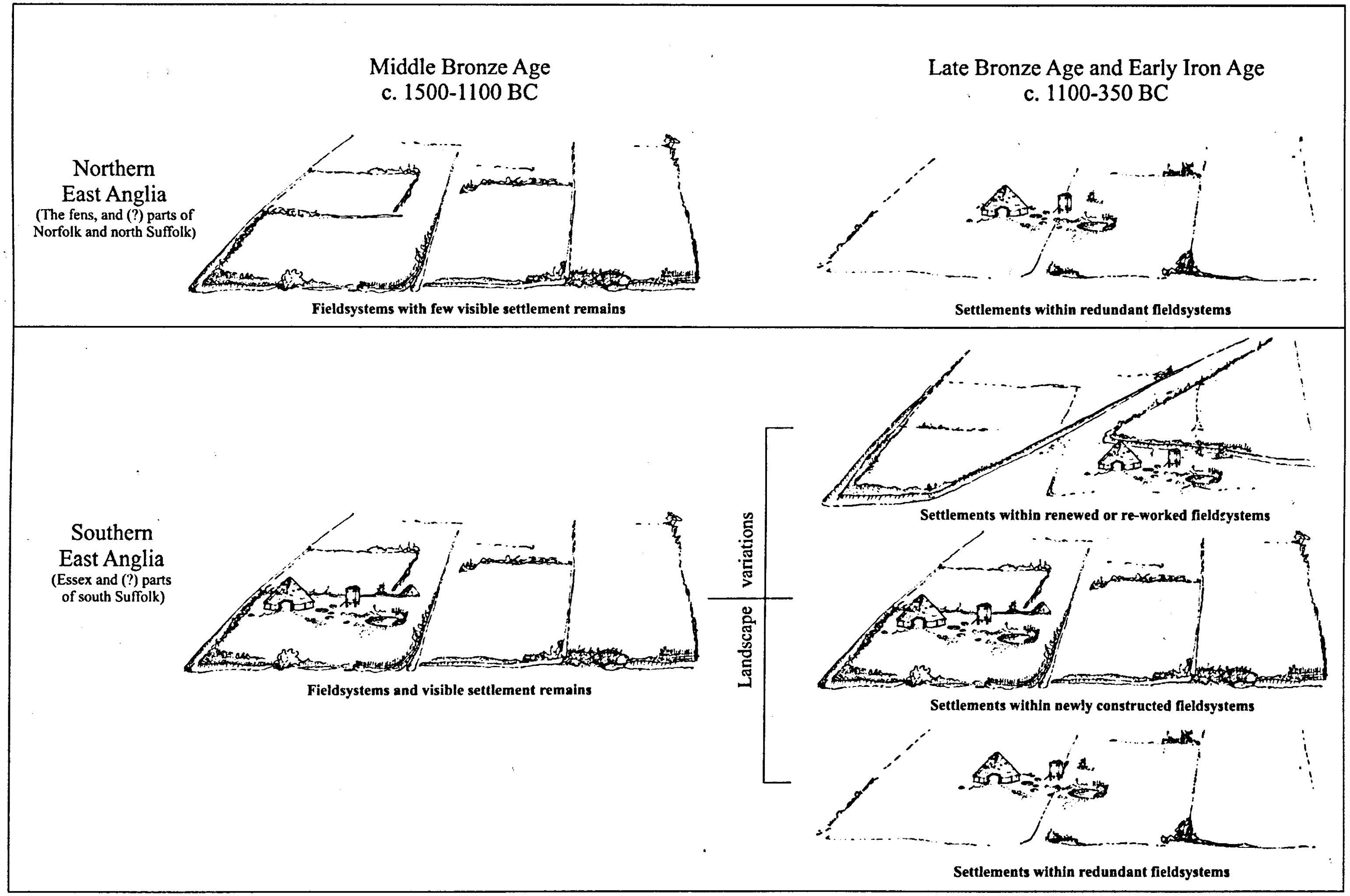


Figure 3.19. Model of the varying relationships between fieldsystems and visible forms of settlement.

same time, sequences are far from homogenous. The picture now emerging is therefore one of a complex series of relationships between sustained and recoverable forms of settlement and land division, with markedly different sequences between northern and southern halves of the region. This undermines the notion of a unified settlement and fieldsystem 'horizon' in southern England, of the kind recently envisaged by Yates (2007), and common to most narratives of British prehistory.

Contrary to received wisdoms, the more significant watershed in the settlement record of this region is marked by the Late Bronze Age. It is only from this period that we encounter widespread and persistent forms of occupation, and an investment in durable earth-fast architectural features - roundhouses, long houses, four-post structures, pits, wells/waterholes and even crannog-type platforms (e.g. Must Farm, Peterborough (Knight 2009)). These transformations were also accompanied by changes in the character and frequency of artefact deposition, resulting in greater quantities of material being consigned to the ground. There is also evidence that different forms and scales of occupation started to emerge at this time. For one, new traditions of enclosure can be recognised, with some settlements being bounded by ditched compounds of varying magnitude. In certain areas, construction reached monumental proportions, with ringworks and hillforts being built on a grand scale. Crucially, these differing forms of settlement were a social setting for new kinds of occupation and interaction, providing a varied set of contexts for the production, use and deposition of ceramics. Detailing their characteristics is therefore a key preliminary step in trying to understand the different ways people engaged with pottery in the Late Bronze Age and Early Iron Age.

3.7.1 Open settlements in the Late Bronze Age

The majority of Late Bronze Age and Early Iron Age occupation sites can be broadly classified as 'open settlements' (Champion 1994, 129). These vary in character, but typically consist of an extensive, but low density scatter of pits and postholes, accompanied by the occasional post-built roundhouse, four- or six-post 'granary' structures, and wells or waterholes. The nature of these sites has traditionally posed a number of methodological problems for the archaeologist. Registered by relatively slight features and dispersed structural remains, they are seldom identified though conventional prospecting techniques such as aerial photography or geophysics (Ashwin 1999, 104-105). Given the character of their archaeological imprint, the results from trial trenching and small-scale excavation can also be misleading or difficult to interpret; these forms of intervention being better-suited to identifying the presence of ditched fieldsystems and enclosures. Thus, whilst it has long been recognised that open settlements are a characteristic feature of the region's late second and earlier first millennium BC archaeology, an appreciation of their form and variability has only been achieved through recent large-scale excavations (Figure 3.20). Unsurprisingly, the areas that boast the most impressive settlement portfolios are precisely the same as those which offer the most complete picture of fieldsystems; namely the gravel sites and suburban districts in Cambridgeshire and Essex.

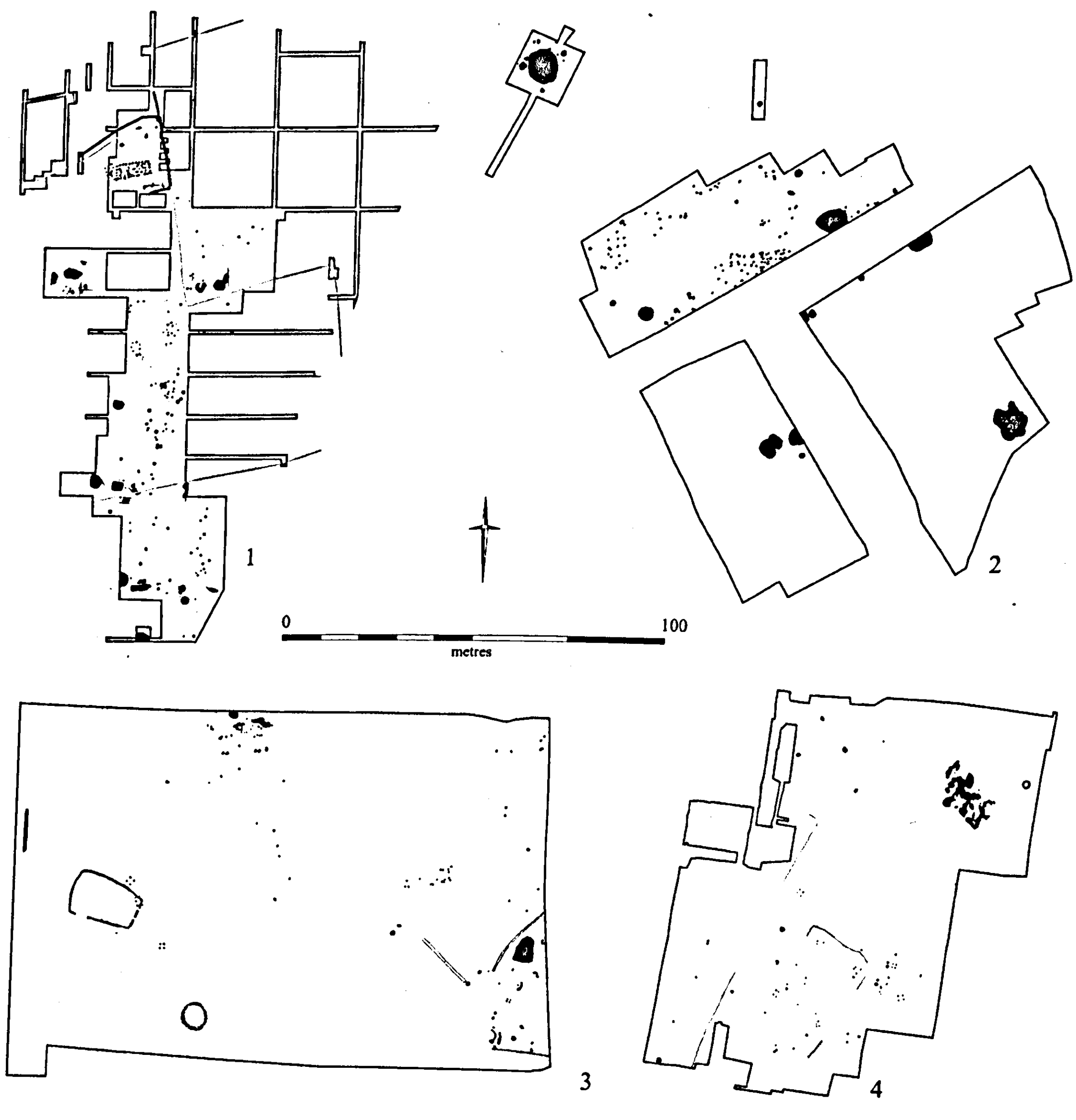


Figure 3.20. Typical Late Bronze Age open settlement plans. 1. Barleycroft Farm; 2. Striplands Farm; 3. Slough House Farm (adapted from Wallis and Waughmam 1998, 8, Fig. 5); 4. Addenbrooke's Hutchinson site (nos. 1, 2 and 4 courtesy of the CAU).

Evidence for Late Bronze Age settlement has been particularly forthcoming from the Cambridgeshire gravels. To date the most comprehensive settlement plans have been obtained through excavations at Tanholt Farm (Gibson and White 1998; McFadyen 2000; Patten 2002a;

2003; 2004; 2008); Bradley Fen (Gibson and Knight 2006); Rhee Lakeside South (Brudenell and Evans 2007); The Holme (Evans and Patten 2003); Barleycroft Farm (Evans and Knight 1997) The Over Narrows (Evans and Vander Linden 2009a; 2009b); Dimmock's Cote (Bray 1992; 1993; Gilmour 2009; Kemp and Kenny 2003; Schlee 1993); Burwell (Bailey and Popescu 2006); the Fordham Bypass site (Mortimer 2005); Striplands Farm (Mackay and Knight 2007; Patten and Evans 2005; Evans and Patten 2011) and the Addenbrooke's Hutchinson Site (Evans *et al.* 2008).

In Essex, plans of Late Bronze Age open settlements have been recorded in the large-scale excavations along the Thames gravels at Mucking, (Jones and Bond 1980) and North Shoebury (Wymer and Brown 1995). Extensive occupation swathes have also been exposed in and around the Chelmer and Blackwater valleys, at sites including Slough House Farm and Chigborough Farm (Wallis and Waughman 1998), the Chelmsford Park & Ride Site (Holloway and Brooks 2007); Springfield Park (Manning and Moor 2004); the Boreham Interchange (Lavander 1999) and Broads Green (Brown 1988a). The character of these unenclosed scatters mirrors those revealed in investigations on the western side of the county, where a series of extensive but low density feature spreads have been uncovered in the various Stansted Airport excavations (Cooke *et al.* 2008; Havis and Brooks 2004), and those along the line of the A120 between Stansted and Braintree (Timby *et al.* 2007); some located on, or near the fringes of the region's claylands.

In most parts of Suffolk and Norfolk the settlement record remains fragmentary and poorly understood; a product of the scarcity of landscape-scale excavations in these counties. Some insights are afforded by published investigations at Barham (Martin 1993); Game Farm (Gibson 2004) Harford Farm and Frettenham quarry (Ashwin and Bates 2000), but at present, other more significant remains are only detailed in interim grey reports, or older unpublished documents. In Norfolk, these include a Late Bronze Age settlement recorded at Snarehill in 1959 (Shand 1985a), and parts of a pit scatter excavated along the Aylsham Bypass in 1979. More recently, scattered and unenclosed remains have been found in larger excavations in advance of gravel extraction at Honeypots Plantation Site (Norfolk Archaeology Unit 2007) and Longdell Hills (Bates 2006; Boyle 2004; 2006; Tatler 2004; Trimble 2002; 2004). In Suffolk, quarrying and commercial development have also seen swathes of Late Bronze Age settlement recorded at Ingham Quarry (Anderson and Caruth 1998); Eye (J. Caruth *pers comm.* 2010); Flixton Quarry (Boulter and Anderson 2004; Boulter 2010) and Caple St. Mary (Tabor 2010).

Overall, the region's largest excavations have demonstrated the sprawling character of Late Bronze Age settlement, revealing features scatters that often cover several hectares. These dispersed remains are likely to reflect successive and partially overlapping phases of occupation which gradually shifted through time. Whilst settlement may have been denser, more persistent, and certainly more archaeologically visible than in the Middle Bronze Age, there remained nonetheless a degree of fluidity to patterns of dwelling, with episodes of activity being loosely focused on particular locales. However, pinning down a sense of what the temporality of settlement was in these period has proved extremely difficult, not least because we struggle to find an appropriate language to describe these kinds of 'not quite permanent' but reiterative modes of occupation.

In grappling with these issues, Brück (1999a; 2001; 2007) has suggested that individual phases of settlement were relatively short-lived in the later Bronze Age, with patterns of roundhouse construction and abandonment linked to the life cycle of their inhabitants. Adopting this model, we may explain the formation of settlement palimpsests as resulting from the generational relocation of structures. The fact that most of the region's roundhouses show no signs of direct repair or replacement on the same footprint would tend to support this scenario. However, roundhouses were only one element in the architectural grammar of settlement. Other features had rhythms of use and abandonment which operated on different temporal cycles. For example, the simple fill sequences of most pits and hollows suggest many were dug and backfilled in quick succession; some perhaps only being open for a matter of days, weeks or months. The short-lived nature of these features contrasts with that of wells and waterholes, which are likely to have been the 'permanent' fixtures in the settlement landscape. These tend to have long and often complex histories, with multiple fills and evidence for clearing out or complete re-cutting; sequences at Lofts Farm, Essex (Brown 1988b) and The Holme, Cambridgeshire (Evans and Patten 2003) even suggesting that some wells dug in the Late Bronze Age remained open throughout the first centuries of the Early Iron Age.

The different time-scales over which individual features were open and active also provided varying opportunities for the deposition of pottery and other artefacts. Although there is never a simple relationship between the life-history or size of a feature and its material content, the opportunities for both the incidental and/or purposeful inclusion of material was obviously much greater in those large cut-features open for decades or even centuries, compared to shallow pits and hollows whose 'depositional windows' were much shorter (see Chapter 8). More significantly, the varying rhythms by which settlement components were constructed, used, abandoned and relocated formed part of a process which, over time, created the kinds of extensive scatters which characterise the region's open settlement sites. Unfortunately, our ability to tease apart the various 'phases' from these palimpsests is extremely limited. Stratigraphic relationships are rare on open settlements, and even where encountered, they tend not to have much bearing on our understanding of site development. Similarly, because of the sub-generational time-scales over which most features came in and out of use, the temporal resolution afforded by radiocarbon dating is incapable of getting at the complexities behind the ways these settlements evolved.

It would be a mistake, however, to assume that different temporal rhythms of feature use and abandonment render the archaeological imprint of open settlement incomprehensible, or devoid of any sort of formal organisation. On the contrary, there is often patterning in the way settlement components are dispersed across a site. At Tanholt Farm, Peterborough (Patten 2008), for example, groups of four-post structures were aligned upon, and partially cut through, a relict Middle Bronze Age field boundary ditch. Across many sites in the fen-region, the remnant earthworks of Middle Bronze Age fieldsystems continued to have a lingering influence on the structure of subsequent occupation, with Late Bronze Age wells at The Holme (Evans and Patten 2003) and Rhee Lakeside South (Brudenell and Evans 2007) sited on the terminals of former boundaries and ditch junctures. At the latter, the arrangement of roundhouses was also conditioned by the fossilised ditch system, with buildings erected near the entrances of denuded enclosures.

On other sites, feature distributions were unconnected to the location of land divisions, but were structured according to the character of the local topography and other functional concerns. This is aptly illustrated at Barleycroft Farm (Evans and Knight 1997), where roundhouses and a substantial longhouse were located on the high dry ground of a gravel terrace, while a swathe of pits, waterholes and wells occupied a band of clay along the lowland fen-edge side of the site. The spatial segregation of certain feature types is also demonstrated at the Addenbrooke's Hutchinson Site (Evans *et al.* 2008). In this instance the open settlement was characterised by a light, dispersed scatter of features and four-post structures in the southern half of the excavation area, separated from a discrete, yet densely packed group of shallow inter-cutting pits to the north.

At both these sites we are likely to be dealing with distinct 'activity zones' within the settlement. However, beyond instances where function is implied by architectural form, gauging what roles individual fixtures served within the settlement is extremely difficult. Frustratingly, deposited artefacts rarely reflect the functional status of features in any obvious way; patterns of discard being structured by a far more complex and variable set of concerns. On most sites it is common for only a handful of pits and waterholes to yield substantial artefact assemblages. Small features, on the other hand, are often devoid of finds, and post-built structures are notorious for their scarcity of artefacts; many being assigned to the Late Bronze Age on spatial association alone.

Stepping back from this detail, there is no indication that the *general* character of Late Bronze Age open settlement differed substantially across the region. In fact, the basic architectural grammar of settlement remains remarkably uniform. However, one distinction of note is the relationship between settlement and fieldsystems, with sequences varying between the northern and southern halves of East Anglia. The only other potential difference lies in the distribution of sites with wells, which seem not be a feature of settlements in Suffolk or Norfolk. Whilst this could be a result of excavation bias (or simply feature categorisation), it is somewhat surprising that these large features have not been located in these counties. Wells and waterholes were crucial to the pastoral economy of the period (Brown 1988b, 295), and arguably facilitated the expansion of more persistent forms of settlement away from the lighter soils in the river valleys, and onto the region's clayland interiors (Evans and Patten 2011, 18). Whether or not their absence in certain parts of East Anglia reflects differences in the nature of the agrarian economy, or patterns of settlement location is difficult to gauge. Nevertheless, it does raise the possibility there are more subtle intra-regional distinctions in the occupation record.

3.7.2 Open settlements in the Early Iron Age

In most parts of East Anglia the Bronze-Iron Age transition was not met with any wholesale changes to the basic character of open settlement. On morphological grounds, many of the feature-suites that typify Early Iron Age occupation are indistinguishable from those in the Late Bronze Age. The transition does however mark an important threshold in our ability to date sites and sequences, as the period between 800-400 BC coincides with the infamous plateau in the radiocarbon calibration curve (Pearson and Stuiver 1986). Because of a significant dip in the precision of this technique, ceramics are still the key chronological markers of the Early Iron Age. Yet for reasons discussed in Chapter 5, in some parts of the region there is only a partial understanding of how pottery changes throughout this period; a problem which makes it difficult to identify patterning in the broader settlement record. Whilst some trends appear to reflect genuine differences in the character and distribution of remains, others may result from the ways that sites and sequences have come to be dated on ceramic grounds.

These caveats notwithstanding, the evidence indicates that the region's Early Iron Age settlement patterns were generally similar to those in the preceding period, with occupation concentrating on the lighter soils along the major river valleys, with more limited exploitation of the heavier clayland interiors (Bryant 1997, 25). On a county by county basis, however, there are some discernible differences in site distribution between the two periods. For example, in the western fen-edge region of Cambridgeshire, many areas yielding extensive Late Bronze Age settlement remains *appear* to have been abandoned on, or around, 800 BC. This is particularly notable on the gravel terrace sites around lower Ouse. Here, only a handful of securely dated Early Iron Age features have been encountered at Rhee Lakeside South (Brudenell and Evans 2007) and The Holme (Evans and Patten 2003), despite the widespread presence of Late Bronze Age settlement in this area (see section 3.6.1).

Further west in the Flag Fen Basin, there are more substantive traces of Early Iron Age occupation, but not along the fen-edge proper. Whilst large tracts of this the fen-edge landscape have now been excavated (Pryor 1974; 1978; 1980; 1984; 2001; Evans *et al.* 2009), settlement remains of the Early Iron Age have been restricted to a scatter of pits and wells along the wet-edge at Fengate (Pryor 1984) and Bradley Fen (Gibson and Knight 2006). During this period occupation appears to have moved onto higher ground in the fen-hinterland, with settlement established around Vicarage Farm (Pryor 1974), Tower Works (Evans *et al.* 2009) and the Pre-War gravel pits at Fengate (Hawkes and Fell 1945) and King's Dyke, Whittlesey (Gibson and Knight 2002; Knight 1999). Though none of these sites have been excavated on a large-scale, the density of features glimpsed within these exposures, coupled with the comparative wealth of their pottery assemblages, suggests they were potentially nucleated settlements. The investigations at King's Dyke West, for example, revealed the plan of ten separate Early Iron Age roundhouses and four four-post structures, all within a relatively narrow excavation area covering c. 1.6ha.

Elsewhere in Cambridgeshire, dense pockets of Early Iron Age settlement were established around the southern and south-eastern fen-edge at sites including Lingwood Farm (Evans 1998); Dimmock's Cote (Gilmour *et al.* 2010); Landwade Road (A. Conner *pers comm.*) and the Fordman Bypass (Mortimer 2005). Large concentrations of settlement were also dotted along parts of the Cam Valley and its tributaries, the Rhee and Granta. Several of these settlements are characterised by dense feature agglomerations, of a type currently unparalleled in the Late Bronze Age. The most impressive is perhaps that at Landwade Road, Fordham (Figure 3.21) where excavation revealed structures and hundreds of other pits and postholes. Along the Cam valley, a number of sites including Trumpington Meadows/Park and Ride site (Brudenell and Dickens 2007; Hinman 2004); Harston Mill (O'Brien forthcoming); Wandlebury (Hartley 1957; French 2004); Edix Hill (Malim 1997) and Rectory Farm II (Evans 2008) are distinguished by the presence of large densely packed pit clusters, comprising numerous flat-based and cylinder-shaped cuttings (Figure 3.22). These pit silos are essentially an 'invention' of the Early Iron Age, and the settlements dominated by their groups represent a site-type unique to southeast Cambridgeshire.

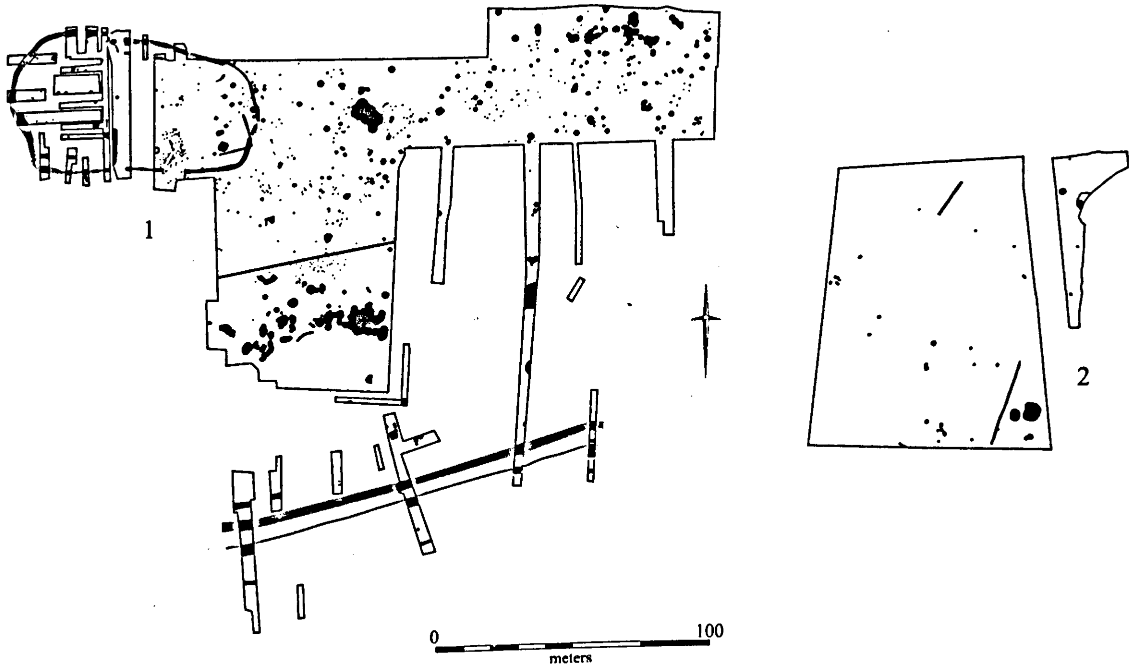


Figure 3.21. Differences in the density of features on Early Iron Age open settlements. 1. Dense feature agglomerations at Landwade Road, Fordham (adapted from Malim 2001, 14, Fig. 2.4); 2. Dispersed features scatter at Gravel Hill, Barham (adapted from Suffolk County Council Archaeological Service 1995, Fig. 2). The latter is arguable more typical of settlement sites in East Anglia.

The most extensively investigated example is at Trumpington Meadows/Park and Ride, where a continuous swathe of Early Iron Age settlement has been recorded over 7ha (Brudenell and Dickens 2007; Hinman 2004). Open area excavation on the eastern side of this complex revealed a number of discrete and formally arranged pit clusters; the largest of which incorporated over 50 silo-shaped pits (*ibid* 2004). Despite their spatial proximity, few of the features in these groups inter-cut, implying they were dug and used over a relatively short period of time. Such large numbers of pits, both here and at the above mentioned sites, suggest that these places may have served as centralized repositories for produce/surplus amassed by the local community. In light of the substantial quantities of 'domestic' material also recovered from these contexts (pottery, bone, querns, spindle whorls, loomweights), it seems likely that these places witnessed periods of sustained occupation by groups larger than two or three households.

Whether or not this equates to permanent, nucleated settlement or periodic communal gathering is difficult to ascertain, though variations should perhaps be anticipated. That being said, it is clear that certain Early Iron Age sites in this landscape involved a very different scale of occupation. The disparities between these 'new' forms of aggregated settlement, and those

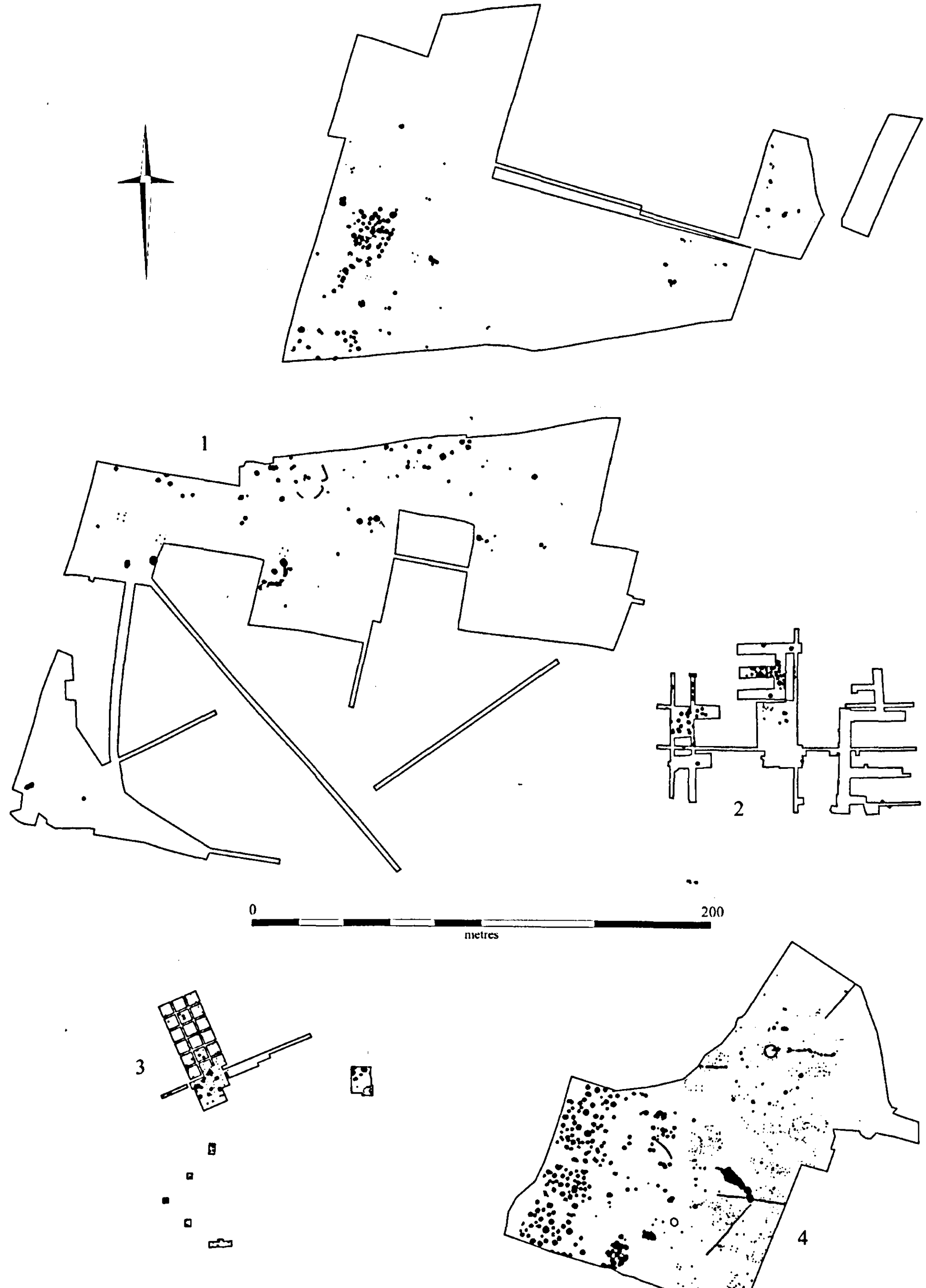


Figure 3.22. Pit dominated settlements in southern Cambridgeshire. 1. Features with Early Iron Age pottery on the Trumpington Park and Ride site (courtesy of M. Hinman, OA East); 2. Early-Middle Iron Age pit clusters at Edix Hill, Barrington (adapted from Malim 1997, 16, Fig. 4); 3. Early Iron Age pits at Wandlebury (adapted from Hartley 1957, 5, Fig. 2 and French 2004, 21-33, Figs. 4-14); 4. Harston Mill (adapted from O'Brien forthcoming).

characterised by more restricted and dispersed remains (e.g. Figure 3.20), hints at the emergence of different scales of residential community in the earlier first millennium BC; albeit in restricted parts of the region. The extent to which these differences are reflected in the ceramic record has yet not been considered, but is analysed in this thesis in Chapter 7. Here, however, it is interesting that these developments coincide with a much greater degree of regionalisation in pottery styles.

The settlement patterns emerging from Cambridgeshire are therefore relatively varied and complex; especially when compared to those of the previous period. Whilst certain parts of this region evidently witnessed localised concentrations of Early Iron Age activity, in others, there was a contraction of settlement away from areas once extensively occupied in the Late Bronze Age; particularly along the western fen-edge. Similar changes in the geography of settlement have been noted in Essex along the Chelmer Valley (Brown 1996, 33). Despite the wealth of Late Bronze Age sites discovered in this landscape, the area has yielded few traces of occupation after 800 BC. By contrast, the land downstream around the Blackwater estuary hosts a number of Early Iron Age settlement sites, equipped with wells, and/or pit and posthole scatters; such as those at Hall Road, Heybridge (Newton 2008); Boucherne Farm (Wickenden 1986); Lofts Farm (Brown 1988b); Rook Hall (Adkins *et al.* 1985) and Slough House Farm (Wallis and Waughman 1998). At the mouth of the Heybridge Basin there is also mounting evidence for extensive and potentially nucleated settlement on the hilltop at Maldon; a series of investigations having revealed intercutting pits, ditches, postholes and a palisade trench (Bedwin 1992; Robertson 2007)

In other parts of Essex, changes in site distribution are less marked. At Mucking there is extensive Early Iron Age occupation (Evans and Lucy forthcoming), with evidence of settlement in the surrounding landscape (Potter 1974; Hedges and Buckley 1978; Wilkinson 1988), particularly at Linford (Barton 1962). To the east, further along the Thames estuary, Early Iron Age sites have continued to be discovered in broadly the same areas as the Late Bronze Age ones; albeit in lower numbers. Notable are the settlements around Southend at Fox Hall Farm (Ecclestone 1995) and North Shoebury (Wymer and Brown 1995), where a series of structures have been revealed. Unlike some sites in Cambridgeshire, or those around the Blackwater estuary, there are no signs that settlement became nucleated in this period. Where encountered, the feature scatters tend to be similar in character to those of the Late Bronze Age. This is aptly demonstrated by the excavations at Stansted Airport, where settlement features of both periods are highly dispersed (Cooke *et al.* 2008; Havis and Brooks 2004).

While the published and unpublished literature from Cambridgeshire and Essex implies a more plentiful Late Bronze Age settlement record (particularly so in Essex), the pattern is reversed for Norfolk and Suffolk. In these counties, extensive low density scatters of Early Iron Age pits and postholes have now been located in several medium and large-scale excavations. In Norfolk these include sites stripped at Valley Belt, Trowse (Aswin and Bates 2000); the Honeypots Plantation Site, Shropham (Norfolk Archaeology Unit 2007); Longdell Hills, Easton (Bates 2006; Boyle 2004; 2006; Tatler 2004; Trimble 2002; 2004); Little Melton (Watkins 2008), and features recovered along the Alysham Bypass, Erpingham (unpublished). In Suffolk, swathes of Early Iron Age open settlement have also been revealed at Barnham (Martin 1993); Gravel Hill, Barham (Suffolk County Council Archaeological Service 1995); Ingham Quarry (Anderson and Caruth 1998), and Whitehouse Road, Ipswich (Caruth in prep.). In each case, the settlement imprint differs little to that of the preceding period, with no direct indication for changes to either the 'grammar' or scale of occupation.

With trends varying between the counties, it is difficult to pin down a sense of what the wider transformations were in the distribution of open settlement across the Bronze Age-Iron Age transition. On the one hand, the comparative scarcity of Early Iron Age sites in certain parts of Cambridgeshire and Essex seem to mirror patterns identified in Kent and the Greater London area (Champion 2007, 300; Wait and Cotton 200, 105). Here, the apparent 'net loss' of settlement from certain landscapes around 800 BC may be the product of settlement nucleation, for which there is mounting evidence from the Cam and Blackwater valleys, as well as parts of the fens. In these regions new forms and scales of settlement were beginning to emerge in the Early Iron Age, drawing together communities which were once more widely dispersed. But on the other hand, these trends seem to be at odds with the current evidence from Norfolk and Suffolk, where sites appear more abundant after 800 BC.

There are, however, reasons to be cautious about accepting either of these patterns at face value. This is because dating remains largely dependent upon ceramic chronologies which are imperfectly understood. In particular, difficulties in differentiating between Late Bronze Age and Earliest Iron Age pottery, coupled with misplaced expectations about the nature of Early Iron Age assemblages, have caused confusion about the date of some sites and assemblages (Brudenell 2008). This has serious implications for understanding the region's archaeology, as the misdating of ceramics can radically alter the perception of occupation sequences. For example, when the settlements at Kings Dyke and Tower Works were first excavated in the Flag Fen Basin, their pottery assemblages and features were assigned to the Late Bronze Age (Evans and Pryor 2001; Gibson and Knight 2002; Knight 1999; Lucas 1997). It has only been with recent re-assessment and the provision of radiocarbon dates that their Early Iron Age status was fully recognised (Evans *et al.* 2008). Importantly, these details change the way settlement sequences are understood in the Flag Fen Basin, removing the idea that large tracts of this landscape were completely abandoned at the end of the Late Bronze Age.

This warns us that other apparent 'hiatuses' in occupation sequences may not be an archaeological reality, but a product of the way we date our ceramic assemblages. This certainly seems to be the case in Norfolk and Suffolk, though here, the tendency has been to assign pottery to the Early Iron Age, when in fact some was made, used and deposited before or during the Bronze Age-Iron Age transition. Indeed, some of the Late Bronze Age sites from northern East Anglia listed in this chapter have been dated on the basis of my own re-examination of the material, and are not correctly identified in the published and unpublished literature. These problems seriously undermine our ability to establish reliable patterns in the occupation record, introducing potentially false distinctions between regions and sequences.

3.8 The character and patterning of enclosures

In certain parts of East Anglia, the practice of enclosing areas of settlement became more commonplace in the Late Bronze Age, particularly in the south of the region where some landscapes continued to be parcelled up through fieldsystems. Though there was no one-to-one correlation between the location of bounded settlements and fieldsystem complexes, these acts of demarcation may be considered different responses to a broader set of concerns bound up with the definition of households, local communities, and ownership of land (e.g. Thomas 1997). The demarcation of settlement space though boundary construction was keyed into other discourses; only some of which were purely practical. Indeed, the sometimes over-elaborate nature of enclosure suggests that certain boundaries were a vehicle for making statements about the standing of their inhabitants, potentially hinting at the existence of a settlement and/or social hierarchy.

Here it is important to stress that the various forms and scales of settlement enclosure provided a range of different social contexts for the production, use and deposition of ceramics. Most of the region's largest pottery assemblages have been recovered from their boundary ditches, and in some instances, these features became a focus for repeated acts of deposition incorporating substantial dumps of ceramics. Just as the wells on open-settlements provided durable 'catchments' for the inclusion of material, most enclosures were open and active for relatively long periods, allowing opportunities for artefacts to accumulate in their fills - whether through purposeful or incidental acts of discard. In fact, our current understandings of ceramic change rest largely upon a series of enclosed sites in Essex displaying distinct sequences of ceramic deposition across the Bronze Age-Iron Age transition. Evidence for enclosure, however, is not just confined to this county. Although the known distribution of sites is geographically restricted, the evidence suggests they occur throughout Essex and southern parts of Suffolk and Cambridgeshire. North of this line, forms of settlement enclosure are extremely rare. Currently, securely dated examples are confined to the ringwork enclosures at West Harling, Norfolk (Clark and Fell 1953); Carlton Colville, Suffolk (Heard 2010), and the longhouse compound at Barleycroft Farm, Cambridgeshire (Evans and Knight 1997). Given the number of interventions along the fen basin, this would seem to be a genuine pattern, if only for this part of the region.

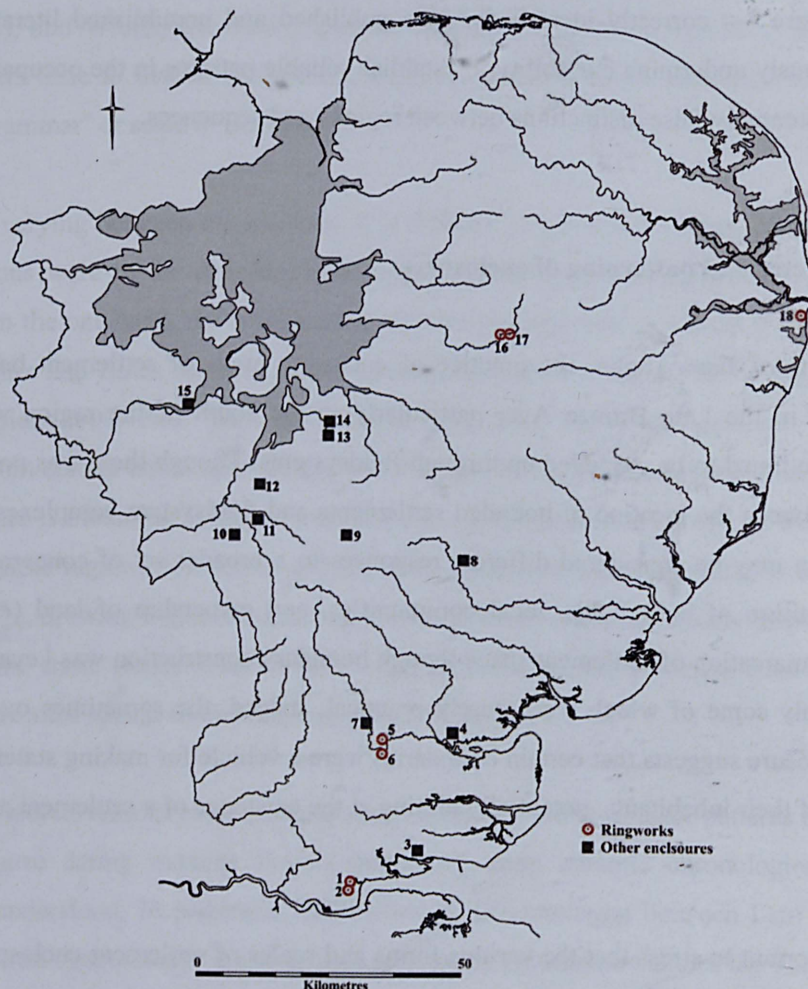


Figure 3.23. Ringworks and enclosures mentioned in section 3.8. 1. Mucking North Ring; 2. Mucking South Rings; 3. Hadleigh; 4. Lofts Farm; 5. Springfield Lyons; 6. Great Baddow; 7. Broomfield; 8. County Farm; 9. Hales Barn; 10. Thriplow; 11. Lynton Way; 12. Fulbourn Hospital; 13. Exning; 14. Landwade Road; 15. Barleycroft Farm; 16. West Harling III; 17. West Harling II; 18. Carlton Colville.

3.8.1 Ringworks

The substantial circular ditched enclosures known as ringworks are a distinctive feature of the region's Late Bronze Age landscape, and have attracted considerable attention in the last 30 years (Figure 3.24). Discussions surrounding their function, status, and role in the social-economic landscape feature prominently in regional and national overviews of the Bronze Age (Bradley 1984; 2007; Yates 2007). These monumental compounds, enclosing a variety of structures, pits and postholes, are known to be widely distributed across southeast England and the Midlands (Champion 1980; Needham 1993; Guttman and Last 2000), with notable concentrations occurring around the Thames estuary, and along the northern coastline of Kent. To date, seven ringworks sites have now been investigated in East Anglia - three in Norfolk and Suffolk (West Harling II and III, Clark and Fell 1953; Carlton Colville, Heard 2010) and four in Essex (Mucking South Rings, Jones and Bond 1980; Mucking North Ring, Bond 1988; Springfield Lyons, Buckley and Hedges 1987; Great Baddow, Brown and Lavender 1994) - whilst a number of others have been provisionally identified from aerial photography (Brown 2001, 96; Ingle and Saunders 2011, 60-62).

These sites share a number of features in common, such as a circular form, substantial ditches, large artefact assemblages and a comparable range of internal structures; roundhouses, four-post buildings and fence lines. The investment required to construct these monuments has led to suggestions that they were fortified elite residences (Bradley 1984, 121; Cunliffe 2005, 41) representing the peak of the settlement and social hierarchy: 'hot spots' of power and prestige, sited in strategic locations with commanding views of valleys and coastal approaches (Yates 2007).

Though the degree of segregation afforded by the banked ditches and the elaborate entrance structures may indicate that the occupants held a different status to those living in adjacent open settlements, the question of whether these people were elites is debateable. The architecture may imply a hierarchy of settlement, but the artefact signature is more ambiguous, throwing up other kinds of possibilities. On a purely presence/absence basis, the ringwork finds inventories are not markedly different to those from other categories of Late Bronze Age settlement. What distinguishes them is the overall *quantity* of artefacts recovered from their ditch circuits and interior features. The upper profiles of the ringwork ditches have proved particularly finds-rich, especially on the Essex sites. Here, the capping fills seem to be characterised by dark midden-type deposits containing substantial dumps of ceramics (incorporating a large number of fineware vessels), and in the case of the Mucking North Ring, a mass of salt-making briquetage.

Notable concentrations of artefacts occur around the entrances, revealing repeated episodes of formal dumping.

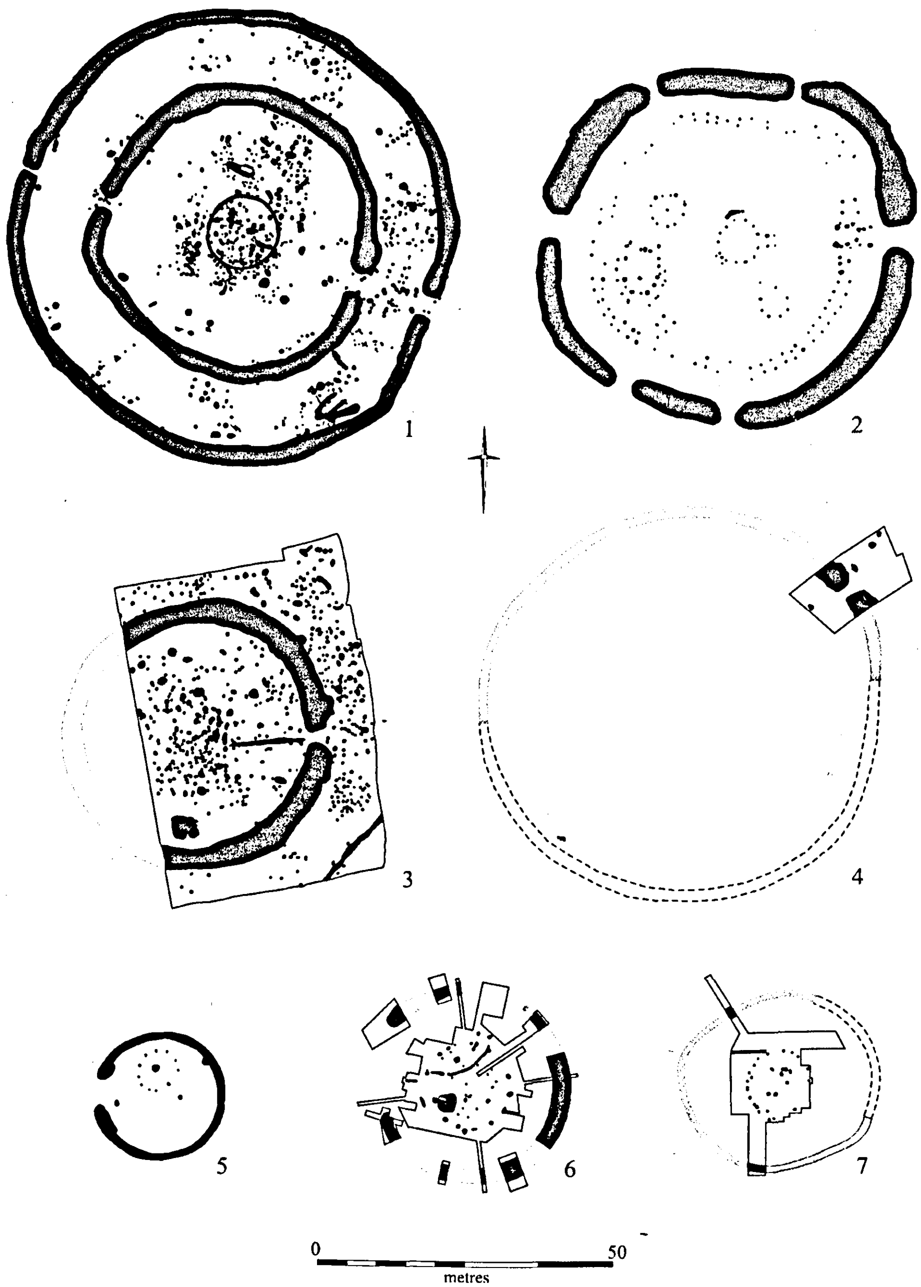


Figure 3.24. Excavated ringwork sites. 1. Mucking South Rings (adapted from Clark 1993, Site Atlas map 3); 2. Springfield Lyons (adapted from Buckley and Hedges 1987, 6, Fig. 5); 3. Mucking North Ring (adapted from Bond 1988, 5, Fig. 3); 4. Great Baddow (adapted from Brown and Lavender 1994, 5; Fig. 3); 5. Carlton Colville (adapted from Heard 2010, 5, Fig. 2); 6. West Harling II (adapted from Clark and Fell 195, 5, Fig.3); 7. West Harling III (*ibid*, 10, Fig. 6).

For some authors, the formal architecture and finds patterning suggests ringworks held a communal/ceremonial function (Parker Pearson 1993, 120; 1996, 121); sites employed in a similar fashion to Neolithic henge monuments (Bradley 2007, 209). Needham (2007, 57), for instance, has argued that large-scale feasting was a feature of their use, whilst Brück (2007) has proposed that they formed a focus for episodic communal gatherings, in which specialised craft production activities such as metalworking and salt-making were conducted. On balance, however, it may be unwise to think about these sites as *either* elite residences *or* communal foci. Though both lines of argument have their merits, these sites had complex and variable histories, making it difficult to pigeonhole their function.

Chronologically, the combined dating evidence places their currency between c. 1000-600 BC. Most were evidently established in the Late Bronze Age, but continued to be a focus of attention across the Bronze Age-Iron Age transition (Needham 2007, 57); the exceptions being the West Harling enclosures, whose pottery implies a construction date during the Earliest Iron Age (Clark and Fell 1953). Despite this c. 400 year currency, there is a consensus that ringworks were a transient phenomenon, fostering the notion that there is a 'pristine' quality to the character of their occupation. The published site plans, for instance, usually depict only one or two phases of construction and re-working, giving the impression that patterns of dwelling were relatively simple and short-lived.

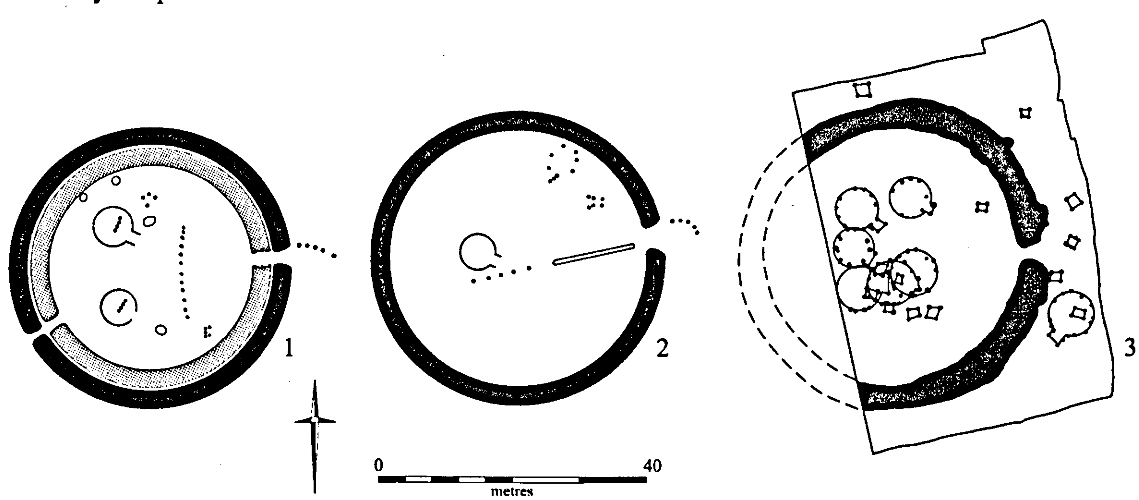


Figure 3.25. The Mucking North Ring phasing.1-2. Bond's simple two-phase sequence of occupation (adapted from Bond 1999, 17, Fig. 12); 3, A more complex palimpsest of structures identified from the original site plan.

A case in point is Bond's widely reproduced two-phase model of the Mucking North Ring sequence (Figure 3.25). This shows a highly structured ordering of the interior space, with a formalised arrangement of roundhouses set behind a palisade screen - a pattern of occupation contrasting with the haphazard swathes of features typifying contemporary open settlements. Yet, this image is somewhat misleading. The excavated site plan in fact shows a dense concentration of postholes and pits, with little obvious spatial patterning; an arrangement which speaks of a palimpsest (Figure 3.24. no. 3). However, amidst these features scatters we may pick out the plans of numerous other structures not identified in the original report (Figure 3.25). This presents us with a very different and much more 'messy' picture of occupation, suggesting multiple phases of activity. The way that ringworks were occupied, used and perceived may have therefore changed throughout their life-history; the nature and scale of occupation perhaps shifting from time to time. In short, there may be marked variations within and between individual sequences, meaning we should be wary of designating ringworks as either just elite homesteads *or* communal gathering sites.

3.8.2 Other enclosures

Whilst the shared morphology of the ringworks may conceal differences in their history of occupation, other enclosures in East Anglia display more obvious variations in their form, size and character (Figure 3.26). The two most renowned sites in Essex are Lofts Farm (Brown 1988b) and Broomfield (Atkinson 1995), both characterised by ditched, sub-rectangular compounds surrounding a single roundhouse and other ancillary structures. At Lofts Farm, the interior was dominated by a large central roundhouse, associated with a fence-line separating a mainly empty northern half of the enclosure from the south, where pits, postholes and ancillary structures were found, including a large rectangular building.

Though both enclosures have been interpreted as single-family homesteads, there is reason to believe that that these sites were afforded a status beyond that of humble dwellings. Certainly, their ditched boundaries imply that the occupants were formally segregated from the surrounding communities, whilst the gateway structures suggest that access to the interiors was carefully controlled. At Broomfield, the boundary ditch was clearly much more robust around the terminals, indicating that the entrance was constructed to be visually impressive and imposing. At both sites this threshold was a focus for depositional acts involving substantial quantities of ceramics, mimicking the practices identified at the ringworks. Moreover, these and other deposits incorporated a high portion of fineware vessels and carbonised plant remains possibly relating to feasting, and certainly suggest a scale of consumption by groups larger than a single household. It may be appropriate then to view these sites as being more akin to the ringworks than contemporary open settlements.

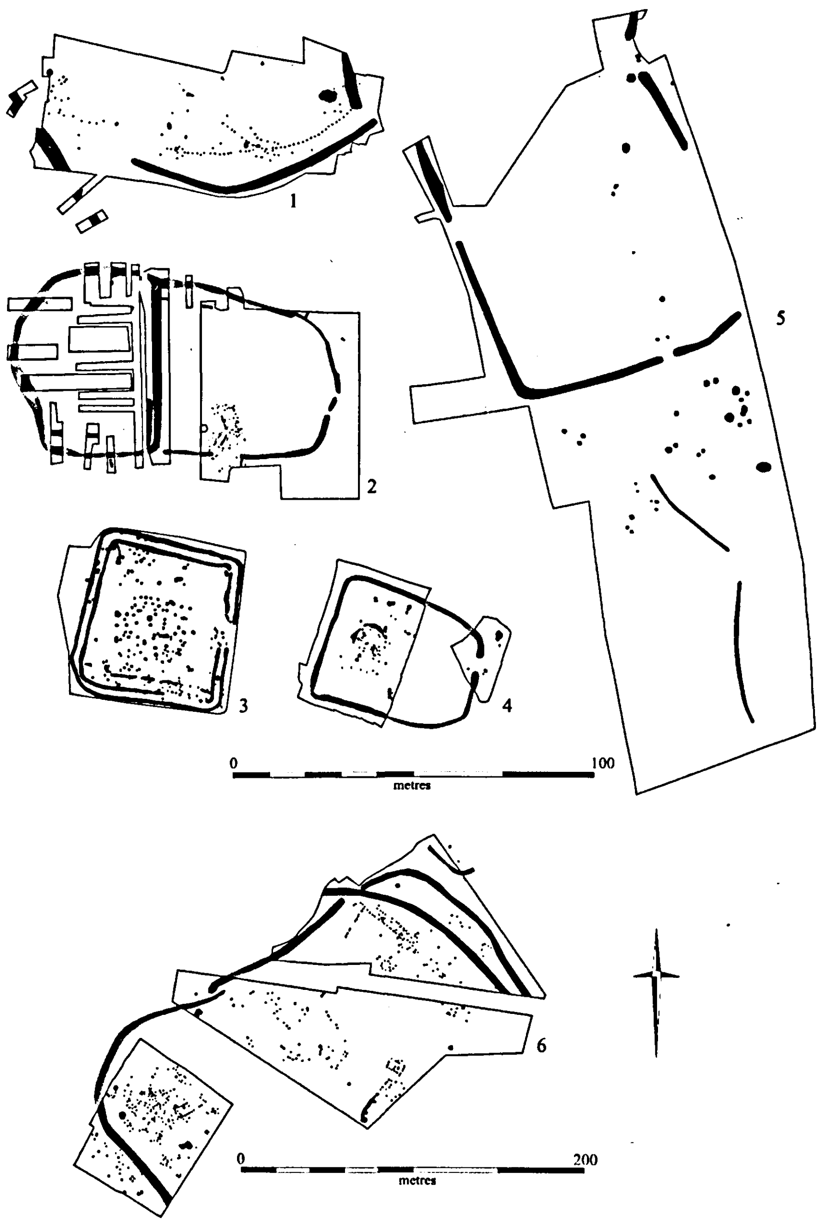


Figure 3.26. Examples of excavated enclosures. 1. Fulbourn Hospital (adapted from Brown and Score 1994, 32, Fig. 2); 2. Landwade Road (adapted from Malim 2001, 14, Fig. 2.4); 3. Lofts Farm (adapted from Brown 1988b, 254, Fig. 5); 4. Broomfield (adapted from Atkinson 1995, 3, Fig. 2); 5) Hales Barn (adapted from Bales and Topham-Smith 2002, Fig. 2); 6. County Farm (adapted from Abbott 1998, Fig. 2 and Craven in prep.).

Not all enclosures in East Anglia were as formally arranged as these sites. Excavations in western Suffolk and the southern Cambridgeshire have revealed a variety of compounds, both with and without sustained evidence of interior occupation. In Cambridgeshire, D-shaped Late Bronze Age compounds have been investigated at Landwade Road, Fordam (A. Conner *pers comm.*) and Lynton Way, Swanston (Weston and Newton 2006). The former consisted of two interconnected enclosures which had several phases of construction. Associated with its larger eastern compound was a discrete concentration of postholes located by the main southern entrance. The rest of the enclosure, however, was largely devoid of features. The interior of the Lynton Way compound was also sparsely occupied, though only the southern half of the site was excavated. Here, an arc of postholes suggested the presence of a roundhouse, whilst the only other notable feature was a huge pit cut through the southern entranceway.

The construction date for these compounds is arguably Middle Bronze Age, though radiocarbon determinations and finds associations suggests both saw some Late Bronze Age occupation. A similar sequence may be proposed for the compound at Fulbourn Hospital, Cambridgeshire (Brown and Score 1998) and the large enclosure at County Farm, Suffolk (Abbott 1998; Craven in prep.); both sharing comparably robust forms of ditched architecture. Being of more 'open' layout though, it is not immediately clear whether the boundary and fence-line systems of these sites relate to discrete enclosures, or a broader complex of large paddocks. What is apparent, however, is that the Fulbourn site lacked the kinds of domestic structures and accompanying finds densities that would indicate sustained habitation. Instead, the arrangement of features suggests this was a stock-enclosure equipped with settings to manage the movement and containment of animals.

By contrast, the County Farm boundaries encircled an extensive swathe of postholes and small pits; some of which could be identified as belonging to roundhouses, fence-lines and a considerable number of four-post structures. The area enclosure was substantial, measuring over 200m in diameter and delineated by a large single-phase ditch with at least two northwest facing entrances. The finds assemblage from the site, however, was surprisingly small, though the ceramics suggest several phases of activity spanning the Middle Bronze Age through to the Early Iron Age. Whilst occupation was likely to have been episodic (at least in the zone excavated), the number of four post-structures suggest the site may have had a centralised grain storage function akin to the pit-dominated settlements in parts of southern Cambridgeshire.

Beyond Lofts Farm and Broomfield, it is not yet clear whether other enclosures in East Anglia were permanently settled. Morphologically, the compound excavated at Hales Barn, Withersfield (Bales and Topham-Smith 2002) in southwest Suffolk is the closest parallel to these Essex examples, displaying as it does a sub-rectangular form and part of a gated entranceway. However the compound was significantly larger than the Essex enclosures and contained few internal features or finds from the ditch. Instead, 'settlement' appears to have focused around the exterior where a cluster of pits and postholes were located by the southern entrance, including one containing a hoard of bronze axes (Suffolk County Council Archaeological Service 1996).

Elsewhere the evidence is too incomplete to draw any firm judgements. Small-scale investigations at Hadleigh, Essex (Brown 1987); Triplow, Cambridgeshire (M. Hinman *pers comm.*) and Exning, Suffolk (Craven and Brudenell 2011) have all revealed sections of Early Iron Age ditch. The latter was possibly part of a substantial hilltop enclosure, and has yielded large quantities of un-abraded Earliest Iron Age pottery, totalling over 6000 sherds (Suffolk's largest Early Iron Age assemblage to date).

3.8.3 Hillforts

Compared to other parts of lowland southern Britain, East Anglia has very few sites which may be classified as hillforts or large 'defended' enclosures (Figure 2.7). The scarcity of these monuments has long been recognised as a distinctive feature of the region, differentiating it from areas such as Wessex and the Thames Valley which fall in Britain's hillfort-dominated zone. Despite their limited numbers, historically these sites have attracted a disproportionate amount of archaeological interest, first and foremost because they form a highly visible and unusual feature of the region's settlement landscape (Bradley 1993, 8). As a result there is now a considerable body of literature devoted to their discussion (Alexander *et al.* 1979; Bedwin 1991; Davies *et al.* 1991; Evans 1992; Evans and Knight 2000; 2008; French 2004; Malim 1992; Malim and McKenna 1993; Morris and Buckley 1978; Rodwell 1993).

Collectively, the sites comprise a rather disparate group of monuments, varying in their size, morphology, construction technique and landscape setting. They are of either univallate or bivallate construction, and were not always enclosed on all sides; some such as Thetford Castle, Holkham, Warham and Sawston, making use of meanders in adjacent water courses. Whilst most are of sub-oval or sub-rectangular, others have classic 'contour fort' plans, and a small group displays a circular geometry akin to some Late Bronze Age ringworks. Overall, their scarcity and variability tends to thwart any attempts to define a unifying scheme of classification. Whilst there appears to be some coherency in the size and form of hillforts within certain locales, such as with the Arbury (Evans 1992; Evans and Knight 2000; 2002) Wandlebury (Harley 1957; French 2004) and the War Ditches monuments in Cambridgeshire (R. Mortimer *pers comm.* 2010), these similarities dissolve back into the spectrum of variation at the broader scale.

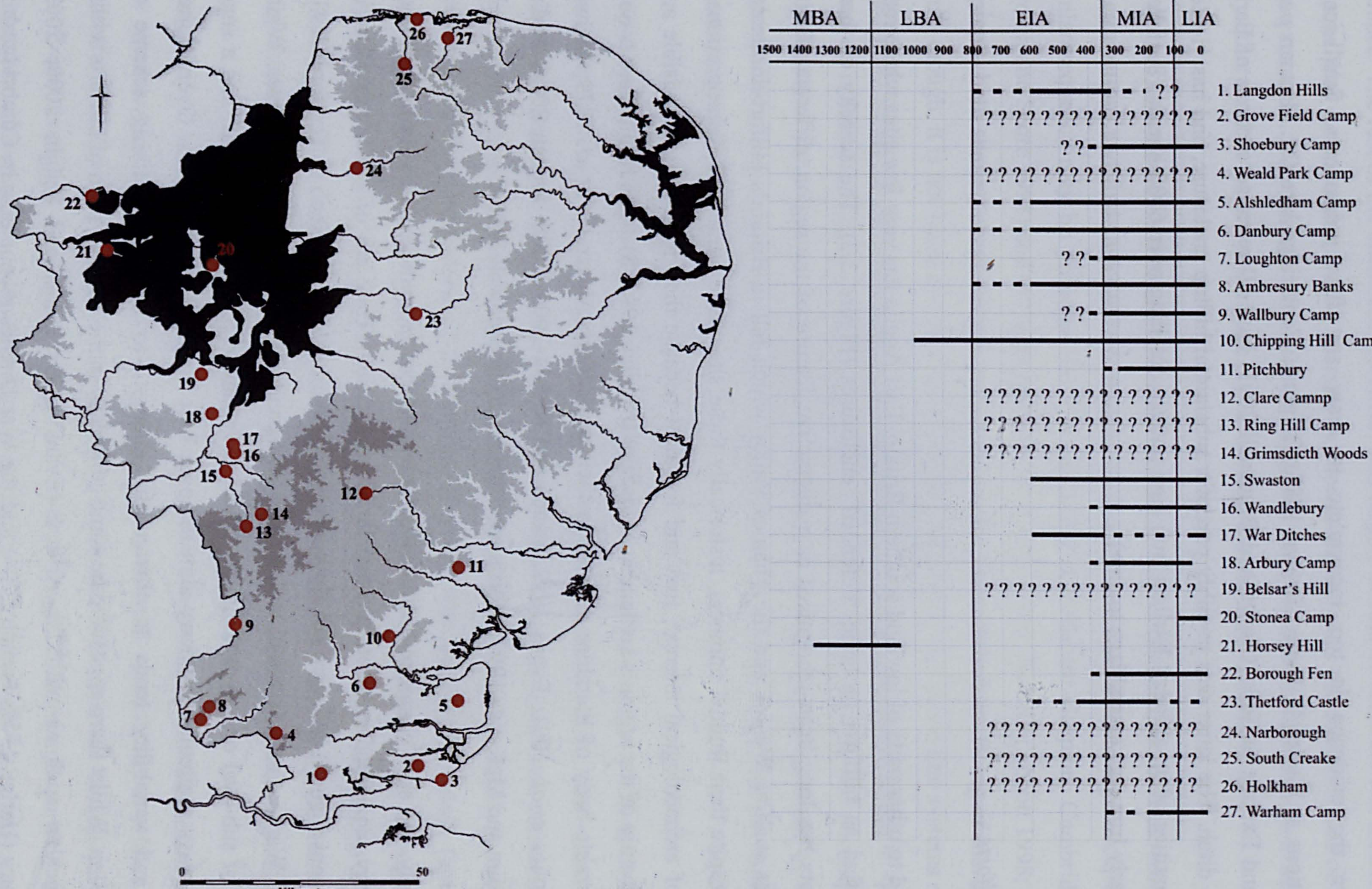


Figure 3.27. Distribution and date of hillforts in East Anglia (data from Morris and Buckley 1978; Bedwin 1991; Davis *et al*. 1991; Mortimer 2001; French 2004; Evans and Knight 2008; Pickstone and Mortimer 2010; M. Knight *pers comm.*; R. Mortimer *pers comm.*).

In terms of distribution, it is possible to distinguish three major groups. The first skirts along the band of high ground which arches across the region from northwest Essex to northwest Norfolk. Approximating in parts to the line of the Icknield way, these forts were located along the watershed between rivers discharging into the fens, Wash and north Norfolk coast, and those exiting east into the North Sea .The second group occurs in Essex, along the major eastern river courses, slightly inland from the estuaries, while the third comprises low lying forts distributed around the fen-edge and on in-fen-islands.. Stepping back, it seems that sites were either located along, or adjacent to, natural route ways in and out of the region's interior, or at significant thresholds between water courses, major soil-regions, or areas of wet and dry land. In individual cases, variations in the local topography were also recruited to create particular visual effects and accentuate physical prowess.

Although few sites survive undamaged, most are now scheduled, and only a handful have been directly threatened by recent development. Those which have seen controlled excavation since the 1970s have tended to been investigated on a small scale, allowing for only a very limited understanding of their construction and/or occupation histories. Evidence is at present insufficient to enable a great deal to be said about the nature, intensity or length of occupation at most sites, although a summary of known chronologies is given in Figure 3.27. It should be stressed however, that the dating of most forts in Essex, and some in Norfolk, is based almost entirely on pottery collected at various points throughout the 20th century; some from interiors rather than the earthworks themselves. We must therefore be mindful that this material could relate to pre-enclosure settlement, remembering that most has not been subject to detailed examination, and may well require re-dating in the light current understandings of ceramic chronology.

Setting aside these limitations, the evidence we have at present suggests there was no single hillfort construction horizon in East Anglia. Figure 3.27 show that the earthworks were built at various points between the Middle Bronze Age and the Late Iron Age, with some sites experiencing several later episodes of re-use and modification. To date, eight or nine of the region's hillforts are thought to have been constructed prior to the Middle/later Iron Age. These include Horsey Hill, War Ditches and Sawston, Cambridgeshire; Danbury Camp, Ambresbury Banks, Asheldham Camp, Langdon Hills, Wallbury Camp and Chipping Hill Camp, Essex; and possibly Thetford Castle, Norfolk. The fen-edge enclosure recently discovered at Horsey Hill (M. Knight *pers comm.* 2010) was constructed towards the end of the Middle Bronze Age, and is the earliest (and lowest lying) known fort in eastern England. The only other enclosure thought to be built in the Bronze Age is Chipping Hill Camp. The evidence for its origins is insubstantial, but since no pottery subsequent to the Late Bronze Age was recovered from the buried soil and primary inner rampart, an immediate pre-Iron Age date seems plausible (Rodwell 1993, 29).

The other seven enclosures in this group are believed to have been constructed sometime in the Early Iron Age, although only three can be dated with confidence. These include Ambresbury Banks and Asheldham Camp, where excavations have yielded small quantities of Early Iron Age-type pottery from beneath the ramparts (Alexander *et al.* 1979; Bedwin 1991). Recent excavations at the War Ditches have also confirmed Early Iron Age origins; the lower ditch silts yielding over 300 sherds of pottery, dated c. 600-350 BC (Pickstone and Mortimer 2010). Excluding Horsey Hill, all but one of the pre-Middle Iron Age forts lie in the southern half of the region, located either along the line of Lea-Stourt-Cam valley, or the area surrounding the Blackwater estuary. The exception is Thetford Castle, tentatively dated to the latter stages of the Early Iron Age on the basis of pottery recovered from an interior gully (Cutting D, feature 2; Davis *et al.* 1991, 14, Fig. 11, nos. 18-23).

Overall, our understanding of these sites remains in its infancy. It is clear, however, that they were restricted in their temporal and geographic distribution: most constructed in the southern half of the region during the Early Iron Age, with few showing any signs of sustained internal occupation. Whilst it may be premature to debate whether these forts were frontier defences, territorial markers, or the residences of local elites, we can be confident that their construction required a substantial labour force drawn from tens if not hundreds of small farmsteads from the surrounding landscape. Whatever the political conditions that governed their construction, these forts speak to us of a scale of community which we cannot observe by studying individual settlements in isolation - no matter how large our excavation areas. Like the ringworks of the Late Bronze Age, or the pit agglomerations in the Early Iron Age, these sites and structures remind us that people occupied bigger social worlds. More importantly, the fact that we can now see variations in the patterning of these sites at both a regional and local level, hints that these broader worlds were articulated slightly differently from one area to the next.

3.9 Discussion

The archaeological response to development under PPG16 has totally transformed the material basis for understanding the Late Bronze Age and Early Iron Age in East Anglia. In the course of less than 30 years, commercial archaeology has generated a settlement record whose detail rivals, and to some extent surpasses, that from central southern England - the traditional heartland of later prehistoric research. For a region characterised as a '*blank area*' as recently as

1991 (Cunliffe 1991, 89), this sea-change in the practice of archaeology has had a profound impact on possibilities for large scale excavation and ceramic recovery. This chapter has attempted to overview the now abundant evidence for settlement and land division in East Anglia, but has also given consideration to the conditions that shape the visibility of these new sites. One of the dangers of trying to marshal a substantial body of regional data is that it is easy to lose sight of the fact that patterning in the material record is filtered by intra-regional differences in both the character and geography of development-led fieldwork. A critical awareness of these biases is fundamental, since they have serious implications for our ability to interpret distributions, and ultimately, our capacity to track variations in the way that pots were made, used and deposited in this context. The discussions in this chapter are therefore far more than just scene-setting.

That being said, it has proved possible to sketch the character of sites and landscapes in East Anglia. What we can observe at the broadest of scales is a landscape sequence which unfolds in ways that echo those from other regions, such as Wessex and the Thames Valley, but also differ in other significant respects. For instance, we can draw the same line between an earlier Bronze Age dominated by funerary and ceremonial monuments, and a later Bronze Age, characterised by settlements and organised land divisions (e.g. Barrett 1994; Bradley 2007). However, the details of the ways these sequences played out within and between areas differed quite substantially, particularly with regard to the relationship between fieldsystems and visible forms of settlement. For the Iron Age, there are other parallels and contrasts to be made. Setting East Anglia apart is the scarcity of hillforts and an absence of monumental middens; site-types that are emblematic of the Early Iron Age in parts of southern England. These may be lacking in this context, but there are similarities to be drawn between these sites and the large aggregated settlements found in parts of Cambridgeshire and Essex. In some respects, all can be considered 'local responses' to a broader set of changes in the Early Iron Age, which saw certain sites emerge as 'dominant hubs' in the social landscape.

More importantly, what this chapter has shown is that there is a significant measure of variability in these trends *within* East Anglia itself. Because of the resolution now afforded by the scale and frequency of excavations, we are beginning to identify some quite profound differences in the character of occupation and the patterning of landscape sequences. Contrasts are particularly evident between the northern and southern half of the region. With regard to land division, it is clear that boundary systems in the Fens did not continue to be constructed or maintained beyond the Middle Bronze Age, whilst in areas further south, some were renewed and extended until at least the end of the second millennium BC. However, in very few areas is it obvious that visible and persistent forms of occupation accompanied the first construction of these boundaries; examples being confined to parts of Essex.

Generally speaking, it is only from the Late Bronze Age that we witness tangible, widespread evidence for settlement. Whilst the vast majority of these sites were typified by extensive, loosely structured swathes of pits and postholes, in southern parts of the region the landscape was more varied, with some sites enclosed by ditched compounds of varying magnitude. These tended to be located in the areas where broader systems of land division were maintained, suggesting a desire to demarcate different categories of space and settlement. This could reflect a more complex, and potentially hierarchical social geography in these regions, as well as greater concern with rights of ownership and/or access. Certainly, these varying forms of settlement provided the setting for different kinds of interaction and identification, with some sites such as the ringworks evidently witnessing a scale of occupation much larger than that of a single household group. It is clear, however, that few of these Late Bronze Age enclosures were maintained beyond the transition, or the first centuries of the Early Iron Age.

In most parts of East Anglia, our understandings of changes in this period are clouded by the poor resolution of radiocarbon dating and our limited understanding of ceramic developments. Though there are some indications that landscapes densely occupied in the Late Bronze Age were subsequently abandoned, these patterns may be illusory. What we can be certain of is that some open settlements in southern Cambridgeshire and parts of Essex saw a scale of Early Iron Age occupation which was unmatched in the surrounding landscape. Whether or not these sites reflect permanent settlement is less clear, but these undoubtedly constituted a different kind of focus - one which speaks of broader social worlds. The same might be argued for the small group of hillforts which started to be constructed at the same time in Essex and southern parts of Cambridgeshire. Although few of these enclosures show signs of sustained internal occupation, the labour required in building their monumental earthworks is a reminder that communities in the Iron Age were much larger than the scatterings of households we uncover in 'landscape-scale' excavations.

What this intra-regional variability suggests is that different kinds and scales of community existed in these landscapes. What we now need to establish is the relation of this variability to the ceramic record, using each as a context for the other. If different forms of settlement provided a setting for different kinds of occupation and for interaction at varying social scales, what consequences did this have for the ways that pots were made, used and deposited in these contexts? By extension, what do we find in other parts of the study area, where the settlement record remains relatively homogenous? Do traditions of practice involving ceramics look different here? Are they also homogenous, or do they vary in ways (and at scales) which tell us something about the changing constitution of broader communities and the roles of pots in 'making' those communities? These are difficult questions to address. They certainly require us to go beyond the issues of chronology that have long dominated ceramic studies, to work contextually, and at a variety of scales. Detailing appropriate methodologies for such work is therefore vital and it is to this that we must now turn.

Chapter 4

Questions, methods and data

4.1 Themes and approaches

In Chapter 2 I made a series of critical observations regarding both the marginal role of pottery in later prehistoric studies and the loss of scale in our current approaches to the social. The aim of the thesis is to bring pottery back into focus as a material which we can use to make substantive statements about later prehistoric society. This is not just a matter of simply adding material detail back into our narratives of specific sites and contexts outlined in Chapter 3. That may be critical, but we also need to acknowledge that material traditions were implicated in a variety of different aspects of social life, not all of which were resolved at the intimate and local scale. Framed by these observations, this thesis has three principal aims:

1. To situate ceramic studies more effectively within contemporary debate
2. To explore the relationship between social and material traditions
3. To use the analysis of ceramics to help build a more textured picture of the Late Bronze Age and Early Iron Age social geography in East Anglia

As discussed in Chapter 2, *making pots matter* requires shifting the focus of ceramic research from the description and quantification of material attributes, to an analysis of the social practices and contextual settings in which pots were deployed. For the period in question, we are likely to be dealing with social worlds in which people recognised themselves within a wide and overlapping range of identity groups. That process of recognition was carried forward in many different aspects of material life, potentially including people's engagements with pottery. However, our ability to track the ways that ceramic traditions were caught up in the social at these broader scales have been limited by the fine grained resolution of much recent research. To capture a flavour of these bigger worlds, we have to be prepared to widen our analytical focus at times. Unpicking the minutiae of specific material practices in local contexts is still essential, but we must also explore the relationships *between* those practices *and* the wider traditions shared across contemporary communities. Put succinctly, we need to be able to tack back and forth between the analysis of specific 'events', and investigations of broader spatial and temporal patterning in the ceramic record. For these reasons, what is offered here is a multi-scalar approach to material tradition and social identity; an approach in which regional-scale analyses form the frame within which more locally and materially specific work is situated.

Given these observations, and the review offered in Chapter 3, it is possible to identify a number of specific questions that we need to ask of the material:

1. What characterises the PDR ceramic tradition in East Anglia, and how does pottery change throughout the Late Bronze Age and Early Iron Age sequence in this context?
2. In what ways do ceramic assemblages vary across the region in terms of their overall composition?
3. To what extent can we delineate 'regions within regions' from the ceramic record?
4. Do patterns of ceramic variability coincide with different forms or scales of occupation, and other trends evident in the settlement record?
5. Is there any relationship between the form, style, and the use of a vessel, and the treatment it is afforded in deposition?

As these questions are pitched at different scales of geographic and contextual specificity, my methodology was designed to proceed in a similar fashion. For this purpose, I selected three somewhat (but not entirely) arbitrary analytical scales. The first is a *regional analytical scale*, which explores broad patterns and variations in the ceramic record across the entire study area. The second is a *sites and settings analytical scale*, which compares and contrasts the composition of ceramic assemblages from different kinds of sites, and the third is a *micro analytical scale*, which explores patterns of ceramic use and discard within specific settlement contexts. Combined, this three-tiered framework allows us to study both local/particular choices and broader traditions.

4.2 The quantification and classification of the PDR pottery

The methodology for recording ceramics followed a set of fairly conventional approaches, broadly in line with those recommended by the Prehistoric Ceramic Research Group (PCRG 1991; 1992; 1997; 2009). It was not the intention of this study to rewrite the way that ceramicists quantify prehistoric pottery, or explore why it is that practitioners have come to routinely record certain attributes and not others. Instead, my aim was to maximise the potential of material *already* catalogued, and where possible, integrate my own original analyses with the work of others. To this end my approach was geared towards compiling a large ceramic dataset, using assemblages both newly quantified as part of this thesis, as well as attribute data already published and housed in site archives. This provides a strong comparative basis on which to examine variability in the ceramic record at the different analytical scales outlined above.

In the process of constructing a data set, I have had to tackle issues of data compatibility, and problems presented by the varying ways practitioners have catalogued material. Although most ceramicists follow the guidelines issued by the PCRG, these are not specific to any one period or region, but are meant as a set of procedures aimed to promote minimum standards in recording, analysis and publication. This includes a recommended list of attributes to quantify, but does not detail specific schemes of classification. Consequently, attribute categories may be defined slightly differently by individual specialists.

Before discussing my attempts to deal with these problems, it is first necessary to detail the recording procedure I have adopted, and outline how the data are presented. Table 4.1 lists those attributes which were catalogued and analysed, together with a brief description of the method of quantification (detailed more fully below). The primary objective was to quantify the amount of pottery in each attribute field, so that totals could be tabulated and compared both within and between site assemblages. All the data were input onto standardised Excel data sheets which are available in the appendix, and organised by site name (Appendix 1). For the most part, simple counts and weights were used as basic means of quantification. Whilst acknowledging the empirical 'weakness' of these measures (Orton *et al.* 1993, 168-173), they nonetheless provided the most practical means of dealing with large, and for the most part highly fragmented, sherd dominated assemblages. All sherds in each assemblage were therefore counted and weighed to the nearest whole gram and assigned to one of three sherd size categories (those weighing under 0.5g were classified as crumbs, and whilst weighed and recorded, were excluded from all subsequent analysis). Owing to the size of most of assemblages, however, it was unrealistic to process each sherd individually. Plain body sherds and plain shoulder sherds were therefore weighed in groups, but only when they derived from the same context, and belonged to the same fabric category. Separated from these, but grouped and weighed in the same manner, were all the undecorated smoothed or burnished body and shoulder sherds, and all sherds with carbonized residue.

'Feature sherds', including rims, bases, handles and all decorated or perforated sherds were recorded separately. The exception to this was when two or more feature sherds (from the same context) belonged to the same part of the same vessel (for example, two conjoining decorated neck sherds, or even a group of conjoining rim sherds clearly deriving from the same vessel). In these circumstances it was appropriate to weigh the material together. Equally, when a partial or complete profile of a plain vessel was reconstructed from within a context (when all sherds joined), this group of pottery was also weighed jointly. The same was true when the vessel was completely smoothed or burnished, but otherwise unornamented. However, when such vessels were decorated, or had clearly delineated zones of smoothing, burnishing or patches of carbonized residue, the embellished and encrusted sherds were weighed and recorded separately.

Attribute	Codes and descriptions
Fabric group and fabric type	Types detailed below
Sherd type	r=rim; sh=shoulder; b=base; h=handle; o=all other
Surface treatment and location	B=burnished; BS=carefully smoothed; BP=polished; int=interior; ext=exterior; int ext= interior and exterior
Decoration and location	Written description of technique and location
Perforations and location	Pre-firing; Post-firing, and description of location (rim, neck, shoulder , body or base)
Presence of burnt sherds	Count of burnt sherds
Sherd count and weight	Number of sherds, and weight (g)
Refits	Count of refitting sherd
Residue type and location	Types detailed below, location as with surface treatment
Rim type, surviving circumference, and diameter	Types detailed below. Surviving circumference measured as a percentage; rim diameter measured in centimetres
Base type, surviving circumference, and diameter	Types detailed below. Surviving circumference measured as a percentage; base diameter measured in centimetres
Vessel form and variety	Types detailed below
Vessel Class	I-V, following Barrett (1980a)
Vessel number	Unique number given to rims and bases, and any sherds thought to belong to the labelled vessels, such as refitting sherds.
Date	LBA, EIA, LBA or EIA, Earliest IA
Crumbs	Total weight (g) of crumbs
Sherd size	Count of sherds belonging to one of three size categories: <4cm; 4-8cm; >8cm

Table 4.1. List of recorded attributes.

Rim and base sherds belonging to different pots were assigned individual vessel numbers in an attempt to estimate the minimum number of vessels present in each assemblage. This approach suffers from a practical problem that it is sometimes difficult to judge whether two non-adjoining rim or base sherds belong to the same vessel. To circumvent the issue, different vessel numbers were used in all instances where I was not confident of the relationship.

4.2.1 Classifications and data compatibility

The ability to compare different pottery assemblages is dependent upon ceramicists using broadly compatible attribute classifications. Ideally, all the assemblages selected for analysis in this study would have been recorded with the same type series, providing a consistent data set for each of the attribute fields. In reality, a number of different systems of classification have been used by the region's prehistoric pottery specialists, particularly when it comes to the categorisation of fabric types, vessel forms, and rim and base types (e.g. Barrett and Bond 1988; Brown 1988b; Brudenell 2007). Given this variability, a set of new typologies were developed for these attributes. Each series was designed with a view to compatibility, so that data from other schemes of classification could be readily incorporated. The type-series follows a tiered/hierarchical system of categorisation which allowed attributes to be grouped in generalised *types* at one level, and where possible, more specific *varieties* at another.

The details of these various classifications are described below. For the most part, attempts to assimilate the systems used by other ceramicists proved successful, meaning we can be confident that the data are compatible. Unsurprisingly, however, archive data were not always available for every attribute field listed in this study, particularly when it came to vessel counts, vessel class, residues, sherd sizes and refits. Where absent, I often decided to leave those fields blank, and simply use the data that were recorded. But in one or two instances, it did prove possible to fill in gaps by conducting further recording. This additional qualification mainly took place on small and medium sized assemblages which were easily accessible and stored in a 'user friendly' manner. For instance, where pottery was bagged, labelled and arranged by context, it was a simple process to count and record the number of sherds belonging to each size category. Furthermore, where individual sherds had been labelled, a more accurate calculation of the total number of different vessels was obtained by simply extracting, refitting and counting all the different rim and base fragments. Where necessary, rim and base diameters were also recorded at the same time, along with data on the percentage of the circumference surviving. The only problem was in feeding these new data back into the reformatted archive catalogues. In most cases this simply was not possible, and so the new data for select sites were placed on secondary Excel data sheets (the Sheet 3 and 4 tabs labelled 'Additional data').

4.2.2 Vessel form categories

Although various type-series have been published for PDR ceramics in the last three decades, most have been constructed for the purpose of analysing specific site assemblages, such as those designed for Runnymede Bridge (Longley 1991, 162-163) Potterne (Gingell and Morris 2000, 149-153), or Mucking North Ring (Barrett and Bond 1988, 28). Few of these typologies have been adopted in other studies, as their specificity makes them difficult to employ elsewhere. This inhibits the kinds of comparative analysis needed to address ceramic variability at broader scales. Some uniformity in approach has been achieved in instances where specialists have employed the same type-series over a prolonged period. Noteworthy is Nigel Brown's typology for prehistoric pottery in Essex, which has been used in this county for over two decades. Even this, however, is not widely adopted in other parts of East Anglia, and is considered too general for this specific study of the PDR tradition.

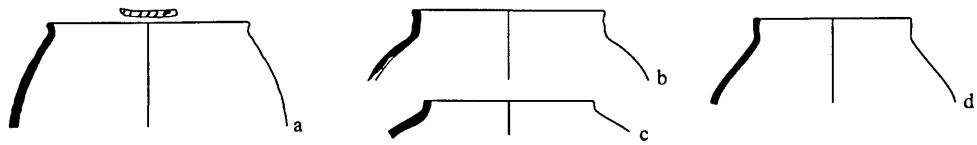
In the absence of any other suitable scheme, my aim was to develop a comprehensive vessel form series for the whole of the region. On the one hand, this was designed to be sufficiently detailed to explore subtleties in vessel morphology. One the other, it was constructed to be flexible, allowing me to adapt the typologies already used to catalogue some of East Anglia's major assemblages. The series was founded on pottery illustrated in published reports. Using a tiered system of classification, three categorical levels were distinguished: vessel *class*, vessel *form* and vessel *variety* - each level including a more detailed shape description than the last.

Following Barrett (1980a, 302-303), PDR vessels were identified as belonging to one of five vessel *classes*: coarseware jars (Class I), fineware jars (Class II), coarseware bowls (Class III), fineware bowls (Class IV) and cups (Class V). Jars were defined as vessels known to have, or more often than not, thought to have (few are ever complete) a height *in excess* of the rim diameter or maximum girth. In contrast, bowls were classified as vessels known/thought to have a height *less than* the rim diameter or maximum girth. Finally, cups were simply defined as small vessels, normally with rim diameters under 12cm.

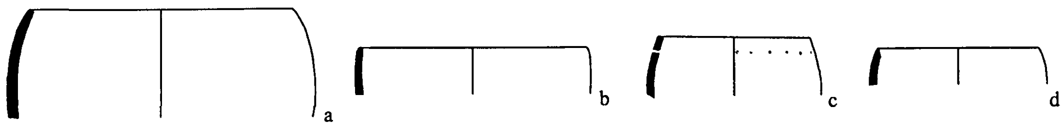
Strictly speaking, the further division of bowls and jars into coarsewares and finewares is not an issue of vessel shape classification. Nevertheless, the clear visual and tactile distinction between wares is such a fundamental characteristic of the PDR tradition, that it was felt appropriate to maintain the division at this classificatory level. The two terms do however require definition. Following Barrett and Bond, I make a distinction between '*coarse and fine as applied to the fabrics and coarse-ware and fine-ware as applied to the vessel classes*' (Barrett and Bond 1988, 26). Here I define finewares as vessels with carefully smoothed, burnished or polished surfaces. Generally, these treatments do occur on the 'finer fabrics' (finer with regard to the grit size of inclusions) in the PDR tradition, but their identification is independent of fabric attributes. This correlation is nonetheless still significant, and suggests that clays and tempering agents were often carefully prepared with these surface finishes in mind. This implies that Class II and IV pots were manufactured to be fineware vessels from the outset, and that on some level, owing to their high productive investment (Barrett 1980, 302), finewares were probably recognised as a distinct category. By contrast, the coarsewares of Classes I and III can be defined by their *absence* of carefully smoothed, burnished, or polished surfaces. In fact, these vessels tend to have a rough, abrasive surface texture, with fabrics normally containing coarse, ill-sorted inclusions.

At the classificatory level of *form*, vessel shapes were defined by the profile of the shoulder and neck/rim, as opposed to the overall morphology of the pot. This is because complete vessel profiles are rare within PDR assemblages; a factor no doubt contributing to the absence of well-defined 'types' in the archaeological literature. In total, 24 different forms were distinguished, each denoted

Class I and II Jars

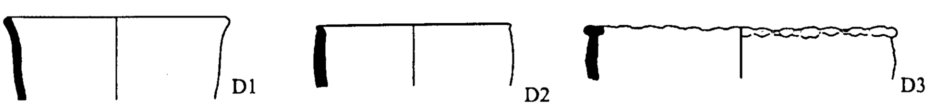


Form A: Jars with rounded, slightly bulbous bodies and short upright or out turned necks. Constricted vessels where the mouth diameter is distinctly smaller than that of the maximum girth. a. Broads Green (after Brown 1988a, 12, Figure 5, no. 7); b. Exning; c. Lofts Farm (after Brown 1988b 266, Fig. 15, no. 45); d. Striplands Farm (after Evans and Patten 2011, 23, Fig. 14, no. 28).

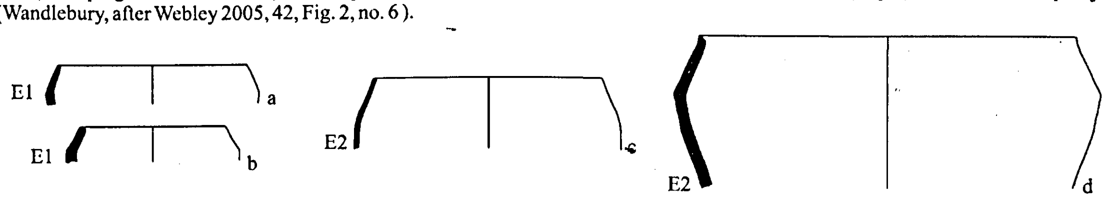


Form B: Ellipsoid jars with no distinct neck. The rim is essentially where the vessel wall ends. a. Caple; b. Rhee Lakeside South; c. Godwin Ridge; d. Striplands Farm (after Evans and Patten 2011, 23, Figure 14, no. 16).

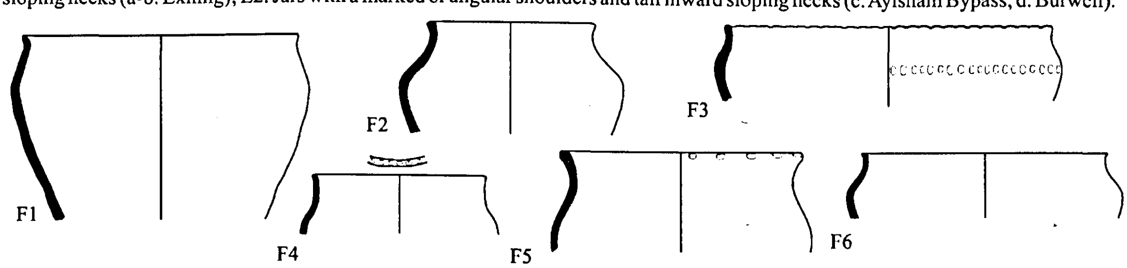
Form C: Ellipsoid jars with in-turned or 'hooked' rims, often with a rounded or internally bevelled lip. a. Broads Green (after Brown 1988a, 12, Fig. 5, no. 4); b. Caple; c. Mucking North Ring.



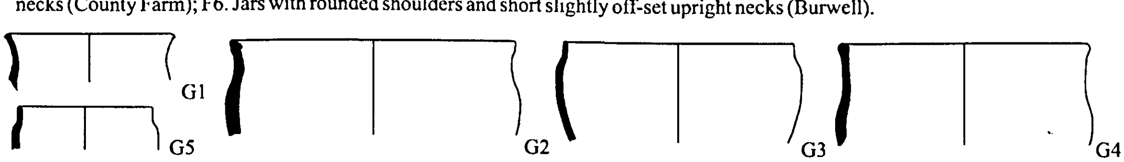
Form D: Ovoid, barrel-shaped, or slightly flared jars with a slight change in wall profile creating a distinct rim zone. *Varieties*: D1. Flared jars (Trumpington Park & Ride); D2. Squat tub-shaped jars, with ovoid or slightly flared walls (Caple); D3. Barrel-shaped jars (Wandlebury, after Webley 2005, 42, Fig. 2, no. 6).



Form E: Bipartite jars with marked or angular shoulders. *Varieties*: E1. Jars with high marked or angular shoulders and short inward sloping necks (a-b. Exning); E2. Jars with a marked or angular shoulders and tall inward sloping necks (c. Aylsham Bypass; d. Burwell).

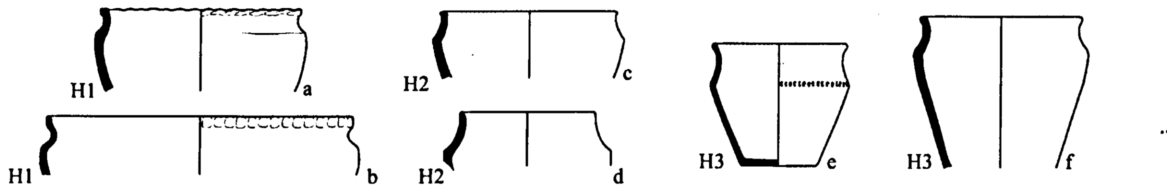


Form F:Jars with high rounded shoulders and upright or out turned necks. *Varieties*: F1. Jars with high gently rounded shoulders tending towards a bipartite profile with short upright or out turned rims (Burwell); F2. Jars with a deep rounded shoulders and short upright or slightly out turned necks. Constricted vessels where the diameter of the mouth is distinctly smaller than the maximum girth (Wandlebury, after Webley 2005, 42, Fig. 2, no. 4); F.3. Jars with rounded shoulders and short upright, out turned or hollowed necks (Exning); F4. Round shouldered jars with relatively tall upright necks (Rhee Lakeside South); F5. S-profiled jars with rounded shoulders and concave necks (County Farm); F6. Jars with rounded shoulders and short slightly off-set upright necks (Burwell).

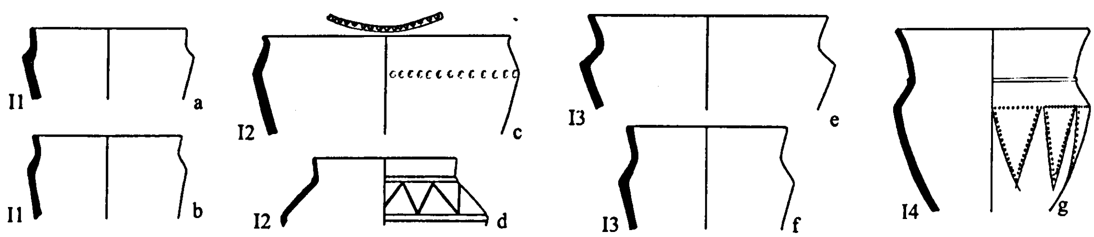


Form G: Jars with slack or weakly defined shoulders and upright, hollowed or out turned necks. *Varieties*: G1. Jars with weakly defined shoulders and flared necks (Linton); G2. Jars with weakly defined shoulders and hollowed necks (Exning); G3. Slack shouldered jars with short upright or out turned necks (Striplands Farm, after Evans and Patten 2011,24, Fig, 15, no. 29); G4. Slack shouldered jars with relatively tall upright necks (Trumpington Park & Ride); G5. Jars with weakly defined shoulders and short slightly off-set upright necks (Exning).

Figure 4.1. Vessel form series.

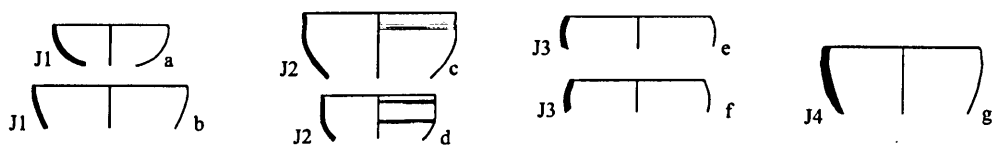


Form H: Jars with marked or angular shoulders and broadly upright hollowed or concave necks. *Varieties*: H1. Jars with high marked shoulders and short, relatively deep concave necks (a-b. Exning); H2. Jars with marked or angular shoulders and hollowed, upright or slightly in turned necks (c. Exning; b. Fordham Bypass); H3. Jars with angular shoulders and concave necks (e. Mucking South Rings; f. Fordham Bypass).

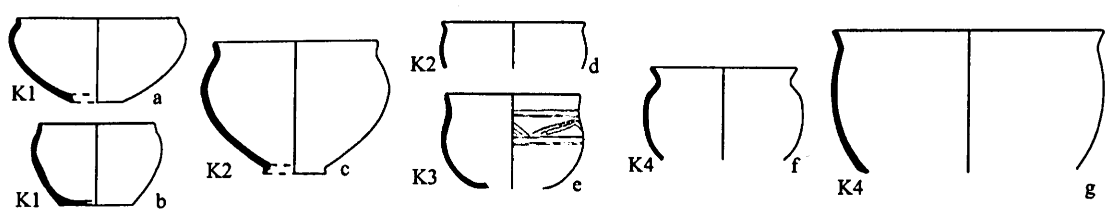


Form I: Tripartite jars with marked or angular shoulders and upright, everted or flared necks or rims. *Varieties*: I1. Jars with angular narrow shoulders and upright or everted rims (a. Lofts Farm, after Brown 1988b, 268, Fig.17, no. 78; b. Linton); I2. Jars with angular shoulders, often relatively long inward sloping necks, and short upright or everted rims (c. Gravel Hill; d. Alysham Bypass); Tripartite jars with everted necks (e. West Harling, after Clark and Fell 1953, 19, Fig. 13, no. 37; f. Slough House Farm); I4. Tripartite jars with marked or angular shoulders and relatively tall flared necks (g. Mucking).

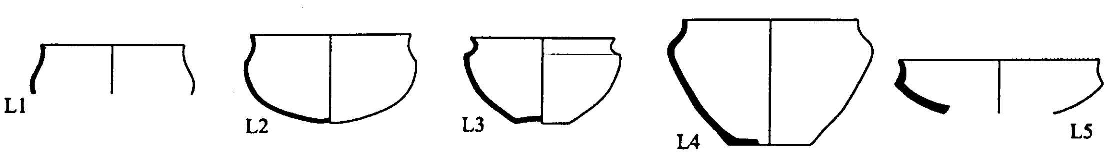
Class III and IV Bowls



Form J: Open bowls. *Varieties*: J1. Broadly hemispherical bowls (a. Exning; b. Burwell); J2. Bowls with rounded bellies and short upright necks (c. Mucking North Ring; d. Mucking South Rings); J3. Bowls with rounded bellies and slightly in turned necks (e-f. Exning); J4. Deep open bowls (g. Gravel Hill).

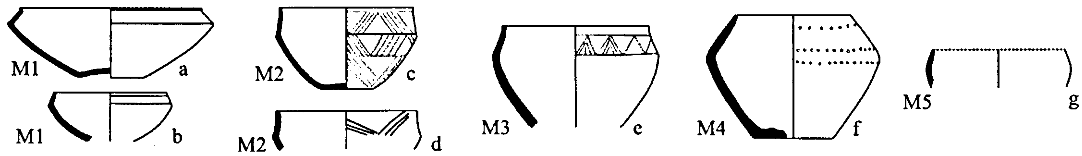


Form K: Round bodied bowls. *Varieties*: 1. Round bodied bowls with short upright rims (a. Stonea, after Jackson and Potter 1996, 246, Fig. 81, no. 3; b. Springfield Lyons; K2, Round bodies bowls with everted rims (c. Stonea, after Jackson and Potter 1996, 248, Fig. 83, no. 24; d. Mucking North Ring) K3. Round bodied bowls with slightly hollowed necks (e. Fengate); K4. Round bodied bowls with flared necks (g. Aylsham Bypass; h. Stonea, after Jackson and Potter 1996, 247, Fig. 83, no. 10).

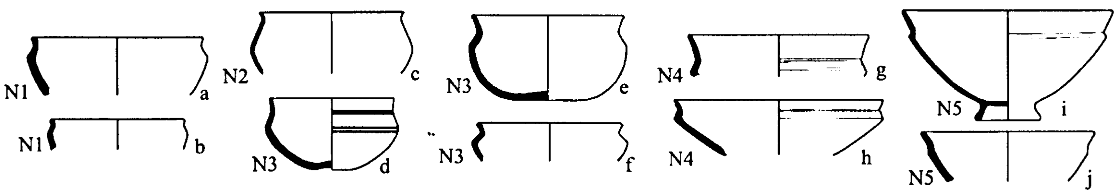


Form L: Bowls with well defined or angular shoulders and hollowed, concave, or off-set upright necks. *Varieties*: L1 bowls with well defined shoulders and gently hollowed necks (Mucking North Ring); L2. Bowls with rounded bellies, marked or angular shoulders and concave necks (Must Farm); L3. Bowls with marked or angular shoulders and deep concave necks (Must Farm); L4. Bowls with a marked shoulders and off set upright necks. Constricted vessels where the diameter of the mouth is distinctly smaller than the maximum girth (Frog Hall Farm); L5. Relatively shallow bowls with flared lower walls, angular shoulders and upright concave necks (Little Oakley, after Barford 2002, 117, Fig. 91, no. 5).

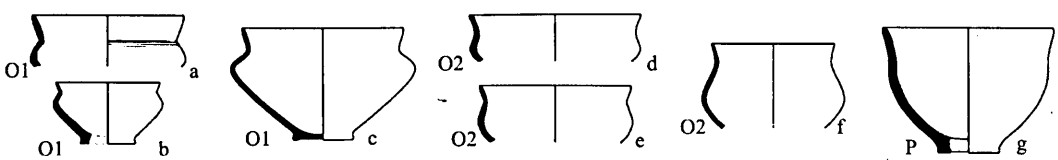
Figure 4.1 (Cont.). Vessel form series.



Form M: Bipartite bowls with pronounced rounded or angular shoulders. *Varieties*: M1. Bowls with angular shoulders and short inward sloping necks, occasionally topped with beaded rims (a. West Harling, after Clark and Fell 1953, 21, Fig. 15, no. 69; b. Exning); M2. Bowls with marked or angular shoulders and either gently hollowed or straight slightly inward sloping necks (c. Gravel Hill; d. West Harling, after Clark and Fell 1953, 21, Fig. 15, no. 74); M3. Relatively deep bowls with high angular shoulders and short inward sloping necks (e. Exning); M4. Bi-conical bowls with low angular shoulders (f. Lofts Farm, after Brown 1988b, 267, Fig. 16, no. 69); M5. Bowls with pronounced rounded shoulders and short inward sloping necks (g. Exning).



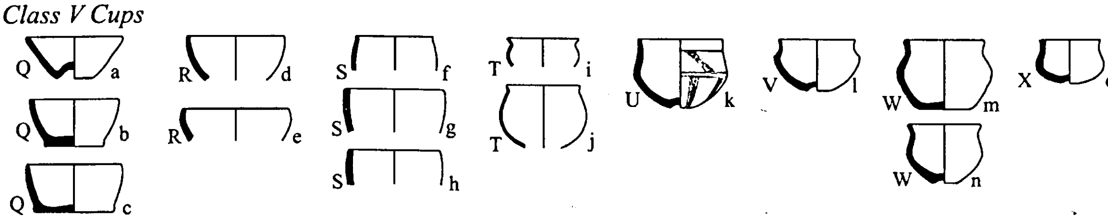
Form N: Tripartite bowl with either marked or angular shoulders and upright, everted or flared necks and rims. *Varieties*: N1. Bowls with high marked or angular narrow shoulders and short upright or everted rims (a-b. Exning); N2. Bowls whose bodies have a slightly bi-conical profile with relatively low marked or angular shoulders and short everted rims (c. Godwin Ridge); N3. Bowls with marked or angular shoulders and everted necks (d. Fengate; e. Bradley Fen; f. Exning). N4. Darmsden-Linton type bowls with sharply angled narrow shoulders, everted or slight flared necks and rounded or tapered rims. The zone between the base of the neck and shoulder is decorated with horizontal grooves. Although the vessels display a tripartite profile on the exterior, the shape of the necks on the interior is often slightly convex (g. Lofts Farm, after Brown 1988b, 267, Fig. 16, no. 60; Linton, after Fell 1953, 36, Fig. 4, no. 25); N5. Bowls with a high marked or angular narrow shoulders and flared necks. Vessels where the rim diameter clearly exceeds that of the shoulder. Although the vessels display a tripartite profile on the exterior, the interior often has a smooth profile (i. Wandlebury, after Harley 1957, 16, Fig. 7, no. 16; j. Trumpington Park & Ride).



Form O: Tripartite bowls with marked rounded or very pronounced rounded shoulders and everted or flared necks and rims. *Varieties*: O1. Bowls with very pronounced rounded shoulders and flared necks (a. Darmsden, after Cunliffe 1968, 185, Fig. 2, no. 8; b-c. Stansted SCS site, after Havis and Brooks 2004, 45, Fig. 31, nos. 16-17); Q2. S-profile bowls the marked rounded shoulders and everted or flared necks (d. Darmsden; e. Linton, after Fell 1953, 36, Fig. 4, no. 20; f. Alysham Bypass).

Form P: Open slightly flared bowls with a weakly defined shoulder (g. Glebe Farm).

Class V Cups



Form Q: Open profiled cups with slightly flared walls (a. Wandlebury, after Webley 2005, 43, Fig. 3, no. 14; b. Burwell; c. Striplands Farm, after Evans and Patten 2011, 23, Fig. 14, no. 19).

Form R: Hemispherical cups (d-e. Exning).

Form S: Cups with convex walls (f. Caple; g-h. Burwell).

Forms T: Rounded or bulbous bodied cups with everted or flared necks or rims (i. Striplands Farm, after Evans and Patten 2011, 24, Fig. 15, no. 25; j. Mucking North Ring, after Bond 1988, 33, Fig. 23, no. 103).

Form U: Bipartite cups (k. Fengate).

Form V: Cups with marked or angular shoulders and hollowed or concave necks (l. Kings Pit).

Form W: Tripartite cups with a marked or angular shoulders and upright or everted necks (m. Burwll; n. Flag Fen, after Pryor 2001, 251, Fig. 9.2, no. 7).

Form X: Shouldered cups (o. King's Pit).

Figure 4.1 (Cont.). Vessel form series.

by a letter (Forms A to X). Finally, at the most detailed level of classification, 12 of the forms (Forms D-O) were subdivided into *varieties*, completing the typology presented in Figures 4.1. These categories represent a set of more specific vessel descriptions, and were assigned a number within each form division (e.g. Form D1). The overall system is alphanumerical, allowing a vessel's shape to be categorized and recorded in series of short-hand codes.

In practice, the category of form is pivotal in this scheme. Although vessel class is in theory at a higher level in this taxonomic system - being the broadest category - it was decided that class would only be assigned in instances where the form of the vessel could also be established. As a minimum, only sherds/sherd groups retaining parts of the shoulder, neck and rim (i.e. partial vessel profiles) of a pot were assigned to form, as it was difficult to judge the shape of vessel without all of these components present. The form category is also central because not every vessel appropriate to Forms D-O can be further classified to the level of variety. Some vessels were simply too incomplete for confident ascription at this level, whilst others displayed idiosyncrasies which meant they were unlike any of the listed varieties (though the series is flexible enough to add further varieties where appropriate). Ultimately, the purpose of the variety classification was not only to capture fine-grained morphological variability, but also to ensure that the region's other typologies found a place within this scheme. In short, it was an aid to compatibility.

4.2.3 Rim and base form categories

With rim and base sherds more common in assemblages than complete or partial vessel profiles, it was appropriate to classify their types independently from the vessel form series. A two tiered system of *forms* and *varieties* was again employed. A re-working of the region's archived rim typologies identified a basic set of 12 forms; three of which (Form 5-7) were given variety subdivisions (Figure 4.2). For the base typology, seven principle forms were distinguished by the shape of the foot (Figure 4.3). In this series, only the Form 5 omphalos bases were subdivided by variety. As with the recording of vessel forms, rims and bases were not always classified to the level of variety.

4.2.4 Fabric categories

Most prehistoric pottery reports now include a lengthy discussion of fabrics, in which types are often described in minute detail. The push toward systematising fabric classifications and their quantification has been high on the agenda in prehistoric ceramic studies since the 1970s

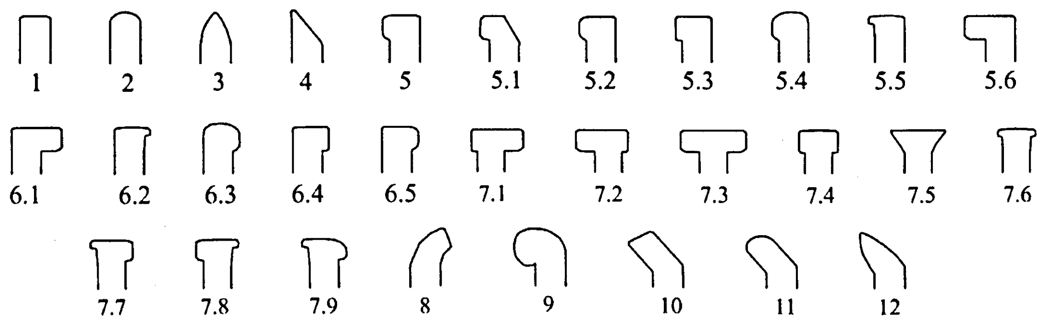


Figure 4.2. Rim forms. 1. Upright flat topped; 2. Upright rounded; 3. Upright tapered; Internally bevelled; 5. Thickened externally (5.1. Externally thickened with internal bevel; 5.2; Flat rounded externally; 5.3. Flat expanded externally; 5.4. Rounded expanded externally; 5.5. Lipped externally; 5.6. Flat flanged externally); 6. Thickened internally (6.1. Flat rounded internally; 6.2. Flat expanded internally; 6.3. Rounded expanded internally; 6.4. Lipped internally; 6.5. Flat flanged internally). 7. T-shaped (7.1. Thickened externally and flanged internally; 7.2. Flanged externally and thickened internally; 7.3 Flanged externally and internally; 7.4. Clubbed, thickened externally and internally; 7.5. Triangular; 7.6. Lipped externally and internally; 7.7. Lipped externally and expanded internally; 7.9. Expanded externally and lipped internally; 7.9. Lipped externally and rounded internally); 8. Hooked; 9. Beaded; 10. Everted with flattened lips; 11. Everted with rounded lips; 12. Everted with tapered lips.

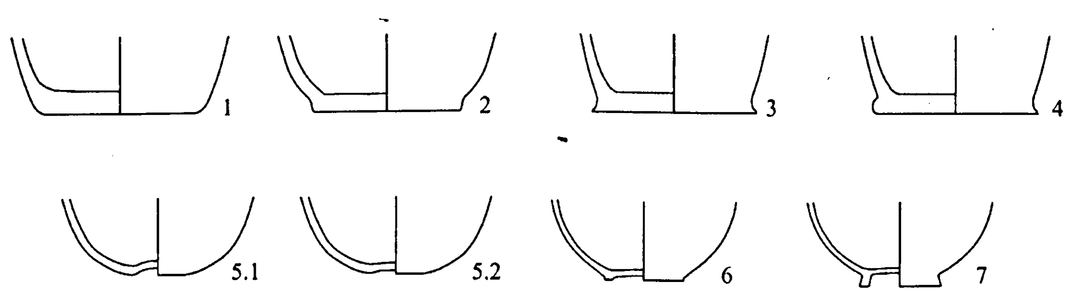


Figure 4.3. Base forms. 1. Flat; 2. Stepped; 3. Pinched; 4. Beaded; 5.Omphalos (5.1. True omphalos; 5.2. Shallow dished omphalos); 6. Foot-ring; 7. Pedestal.

(Woodward 2008a, 292). Though this has undoubtedly improved the standards of fabric reporting, the emphasis on producing detailed descriptions has encouraged the atomisation of fabric categories, resulting in a bewildering array of different types and divisions. These fabrics groups are often defined with such specificity that it renders inter-assemblage comparative studies extremely difficult. It is also questionable how warranted such detailed divisions are, given that so few petrological studies have been conducted on the region's assemblages

With these issues in mind, the fabrics in this study were defined by the character of non-plastic inclusions visible in sherd breaks and surfaces. Using a tiered system of classification, a distinction was drawn between *fabric groups* (broad categories) and *fabric types* (detailed categories). Following a review of descriptions in a range of published and unpublished reports, a list of 63 fabric groups were recognised (Table 4.2). Each group was limited to a maximum of three principles inclusions, listed in their order of frequency (from highest to lowest) and codified by letters indicating inclusion type. In this procedure, no attempt was made to distinguish between naturally occurring inclusions in the clay matrix, or those deliberately added as temper by the potters. Equally, there was no recording of variables such as inclusion size, shape or density.

Fabric group	Code	Fabric group	Code	Fabric group	Code	Fabric group	Code
Chalk	CH	Flint & shell	FS	Sand	Q	Shell, flint & sand	SFQ
Chalk & flint	CHF	Flint & veg.	FVE	Sand, chalk & flint	QCHF	Shell & grog	SG
Chalk, flint & sand	CHFQ	Flint & voids	FVO	Sand & flint	QF	Shell, grog & sand	SGQ
Chalk and shell	CHS	Grog	G	Sand, flint & chalk	QFCH	Shell, veg. & flint	SVEF
Chalk and sand	CHQ	Grog & flint	GF	Sand & grog	QG	Shell & sand	SQ
Flint	F	Grog & sand	GQ	Sand, grog & shell	QGS	Shell, sand & grog	SQG
Flint & chalk	FCH	Grog & shell	GS	Sand & shell	QS	Shell and voids	SVO
Flint & quartz	FQZ	Grog, shell & flint	GSF	Sand, shell, quartz	QSQZ	Veg. & chalk	VECH
Flint & grog	FG	Grog, shell & sand	GSQ	Sand, shell & grog	QSG	Veg. & flint	VEF
Flint, grog & sand	FGQ	Quartz	QZ	Sand and voids	QVO	Veg. & sand	VEQ
Flint, grog & shell	FGS	Quartz and sand	QZQ	Sand & chalk	QCH	Veg., sand & shell	VEQS
Flint & sand	FQ	Quartz and voids	QZVO	Sand & quartz	QQZ	Veg.	VE
Flint, sand & chalk	FQCH	Quartz & flint	QZF	Sand & veg.	QVE	Voids	VO
Flint, sand & grog	FQG	Quartz, flint & grog	QZFG	Sand, flint & grog	QFG	Voids & flint	VOF
Flint, sand & mica	FQMI	Quartz, flint & sand	QZFS	Shell	S	Unclassifiable	?
Flint, sand & veg.	FQVE	Quartz/quartzite	QZ/QI	Shell & flint	SF	-	-

Table 4.2. Fabric groups.

No set fabric series was designed for fabric types. Instead, these more detailed groups were defined on an assemblage-by-assemblage basis, where there was time for a thorough assessment of the material. The fabric type was distinguished not only by inclusions, but also grit density and modal size. Following a modified version of the scheme set out by the PCRG, the density of inclusions were described as either rare/very rare (<3%), spare (3-9%), moderate (10-19%), common (20-29%), or very common (30-40%); whilst modal sizes were defined as fine (mostly under <1.5mm), medium (mostly 1-2mm), coarse (mostly 2-4mm), or very coarse (>4m). For most types, a broad range of descriptive terms were used, normally incorporating two categories for density and modal size (e.g. moderate-common or fine-medium). The fabric type descriptions for each analysed site assemblage are detailed on the Excel data sheets in Appendix 1 (the Sheet 2 tabs labelled 'Fabric Descriptions').

4.2.5 Decoration and surface treatment categories

The character of decoration on PDR ceramics varies between coarsewares and finewares. Coarseware decoration was usually implemented by fingertip and fingernail treatments, such as impressing and pinching. Simple edged tools were also employed to nick, slash, stab, comb and/or score vessel surfaces, whilst plain and decorated cordons were sometimes applied to the vessel exterior. By varying the manner of execution, potters were able to achieve a surprisingly diverse range of visual and tactile effects from this relatively limited decorative grammar. Fineware decoration was normally tooled. Linear and geometric motifs were applied via fine incised lines, or wide grooves, some of which created a furrowed or rippled effect. Fine-toothed combs were also used to decorate certain vessels, as were plain cordons, round, square, or circular punch-marks and lightly impressed dimples. Common motifs included single and multiple horizontal, diagonal or curvilinear lines; chevron patterns, line or dot filled triangles, and 'herringbone' motifs. A small number of vessels were also covered with a haematite slip.

Owing to the range of decorative treatments, it was decided to simply describe the manner of application/motif (e.g. finger-tipping, incised horizontal line), and record the position of ornamentation in two separate data fields. For the latter, nine different decorative zones were distinguished (Figure 4.4); the term *body* reserved for jars/non-form assigned vessels, and *belly* for the underside of bowls/cups. Where multiple zones were ornamented with different techniques, the order of the decorative descriptions correspond to the order in which the zones are listed (e.g. if a vessel had a finger-tipped rim-top and slashed shoulder the data fields would display 'finger-tipping and slashing', in the decorative category, and 'rim-top and shoulder' in the decorative position category).

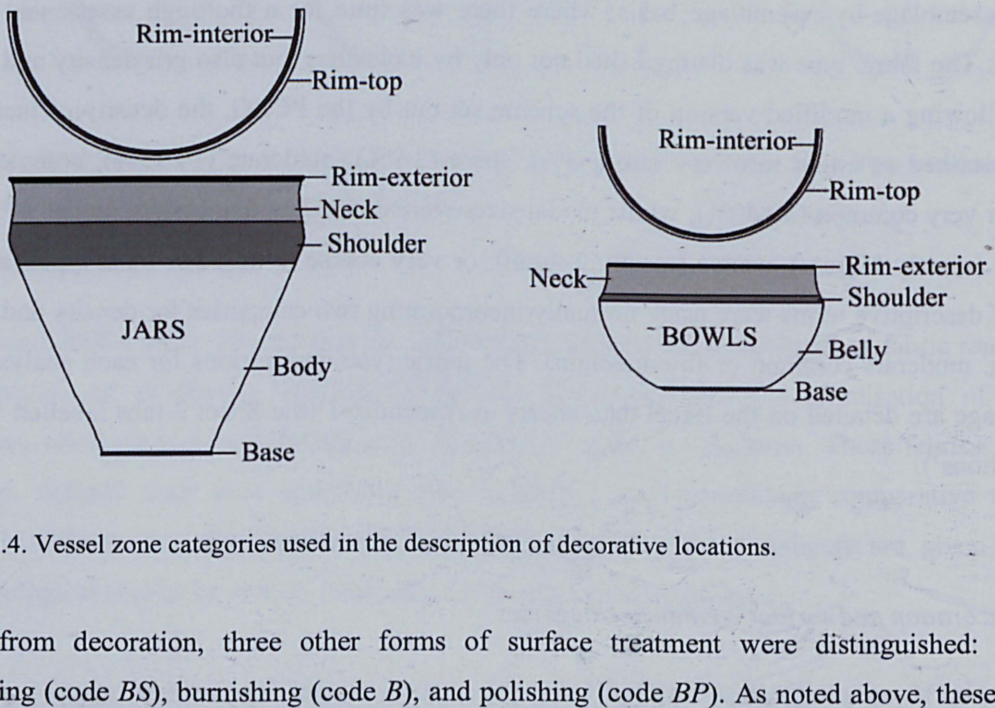


Figure 4.4. Vessel zone categories used in the description of decorative locations.

Aside from decoration, three other forms of surface treatment were distinguished: careful smoothing (code *BS*), burnishing (code *B*), and polishing (code *BP*). As noted above, these define the category of finewares. The distinction between the three treatments, however, was not always obvious, especially when sherds were slightly abraded. Though one would probably be justified in labelling all the treatments 'burnished', the specific code for burnishing was only used for sherds with light faceting visible on the surface (produced from the rubbing of leather-hard clay with a stone or round-ended tool). Likewise, the code for polishing was reversed for sherds whose surfaces had a lustrous sheen.

4.2.6 Residue categories

The survival of carbonised residues is largely dependent on the manner in which sherds are cleaned in the post-excavation process. As these delicate deposits are easily removed through scrubbing or vigorous washing, they tend only to be preserved on a small percentage of sherds. In this study three residue categories were distinguished - soot (code *soot*), carbonised food crusts (code *carb*) and limescale (code *lime*).

Soot was defined as a thin carbonized residue, which leaves a dark smudge when the thumb is wiped over the sherd surface (Figure 4.5A). Whilst these deposits presumably gathered whilst pots were being heated on open fires, in reality, some may be the remnants of burnt food crusts partially removed in cleaning. Carbonized food crusts were classified as thick residues which stood out slightly from the sherd surface, and could be picked off in flakes (Figure 4.5B). These result from foodstuffs becoming burnt whilst adhering to the wall of the pots, and like soot residues, are a direct indicator that the vessels was used for cooking/heating. Limescale was identified as a hard white deposit (Figure 4.5C). This would have formed on sherds when hard water containing dissolved calcium carbonate was boiled or left to stand in vessels for long periods.

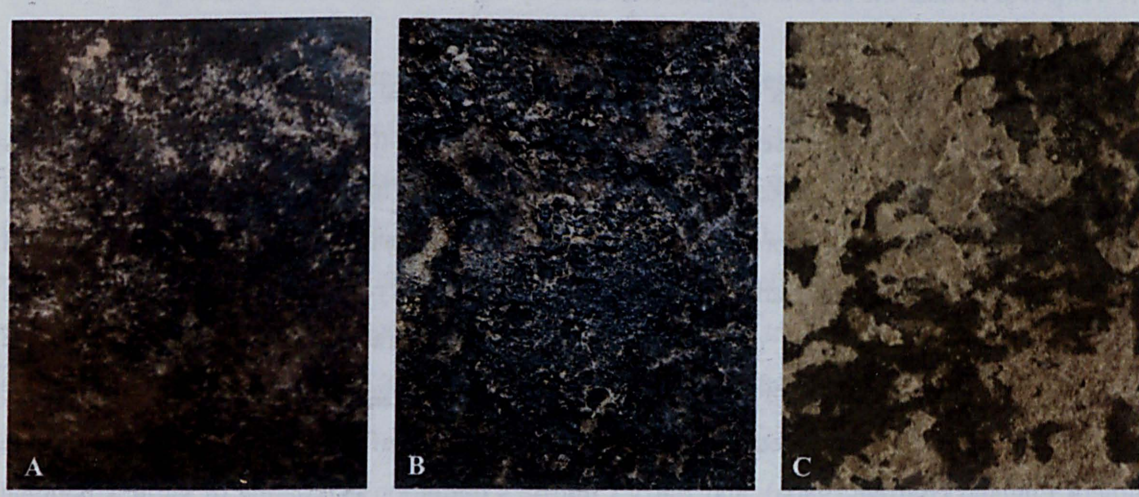


Figure 4.5. Residue categories. A. Soot; B. Food crust; C. Limescale.

4.2.7 Sherd size classifications

Studies of sherd size have proved useful in elucidating site formation processes and patterns of discard practice (e.g. Brudenell and Cooper 2008; Longley 1991; Sørensen 1996). Although there are no recognised guidelines for recording this attribute, the categories and methodology adopted in this study followed those previously used in the analysis of Late Bronze Age feature assemblages from Broom, Bedfordshire (Brudenell 2007, 244-245; Brudenell and Cooper 2008, 20-21). The procedure was designed to be simple and quick to use when recording large assemblages. It involved measuring and counting sherds in relation to two circles drawn with diameters of 4cm and 8cm. Sherds smaller than the 4cm circle were classified as *small*; sherds smaller than the 8cm circle but larger than the 4cm one were classified as *medium*; and sherd larger than the 8cm circle were classified as *large*.

4.3 The regional analytical scale

Variability in the broader character of the ceramic record was explored though analyses pitched at a regional scale. The approach considered a) temporal trends in the development of the PDR tradition in East Anglia, defining the character and chronology of the region's ceramic sequence; and b) spatial trends in the geographic distribution of sites and ceramic attributes, which considered the definition of 'style-zones' and their potential significance.

4.3.1 Temporal trends: the chronology and character of the PDR tradition in East Anglia

The sequence of ceramic changes across the Late Bronze Age and Early Iron are only understood in outline terms. Dating some assemblages or judging whether pottery groups from different areas are contemporary with one another can therefore be difficult. Whilst some of these uncertainties arise from the well-documented problems with the radiocarbon curve, the rarity of deeply stratified pottery deposits in East Anglia, and the general scarcity of pottery-metalwork associations, others derive from our basic models of ceramic succession. Current understandings of the typo-chronological development of PDR pottery in East Anglia rest on generalised sequences of ceramic change, conventionally structured by John Barrett's phasing of Late Bronze Age pottery in southern England (Barrett 1980a), and Barry Cunliffe's definition and dating of various regional Early Iron Age ceramic 'style-zones' (Cunliffe 1968; 2005). Though questions have periodically surfaced about the utility of this joint framework (e.g. Brudenell 2008a), neither model has been critically evaluated on a regional basis.

Problematically, both schemes are conditioned by material and sites from southern and not eastern England, with regional sequences built in reference to a relatively small body of type-site assemblages available for analysis prior to the late 1970s. Many of the difficulties we face in refining the ceramic series stem from our use of these generalising models which are founded on a very different material record to the one that we now have. As the number of excavated assemblages has increased in East Anglia- particularly in the last two decades- it has become ever more apparent that patterning in the character, chronology, and sequence of changes in the region's PDR tradition differs from that in neighbouring areas. A revision of the region's ceramic sequence therefore forms a central part of the thesis, not only as a means of providing a temporal framework for analyses pitched at the other scales, but as a means of understanding the *regional character* of the PDR tradition in the East Anglian context.

In order to frame an *independent* pottery sequence, free from models built on Wessex or Thames Valley material, chronologies have been constructed through the use of both relative and absolute dating techniques. In all, a three-pronged approach to sequencing was adopted. Firstly, the key sites with stratified pottery deposits spanning the Bronze Age-Iron Age transition were critically reviewed. These included the ringwork assemblages at Mucking and Springfield Lyons (Bond 1988; Brown and Buckley forthcoming), together with pottery from the enclosure ditches at Lofts Farm (Brown 1988b) and Broomfield (Atkinson 1995). Secondly, attempts were made to examine pottery groups found in direct association with typologically datable objects of metalwork, principally hoards. Finally, data from assemblages with published and unpublished radiocarbon determinations were drawn together and evaluated.

Ideally, the whole sequence would have been founded on a series of high integrity, high precision AMS radiocarbon determinations, so as to avoid some of the circular arguments which can emerge through relative dating and other typological approaches. Yet despite calls from ceramicists to date large pottery groups (frequently recommended in grey reports), these requests have often fallen upon deaf ears, meaning there are surprisingly few useful or reliable determinations for a region that has witnessed unprecedented levels of excavation[10]. More traditional typological methods of dating have therefore continued to play role in the analyses conducted.

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[10] As part of this thesis, a grant application was submitted to the NERC radiocarbon facility to fund 11 sherd residue dates from key type-site assemblages in East Anglia. Unfortunately the application was unsuccessful.

The objective, however, was not only to collect a body of dating information and order the pottery into a coherent sequence, but also to track the *nature* of ceramic change in East Anglia using the combined attribute data from phased assemblages. This has involved quantifying temporal transformations in the presence and frequencies of attributes such as fabric groups, forms, vessel sizes and schemes of decoration, in order to create a model of ceramic development *specific* to the region. The approach offers a finer understanding of the currency of individual ceramic attributes, and allows for the identification of points of continuity and change across the Bronze Age-Iron Age transition. More importantly, because the analyses collate data from numerous different assemblages, the study builds an 'average' picture of the composition of Late Bronze Age and Early Iron Age ceramic groups - bench marks (termed *standard ceramic profiles*) against which intra-regional variability is assessed in more detailed contextual work at the other analytical scales.

4.3.2 Spatial trends: geographic distributions in East Anglia

The second strand to the regional scale analysis involves an examination of spatial trends in the geographic distribution of sites and ceramic attributes. My approach has been geared towards the interrogation of a) the landscape patterning of sites/find spots with PDR pottery, and b) trends in the regional distribution of select vessel forms, fabric types and styles of decoration. These studies address the extent to which we may delineate ceramic 'regions within regions' using a combination of information from county HERs, and attribute data either newly quantified as part of this thesis, or available in published or unpublished reports. Both forms of analysis have entailed mapping the distribution of sites and ceramic find spots onto a series of digital base plans of East Anglia (downloaded from *Digimap,* http://edina.ac.uk/digimap/).

4.3.3 Spatial trends: landscape patterning

In order to explore the landscape patterning of sites with pottery, investigations have focused on the relationships between site/ceramic find spot location and the local geology, topography and hydrology. In each instance, the surface geology of the site/pottery find spot was recorded (using a 1:625000 scale map of the solid and drift geology of East Anglia, as reproduced in Figure 3.3, Chapter 3), along with height (to the nearest 5m OD) and distance to the nearest water source (springs, streams or rivers, recorded within 100m brackets); the latter two measurements calculated using the *Digimap* Carto programme (at the scale of 1:15000).

Given the scale of the maps employed, the recorded data are relatively crude, but nonetheless sufficient for analysing broad patterns at a regional level. Whilst providing a complete inventory of sites with Late Bronze Age and/or Early Iron Age pottery was never the primary goal of this study, effort was made to identify, record and map as many find spots as possible. In total, a list of 1218 sites was compiled and plotted. The information pertaining to these was primarily gathered from county HERs and online databases[11], including the Later Prehistoric Pottery Gazetteer.

The process of searching for relevant records was far from straightforward, particularly in the region's HERs. Variations in the way pottery had been dated and described over the years affected the number of records different searches yielded at each office. Although all the entries are now computerised, the records of older finds made before the late 1970s will often still carry the dating labels from the time they were originally indexed. Some Deverel-Rimbury ceramics, for example, are still listed as Late Bronze Age, whilst entries for earlier first millennium BC pottery occasional retain labels such 'Iron Age A', 'Halstatt', or in one or two instances, 'Late Celtic'!

More problematic, was the lack of certainty surrounding the date of most small assemblages of later prehistoric pottery, particularly in Norfolk and Suffolk. In Norfolk, for instance, direct searches for Early Iron Age assemblages yielded only 35 records. However, a broader search for Iron Age 'flint gritted' pottery produced 91 returns, with variations such 'flint tempered', 'flint-gritted', and 'gritty' adding another 94 records. Given what is known about the currency of burnt flint inclusions in later prehistoric ceramics, most of this material *potentially* belongs to the PDR tradition. Similar complications were encountered with that way that pottery had previously been defined and dated in entries in the Suffolk HER. Here, discussions with Colin Pendleton (Suffolk's HER officer) confirmed that many of the plain sherds once catalogued as 'Iron Age flint gritted pottery', would now probably be dated anywhere between the mid second and mid first millennium BC. In short, the result could not be taken at face value, and the wording of searches and dating filters had to be tuned to each individual HER. The knowledge and guidance of the HER officer was invaluable in this process, and multiple queries were used to capture the greatest number of potential records. However, this inevitably resulted in the duplication of data, which was compounded by my own use of other online recourses. Consequently it proved necessary to check and cross-reference all the records individually - the laborious task of scrutinising more than 3500 results!

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[11] Heritage Gateway (http://www.heritagegateway.org.uk/gateway/); Norfolk Heritage Explorer (http://www.heritage.norfolk.gov.uk/); Seax Archaeology (http://unlockingessex.essexcc.gov.uk/; Late Prehistoric Pottery Gazetteer, available from the Archaeological Data Service (http://ads.ahds.ac.uk/).

Based on the information gleaned from these records, the sites/find spots were assigned to one of four period-based categories: 1) Late Bronze Age; 2) Late Bronze Age or Early Iron Age; 3) Late Bronze Age and Early Iron Age; 4) Early Iron Age. A fifth category was reserved for sites/find spots of Bronze Age or Iron Age 'flint gritted pottery', which potentially dates to the PDR ceramic tradition. The categorised sites were sorted and labelled by county, and were input onto an Excel data sheet alongside the HER number, national grid reference, surface geology, height OD and the distance to the nearest water source. Site locations were also plotted on county maps, which are reproduced along with the data sheet in Appendix 2.

4.3.4 Spatial tends: type distributions and style-zones

Mapping the distribution of select vessel forms, fabric types and styles of decoration across a region is a conventional means of exploring geographic variability in late prehistoric potting traditions. In East Anglia, this has been approached through a study of Early Iron Age ceramic 'style-zones', following the classifications developed by Barry Cunliffe in the late 1960s and early 1970s (Cunliffe 1968; 1974). Style-zone 'thinking' is now ingrained in basic approaches to recording Early Iron Age pottery, where the objective is often to identify which style-group a given assemblage belongs to. In practice, however, these groups have proved to be somewhat ill-defined and inconsistent, creating confusion in the ways that they are deployed by ceramicists. This has not only resulted in the mislabelling of some assemblages, and ultimately, the creation of misleading regional patterns, but a more general failure to explore the issue of *how* potting traditions came to be shared over large areas. By concerning ourselves with the identification of style-zone affinities, we often forget to ask what these regional traditions tell us about communities in the Early Iron Age.

The theoretical basis of Cunliffe's style-zone model is brought into question in this thesis, as are the social inferences he draws from pottery distributions. I also challenge the material basis of the style-group categories, principally our reliance on a few loosely defined 'types' of decorated fineware bowl. Moreover, I dispute the common assumption that regional stylistic variability is confined to the period after 800 BC in the PDR tradition. These issues are explored afresh by mapping the regional distribution of a much wider range of ceramic traits, charting how spatial patterns shift throughout the course of the Late Bronze Age and Early Iron Age. Contrary to the approach adopted by Cunliffe, this methodology is not driven by a quest to define new style-zones. Rather I use these distributions as way of tracking the extent of social networks and communities in this period, and discuss how patterning might arise from variety of social mechanisms, each operating at different, but sometimes overlapping geographic scales.

4.4 The sites and settings analytical scale

A more detailed examination of ceramic variability is conducted through an analysis of the character and composition of site assemblages. As documented in Chapter 3, East Anglia has a diverse later prehistoric settlement record. Whilst open settlements of varying scale dominate the landscape, in some areas we also encounter ringworks, hillforts and even crannog-type platforms. These varying site forms were the social setting for different sorts of occupation and interaction, hinting at the existence of a range of different groups and communities. One of the aims of this study was to explore whether this variability was also reflected in the content and character of ceramic assemblages.

This necessitated a series of comparative studies which tackled the issue of assemblage variability in relation to different categories of site: *open settlements*, *aggregated pit-dominated sites*, *enclosures*, and *ringworks*. This involved collating and comparing pottery attribute data, so as to build a picture of the various different *site-type ceramic profiles* - an average ceramic 'finger-print' for each form of settlement. The analyses compare attribute compositions within and between the different site-type assemblages, in order to establish whether different vessel services were being deployed across these settings. The data have been compiled and presented in graphs and tables, whilst the analyses focus on variations in the frequencies of vessels classes, vessel forms, size representation, as well as differences in the proportion of burnishing and decoration. Patterns are also compared to those in the *standard ceramic profiles*, to assess the degree to which *site-type ceramic profiles* differ from period norms.

4.4.1 Site selection

With an emphasis on exploring ceramic variability at different geographic and contextual scales, it was recognised from the outset that a large number of site assemblages and archived pottery catalogues would need to be consulted, recorded, or reworked as part of this study. Although the basic aim was to collect as much relevant attribute data from large pottery groups as possible, a distinction was maintained between site assemblages newly recorded or reworked as part of this thesis (*primary data sites*), and data gleaned from other published and unpublished sources (*secondary data sites*).

The primary data sites analysed in this study include 40 recorded assemblages, totalling over 90, 000 sherds. The pottery data have been assembled and recorded following the methodology outlined in section 4.2, and form the basis from which most quantitative statements are made in this thesis, irrespective of the different scales at which the analyses are ultimately pitched. Although there was no strict criterion for assemblage selection, the broad objective was to target a range of large assemblages deriving from both open and enclosed settlement sites; particularly those excavated and recorded to a standard enabling material to be located within its depositional context (Figure 4.6, Table 4.3). Priority was given to sites subject to open area excavation, firstly because these interventions tended to yield the largest assemblages, and secondly, they afford the clearest insights into the character or 'type' of occupation. The main focus has therefore been upon assemblages recovered from moderate to large-scale excavations conducted in the context of rescue and commercially-funded projects in the last three decades.

Assemblages from a few smaller scale interventions, including trench and test-pit type investigations, were also included. These were judged to be important because a) a large quantity of pottery was recovered; b) the context, content and preservation of the assemblage was exceptional; c) the pottery had associated metalwork and/or radiocarbon dates; or d) the site location provided greater balance to regional coverage (though there is still a notable bias toward river valley sites in Essex and Cambridgeshire; see Figure 4.6). Most of East Anglia's 'classic' type-site assemblages were also targeted for re-recording and qualification, including material from collections/excavations conducted at West Harling (Apling 1932; Clark and Fell 1953), Fengate (Hawkes and Fell 1945), Linton (Fell 1953), Darmsden (Cunliffe 1968; Bulkwill 1979) and Cromer. With a few exceptions there is little information regarding the precise context of these finds, and almost no supporting archive material. These assemblages were nevertheless deemed significant because the ceramics selectively published from these sites continue to (erroneously) inform our expectations of what characterises the pottery traditions of this period in East Anglia.

The list of secondary data sites employed in this study is much larger, and includes a range of different sized assemblages analysed by various ceramicists over the last 50 years. In total, 75 site assemblages (including over 80,000 sherds) were selected for this purpose (Figure 4.6; Table 4.4). Although most of these pottery groups were not recorded using the same attribute classifications adopted here, many contained quantified data useful for comparative analyses and/or regional distributions. Even in instances where quantification and contextual information was lacking in publications/other secondary sources (principally HER entries), at the very least, the pottery illustrations and descriptions provided a qualitative means of stylistic comparison. On the whole, however, these assemblages provide only a supporting role in the analyses that follow.

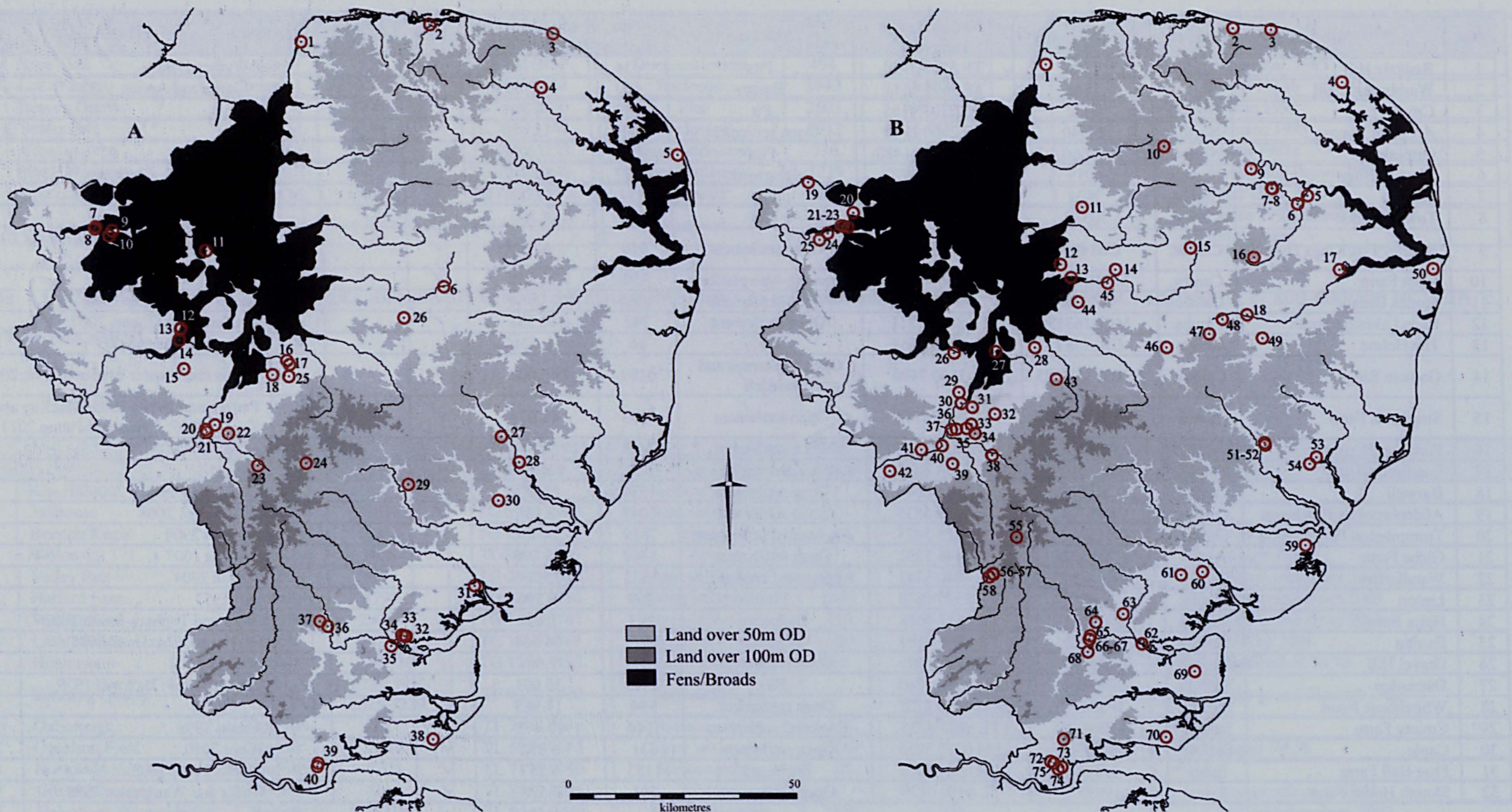


Figure 4.6. Map of primary and secondary data sites (for lists see Tables 4.3-4). A. Primary data sites (1-6, Norfolk; 7-23, Cambridgeshire; 24-30, Suffolk; 31-40, Essex). B. Secondary data sites (1-18, Norfolk; 19-42, Cambridgeshire; 43-54, Suffolk; 55-75, Essex).

No.	Site	County	HER number	National grid reference	Site type	No. sherds	Wt. (kg)	LBA	Earliest IA	EIA	Reference
1	Redgate Hill	Norfolk	1396	TF 6760 3950	Pits	436	1.768			✓	Wymer 1986
2	Warborough Hill	Norfolk	1863	TF 9605 4341	'Barrow	460	3.793		✓		Clarke and Apling 1935
3	Cromer	Norfolk	6452	TG 2308 4165	Pit	189	4.796		✓		-
4	Alysham Bypass	Norfolk	14940	TG 2060 2940	Open settlement	2040	13.420	✓		✓	-
5	Ormesby	Norfolk	52660	c. TG 5030 1480	Pits	454	7.028		✓		-
6	West Harling	Norfolk	6019	TL 9740 8570	Ringwork	2507	49.387		✓		Apling 1932; Clark and Fell 1953
7	Fengate	Cambs.	2824	TL 2056 9887	Pits	854	17.069		✓	✓	Hawkes and Fell 1945
8	Tower Works	Cambs.	50539	TL 2057 9872	Pits	455	4.500		✓		Evans *et al.* 2009
9	Bradley Fen/Kings Dyke	Cambs.	CB14606	TL 2430 98130	Open settlement	916	6.692	✓		✓	Knight 1999; Gibson and Knight 2002; 2009
10	Must Farm	Cambs.	MCB16817	TL 2369 9683	Crannog-type platform	950	27.855	✓			Knight 2009
11	Stonea Grange	Cambs.	06057a	TL 4490 9370	Open settlement	1263	11.564	✓			Jackson and Potter 1996
12	Rhee Lakeside South	Cambs.	MCB16315	TL 3860 7711	Open settlement	742	11.538	✓		✓	Brudenell and Evans 2007
13	The Holme	Cambs.	CB14587	TL 3849 7661	Pit	66	1.424			✓	Evans and Patten 2003
14	Godwin Ridge	Cambs.	ECB3136/3175	TL 3850 7400	Open settlement and midden	6189	45.009	✓			Evans and Vander Linden 2009a; 2009b
15	Striplands Farm	Cambs.	MCB16340	TL3941 6743	Open settlement	4153	41.079	✓			Pattern and Evans 2005; MacKay and Knight 2007; Evans and Patten 2011
16	Fordham Bypass	Cambs.	CB14997,	c. TL 6300 6890	Open settlement	2404	31.310	✓		✓	Mortimer 2005
17	Landwade Road	Cambs.	MCB16109	TL 6314 6831	Aggregated settlement	10522	118.877			✓	-
18	Burwell	Cambs.	MCB17427	TL 5915 6646	Open settlement	1534	23.224	✓			Baily and Popescu 2006
19	Addenbrooke's Hutchison	Cambs.	CB15770	TL 4625 5535	Open settlement	1049	8.156	✓			Evans *et al.* 2008
20	Trumpington Park & Ride	Cambs.	CB15749	TL 4425 5427	Aggregated settlement	7819	94.146		✓	✓	Hinman 2004
21	Glebe Farm	Cambs.	MCB16972	TL 4446 5391	Open settlement	1468	11.083			✓	Armour 2007
22	Wandlebury	Cambs.	CB15254	TL 4940 5343	Aggregated settlement	1823	15.259			✓	French 2004
23	Linton	Cambs.	6069	TL 5570 4630	Pits	309	9.396			✓	Fell 1953
24	Hales Barn	Suffolk	WTH011	TL 6617 4688	Enclosure	203	1.682	✓			Bales and Topham-Smith 2002
25	Exning	Suffolk	EXG082	TL 6267 6584	Enclosure	6577	94.514		✓		Craven and Brudenell 2011
26	Gravel Hill	Suffolk	BNH043	TL 8835 7905	Open settlement	1037	9.661		✓		SCCAS 2002
27	Darmsden	Suffolk	BRK009	TM 0965 5265	Pit	2343	35.091			✓	Cunliffe 1968; Balkwill 1979
28	Whitehouse Road	Suffolk	IPS247	TM 1329 4722	Open settlement	994	11.985			✓	-
29	County Farm	Suffolk	CHT009/015	TL 8885 4235	Enclosed settlement	1046	13.072	✓		✓	Abbott 1998
30	Caple	Suffolk	CSM030	TM 0875 3855	Open settlement	631	6.852	✓			Tabor 2010
31	Frog Hall Farm	Essex	19867	TM 0347 1965	Enclosure	1183	6.257	✓			Brooks 2001; 2002
32	Slough House Farm	Essex	19895	TL 8750 0920	Open settlement	791	6.528	✓		✓	Wallis and Waughman 1998

Table 4.3. Primary data sites. Ticks indicate the date of the main components in each assemblage. LBA, c. 1150-800 BC; Earliest IA c. 800-600/500 BC; EIA, c. 600/500-350/300 BC.

No.	Site	County	HER number	National grid reference	Site type	No. sherds	Wt. (kg)	LBA	Earliest IA	EIA	Reference
33	Rook Hall	Essex	7914	TL 8780 0880	Open settlement	494	4.206			✓	Atkins *et al.* 1985
34	Lofts Farm	Essex	7899, 7904	TL 8687 0934	Enclosure	3949	46.882	✓	✓	✓	Brown 1988b
35	Beacon Green	Essex	8028	TL 8440 0700	Pits	2603	29.110			✓	Bedwin 1992
36	Broomfield	Essex	6142	TL 7050 1140	Enclosure	1912	16.953	✓			Atkinson 1995
37	Broads Green	Essex	16955	TL 6855 1222	Open settlement	336	2.481	✓			Brown 1988a
38	North Shoebury	Essex	13852	TQ 9320 8640	Open settlement	1739	65.926	✓		✓	Wymer and Brown 1995
39	Mucking North Ring	Essex	13834	TQ 6755 8112	Ringwork	10919	133.445	✓	✓		Bond 1988
40	Mucking South Rings	Essex	13841	TQ 6730 8500	Ringwork	10030	118.358	✓	✓		Clarke 1993; Evans and Lucy forthcoming

Table 4.3. (Cont.). Primary data sites. Ticks indicate the date of the main components in each assemblage. LBA, c. 1150-800 BC; Earliest IA c. 800-600/500 BC; EIA, c. 600/500-350/300 BC.

No.	Site	County	HER number	National grid reference	Site type	No. sherds	Wt. (kg)	LBA	Earliest IA	EIA	Reference
1	Ken Hill	Norfolk	1487?	TF63*	Surface scatter	317	3.508	✓	?	✓	-
2	Salthouse	Norfolk	29071	TG 0900 4300	Surface scatter	124	0.887		?	✓	-
3	Beeston Regis	Norfolk	15534	TG 1750 4279	Hoard	?	?	✓			Lawson 1980ab
4	Witton OS 171	Norfolk	7028	TG3260 3120	Pits	?	?	✓			Lawson 1983
5	Valley Belt	Norfolk	9589	TG 2460 0600	Open settlement	2208	17.678	✓	✓	?	Ashwin and Bates 2000
6	Harford Farm	Norfolk	9794	TG 2249 0430	Open settlement	1643	9.785	✓	?		Ashwin and Bates 2000
7	Watton Road	Norfolk	29057	TG 1660 0769	Open settlement	780	9.352	✓			Ashwin and Bates 2000
8	Little Melton	Norfolk	50209	TG 1676 0769	Open settlement	1881	18.246	✓	✓		Watkins 2008
9	Honingham	Norfolk	17163	TG 1211 1183	Surface scatter	79	0.316		?	✓	Unpublished NCM
10	Bittering Quarry	Norfolk	13023/15910/ 13025/7239	TF 9280 1710	Open settlement	?	?		?	✓	Ashwin and Flitcroft 1999
11	Oxborough	Norfolk	2621	TF 7448 0346	Surface scatter	136	1.004			✓	-
12	Cauldron Field	Norfolk	1588	TL 6969 9083	Open settlement	1000+	?			✓	Shand 1985b
13	Hockwold-cum-Wilton	Norfolk	5394	TL 7170 8790	Surface scatter	10	0.144			✓	-
14	Grimes Graves	Norfolk	5640	TL 8169 8986	Midden	?	?	?			Longworth *et al.* 1988
15	Honeypots Plantation Site	Norfolk	36218	TL 9844 9440	Open settlement	1099	9.079	✓	✓		NAU Archaeology 2007

Table 4.4. Secondary data sites. Ticks indicate the date of the main components in each assemblage. LBA, c. 1150-800 BC; Earliest IA c. 800-600/500 BC; EIA, c. 600/500-350/300 BC.

No.	Site	County	HER number	National grid reference	Site type	No. sherds	Wt. (kg)	LBA	Earliest IA	EIA	Reference
16	Bunwell	Norfolk	10003	TM 1269 9275	Surface scatter	5	0.114			✓?	-
17	Pheasants' Walk	Norfolk	44609	TM 3150 8910	Open settlement	1470	10.129		✓		Stone 2009
18	Roydon	Norfolk	12834	TM 1079 7973	Ring ditch	200+	2.000+	?	?	✓?	-
19	Northborough	Cambs.	?	TF1501 0715	Open settlement	1467	6.075	✓			Knight 1998
20	Eye Quarry	Cambs.	?	TF 2365 0193	Open settlement	2456	15.147	✓	✓	✓	Patten 2008
21	Vicarage Farm	Cambs.	50545	TL 2090 9940	Open settlement	?	?		?	✓	Pryor 1974
22	Newark Road	Cambs.	51211	TL 2150 9920	Open settlement	?	?	✓			Pryor 1980
23	Flag Fen	Cambs.	5576	TL 2272 9889	Platform structure	?	?	✓	?		Pryor 2001
24	Woodston	Cambs.	?	c. TL 1780 9750	Findspot	13	0.464		✓		-
25	Orton	Cambs.	01807d?	TL 1590 9610	Findspot	104	0.795		✓		-
26	Lingwood	Cambs.	8396	TL 4513 7137	Pits	177	1.6		✓		Evans 1998
27	Dimmocks Cote	Cambs.	ECB3315	TL 5451 7186	Open settlement	456	3.822			✓	Gilmour *et al.* 2010
28	Isleham	Cambs.	7592	TL 6330 7270	Hoard	?	?	?			Malim 2010
29	Milton Landfill Site	Cambs.	CB15707	TL 4610 6266	Open settlement	c. 4000	c. 50.000			✓	Brudenell and Philips 2009
30	Scotland Road	Cambs.	MCB17140	TL 4521 5996	Pit	62	0.301			✓	Mackay 2009
31	The Marshall Way	Cambs.	5151	TL 4880 5920	Findspot	?	?			✓?	-
32	Great Wilbraham	Cambs.	6468	TL 5390 5780	Pit?	?	?			✓	-
33	War Ditches	Cambs.	4963	TL 4840 5550	Hillfort	520	3.084			✓	White 1964; Pickstone and Mortimer 2010
34	Wandlebury	Cambs.	CB15254	TL 4959 5346	Hillfort	525	13.018			✓	Hartley 1957
35	Hills Road	Cambs.	5119	TL 4750 5450	Findspot	c. 30	?		✓		Collins 1948; Fell 1949
36	Clay Farm Field E	Cambs.	MCB16973	TL 4510 5437	Pit	562	4.528			✓	Evans *et al.* 2006
37	Trumpington Meadows	Cambs.	MCB17987	TL 4400 5430	Aggregated settlement	492	4.299	✓		✓	Brudenell and Dickens 2007
38	Rickett Field	Cambs.	MCB17382	TL 5270 4857	Pit	187	1.488			✓	Armour 2006
39	Thriplow	Cambs.	MCB18452	TL 4420 4700	Enclosure	250	2.278		✓		Brudenell 2008b
40	Harston Mill, Cambs.	Cambs.	CB15256	TL 4176 5064	Aggregated settlement	10444	10.9941			✓	O'Brien forthcoming
41	Edix Hill, Cambs.	Cambs.	9832A	TL 3740 4950	Aggregated settlement	6396	80.362			✓	Malim 1997
42	Abington Piggots	Cambs.	3320a	TL 3000 4490	Findspot	?	?			✓	Fox 1924
43	Moulton, Suffolk	Suffolk	MUN038-9	TL 6768 6543	Open settlement	607	7.374			✓	Bush 2011
44	Lakenheath	Suffolk	LKH014	TL 7325 8305	Pits	?	?			✓	Gell 1949
45	Game Farm	Suffolk	BRD 154	TL 7968 8665	Open settlement	1290	11.362	✓			Gibson 2004
46	Ixworth Thorpe	Suffolk	IXT011	TL 9248 7237	Findspot	?	?			✓	Suffolk HER
47	Hinderclay	Suffolk	HNY002	TM 0200 7551	Pits	?	?		?	✓	Cunliffe 1968
48	Redgrave	Suffolk	RGV 028	TM 0499 7877	Findspot	?	?			✓?	Suffolk HER
49	Hatismere High School	Suffolk	?	c.TM 1380 7404	Open settlement	1995	21.196	✓			S. Percival *pers comm.*
50	Carlton Colville	Suffolk	CAC035	TM 5275 8944	Ringwork	657	4.042	✓			Heard 2010

Table 4.4. (Cont.). Secondary data sites. Ticks indicate the date of the main components in each assemblage. LBA, c. 1150-800 BC; Earliest IA c. 800-600/500 BC; EIA, c. 600/500-350/300 BC.

No.	Site	County	HER number	National grid reference	Site type	No. sherds	Wt. (kg)	LBA	Earliest IA	EIA	Reference
51	Barham BRH015	Suffolk	BRH015	TM 1345 5142	Opens settlement	828	?	✓		✓	Martin 1993
52	Barham BRH017	Suffolk	BRH017	TM 1361 5093	Pits	184	?			✓	Martin 1993
53	Little Bealings BEL010	Suffolk	BEL010	TM 2493 4819	Open settlement	197	?			✓	Martin 1993
54	Little Bealings BEL018	Suffolk	BEL018	TM 2329 4666	Pits	?	?				Martin 1993
55	Broxted	Essex	?	TL 5814 3056	Hoard	47	0.26	✓			McLean 2008
56	Stantsed Site CIS	Essex	9029	TL 5225 2245	Open settlement	3965	28.44	✓		✓	Havis and Brooks 2004
57	Stantsed Site SCS	Essex	7284	TL 5225 2241	Open settlement	13492	120.1	✓		✓	Havis and Brooks 2004
58	Stanstead M11 Site	Essex	46486	TL 5160 2169	Open settlement	1617	12.664	✓		✓	Cooke *et al.* 2008
59	Little Oakley	Essex	3313-4	TM 2220 2920	Open settlement?	1082	?			✓	Barford 2002
60	Colchester Garrison	Essex	46187	c. TL 9930 2335	Open settlement	549	4.886	✓	✓	✓	Brooks and Masefield 2005; Pooley *et al.* 2006
61	Abbotstone Field	Essex	1167-8	TL 9430 2270	Open settlement?	211	1.313	✓		✓	Pooley and Benfield 2005
62	Hall Road	Essex	?	c.TL80	Opens settlement	1138	12.222	✓			Newton 2008
63	Ivy Chimneys	Essex	14044	TL 8110 1360	Open settlement?	1150	12.967			✓	Turner 1999
64	Great Holts Farm	Essex	18646	TL 7515 1190	Open settlement	829	14.245	✓		✓	Germany 2003
65	Boreham Interchange	Essex	9922	TL 7390 0895	Open settlement	2086	15.48	✓			Lavender 1999
66	Springfield Park	Essex	17780	TL 7380 0840	Open settlement	3517	25.567	✓			Manning and Moore 2004
67	Springfield Lyons	Essex	5788-92	TL 7360 0825	Ringwork	13929	90.089	✓	✓?		Buckley and Hedges 1987; Brown and Buckley forthcoming
68	Great Baddow	Essex	5752	TL 7350 0538	Ringwork	440	2.707	✓	✓?		Brown and Lavender 1994
69	Asheldham Camp	Essex	12051-60	TL 9720 0120	Hillfort	c. 100	?			✓	Bedwin 1991
70	Foxhall Farm	Essex	14530	TQ 9060 8800	Open settlement	2424	15.07		?	✓	Ecclestone 1995
71	Langdon Hills	Essex	5173	TQ 677 862	Hillfort	?	?	?	✓		Brown and Buckley 1985
72	Rectory Road	Essex	5285	TQ 6470 8115	Open settlement?	?	?			✓	Wilkinson 1988
73	Linford	Essex	5150-53	TQ 669 802	Open settlement	?	?		✓?	✓	Barton 1962
74	Rainbow Wood	Essex	1733	TQ 6640 7990	Open settlement?	?	?			✓	Pottery 1974
75	Orsett	Essex	5158-9	TQ 6530 8060	Opens settlement	?	?		✓?	✓	Hedges and Buckley 1978

Table 4.4. (Cont.). Secondary data sites. Ticks indicate the date of the main components in each assemblage. LBA, c. 1150-800 BC; Earliest IA c. 800-600/500 BC; EIA, c. 600/500-350/300 BC.

4.5 Micro analytical scale

The final and most close-gained scale of analysis focuses on patterns of ceramic deposition on settlement sites. Deposition has emerged as major theme in prehistoric studies in the last three decades, but most of our attention has been directed towards the identification and interpretation of formalised acts of interment (Chapter 2). Despite several authors highlighting the complex processes which lie behind the formation of ceramic deposits (e.g. Needham and Spence 1997; Hill 1995; Brudenell and Cooper 2008), specialists have become preoccupied with the issue of 'special' or 'ritual deposition', ignoring other possible actions and motivations involved in depositional practice. Missing from our accounts is an appreciation of how pottery deposits may be configured and buried under a range of different circumstances, not all of which were conducted with the same degree of care or consideration.

At a more basic level, we lack a clear understanding of the constitution of our ceramic record, tending to discuss aspects of pottery deposition without adequate detailing of the content, condition and history of the materials implicated. This makes is hard address some simple questions, such as how does the character of pottery deposition work in relation to different features and different site-types? Are certain types or groups of pot repeatedly singled out for specific kinds of depositional treatment? Do the details of how ceramics get incorporated into deposits help us reflect upon the significance of the vessels themselves?

With these questions in mind, the approach taken here was designed to explore general trends in ceramic deposition in East Anglia, with an eye to characterising a range of pottery deposits from settlement features. The aim was to track the different ways that pots entered the ground, identifying various depositional 'pathways' through site-specific case studies. This involved documenting the quantity and condition of pottery deposited in various types of feature including pits, postholes, roundhouses, four-post structures, wells/water-holes, tree-throws and hollows. Attempts were also made to estimate the quantities of pottery 'missing' from the archaeological record. This was achieved by comparing vessel counts against rim EVE's (*Estimated Vessel Equivalents* – see Orton *et al.* 1993): the discrepancy between the two values giving an indication of the percentage of pottery 'missing' from the sampled (excavated) population.

The feature information utilised in these studies was drawn from archived context descriptions and lists reproduced in unpublished grey reports. An overview of the literature used in Chapter 3 suggests that feature classifications have changed little in the last four decades, and are used in a broadly consistent manner between archaeological units. This means we can be reasonably confident that feature types reported in the archives are compatible.

The site-specific case studies were used to illustrate the different that ways that pots entered the ground in different settings. Here, contextual analysis explored variations within assemblages, in an attempt to tease out the practices responsible for the formation of specific deposits. In these studies, horizontal spatial patterning was explored though plotting the distribution of pottery across scanned and digitised site plans, whist information from sections and context sheets was used to examine vertical relationships within features with multiple fills. The plotting of sherd refits was also employed as a means of exploring the post-breakage biographies of individual vessels, whilst the overall condition of material within deposits was assessed through the analysis of sherd sizes, a comparison of mean sherd weight values, and calculations of the surviving percentages of vessel rims and bases.

Though the choice of case study sites was largely governed by my ability to highlight a particular depositional 'pathway', it was also based on the quality of the archives, and ease of access to material. For the contextual analysis, it was essential that pottery could be sourced back to a feature, fill or layer, locatable on both sections and base plans. This was not possible for all the primary data sites, either because a) the excavation records were of poor quality (as with many of the region's 'old' type-site assemblages); b) the archives could not be located at the time of visiting, or c) the archives were still being worked upon and were unavailable. The time required for programmes of sherd refitting also restricted the choice of site. As refitting is a slow, time-consuming exercise (requiring space to lay out material and search for cross-context joins), it was generally only conducted in instances where assemblages could be borrowed for long periods from archaeological units. Removing collections from Museums was not an option, and few had the available space to allow these refitting programmes to be conducted on location.

4.6 Summary and thesis structure

This chapter has outlined my methodology for exploring the character and context of the PDR ceramic tradition. In line with the argument that social life in the Late Bronze Age/Early Iron Age was probably resolved at a variety of cross-cutting scales, I have pitched my analyses in a multi-scalar fashion. This approach allows us to analyse particular patterns of material practice, operating at the scale of individual sites and settlements, *and* traditions in practice shared between communities at broader geographic (and by implication, social) scales. In this respect, it offers a means of solving some of the problems identified in Chapter 2.

The organisation of the remaining chapters in this thesis echo the structure of the analytical scales discussed above. Chapters 5 and 6 explore material patterning at the level of the region. Chapter 5 addresses temporal trends in relation to ceramic chronology and regional sequence, whilst Chapter 6 examines broad spatial trends in site patterning and attribute distribution. Chapter 7 then goes on to compare and contrast ceramic compositions from different kinds of settlement in the sites and settings analytical scale, while Chapter 8 considers variability in depositional practices at the micro analytical scale. The structure therefore moves from a consideration of regional trends, down though an exploration of inter-site variability and depositional practice. However, these analytical scales are not divorced from one another. On the contrary, each 'higher-level' analysis provides the context for the next, so that the detail is progressively teased out as the thesis progresses.

Chapter 5

Chronology, sequence and ceramic change

'Chronology is a major problem for the earlier first millennium BC. Research is needed on regional pottery sequences, supported by absolute dating programmes' (Haselgrove *et al.* 2001, 31).

5.1 Introduction

Despite the more regular use of independent dating techniques in archaeology, pottery still plays a pivotal role in the phasing of most later prehistoric sites in East Anglia and elsewhere. As a consequence, the precision of pottery chronologies has a major impact on our ability to comprehend settlement sequences and landscape changes at both local and regional scales. Given this broader relevance, it is of great significance that the study of large pottery assemblages from recent excavations is shedding new light on the typo-chronological development of later prehistoric ceramic traditions in East Anglia. Stimulated by a small but steadily growing number of useful radiocarbon determinations, and an awakening realisation of the implications behind the recent realignment of Bronze Age metalwork chronologies, this work is now casting doubt on the utility of traditional models of ceramic succession.

This chapter offers a fresh characterisation of the content, currency and chronology of pottery belonging to the PDR tradition in East Anglia. The core objective is to track the regional development of PDR ceramics, and, using the primary data sites, document temporal changes in vessel attributes including fabrics, forms, sizes and styles of surface treatment. The chapter unfolds by outlining the problems of developing a regional ceramic sequence, and gives a critical appraisal of current models of ceramic change. Section 5.3 outlines the chronological parameters of the study, the terminology adopted for discussing periodisation, and the scheme's alignment with British metalwork assemblages. The core discussions in sections 5.4-5.7, however, are given over to documenting the specifics of ceramic change. For reasons discussed below, the periodisation of the sequence is to some extent still reliant on an intuitive reading of trends in the ceramic data set. Nevertheless, actual calendar dating of these changes is informed by, and discussed in relation to, a synthesis of relevant radiocarbon determinations and other absolute dates, as well as a consideration of select pottery-metalwork associations. This is a detailed and thorough treatment of the material and dating evidence, but one which is needed to overcome a number of assumptions and poorly resolved issues. A lot of data are presented in the following sections, and to aid the reading of some of the more complex tables and figures, these are reproduced in a larger format in

Appendix 3 (i.e. Figures 5.2-3, 5.12, 5.19, 5.25; Tables 5.7-8, 5.14, 5.20), along with the rim, base and vessel form series presented in Chapter 4 (Figures 4.1-3).

5.2 Problems of chronology

There are a number of factors which make it difficult to develop a regional ceramic sequence for the Late Bronze Age and Early Iron Age in East Anglia. For a start, many of the forms and fabrics which characterise pottery traditions in this period have long currencies which span the conventional Bronze Age/Iron Age divide, with some characteristics persisting from c. 1150-350 BC. As a result, few pottery 'types' can be dated reliably within 200-300 year time-blocks, despite there being a relatively wide repertoire of vessels. This imprecision is difficult to resolve because the region boasts few sites with large stratified ceramic groups spanning the Late Bronze Age and Earliest Iron Age, thwarting attempts to construct relative chronologies. Whilst sequences of ceramic change have been formulated from the Essex ringwork and enclosure sites (see Barrett and Bond 1988; Brown 1988b), the published radiocarbon dates from these stratified deposits are too few and too imprecise to allow a detailed, reliable ceramic sequence to be formulated. The relatively limited publication of these major assemblages exacerbates the problem, as does a lack of detailed quantified data from these and other major regional groups. It therefore remains difficult to judge when changes in vessel forms and decorative treatments occurred. It also makes it hard to track the extent to which the transition from PDR Plain to Decorated wares *in this region* coincided with the recently revised national chronology for the Bronze Age-Iron Age transition (Needham 2007).

Ceramic phases have in general tended to be fixed to metalwork chronologies, often with little direct justification. The British Late Bronze Age sequence has always been dictated by the metalwork; ironically a material rarely recovered from settlement sites, and rarely retrieved under controlled conditions. Although pottery bears the brunt of the dating duties in archaeology, it is the metalwork which has seen the lion's share of absolute dating programmes, leaving ceramicists struggling to link pottery chronologies to metalworking phases. This maintains the assumption that these materials changed in tandem, throwing understandings of ceramic sequence into disarray in the late 1990s, when the date of the Wilburton and Ewart Park phase metalworking complexes were adjusted and significantly backdated. In East Anglia, a link to these sequences is hampered by a dearth of assemblages in direct association with closely datable items of metalwork, despite the region being renowned for its large number of bronze hoards and stray finds. Even where rare associations have been recorded, the possibilities of redeposition or heirloom survival make interpretation problematic. Another hindrance to refinement is the notorious radiocarbon calibration platform of c. 800-400 BC, which severely limits the ability to chart developments within the Earliest and Early Iron Age. In some quarters, unfortunately, the idea that radiocarbon dates are 'wasted' on sampling material thought to belong to this period has also resulted in few absolute dates being sought for Early Iron Age pottery groups. This is part and parcel of a broader failure to construct a robust, region-wide sampling strategy aimed at collecting absolute dates for late second and early first millennium BC ceramic groups.

Of all the problems associated with constructing a secure ceramic sequence, the lack of a comprehensive dating programme is probably the greatest impediment. Our failure to implement such a programme in the last decade is arguably one of the gravest oversights in East Anglian archaeology. Other obstacles, on the other hand, are difficult to overcome; limitations imposed by the nature of the region's archaeological record, such as the paucity of stratified pottery sequences in deep-ditch contexts or surface middens, or problems associated with independent dating methods.

Underlying these issues, however, are a set of more deeply rooted problems associated with the way that ceramic change is currently conceptualised. In the last few decades, it has been widely accepted that the pottery traditions of the Late Bronze Age and Early Iron Age in northern East Anglia form an unbroken ceramic sequence with only subtle changes to fabrics, forms and decorative schemes, rather than wholesale changes in vessel class (e.g. Martin 1999b, 74). Although this perspective has its merits, statements to this effect have tended to over-emphasise the degree of continuity between the two periods, creating a picture of a relatively static ceramic tradition. This consensus has inhibited the search for a refined sequence, and has encouraged the use of broad dating brackets, in some instances encompassing the whole of the Late Bronze Age and Early Iron Age. With more and more pottery now at the disposal of ceramicists, it is increasingly apparent that many of the uncertainties surrounding classification, terminology and dating do not stem from a lack of evidence, but from problems with the models which frame the region's ceramic sequence.

5.2.1 Problems with foundation models

For over 30 years, two models have framed understandings of the region's Late Bronze Age and Early Iron Age ceramic record. These are John Barrett's concept of a Late Bronze Age PDR ceramic tradition, formulated at the end of the 1970s (Barrett 1978; 1979; 1980a), and Barry Cunliffe's identification and ordering of regional Early Iron Age pottery style-groups, developed during the late 1960s and early 1970s (Cunliffe 1968; 1974). This joint framework continues to underpin virtually all discussions of late second and early first millennium BC pottery, and provides the current chronological and classificatory basis for dating and distinguishing the region's ceramic groups. However, it is now becoming evident that both components of this framework are flawed on evidential and conceptual grounds.

To explore these problems in more detail, it is necessary to evaluate each model in turn. As highlighted in Chapter 2, Barrett's recognition of a Late Bronze Age PDR ceramic tradition was a turning point in British Bronze Age studies, which overhauled some of the long held but erroneous assumptions about the chronology of earlier first millennium BC pottery. It questioned the traditional Early Iron Age date assigned to many assemblages, and back-dated much of the pottery to the Late Bronze Age, filling in a (then) void in the settlement and ceramic sequence. Using assemblages from largely old excavations, a limited number of stratigraphic and metalwork associations, as well as a handful of poor-resolution radiocarbon dates, Barrett (1980a) proposed a linear sequence of development from Plain to Decorated wares, which bridged the Late Bronze Age and Early Iron Age.

Although the model has found wide acceptance, it is important to stress the *general* nature of the scheme, which was designed to characterise *broad* changes to the ceramic repertoire across the whole of lowland Britain. Other than a relatively short summary of transformations in vessel class and decoration, the specificities of ceramic change received no detailed discussion. Likewise, the beginning, end and transition dates of the Plain and Decorated phases remained loosely defined. Though these omissions reflect the quality and quantity of data then available, it is still surprising that such a cursory overview of trends gleaned from old excavations and un-quantified groups of pottery became the corner-stone of nearly all subsequent discussions of Late Bronze Age ceramics in southern Britain.

Barrett's generalised model has undoubtedly provided an important structure for regional ceramic studies, but has tended to be adopted without critical assessment (or revision in recent decades). The model essentially remains grounded in sequences more securely established in Wessex and the Thames Valley, rather than those gleaned from East Anglia itself. In fact, out of the 56 principal assemblages mentioned in Barrett's text (*ibid*, 299, Fig. 1), only eight derive from the study area; two of which are Middle Bronze Age in date (Grimes Graves and Ardleigh). To some extent then, the model has been imposed upon the material from the region, without serious questions being raised as to whether patterns revealed in other areas are applicable.

There are other problems too. Despite three decades of subsequent excavation, stratified sequences which demonstrate a clear linear progression from Plain to Decorated wares in the East Anglia have been confined to just a handful of enclosure sites in Essex, notably the Mucking and Springfield ringworks (Barrett and Bond 1980; Brown forthcoming) and the ditch deposits at Lofts Farm (Brown 1988b). As discussed in Chapter 3, these sites can hardly be considered 'typical' farmstead-type settlements, and may have been the setting for specific kinds of activity that necessitated the use/deposition of specialised ceramic sets. Just because these particular deposits demonstrate a sequence of ceramic change, it does not automatically follow that their patterns are representative of broader transformations to the contemporary ceramic repertoire. As Knight (2002, 126) notes, for large areas north of the Thames, there is often insufficient evidence to establish if, how, or in what ways, these patterns manifest as broader trends.

Unfortunately, the unique has tended to be taken as typical in East Anglia, primarily because these sites were some of the first Late Bronze Age settlements to be identified, excavated and published - most acquiring 'type-site' status. Above all else, this fluke of history has introduced false expectations about what characterises the region's different PDR assemblages, fostering a misplaced dependence on the presence/absence of decoration as the primary criterion for phasing pottery. The simple lesson is that reliable and broadly applicable ceramic sequences cannot be constructed without understanding site histories, or giving some consideration of the social and material contexts in which the pottery was ultimately deposited.

In contrast to Barrett's generalising scheme, which identified widespread transformations in the ceramic repertoire, Barry Cunliffe's definition and ordering of Early Iron Age style-zones was designed to be regionally specific. Instead of being a purely chronological model that simply charted the typological development of wares in this period, his concept of the style-zone included a spatial and cultural dimension, founded on the recurring association at different sites of a limited range of ceramic type-fossils; principally different forms of decorated fineware bowl. Named after type-site assemblages, the East Anglian style-groups (which have included *West Harling-Staple Howe*, *Fengate-Cromer*, *Ivinghoe-Sandy*, *Darmsden-Linton*, *Chinnor-Wandlebury*, *West Harling-Fengate* (Cunliffe 1974, 34-35, 39-40; 2005, 94-97, 101-102) were mainly dated by typological comparison, referencing pottery sequences from elsewhere in southern Britain, as well as parallels to continental ceramics (metalwork associations and radiocarbon dates playing a minor role).

As a chronological and classificatory tool for discussing the region's Early Iron Age ceramics, the Cunliffe model falls short of being an ideal foundation, though it continues to be used as such in current practice. Unlike Barrett's scheme, which is directly focused on ceramic sequence (albeit with few specific details), Cunliffe's model is first and foremost geared towards the delineation of regional groupings, with the primary goal of dividing up the cultural map of Iron Age Britain; the details of ceramic change being of secondary importance. In other words, the model is ill-suited to the role ceramicists currently want/force it to play in regional pottery sequences.

When initially formulated in the late 1960s, this style-zone approach was entirely justifiable (Cunliffe 1968). Indeed, it was a novel re-working of the ceramic evidence - previously shackled to Hawkes' ABC scheme - which ordered the region's small number of largely un-quantified and de-contextualised assemblages then available for study; few of which were excavated under controlled conditions. The emphasis on identifying recurrent ceramic type-fossils was also in keeping with the methods then advocated by Hodson, which clearly influenced Cunliffe's approach (see Chapter 2). However, as a guide to ceramic chronology and sequence today, the model is somewhat flawed by its original objectives, and despite being updated and amended throughout the various editions of *Iron Age Communities* (Cunliffe 1974; 1978; 1991; 2005) there remain many practical problems with the scheme.

One major criticism is that groups are largely constructed in reference to decorated fineware bowls which, in East Anglia, tend to constitute only a minor part of most assemblages. Such selective descriptions and categorisations mean that the myriad of other plain and decorated jars - which form the bulk of Early Iron Age pottery groups - receive almost no mention, severely limiting the utility of the scheme. The picture of pattern and variability in the ceramic record is therefore highly selective. Furthermore, in instances where other ceramic types are described, the definitions are often so 'fuzzy' that some pots could potentially be assigned to several different style-groups. This has caused all sorts of confusions, and, as discussed in more detail in Chapter 6, has resulted in the miss-labelling of some assemblages, skewing distribution patterns, and fostering false impressions about the limits of different ceramic traditions.

In truth, the 'Cunliffe method' of phasing and dating ceramic assemblages is dangerously dependent on the identification of a few stylistic traits, which are neither clearly nor consistently defined between publications. Moreover, an understanding of the currency of these styles is still in its infancy, remaining heavily reliant on typological parallels with better dated sequences outside of East Anglia. Likewise, owing to assumptions made about the homogeneity of the style-groups, current dating brackets have been 'fixed' by a very small number of radiocarbon determinations from sites in Essex and Cambridgeshire, and then imposed on other parts of the region without addressing the potential issue of spatial and temporal variability. Despite some of these obvious and easily rectifiable problems, archaeologists have been far too willing to use and accept evidence which essentially boils down to 'guesstimates of date', and have not sought chronological refinement in any systematic manner.

In summary, the hybrid 'Cunliffe-Barrett' framework that ceramicists have depended upon over the last three decades is riddled with problems. Not only are both models heavily reliant on sequences established in Wessex and the Thames Valley, they are founded on studies of un-quantified and largely de-contextualised type-site assemblages. More problematic are the differences in the objective of the two schemes, meaning that there is no logical progression in approach from one to the other. For instance, for the Early Iron Age sequence, we are left wondering how Barrett's blanket concept of Decorated PDR wares relates to the various different style-groups which Cunliffe identifies. At worst, this has resulted in the emergence of a confusing and inconsistent terminology for describing pottery from the period. Non-specialists attempting to penetrate the literature are confronted with a diverse and sometimes ill-defined set of terms for culture affinity or phasing. Terms are often used with different meaning by different ceramicists, and dating brackets may vary between specialists by up to several centuries (Champion 2007, 296). Some reports even show a lack of awareness of modern chronology, and there is a tendency to quote relative and absolute dates from old sources and poor-resolution radiocarbon determinations without critical appraisal. To summarise, the two models are largely incompatible, and in their current format, do not serve as a solid foundation on which to develop a more secure understanding of regional ceramic sequences.

5.3 New starting points: terms, traditions and dating evidence

Despite the questions raised about specifics, Barrett's concept of a PDR ceramic tradition remains the fundamental lynch-pin of any understanding of ceramic sequence and change. Given the importance of this model and its widespread use, it is helpful to retain its basic premise, and utilise, but define more closely, some of the terminology employed. As Barrett (1980a) defined it, the PDR tradition is based on a categorical distinction between jars, bowls and cups, which can be sub-divided into coarsewares and finewares, based on the nature of their fabrics and method of surface treatment (see Chapter 4). This combination of vessels characterises all late second and early millennium BC assemblages in East Anglia, and differentiates them from the preceding urn-based Middle Bronze Age Deverel-Rimbury tradition, and the various 'slack-shouldered' jar traditions which emerge in the Middle/later Iron Age.

Though the term PDR has conventionally been used to discuss ceramics dating to the Late Bronze Age (c. 1150-800 BC) and Earliest Iron Age (c. 800-600 BC), it is suggested here that pottery of the 'full' Early Iron Age (c. 600-350 BC) be included in this tradition, sharing as it does the same basic visual and tactile distinctions between coarse and fineware jars, bowls and cups. The term 'PDR' therefore becomes a convenient label for *all pottery* of the Late Bronze Age and Early Iron

Age (Figure 5.1). It also becomes a base level classificatory term, whose use immediately conveys an affinity to a ceramic tradition, and places a given assemblage somewhere within a poor-resolution dating bracket of c 1150-350 BC.

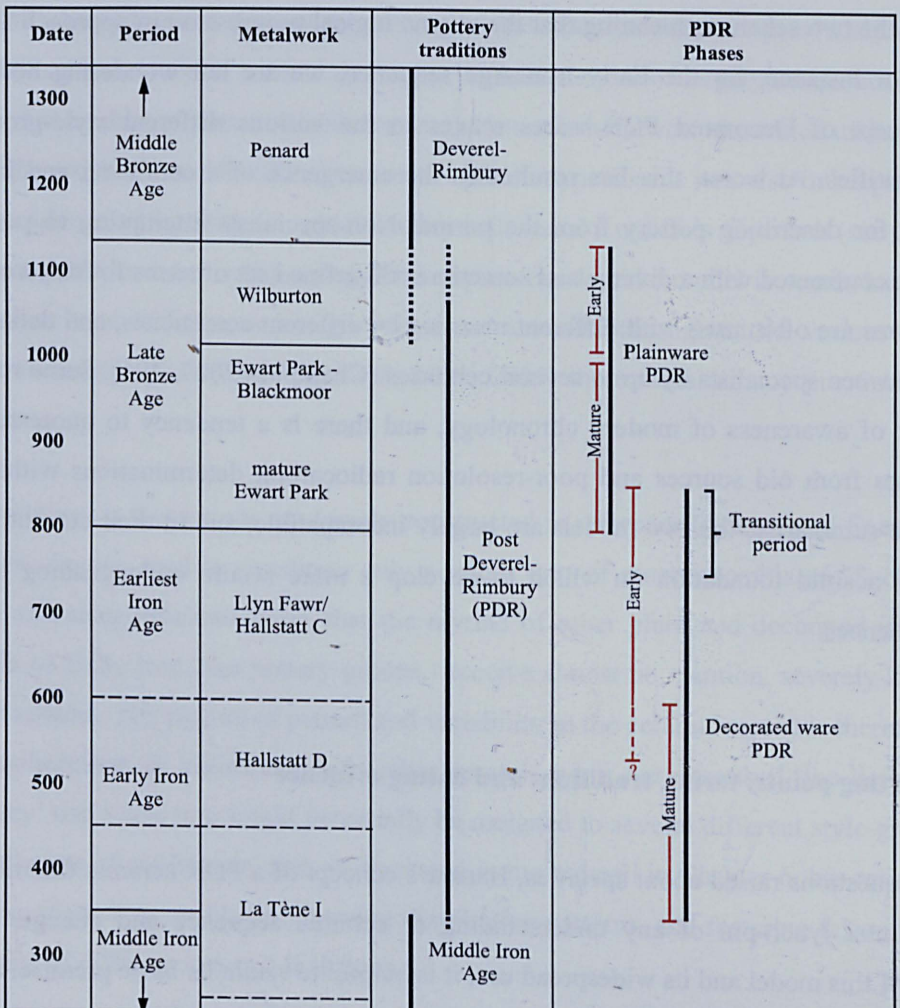


Figure 5.1. Guide to the chronology and periodisation of the PDR ceramic tradition.

It is not always possible to refine the dating of an assemblage any further than this, particularly when presented with small groups of plain, un-diagnostic body sherds. The resolution offered by typo-chronological dating will inevitably be dependent on the size and condition of the pottery assemblage recovered. Where groups contain numerous partial or complete vessel profiles, there is obviously a greater chance of dating precision than when presented with a handful of small, abraded body sherds. It would be useful, then, to describe chronological ranges at different levels, depending on the quality of the data. With small assemblages, we may only be able to recognise broad affinities to the PDR ceramic tradition; in which case, the pottery should be given a wide dating bracket of c. 1150-350 BC, covering the Late Bronze Age *and* Early Iron Age.

Where larger groups are available, we can move beyond this base-level category and, following Barrett (1980a), identify assemblages belonging to the Plainware or Decorated phase of the PDR tradition. The conventional chronology of these ceramic phases has recently been revised by the back-dating of Late Bronze Age metalwork assemblages (Needham 1996a; 2007; Needham *et al.* 1997). As a consequence, the currency of the Plainware phase is now thought to be broadly coeval with the Late Bronze Age (defined by the currency of the Wilburton/Ewart Park metalwork complex), and is dated c 1150-800 BC, whereas the main *floruit* of the Decorated phase is believed to post-date 800 BC, and is therefore aligned upon the Early Iron Age (Figure 5.1). Decorated phase ceramics are thus dated c. 800-350 BC, with the proviso that some of the characteristic forms and decorative features of this phase may, on certain sites, begin to appear in the ceramic repertoire from the late ninth century BC, during the transitional period between the Bronze Age and Iron Age, c. 850-750 BC.

5.3.1 The radiocarbon evidence

Although there is now a significant body of radiocarbon determinations relevant to general studies of later prehistory in East Anglia, surprisingly few are directly associated with large pottery groups. Where obtained, dates are commonly used to fix individual events within a site's history, and are seldom specifically targeted at refining material culture chronologies, even in instances where excavations have yielded large multi-phase ceramic assemblages. This kind of short-sighted approach to dating, symptomatic of studies whose focus lies in the specificities of individual site sequences, means that the corpus of 'useful' determinations for ceramic studies is still woefully small.

In total, a compendium of 63 relevant determinations (from 31 different sites) has been assembled though a review the region's published literature, supplemented by a series of unpublished dates (Table 5.1, Figures 5.2-3)[1]. These are listed in order of their conventional radiocarbon age, and were calibrated using OxCal v4.1 with ranges expressed at both 1 and 2σ (68.2% and 95.4% probability); dates quoted in the form recommended by Mook (1986), with ranges rounded

[1] This is not a complete corpus of *all* Late Bronze Age and Early Iron Age dates from East Anglia; only those relevant and available. Several dates were excluded, included the unfeasibly early determinations associated with PDR pottery from Game Farm, Suffolk (Beta-178453: 3100±50; Gibson 2004, 50) and Watton Road, Norfolk (GU-5290: 3110±60; Aswhin and Bates 2000, 243).

No.	Site	Lab. no.	Radiocarbon Age BP	1σ Cal. BC (68.2%)	2σ Cal. BC (95.4%)	Dated material	Context	No/wt. sherds	Ceramic affinity	Typological date	Reference
1	Springfield Lyons (Essex)	BM-2313R	3090±150	1510-1120	1690-930	Charcoal (*Acer sp*)	Primary ditch silts [5532]	?	Plainware PDR	LBA	Needham 2007, 48
2	Springfield Lyons (Essex)	SUERC-23952	2950±45	1270-1080	1310-1010	Roundwood (*Alnus/Corylus sp*)	Primary ditch silts [3136]	?	Plainware PDR	LBA	Courtesy of N. Brown and H. Meadows
3	MTCP Site, Stansted Airport (Essex)	OxA-15389	2937±30	1260-1050	1270-1040	Calcined mammal bone	Fill [334064] of pit 334059	298/2615g	Plainware PDR	LBA	Cooke *et al.* 2008, 67-69
4	Northborough (Cambs.)	Beta-197682	2890±40	1130-1000	1260-930	Unspecified charred material	Fill of pit F.117	?	Plainware PDR	LBA	Courtesy of M.Knight
5	Striplands Farm (Cambs.)	Beta-286572	2870±40	1130-980	1200-920	Residue on sherd (Unspecified)	Upper fill [1208] of well F.504	2389/20886g	Plainware PDR	LBA	Evans and Pattem 2011, 18
6	Rhee Lakeside South (Cambs.)	Beta-229350	2860±40	1120-940	1200-910	Charred seed (Unspecified)	Fill [3760] of well F.872	164/4151g	Plainware PDR	LBA	Brudenell and Evans 2007, 134
7	Springfield Lyons (Essex)	SUERC-23732	2855±35	1120-930	1130-910	Sapwood (*Quercus*)	Primary ditch silts [5706/9119]	?	Plainware PDR	LBA	Courtesy of N. Brown and H. Meadows
8	Striplands Farm (Cambs.)	Beta-280343	2850±40	1110-930	1190-900	Unspecified	Lower fill [136] of well F.13	39/594g	Plainware PDR	LBA	Evans and Pattem 2011, 18
9	Addenbrooke's Hutchison Site (Cambs.)	Beta-195160	2840±40	1060-920	1130-900	Unspecified	Fill [3226] of pit F.474	57/679g	Plainware PDR	LBA	Evans *et al.* 2008, 101
10	Mucking South Rings (Essex)	HAR-1708	2810±70	1060-840	1200-810	Charcoal (*twiggy Quercus sp, Populus sp, & Prunus sp twigs*)	Primary ditch silts of outer ring	78/1639g	Plainware PDR	LBA	Clark 1993, 35
11	Lofts Farm (Essex)	HAR-8521	2800±110	1120-830	1300-790	Outer rings of wood stake (*Quercus sp*)	Lower fill [1005] of well 840	88/1342g	Decorated PDR	Earliest IA	Brown 1988b, 293
12	Striplands Farm (Cambs.)	Beta-280346	2800±40	1010-900	1060-830	Wood (Unspecified)	Lower fill [1062] of well F.210	3/197g	Plainware PDR	LBA	Evans and Pattem 2011, 18
13	Striplands Farm (Cambs.)	Beta-280347	2800±40	1010-900	1060-830	Wood (Unspecified)	Lower fill [1009] of well F.370	22/273g	Plainware PDR	LBA	Evans and Pattem 2011, 18
14	Mucking South Rings (Essex)	HAR-1630	2790±90	1050-830	1220-790	Charcoal (*mainly Quercus sp & Alnus sp*)	Secondary ditch silts of inner ring	555/9180g	Decorated PDR	LBA/EIA transition	Clark 1993, 35
15	SCS Site, Stansted Airport (Essex)	HAR-9237	2780±70	1010-840	1130-800	Charcoal (Unspecified)	Fill [2260] of pit 2252	?	Decorated PDR	EIA (D-L)	Havis and Brooks 2004, 24
16	Mucking South Rings (Essex)	HAR-1634	2770±110	1060-800	1300-670	Charcoal (*Quercus sp & Salix sp*)	Primary ditch silts of outer ring	78/1639g	Plainware PDR	LBA	Clark 1993, 35
17	Frog Hall Farm (Essex)	HAR-2502	2760±80	1000-820	1130-790	Carbonised beans(*Vicia faba L. Var. minor*)	Fill [10] of pit/posthole F.11	1/31g	Plainware PDR	LBA	Brooks 2002, 58
18	Newark Road (Cambs.)	HAR-773	2740±80	980-810	1120-790	Charcoal (Unspecified)	Fill of posthole F17, structure B	?	Plainware PDR	LBA	Bayliss and Pryor 2001, 394
19	Honeypots Plantation Site (Norfolk)	Wk-16704	2716±37	900-820	930-800	Hazel nut shell	Fill of pit 1325	37/607	Plainware PDR	LBA	Courtesy of S. Percival
20	Mucking North Ring (Essex)	HAR-2911	2700± 80	970-790	1020-600	Charcoal (*Acer, Quercus, Corylus/Alnus sp (mature timbers)*)	Upper ditch silts (Phase 5)	7116/83478g	Decorated PDR	LBA/EIA transition	Bond 1988, 55

Table 5.1. List of published and unpublished radiocarbon dates for Late Bronze Age and Early Iron Age assemblages in East Anglia (D-L = Darmsden-Linton style-group affinity; WH-F = West Harling-Fengate style-group affinity; CW = Chinnor-Wandlebury style-group affinity (after Cunliffe 2005, 94-96, 101-102)).

No.	Site	Lab. no.	Radiocarbon Age BP	1σ Cal. BC (68.2%)	2σ Cal. BC (95.4%)	Dated material	Context	No/wt. sherds	Ceramic affinity	Typological date	Reference
21	Must Farm (Cambs.)	Beta-243230	2700±40	900-810	920-790	Residue on pot (Unspecified)	Residue from Pot M in conflagration horizon	950/27855g	Plainware PDR	LBA	Courtesy of M. Knight
22	Fordham Bypass (Cambs.)	SUERC-14058	2695±34	900-800	910-800	Charred seed (Unspecified)	Primary fill [703] of pit 544	266/2643	Plainware PDR	LBA	Courtesy of R. Mortimer
23	Springfield Lyons (Essex)	OxA-20520	2688±30	900-800	900-800	Charred seed(*Arrhenatherum*)	Middle ditch silts [5153/5529]	?	Decorated PDR	LBA/EIA transition	Courtesy of N. Brown and H. Meadows
24	Lofts Farm (Essex)	HAR-8514	2680±70	910-790	1020-590	Charcoal (Unspecified)	Upper fill [1002] of Well 840	2917/35982g	Decorated PDR	EIA (D-L)	Brown 1988b, 293
25	Striplands Farm (Cambs.)	Beta-280345	2680±40	900-800	910-790	Charred seed (Unspecified)	Upper fill [649] of Well F.210	1047/11691g	Plainware PDR	LBA	Evans and Pattem 2011, 18
26	Springfield Lyons (Essex)	SUERC-23195	2665±30	840-800	900-790	Charred seed (*Triticum sp*)	Middle ditch silts [9043]	?	Decorated PDR	LBA/EIA transition	Courtesy of N. Brown and H. Meadows
27	Barham (Suffolk)	HAR-3610	2640±70	900-760	980-540	Charcoal (Unspecified)	Fills of pit 1 and 2	?	Plainware PDR	LBA	Martin 1993, 26
28	Mucking North Ring (Essex)	HAR-2893	2630±110	920-550	1020-410	Charcoal (*Acer sp (mature timbers) & some Prunus sp*)	Upper ditch silts (Phase 5)	7116/83478g	Decorated PDR	LBA/EIA transition	Bond 1988, 55
29	Springfield Lyons (Essex)	OxA-20521	2629±28	820-790	840-770	Charred seed (*Triticum sp*)	Middle ditch silts [9043]	?	Decorated PDR	LBA/EIA transition	Courtesy of N. Brown and H. Meadows
30	Honeypots Plantation Site (Norfolk)	Wk-16703	2574±37	810-660	820-550	Unspecified	Fill of pit 1342	63/333	Decorated PDR	Earliest IA?	Courtesy of S. Percival
31	Springfield Lyons (Essex)	BM-2314R	2570±140	840-410	1030-380	Charcoal (*mixed Quercus sp & Acer sp*)	Middle ditch silts [5153]	?	Decorated PDR	LBA/EIA transition	Needham 2007, 48
32	Rook Hall (Essex)	HAR-6398	2550±70	810-540	830-410	Unspecified	Fill of well F.661 (context unrecorded)	494/4206g	Decorated PDR	EIA (D-L)	Adkings *et al.* 1985
33	M11 Site, Stansted Airport (Essex)	NZA-23240	2528±35	790-560	800-530	Charcoal (*Acer campestre*)	Fill [436092] of pit 436091	61/554g	Decorated PDR	EIA	Cooke *et al.* 2008, 75
34	Glebe Farm (Cambs.)	Beta-257287	2520±40	790-550	800-510	Human bone, articulated inhumation (left tibia)	Fill [475] of pit F.90	322/1938g	Decorated PDR	EIA	Courtesy of S. Timberlake
35	Honeypots Plantation Site (Norfolk)	Wk-16705	2519±44	790-550	800-420	Unspecified	Fill of posthole 1882	14/173	Decorated PDR	Earliest IA?	Courtesy of S. Percival
36	Orsett Causewayed Enclosure (Essex)	BM-1379	2514±81	790-530	800-410	Charcoal (*Corylus sp.*)	Upper silts of the inner causeway ditch F4 I(3)	?	Decorated PDR	Earliest IA	Hedges and Buckley 1978, 295
37	Milton Landfill (Cambs.)	SUERC-16334	2514±35	780-550	800-520	Wood (Unspecified)	Log ladder in fill [722] of waterhole 917	?	Decorated PDR	EIA (C-W)	Courtesy of T. Phillips
38	The Holme (Cambs.)	Beta-175071	2500±60	780-530	800-410	Unspecified	Middle fill [900] of well F.455	66/1424g	Decorated PDR	EIA (WH-F & D-L)	Evans and Patten 2003, 54
39	SCS Site, Stansted Airport (Essex)	HAR-9236	2490±70	770-520	790-410	Charcoal (Unspecified)	Fill [2246] in pit 2171	?	Decorated PDR	EIA	Havis and Brooks 2004, 24
40	Lingwood (Cambs.)	GU-5731	2490±60	770-530	790-410	Wood (Unspecified)	Primary fills of well F.1	177/1.6kg	Decorated PDR	EIA (WH-F)	Evans 1998, 13
41	M11 Site, Stansted Airport (Essex)	NZA-23239	2490±30	760-540	780-420	Charred seed (*Maloideae*)	Fill [423158] of pit 423113	231/3533g	Decorated PDR	EIA	Cooke *et al.* 2008, 75

Table 5.1. (Cont.).

No.	Site	Lab. no.	Radiocarbon Age BP	1σ Cal. BC (68.2%)	2σ Cal. BC (95.4%)	Dated material	Context	No/wt. sherds	Ceramic affinity	Typological date	Reference
42	Lingwood (Cambs.)	GU-5732	2480±50	760-520	780-410	Wood (Unspecified)	Primary fills of well F.1	177/1.6kg	Decorated PDR	EIA (WH-F)	Evans 1998, 13
	Lofts Farm (Essex)	HAR-8515	2460±70	760-410	770-400	Charcoal (Unspecified)	Upper fill [0192] of ditch 0002	342/3355g	Decorated PDR	Earliest IA (WH-F)	Needham 2007, 47
	43	Beta-262624	2460±40	760-410	760-410	Charred seed (unspecified)	Fill [o-v] of pit F.61	21/103g	Decorated PDR	EIA (WH-F)	Courtesy of M. Knight
45	44	SUERC-28022	2440±40	740-410	760-400	Unspecified	Fill [688] of waterhole 566	?	Decorated PDR	EIA	Courtesy of T. Phillips
46	Milton Landfill (Cambs.)	SUERC-28026	2430±30	720-410	750-400	Wood (Unspecified)	Log ladder in lower fill [1480] of waterhole 1464	?	Decorated PDR	EIA	Courtesy of T. Phillips
47	Tower Works (Cambs.)	Beta-229356	2420±40	720-400	760-390	Charred seed (unspecified)	Fill [095] of pit F.42	7/63g	Decorated PDR	Earliest IA	Evans *et al.* 2009, 234
48	Fordham Bypass (Cambs.)	SUERC-14235	2420±35	710-400	750-400	Cattle Bone	Fill [481]of tree-throw 486 in complex M1201	553/7970	Decorated PDR	EIA (D-L)	Courtesy of R. Mortimer
49	Tower Works (Cambs.)	Beta-229355	2410±40	700-400	760-390	Chared seed (Unspecified)	Fill of posthole F.13	17/91g	Decorated PDR	Earliest IA	Evans *et al.* 2009, 234
50	Bradley Fen/Kings Dyke (Cambs.)	Betal-262623	2400±40	530-400	750-390	Roundwood (Unspecified)	Fill [1004f] of pit/waterhole F.945	9/553g	Decorated PDR	EIA	Courtesy of M. Knight
51	War Ditches (Cambs.)	OxA-X-2386-28	2390±40	520-390	750-380	Residue on refitting sherds (Unspecified)	Lower fill [270] of hillfort ditch	77/356g	Decorated PDR	EIA	Courtesy of R. Mortimer
52	Glebe Farm (Cambs.)	Beta-257289	2380±40	520-390	750-380	Radial roundwood section from log ladder (*Acer sp*, (*imature timber*))	Log ladder in lower fill [700] of well F.92	446/4753g	Decorated PDR	EIA (C-W)	Courtesy of S. Timberlake
53	Bradley Fen/Kings Dyke (Cambs.)	Beta-205544	2370±40	510-390	740-380	Charred seed (unspecified)	Burial in fill [540d] of pit F.495	167/1344g	Decorated PDR	EIA	Gibson and Knight 2006, 133
54	SCS Site, Stansted Airport (Essex)	UB-3179	2353±38	510-380	730-360	Charcoal (Unspecified)	Fill [2380] of pit 2187	6990/79550g	Decorated PDR	EIA (D-L)	Courtesy of Saffron Walden Museum
55	Micklemoor Hill, West Harling (Norfolk)	Beta-286573	2350±40	510-380	730-260	Residue on pot (Unspecified)	Vessel from Enclosure II ditch	2240/44536g	Decorated PDR	Earliest IA (WH-F)	Courtesy of C. Evans
56	Trumpington Park & Ride (Cambs.)	SUERC-21981	2330±30	410-380	510-260	Bone (Unspecified)	Fill [2307] of pit 2308	8/79g	Decorated PDR	EIA	Courtesy of M. Hinman
57	Cat's Water (Cambs.)	HAR-3196	2310±60	490-210	730-200	Oak stake (*Quercus sp*)	Primary fill [Layer 3] of well F.1551	?	Decorated PDR	EIA	Bayliss and Pryor 2001, 394
58	Vicarage Farm (Cambs.)	UB-822	2290±125	540-170	770-50	Twigs (Unspecified)	Lower fill [layer 4] in well F.6	141/1376	Decorated PDR	EIA (WH-F)	Bayliss and Pryor 2001, 394
59	Trumpington Park & Ride (Cambs.)	SUERC-21979	2290±30	400-260	410-230	Bone (Unspecified)	Fill [1549] in pit 1551	38/299g	Decorated PDR	EIA (C-W)	Courtesy of M. Hinman
60	Glebe Farm (Cambs.)	Beta-257288	2280±40	400-230	400-200	Roundwood stick (unspecified)	Lower fill [700] of well F.92	446/4753g	Decorated PDR	EIA (C-W)	Courtesy of S. Timberlake
61	Rhee Lakeside South (Cambs.)	Beta-229352	2260±40	400-230	400-200	Charred seed (Unspecified)	Fill [1853] in pit F.613	145/2224g	Decorated PDR	EIA	Brudenell and Evans 2007, 134
62	Rhee Lakeside South (Cambs.)	Beta-229353	2250±40	390-230	400-200	Charred seed (Unspecified)	Fill [1809] in pit F.602	154/1940g	Decorated PDR	EIA	Brudenell and Evans 2007, 134
63	North Shoebury (Essex)	HAR-5104	2130±80	360-40	390 BC-10 AD	Carbonised peas (*Pisum sativum*)	Sample 55 from pit 1412	19/1380g	Decorated PDR	EIA	Wymer and Brown 1995, 66

Table 5.1. (Cont.).

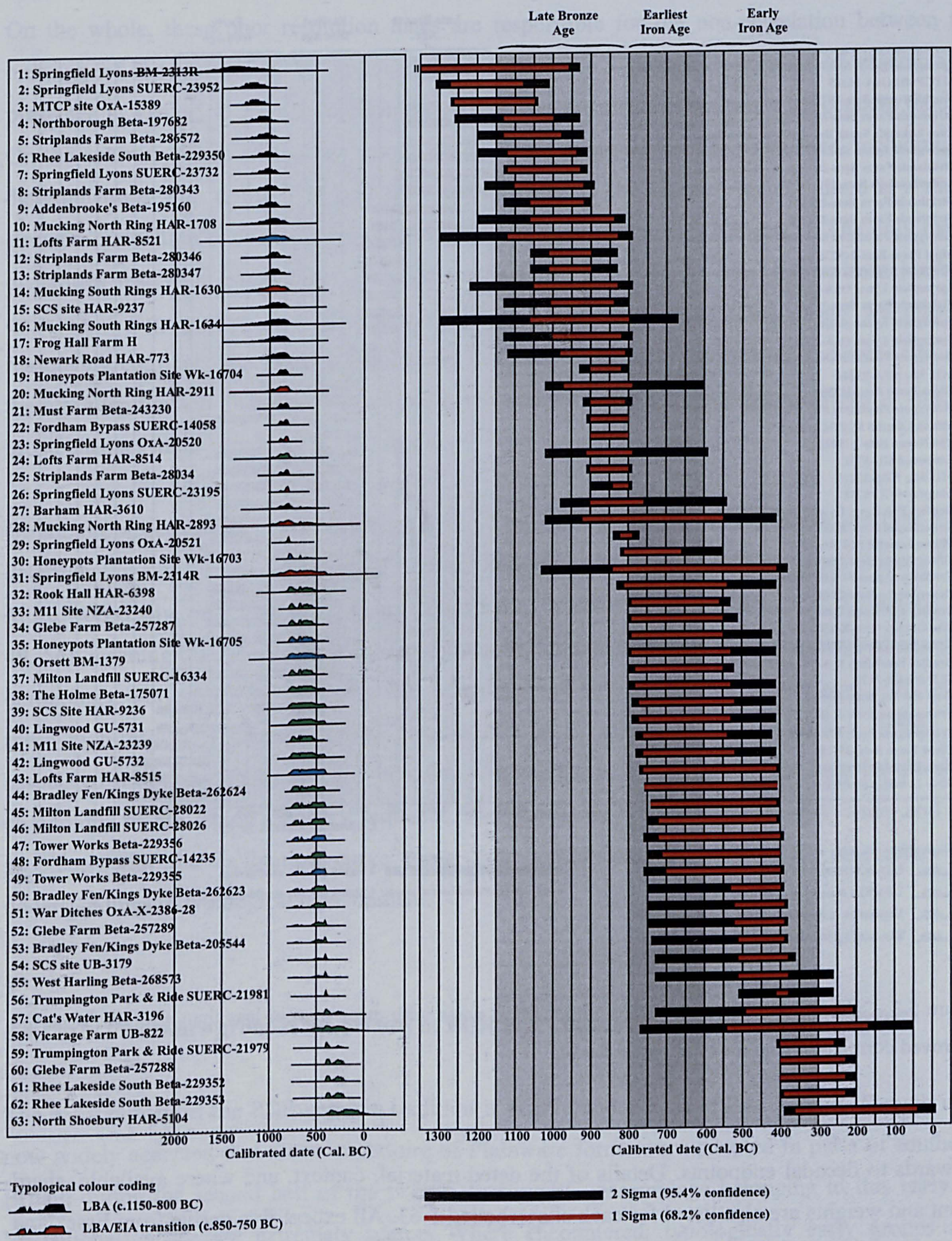


Figure 5.2. Calibrated radiocarbon dates in conventional radiocarbon age order. The correlation to the typological dating of assemblages is illustrated by the colouring of output distributions.

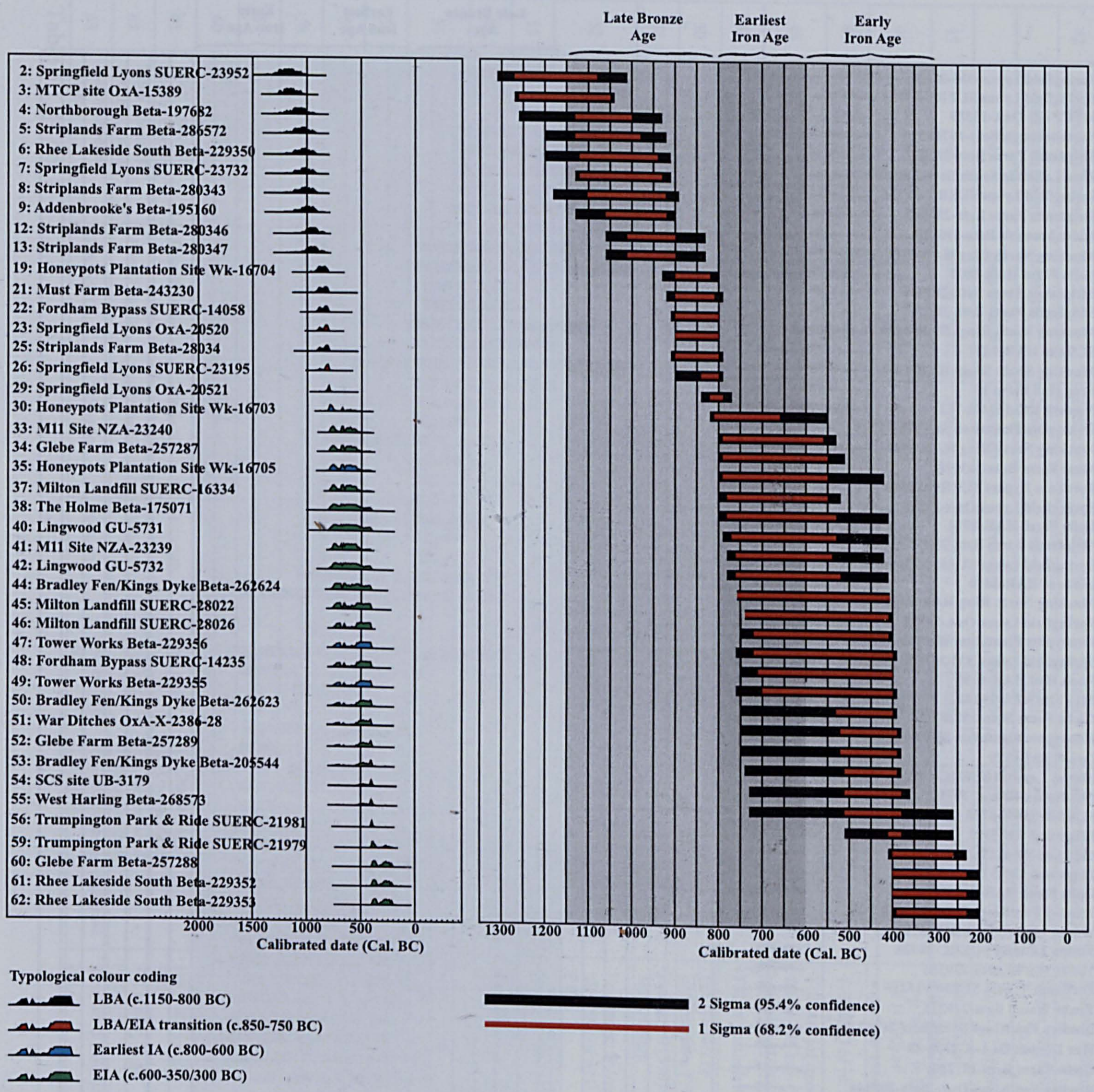


Figure 5.3. Calibration of high-resolution radiocarbon dates with error margin less than ±70 BP. Note the improved correlation with the typological dating.

outwards to decadal endpoints. Details of the dated material, context, and where available, sherd count and weights are also listed for each site, labelled 1-63. All except five derive from Essex and Cambridgeshire, with many being poor resolution determinations with wide error margins; particularly the 'old' and unreliable dates derived from the Harwell and British Museum laboratories. These and several other pre-AMS determinations are based on bulk charcoal samples, often containing mixed wood of unspecified age. Most are low integrity, low quality determinations, potentially suffering from significant wood-age offset.

On the whole, these poor resolution dates are responsible for the non-correlation between the ordering of determinations by radiocarbon age, and the typological phasing of assemblages presented in Table 5.1, and displayed in Figure 5.2. The mismatch is not cause for concern though. On the contrary, when all the low resolution dates are removed from the sequence, including all determinations with errors over ±60 BP (plus all dates in the Harwell series), there is a much stronger correlation with the typological evidence (compare Figures 5.2 and 5.3). The only major disparities rest with assemblages assigned to the Earliest and Early Iron Age, whose jumbled ordering is largely a product of the plateau in the calibration curve. This means we may be reasonably confident that current typological methods of dating are relatively accurate, and can therefore legitimately use ceramic data *not* associated with radiocarbon determinations to analyse broad changes in the region's ceramic record.

On a more negative note, these patterns highlight the inadequacy of *all* 'old' dates and non-AMS determinations, leaving us with just 43 high-resolution results from 19 different sites (Figure 5.3). More worryingly, only nine of these are published at present (Table 5.1, nos. 3, 9, 33, 40-42, 47, 49, 54), meaning that poor-quality determinations continue to influence understandings of absolute chronology. Fortunately, the primary data sites analysed in this thesis are associated with 24 of these high-resolution determinations. These relate to 11 site assemblages, with a further six associated with poor-quality dates. Whilst this provides the starting point for securing the absolute chronology of the region's pottery sequence, the general paucity of high-integrity dates, and the problems with the calibration curve mean that periodisation is still largely dependent on understandings of typological development.

5.4 Early Plainware groups: the origins of PDR and assemblages pre-dating c. 1000 BC

The early history of the PDR ceramic tradition is poorly understood in East Anglia. Though it is now widely accepted that a new repertoire of Plainware forms were adopted in parts of southern Britain during the second half of the twelfth century BC, assemblage belonging to this early or 'transitional' phase are extremely scarce. Where encountered, typologically early groups are normally quite small in size, and often derive from just a handful of on-site features. These assemblages tend to be dominated by a restricted range of coarse-tempered convex-walled and barrel-shaped jars, accompanied by a few open and round-bodied bowls and cups (Figure 5.4). The vessels display upright, in-turned, or 'hooked' rims, and are occasionally embellished with fingertip or finger-nail impressions along the rim, or by a row of small pre-fired perforations below the vessel mouth. In both form and decoration, the jars recall the bucket/barrel-shaped urns of the antecedent Deverel-Rimbury tradition, representing one of the few discernible points of continuity between ceramics of the Middle and Late Bronze Age.

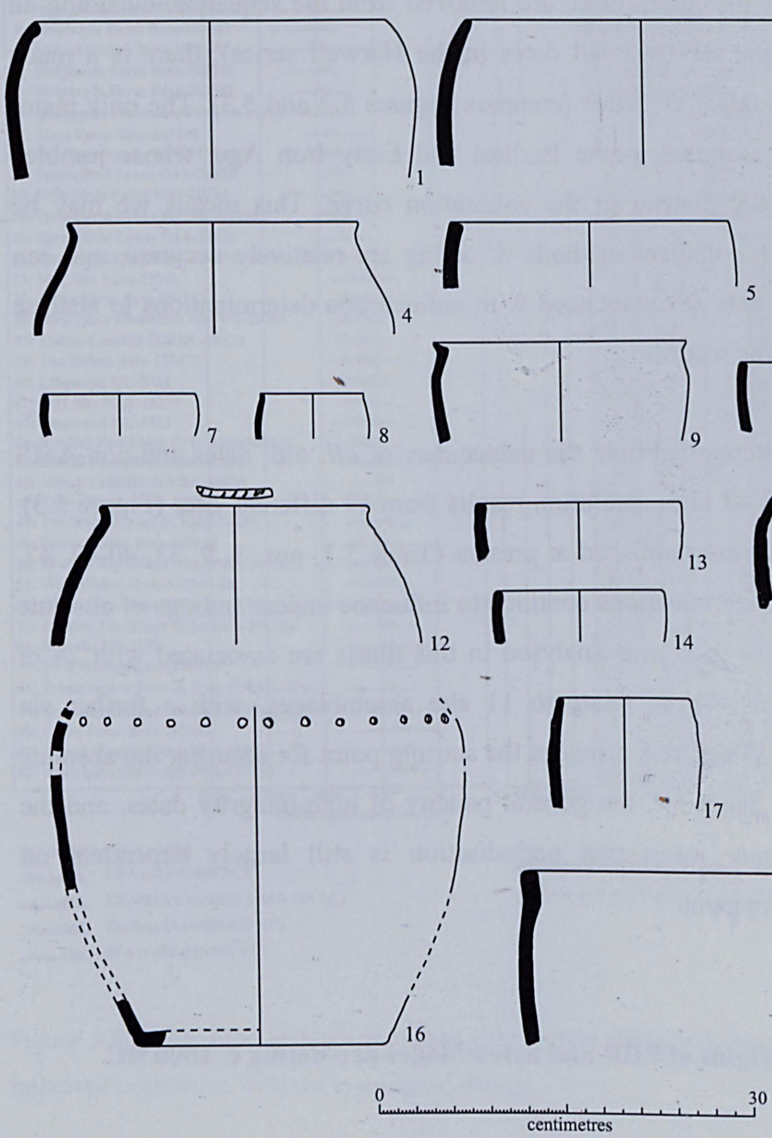


Figure 5.4. Vessels characteristic of the early Plainware group. 1-8. Caple, Suffolk; 9-11. Rhee Lakeside South, Cambridgeshire; 12-15 Broads Green, Essex (after Brown 1988a, 12, Fig. 5); 16-17. OS 171, Witton, Norfolk (after Lawson 1983, 43, Fig. 39); 18. Watton Road, Little Melton, Norfolk (after Ashwin and Bates, 113-114, Figs. 92-93); 19-20. Great Holts Farm, Essex (after Germany 2003, 94, Fig. 70).

Few early Plainware groups have so far been identified in East Anglia, and even fewer have useful radiocarbon associations which allow us to gauge the origins of the PDR style. Whilst start dates of c. 1150-1100 BC abound within the region's literature, these are largely based on the assumption that the emergence of the Plainware tradition was directly coeval with the beginnings of the Wilburton phase metalwork complex. Convenient though it may be to align regional pottery chronologies on better dated metalworking sequences, the main justification for a pre-1000 BC origin lies not with the metalwork or any well-established 'early' Plainware horizon, but an absence of evidence suggesting that Deverel-Rimbury styles extended beyond c. 1200 BC.

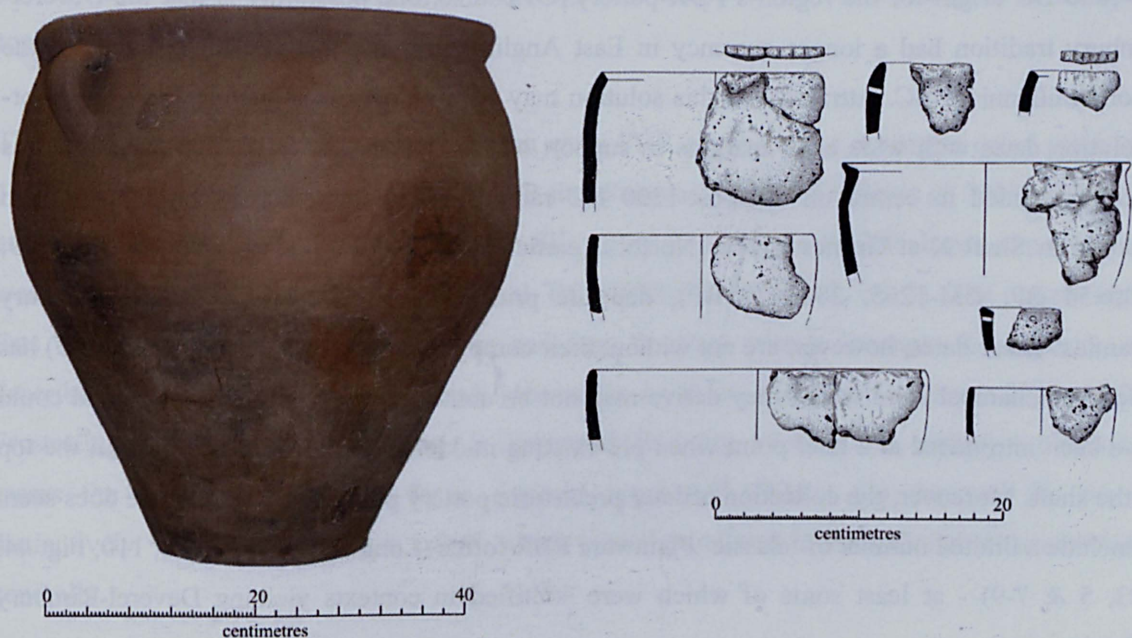


Figure 5.5. Early Plainwares – *real and imagined.* Left: The reconstructed Isleham jar (after Malim 2010, 37, Fig. 17). Right: Pottery from Rhee Lake Side South (courtesy of V. Herring, CAU).

Proving that PDR Plainwares were in vogue in East Anglia before the turn of the second millennium BC is difficult, and hinges upon the interpretation of a small number of absolute dates. Finds from Isleham, Cambridgeshire, are often regarded as pivotal in these discussions, as fragments of a large handled jar were recovered alongside a massive Wilburton-phase hoard from the parish (Malim 2010). Though the association would seem to provide unequivocal evidence of a pre-1020 BC origin for the tradition, the vessel in question is not a typical PDR pot, and the profile has been heavily reconstructed from a collection of mostly body sherds (Britton 1960, 28; Knight 2010, 35). Particularly unusual is the row of impressed dimples/perforations around the foot of the pot; a feature not well paralleled on other Late Bronze Age vessels, but common on Collared Urns (Knight 2010, 37). Indeed, there is the distinct possibility that the reconstruction is a hybrid of varyingly aged fragments (Figure 5.5). Of relevance in this regard is the OLS date obtained for a sherd located in the upper profile of the jar, which yielded a mean luminescence age estimate of 1460±230 BC at 1 sigma (Malim 2010, 1). Even taking the late end of this value, one is hard pushed to square the date with Needham's chronology of the Wilburton complex, let alone a tenable beginning for the PDR ceramic sequence.

If we are forced to discount the often quoted Isleham evidence, it is much more difficult to secure a pre-1000 BC origin for the region's PDR pottery. Of course, one possibility is that the Deverel-Rimbury tradition had a longer currency in East Anglia, surviving to the closing stages of the second millennium BC. Attractive as this solution may be, in most cases one can only cite poor-resolution dates with wide error margins in support of this hypothesis. Debate on this issue has therefore tended to centre on the post-1200 BC radiocarbon determinations from the midden deposits in Shaft X at Grimes Graves Norfolk (particularly BM-1266, 2834± 53 BP; BM-1039, 2806±54 BP; BM-1265, 2800±79 BP), deposits primarily associated with Deverel-Rimbury ceramics. These dates, however, are not without their complications. As Needham (1996a, 135) has noted, the charcoal from which they derive may not be contemporary with the pottery, and could have been introduced at a later point when pre-existing midden material was used to infill the top of the shaft. Moreover, the collection of later prehistoric pottery published from the site does seem to include a limited number of 'classic' Plainware PDR forms (Longworth *et al.* 1988, 110, Fig. 44, LP3, 5 & 7-9) - at least some of which were stratified in contexts yielding Deverel-Rimbury ceramics.

Whilst the Grimes Graves dates could hint at a longer-lived and overlapping relationship between Deverel-Rimbury and PDR at the close of the second millennium BC (Rigby 1988, 104), it seems more likely that they reflect the complex depositional history of Shaft X, and the atypical character of this midden deposit generally (discussed in Chapter 3). The evidence for any long-term coexistence of these traditions is at best equivocal, with recent dating programmes suggesting that the main *floruit* of Deverel-Rimbury use and deposition was centred upon c. 1500-1200 BC.

The 'reliable' radiocarbon dates listed in Figure 5.3 give some hint of assemblages which are *possibly* early in the Plainware sequence. In fact, the first eight dates in this series (Figure 5.3, nos. 2-9) could be offered up as evidence for a secure pre-1000 BC origin. However, in the instances of Springfield Lyons, Northborough, Striplands Farm and Addenbrooke's (Figure 5.3, nos. 2, 4-5, 7, 9), the 'developed' ceramic traits shown by these assemblages do not fit well with the early determinations. Indeed the Springfield Lyons carbon dates are associated with dumps of Ewart Park sword moulds definitely post-dating c. 1020 BC.

Of far greater significance is the group of typologically early PDR pottery recovered from a pit-well at Rhee Lakeside South, associated with a radiocarbon date of 1200-910 cal. BC (2860±40 BP; Table 5.1, no. 6). Whilst this does not *definitively* place the assemblage prior to 1000 BC, a late second millennium date would be entirely in keeping with the typological evidence. The ceramics and dated seed were recovered from sequential artefact-rich fills near the top of a well. Most identifiable forms belonged to convex-walled jars with either upright, or slightly in-turned/'hooked' rims (Figure 5.5). Four vessels carried rows of pre-fired perforations on their necks, whilst a further three displayed fingertip, nails marks or tooled impressions on their rim-tops.

The only other potential association between early PDR ceramics and a context dated prior to c. 1000 BC comes from a small pit at the MTCP site, Stansted Airport (Cooke *et al.* 2008, 67-69). Set away from the main settlement complex, the fills of the pit yielded over 200 sherds of pottery, and was associated with a date of 1260-1010 cal. BC (2937±30; Table 5.1, no. 3). The pottery report lists the presence of six coarseware jars and four fineware vessels amongst the deposits, and describes fingertip treatments and incised decoration on three of the pots (Leivers 2008, 17.20). Frustratingly, only one of these vessels is illustrated (*ibid*, Fig. 17.4 no. 29), making it difficult to assess the broader implications for a regional typology[13]. Whilst the depicted jar has no distinctively 'early' attributes, it is a form which is well paralleled in PDR Plainware assemblages generally.

The identification of other groups potentially pre-dating c. 1000 BC is dependent open typological comparison alone. Of the primary data sites, those from Calpe, Suffolk, and Broads Green, Essex are likely candidates. Both assemblages are dominated by ellipsoid and barrel-shaped jars and tubs, with the occasional shouldered vessel, round-bodied bowl, and open cups. Assemblages which display these simple vessel repertoires are, however, comparatively scarce. In Norfolk, the only published groups likely to belong to this early phase include the small assemblages from Witton, Site OS 171 (Lawson 1983), and Watton Road, Little Melton (Ashwin and Bates 2000). In Suffolk and Cambridgeshire, clearly identifiable groups are currently limited to the aforementioned Rhee Lakeside South and Calpe assemblages, whilst in Essex, published examples derive from Great Holts Farm (Germany 2003), Broads Green (Brown 1988a) and select feature assemblages from the Boreham Interchange excavations (Lanvender1999). Some of the unpublished groups from Rook Hall, Essex, may also fit into this category; a site with a ceramic sequence spanning the Middle Bronze Age through to the Early Iron Age.

[13] The description of an incised horizontal line above the base of a one vessel is particularly unusual. PDR pots are rarely decorated on this zone, and incising is not a technique normally seen in LBA assemblages pre-dating the closing stages of the ninth century BC.

With or without absolute dates, this list of sites is remarkably small for a region which has witnessed unprecedented levels of excavation in the last decade. Of course, the apparent ceramic 'poverty' of this two century period between the tail-end of the Deverel-Rimbury tradition and the emergence of a 'full' PDR repertoire (post-1000 BC) may be no more than the random outcome of the limited number of absolute dates, coupled with imperfect understanding of ceramic change. However, there may be other reasons for this scarcity. For instance, it is conceivably a product of depositional practice, with little material being consigned to cut features. Given arguments about the visibility of Middle Bronze Age settlement in Chapter 3, and the *general* region-wide scarcity of Deverel-Rimbury pottery in settlement related contexts, it is plausible that the first adoption of PDR ceramics did not accompany any wholesale changes to earlier patterns of pottery deposition *outside* of cremation contexts. Indeed, with pots seldom being interred with cremations after c. 1200/1150 BC, it is possible that the gross quantity of pottery in the archaeological record from c. 1150-1000 BC is actually *lower* than that from the preceding centuries. We may therefore expect these 'early' PDR groups to be comparatively rare, *if* patterns of settlement related ceramic consumption *initially* mirrored those of the Middle Bronze Age (Figure 5.6).

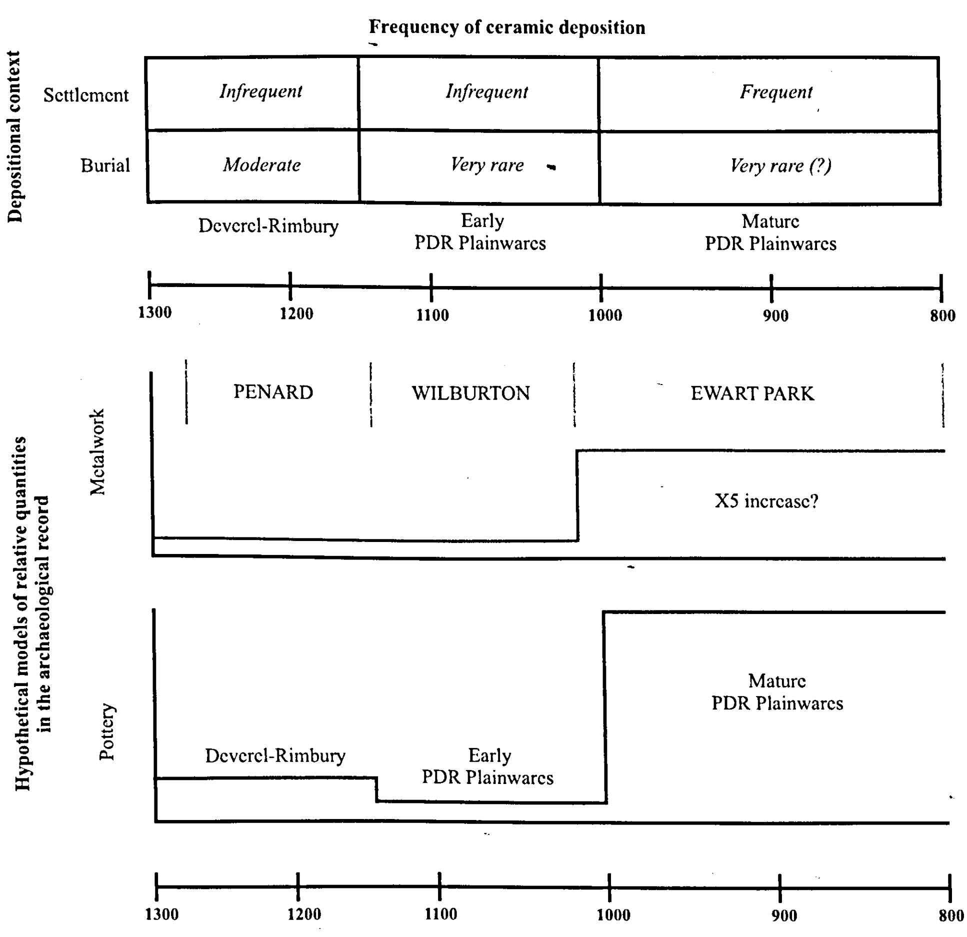


Figure 5.6. Hypothetical model of changing patterns in metalwork and ceramic deposition.

It is also worth noting that the rate at which metalwork was permanently deposited between the Penard (c. 1275-1140 BC) and Wilburton (c. 1140-1020 BC) phases is believed to have remained relatively low and static (Needham 2007, 53, Fig. 7); a marked upsurge in deposition only occurring in the Ewart Park phase after c. 1020 BC (Needham suggesting a fivefold increase; *ibid*, 53). Patterns of ceramic deposition may well have followed a similar course, suggesting a gross increase in the rate at which *all* material culture was produced and consumed in the last two centuries of the Late Bronze Age (Figure 5.6).

In many respects, the period between c. 1200/1150-1000 BC represents a transitional phase between two very different material worlds. In regards to the pottery, it is clear that some early elements of the PDR tradition evolved from the Middle Bronze Age urn tradition, while others, such as the appearance of bowls and cups were genuine innovations. Our understanding of these changes is still in its infancy, partly because finding closed groups of typologically early pottery has proved rather difficult, not to mention the fact that few absolute dates have been obtained for those assemblages positively identified. Nevertheless, an origin date for early Plainware PDR prior to 1000 BC is, on balance, suggested by the evidence, though further dating is required to accurately secure its chronology.

5.5 'Mature' Plainware groups: developments c. 1000-800 BC

The turn of the first millennium BC represents an important threshold in the maturation of the PDR Plainware style. From c. 1000 BC the ceramic repertoire diversified with groups displaying a new emphasis on vessel forms not directly evolved from Deverel-Rimbury roots. These comprised a wide assortment of shouldered jars, bowls and cups, divisible into a number of different types according to the morphology of their neck and rim (Figure 5.7). Whilst there was no break in the ceramic sequence *per se*, it is clear that these more diverse assemblages are far more common in the archaeological record than those described in section 5.4. This is not only reflected by the quantity of material discussed in the published and unpublished literature, but by the total number of absolute dates and metalwork associations which place assemblages post-1000 BC.

Owing to the limited number of securely dated/well defined early PDR assemblages in East Anglia, our ability to document the development of the Plainware tradition is somewhat limited. However, using the primary data sites, we can begin to build a broad brushed picture of the changes which occurred from c. 1000 BC by comparing the attribute data from early Plainware assemblages against those from typologically 'mature' groups (Table 5.2). This approach allows us to chart the transformations in the ceramic repertoire by analysing a range of commonly recorded traits.

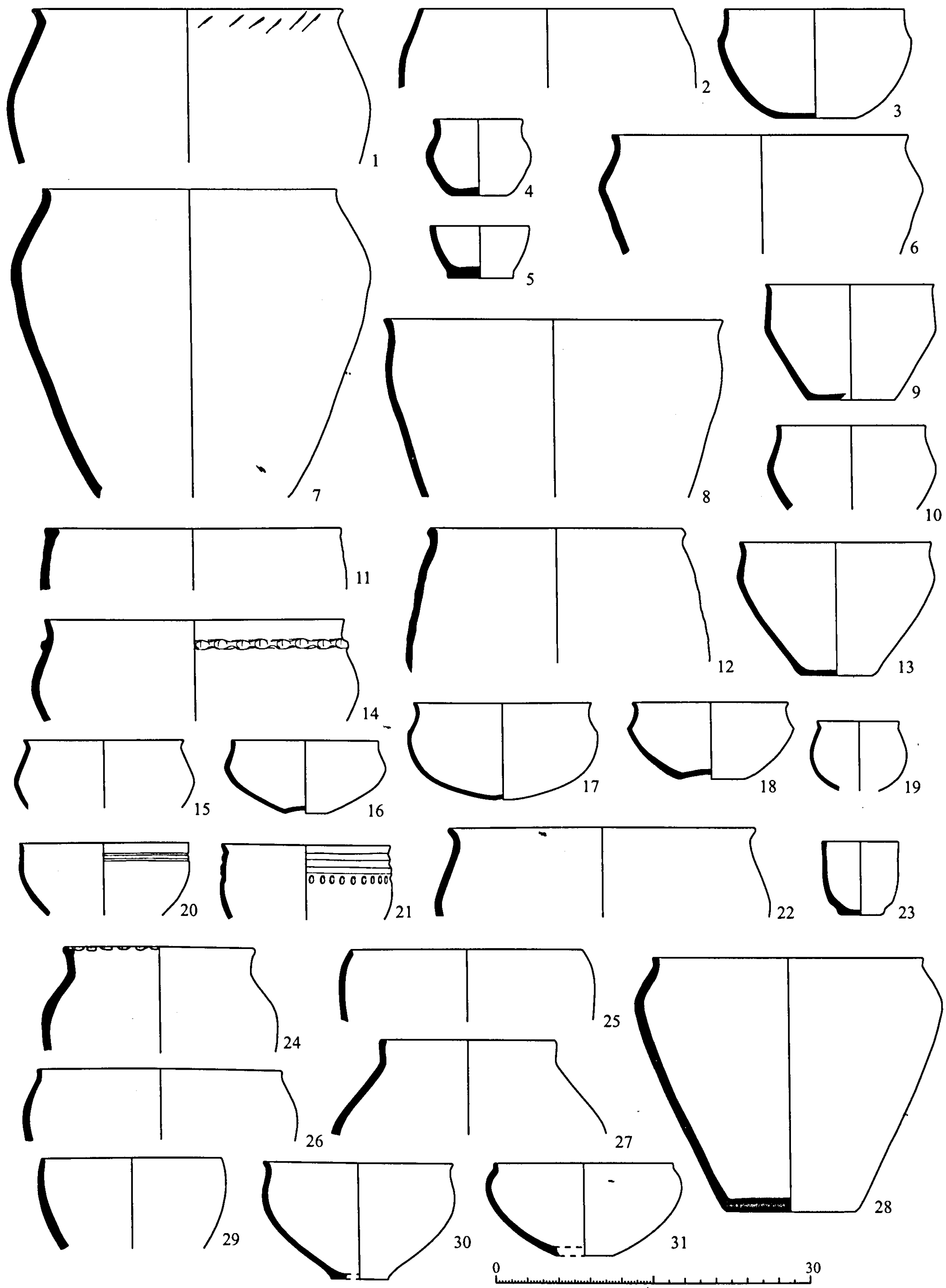


Figure 5.7. Vessels characteristic of the mature Plainware group. 1. Addenbrooke's Hutchison Site, Cambs. (after Evans *et al.* 2008, 36, Fig. 2.10, no. 11); 2. Aylsham Bypass, Norfolk; 3-10. Burwell, Cambs.; 11-12. Lofts Farm, Essex (after Brown 1988b, 265, Fig. 14, nos. 9, 14); 13. Frog Hall Farm, Essex; 14-15. Godwin Ridge, Cambs.; 16-18. Must Farm, Cambs.; 19-25. Mucking North Ring, Essex (after Bond 1988, 29, Fig. 20, nos. 7, 9, 10); 26-29. Striplands Farm, Cambs. (after Evans and Patten 2011, 23-34, Figs. 14-15, nos. 8, 13, 28, 33); 30-31. Stonea, Cambs. (after Jackson and Potter 1996, 246, Fig. 81, nos. 3-4).

Site	Plainware phase	No. sherds	Sherd wt.(g)	Notes
Rhee Lakeside South, Cambs.	Early	258	5003	-
Caple, Suffolk.	Early	631	6852	-
Broads Green, Essex	Early	336	2481	-
Alysham Bypass, Norfolk	Mature	650	3987	-
Kings Dyke-Bradley Fen, Cambs.	Mature	128	958	-
Must Farm, Cambs.	Mature	950	27855	-
Stonea Grange, Cambs.	Mature	757	7108	-
Godwin Ridge, Cambs.	Mature	6137	44696	Possible 'early' components not distinguished
Striplands Farm, Cambs.	Mature	4153	41079	-
Fordham Bypass, Cambs.	Mature	479	4421	-
Burwell, Cambs.	Mature	1534	23224	-
Addenbrooke's, Cambs.	Mature	1049	8156	Possible 'early' components not distinguished
Hales Barn, Suffolk	Mature	203	1682	-
County Farm, Suffolk	Mature	230	1503	-
Frog Hall Farm, Essex	Mature	1183	6257	-
Slough House Farm, Essex	Mature	325	3388	-
Lofts Farm, Essex	Mature	601	6203	Excludes pottery in capping fills of outer enclosure ditch
Broomfield, Essex	Mature	1912	16953	'Transitional' LBA/EIA components not distinguished
North Shoebury, Essex	Mature	636	25127	-
Mucking North Ring, Essex	Mature	912	15788	Phase 1-4 fills of ringwork ditch only
Mucking South Rings, Essex	Mature	246	5134	Lower fills of ringwork ditches only
EARLY PLAINWARE SUB-TOTAL	-	*1225*	*14336*	-
MATURE PLAINWATR SUB-TOTAL	-	*22085*	*243519*	-
TOTAL	-	*23310*	*257855*	-

Table 5.2. Summary table of the Late Bronze Age primary data assemblages analysed in section 5.5.

5.5.1 Changes in vessel form representation

One of most dramatic contrasts between early and mature Plainware groups rests in the representation and frequency of different vessel forms. Early PDR assemblages are characterised by a very restricted, jar-dominated repertoire, with only nine different forms documented from a possible 24 in the series (Table 5.3). However, as vessel shapes diversify after c. 1000 BC, bowl and cups become more prevalent, with the overall ratio to jars climbing from 1:10 in the early groups to 1:2 in mature ones.

The common bowls of the mature Plainware repertoire are round bodied vessels (Form K), simple hemispherical bowls (Form J), and shouldered forms with hollowed or concave necks (Form L). The 'evolution' of this series is difficult to trace, though there is a *general* progression from rounded to carinated profiles over time; potters gradually accentuating the distinction between the rim, neck, and shoulder zones on vessels. 'Simple' bowls of Form K and J appear to have the longest currency, and are present from the beginning of the Plainware sequence. The Form L series of carinated bowls probably developed around c. 1000 BC, and may have evolved directly from Form K prototypes. Though Needham (1996b, 256) considers these bowls as distinct in concept, in reality, there is some degree of overlap between the less 'rounded' end of the Form K spectrum (particularly Form K2 and K3 bowls), and the more weakly shouldered varieties of Form L (particularly L1 vessels).

Vessel type	Vessel form	Early Plainwares	Mature Plainwares	Early Decorated wares	Mature Decorated wares
Jars	A	1	4	3	5
	B	22	30	7	18
	C	7	5	2	-
	D	2	26	27	56
	E	-	9	28	32
	F	1	42	47	166
	G	1	41	103	183
	H	-	25	96	68
	I	-	7	67	74
Bowls	J	1	21	52	4
	K	1	34	17	37
	L	-	27	32	18
	M	-	9	59	20
	N	-	12	50	157
	O	-	-	1	40
	P	-	1	2	9
Cups	Q	-	2	-	4
	R	-	3	3	1
	S	1	9	-	11
	T	-	8	3	1
	U	-	-	5	1
	V	-	1	-	2
	W	-	4	6	6
	X	-	2	1	3
	TOTAL	*37*	*322*	*611*	*916*

Table 5.3. Form representation by vessel count for all ceramic phases.

On typological grounds, the latest additions are the angular bipartite and tripartite bowls of Form M and N. These constitute a relatively minor component of most mature Plainware groups, becoming more prevalent during and after the Bronze Age-Iron Age transition.

Leaving aside the issue of bowl form 'evolution', it is clear that the appearance of new vessel shapes seldom heralded an end to the production of well-established types – most new forms being additions to the repertoire, as opposed to direct replacements. With regards to jars, the most significant changes are associated with shifts in the relative frequency of different forms, not the appearance of new types *per se*. The most obvious temporal trend is the marked decline in neck-less Form B jars and the related 'hooked rim' types of Form C (Figure 5.8). As discussed above, these jars dominated early Plainware assemblages, but diminish in significance around the start of the first millennium BC. Later assemblages tend to display a greater emphasis on rounded and weakly shouldered jars of Form F and G, and may be accompanied by new additions to the repertoire, including bipartite jars (Form E); jars with marked shoulders and concave/hollowed necks (Form H), and angular tripartite forms (Form I). The latter were possibly introduced late in the sequence alongside the tripartite bowls discussed above.

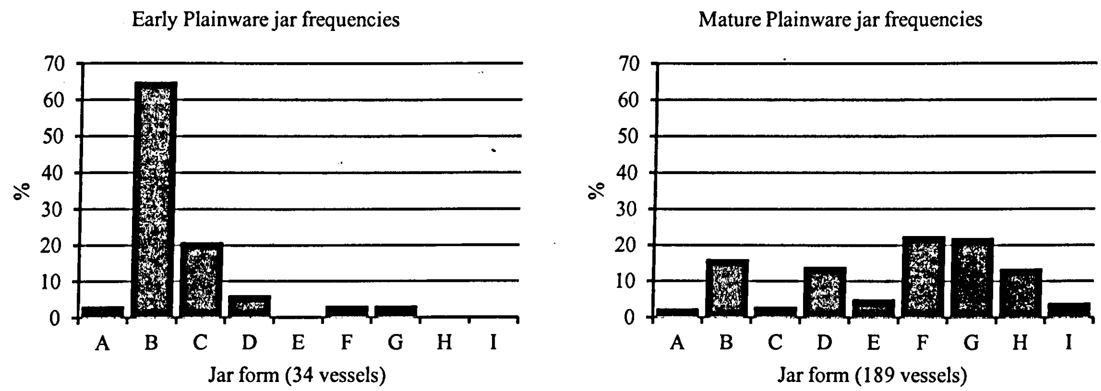


Figure 5.8. Changes to the frequency of Plainware jar forms.

5.5.2 Changes to vessel rims and bases

The diversification of vessel forms went hand-in-hand with changes to rim morphology. In the early Plainware groups, simple rounded rims (Type 1) dominate, followed by vessels with flat rims (Type 2) and those with in-turned or 'hooked' rims (Type 8). Other types constitute a minor component, although bevelled (Type 4), expanded (Types 5-6), and everted varieties (Types 10-12) are all represented (Figure 5.9). With the maturation of the Plainware style, assemblages tend to display a greater range of rim mouldings, with new forms including vessels with tapered (Type 3), T-shaped (Type 7), and very occasionally beaded lips (Type 9).

More significant than the addition of new rim types are the changes in relative frequency. Figure 5.9 demonstrates a shift from the predominance of rounded to flattened rims. There is also a marked fall in the frequency of hooked rims (Type 8), no doubt related to the decline in Form B and C jars discussed above. The other changes are more subtle, but include a slight rise in the occurrence of expanded and everted varieties. It is also notable that many of the coarseware jars belonging to mature Plainware groups display marked internal neck bevels, even through the rims themselves may be flat or rounded. Likewise, a very small number have internally hollowed necks potentially functioning as lid-seats. In general, the burnished finewares of the mature Plainware group have the most carefully executed rim mouldings, with some displaying very precise and delicately shaped lips. Unlike the coarsewares, these burnished pots tend to exhibit rims which remained consistent in form around the circumference of the vessel mouth, reflecting the greater degree of care taken over visual appearance.

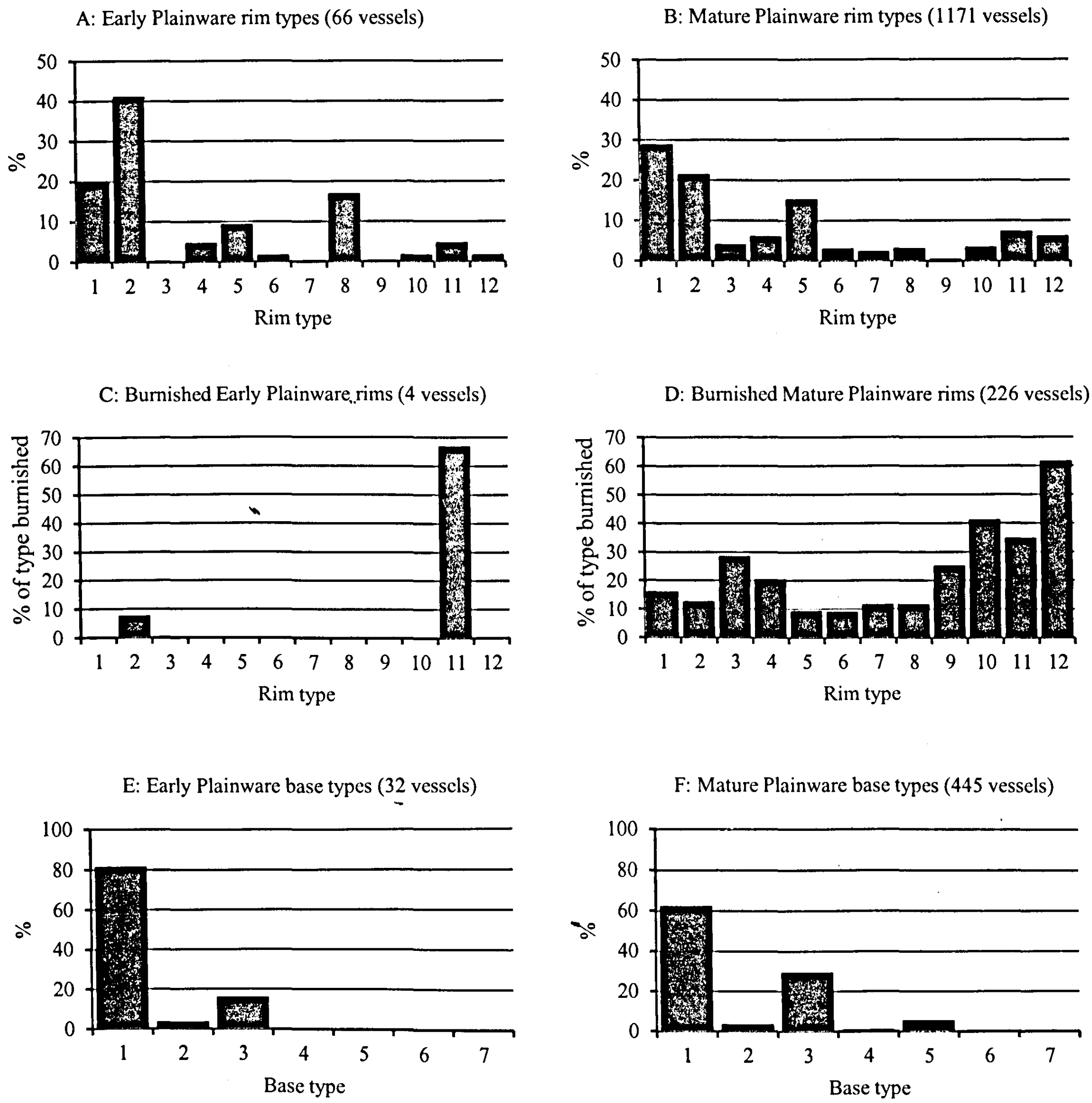


Figure 5.9. Changes in the frequency of Plainware rim and base types.

Although a wide variety of rim forms are ultimately burnished, the most commonly treated are the everted varieties, particularly Type 12 rims in mature Plainware assemblages (Figure 5.9 D). Most of these belong to bowls and cups, and commonly associated with Form K and N vessels (Figure 5.10). Apart from the expected correlation between Form C jars and Type 8 rims in the early Plainware group, the only other major rim type/vessel form relationship exists between Type 1, 2 and 5 rims in mature Plainware assemblages, and Forms D, F and G jars.

By comparison, the changes to base forms and base frequencies are relatively minor. Of greatest significance is the adoption of the omphalos base (Type 5), which probably occurred during the tenth century BC. These are found exclusively on fineware vessels, and constitute c. 5% of classifiable base forms in the mature Plainware group. Pinched bases (Types 3), on the other hand, are a coarseware form, whilst the flat variety (Type 1) is not class-specific. Both types are regularly found with abundant 'flint gritting' on their underside. This is a product of manufacturing technique, and results from the base being rested on a bed of crushed burnt flint during moulding; a practice which prevented the unfired pot from sticking to the working surface. Gritted bases are present throughout all but the latest centuries of the PDR sequence. In the Plainware groups, they feature on both coarsewares and finewares, whereas in later assemblages they are primarily associated with large coarseware vessels.

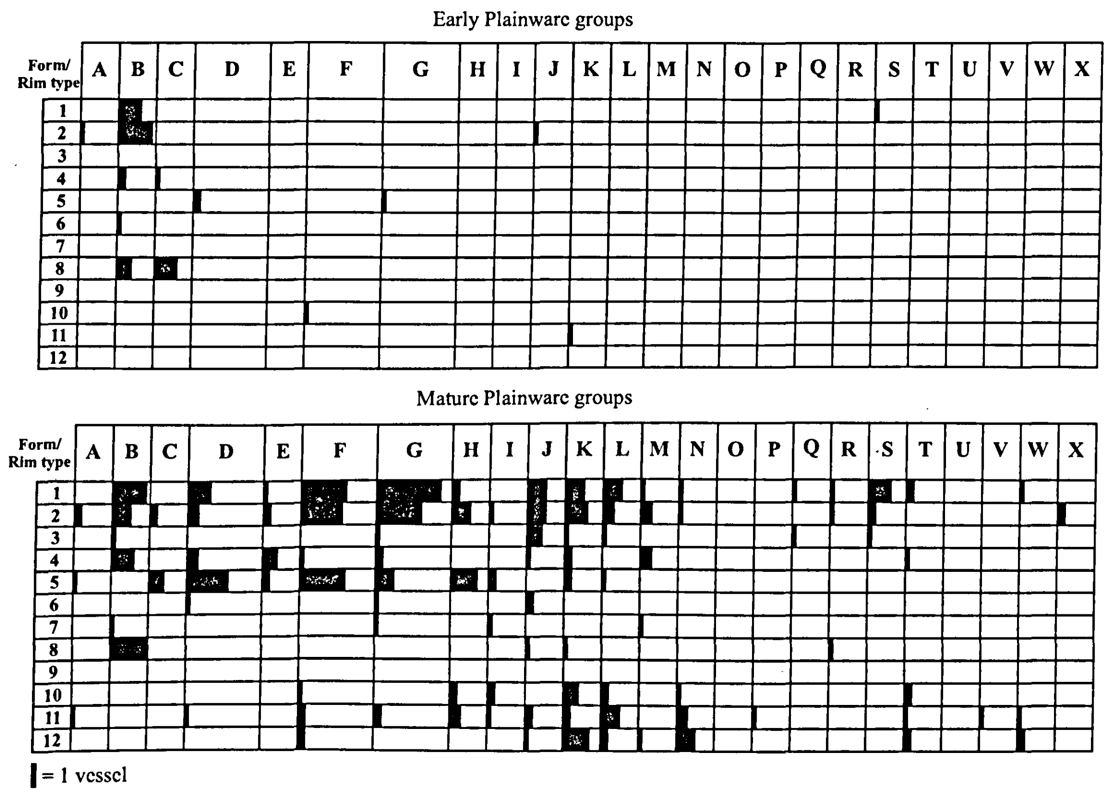


Figure 5.10. Relationship between Plainware rim type and vessel form.

5.5.3 Changes in vessel size

Transformations in vessel size are more difficult to document with the primary data as there are only 25 measurable early Plainware vessel rims compared to 295 mature ones (Figure 5.11). The greater range of rim sizes in the later groups is a product of the larger sample size. Whilst the graphs reveal most early Plainwares to have rim diameters of 12-25cm, the patterns from the mature group are more complex, with a marked peak in the distribution around 14-17cm, followed by a small secondary peak at 24-25cm, and a long but gradually declining tail of larger measurements.

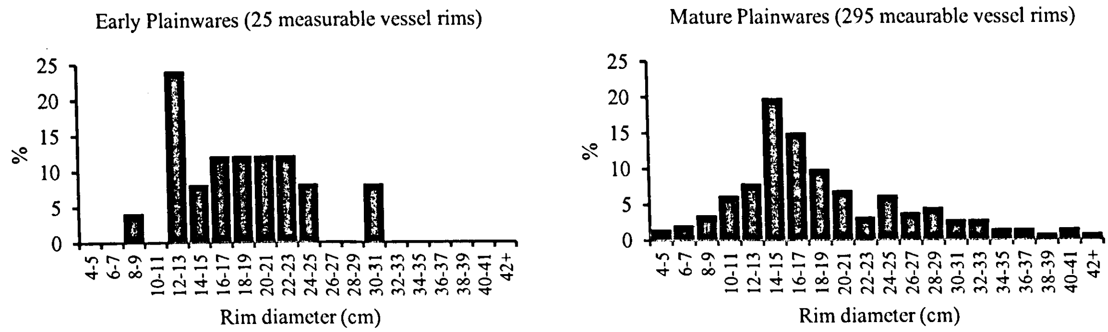


Figure 5.11. Plainware rim diameter frequencies.

A high frequency of smaller vessels is typical of most later prehistoric pottery assemblages in eastern England (Brudenell 2007, 249, Fig. A3.5; 254, Fig. A3.10; Hill and Braddock 2006, 17, Fig. 5.72; Hill and Horne 2003, 72, fFigs. 71-72; Webley 2007b, 225, Fig.8.5; 233, Fig.8.9). This is thought to reflect the higher breakage and deposition rate of smaller cooking and serving vessels, used and handled in day-to-day activities, compared to larger pots and storage vessels which may have moved, used and broken on a less frequent basis (Hill 1995, 129-30; Hill and Horne 182). The relative proportion of small vessels may be further skewed in highly fragmented assemblages where it is often difficult to gauge the diameter of large mouthed vessels from small sherds (Brudenell 2007, 244). The graphs do not therefore reflect the proportion of different sized vessels in the original 'living' assemblage.

These caveats notwithstanding, interesting patterns are revealed when the rim diameters of jars, bowls, cups, and their respective forms are considered independently (Figure 5.12), and discussed in relation to the vessel-size categories outlined in Table 5.4.

Jars (Class I & II)		Bowls (Class III & IV)		Cups (Class V)	
Category	**Diameter range**	**Category**	**Diameter range**	**Category**	**Diameter range**
Small	<18cm	Small	<14 cm	NA	< c.11 cm
Medium	18-25cm	Standard-sized	14-19cm		
Large	26-33cm	Large	>19cm		
Very Large	>33cm				

Table 5.4. Vessel-size categories. Although these ranges are somewhat arbitrary, they provide a simple means of discussing vessel sizes within and between PDR assemblages

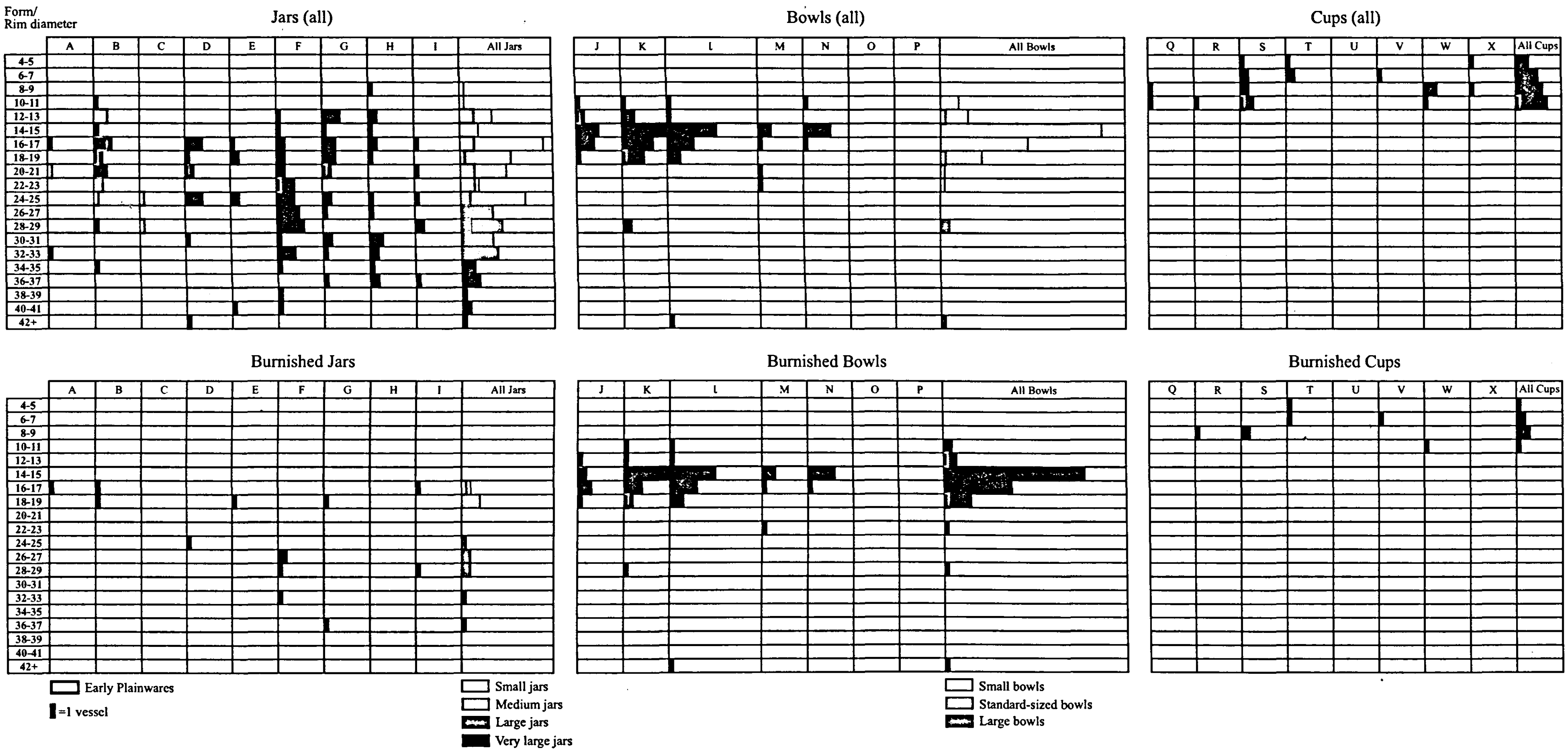


Figure 5.12. Relationship between mature Plainware rim diameters and vessel forms. For comparison, early Plainwares are marked in red.

Most jars were made in a variety of sizes, with a broadly equal balance of small, medium and large-sized vessels. Whilst there is no simple correlation between vessel form and size category (Figure 5.12), there are hints that certain jar shapes were more commonly associated with particular rim diameter ranges. For example, Form F jars are usually medium and large-sized vessels, whilst Forms G and H typically fall within the small or large-sized category. Other relationships are obscured by the low counts, though there is the suggestion that Form B jars are commonly small or medium-sized vessels.

More obvious patterning is evident in the bowl sizes. As Figure 5.12 demonstrates, there is a single marked peak in the distribution of bowl rim diameters centred upon 14-15cm. By count, 96% of bowls display diameters of 10-22cm, with 69% falling within the 'standard-size' range. This pattern is consistent across individual forms, particularly the common types of J, K and L. We might therefore suggest that the vast majority of Late Bronze Age bowls were made around a relatively narrow range of accepted sizes, implying that the practices which surrounded their production were potentially governed by a more widely recognised set of protocols. In this context, the large-size bowl may be considered unusual, and potentially had a specialised function.

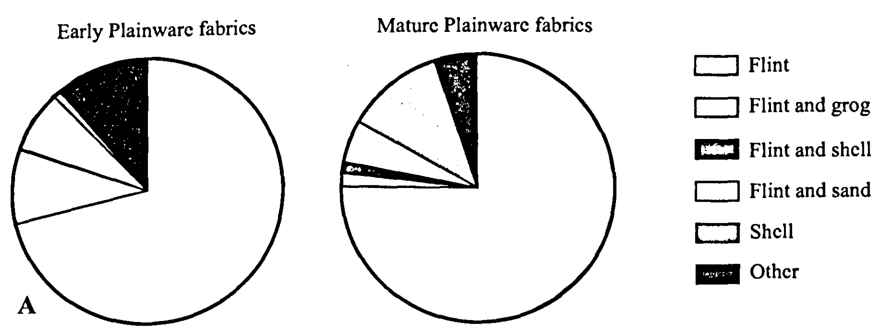
5.5.4 Changes in fabrics

The maturation of the Plainware style was not accompanied by any wholesale changes to vessel fabrics. Although variability is evident on a site-by-site basis, the overall fabric group frequencies for early and mature Plainwares is remarkably similar, with over 70% of the pottery tempered with crushed burnt flint (Table 5.5).

Of potential chronological significance is the fall in grog and flint fabrics, from 10% in the early Plainwares group to just 2% in the mature one (Figure 5.13A). Grog and a mix of grog-and-flint were two of the principal tempers used in the production of Deverel-Rimbury vessels in East Anglia, particularly in the southern half of the region (Brown 1995a, 127-129). Their comparatively high frequencies in the early Plainware group might imply that fabric recipes continued along traditional lines during the initial development of the PDR style – a practice which tailed off around the turn of first millennium BC when other vessel forms and features with Deverel-Rimbury ancestry also began to fade away. With regards to chronological trends, the increase in shelly wares is of less significance, and simply reflects the number of primary data sites from Cambridgeshire's western fen edge; a region where shell-rich Jurassic clays were widely exploited. Many of the other subtle differences between assemblages are probably also due to variations in local geology.

Fabric	Fabric group codes	Early Plainwares		Mature Plainwares	
		Total wt. (g)	%	Total wt. (g)	%
Flint	F	10220	71.3	181845	75.1
Flint and grog	FG, GF	1415	9.9	4165	1.7
Flint and shell	FS, SF	26	0.2	3118	1.3
Flint and sand	FQ, QF	1050	7.3	12457	5.1
Flint and voids	FVO, VOF	431	3.0	-	-
Flint and quartz	FQZ, QZF	122	0.9	1099	0.5
Flint and veg.	FVE, VEF	-	-	209	0.1
Flint and chalk	FCH	-	-	301	0.1
Flint, shell and grog	FGS	5	<0.1	-	-
Flint, veg. and sand	FQVE	-	-	72	<0.1
Flint, quartz, grog	QZFG	-	-	2060	0.9
Flint, grog and sand	QFG	-	-	11	<0.1
Shell	S	134	0.9	28306	11.7
Shell and sand	SQ, QS	104	0.7	1352	0.6
Shell and grog	SG, GS	53	0.4	616	0.3
Shell, grog, sand	GSQ	-	-	29	<0.1
Grog	G	23	0.2	2118	0.9
Sand	Q	54	0.4	1473	0.6
Quartz	QZ	-	-	1232	0.5
Quartz and sand	QZQ	-	-	88	<0.1
Quartz and voids	QZVO	-	-	101	<0.1
Veg.	VE	-	-	7	<0.1
Veg. and sand	VEQ, QVE	-	-	158	0.1
Voids	VO	-	-	45	<0.1
?	?	699	4.9	1154	0.5
TOTAL	-	*14336*	*100.1*	*242016*	*100.0*

Table 5.5. Plainware fabric group frequencies.



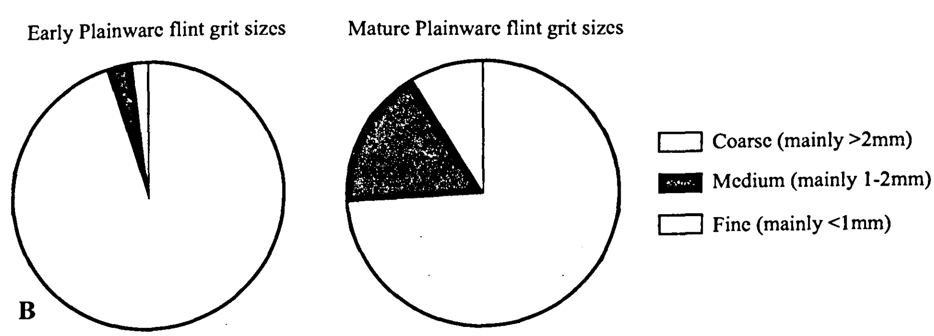


Figure 5.13. Changes to Plainware fabrics. A. Shifts in the proportion of major fabric groups (>1%); B. Shifts in the modal size of burnt flint grit inclusions.

Of greater importance are the changes in the modal size of the burnt flint grit inclusions used in both early and mature Plainwares (Figure 5.13B). In the early group, coarse flint inclusions are present in 95% of the flint tempered pottery. This falls to 74% in the mature group, where a fivefold increase in the frequency of medium and finely gritted flint fabrics is observed (medium: 3-17% increase; fine: 2-9% increase). The growing emphases on finer grades of calcined flint attest to changing techniques of clay preparation and production, with potters controlling (sieving?) and selecting different sizes of flint appropriate to the manufacture of different vessels. The finer grades facilitated the production of thin-walled pots, and a greater variety of complex vessel forms, included carinated bowls and jars. It also allowed potters to obtain smoother surface finishes, which served to accentuate the visual and tactile distinctions between un-burnished coarsewares and burnished finewares. These changes were therefore bound up with broader transformations to the ceramic repertoire which marked the maturation of the Plainware style, and helped open up the possibilities of vessel diversification.

5.5.5 Changes in decoration

Irrespective of ceramic phase, decoration was only ever intermittently applied to vessels in the Late Bronze Age, with on average less than 2% of sherds in the region's assemblages displaying ornamentation (though frequencies varied from 0.0-5.7% across individual sites[14]). However, despite gross counts revealing no marked changes to decorative frequencies *overall* within the Plainware sequence[15], the data documents some important shifts in the character, location and incidence of embellishment on certain vessel zones.

One facet of the decorative repertoire which can be quantified and compared quite reliably is the frequency of rim ornamentation (Table 5.6). Of the 66 different early Plainware rims recorded in this study, nine were ornamented, representing 13.6%; a figure nearly double that achieved for the mature group (7.7%). Counter to accepted wisdom, this implies that decorative levels actually

[14] The calculated frequencies for Broomfield (15.9%), North Shoebury (11.9%) and Slough House Farm (14.5%) were removed from this analysis as the figures were deemed unreliable. In these instances the high frequencies are the result of the original recording procedure, where decorated sherds from broken but partially complete vessels were not separated from their re-fitting or associated plain sherds, but were counted, weighed and input together on a single data entry field. When sorted by decoration, the data therefore suggests a much higher count of ornamented sherds than is actually the case.

[15] As Needham (1996c, 112) has noted, meaningful figures on decoration cannot be calculated in a straightforward manner, as ornamentation is vessel class and vessel zone specific on PDR pots, primarily focussing on the rim, neck and shoulder. As a result, gross counts, such as the proportion of decorated to undecorated sherds/feature sherds tend to either over or underestimate the overall incidence, depending on what type and which parts of vessels are recovered.

declined with the development of the Plainware style - a trend no doubt reflecting the prevalence of ornamentation in the antecedent Deverel-Rimbury tradition, and its lingering influence on early Plainware ceramics. On the other hand, it is clear that a far more varied range of decorative treatments were applied to pots in the mature Plainware phase.

Site/ Decoration totals	Total no. of decorated vessels	No. different rims	No. decorated rims (vessel count)	No. coarseware rim (vessel count)	% Rims decorated	% Coarseware rims decorated
Broads Green	6	16	5	15	31.3	33.3*
Caple	5	26	1	24	3.8	4.2
Rhee Lakeside South	3	24	3	23	12.5	13.0
EARLY PLAINWARE TOTAL	*14*	*66*	*9*	*62*	*13.6*	*14.5*
Addenbrooke's Hutchinson Site	8	45	3	41	6.7	7.3
Aylsham Bypass	7	25	1	22	4.0	4.5
Bradley Fen	2	6	0	6	0.0	0.0*
Broomfield	25	69	6	54	8.7	11.1
Burwell	6	87	4	55	4.6	7.3
County Farm	2	11	0	9	0.0	0.0*
Frog Hall Farm	3	34	2	25	5.9	8.0
Fordham Bypass	0	18	0	14	0.0	0.0*
Godwin Ridge	81	372	30	339	8.1	8.8
Hales Barn	2	9	2	8	22.2	25.0*
Lofts Farm	7	20	0	14	0.0	0.0*
Must Farm	5	59	2	28	3.4	7.1
North Shoebury	24	68	5	52	7.4	9.6
Slough House Farm	13	18	5	15	27.8	33.3*
Stonea	14	58	7	47	12.1	14.9
Striplands Farm	41	225	20	196	8.9	10.2
Mucking North Ring	14	51	3	35?	5.9	8.6?
Mucking South Rings	8	17	2	4	11.8	0.0*
MATURE PLAINWARE TOTAL	*262*	*1191*	*92*	*963*	*7.7*	*9.6*

Table 5.6. Decorated Plainware vessel totals and rim ornamentation frequencies. * indicates individual frequencies possibly skewed by low rim numbers (<21).

On early PDR vessels, decoration is restricted to the moulding of cordons, the use of fingertip/nail treatments and tooled slashing[1] - techniques exclusive to the coarsewares. On the mature Plainwares, by contrast, 32 different types of treatment are recorded amongst the sampled assemblages, including a myriad of fingertip and tooled applications on the coarsewares, as well as incised, grooved, combed and furrowed forms of decoration on the finewares (Tables 5.7 and 5.8). Despite this variety, 49% of all decorated vessels are still adorned by simple fingertip impressions, with a further 11% retaining plain or decorated cordons. Perhaps most surprisingly, 20% of the decorated vessels in this phase are finewares.

The zoning of decoration also shifted in subtle ways (Figure 5.14). Though rim-top and shoulder applications continued to dominate, new zones began to be embellished including the rim- exterior and interior. The expansion of decoration onto these areas was possibly an impetus

[1] The single incised sherd from Broads Green was possibly misidentified, since it only weighed 1g.

Decoration/ Vessel zone	Mainly coarsware applications																					Mainly fineware applications											
	Pinched	Slashed	Cabled	Cabled and finger-tipped	Finger-tipped and tool impressed	Ridged	Stabbed	Tool impressed and stabbed	Tool impressed	Finger moulded corrugations	Finger nail impressed	Finger-tipped	Finger-tipped double row	Tool impressed, finger-tipped and incised	Scored	Cabled and cordoned: Finger-tipped	Cordoned: Plain	Cordoned: Cabled	Cordoned: Fingernail	Cordoned: Finger-tipped	Cordoned: Slashed	Finger moulded dimples	Furrowed	Furrows and finger moulded dimples	Furrows and incised lines	Incised horizontal lines	Incised geometric motifs	Grooved geometric motifs	Grooved horizontal lines	Combed	Circular punch marks	Circular punch marks and incised lines	TOTAL
Rim-top		2									1	5																					8
Rim-exterior																																	
Rim-interior																																	
Rim-top and rim-exterior																																	
Rim-top and neck																																	
Rim-top, neck and shoulder																																	
Rim-top and shoulder												1																					1
Rim-exterior and neck																																	
Rim-interior, neck and body																																	
Rim-interior and shoulder																																	
Neck																				2													2
Neck and shoulder																																	
Shoulder												2																					2
Body																										1							1
Base																																	
Uncertain																																	
TOTAL		2									1	8								2						1							14

Decoration/ Vessel zone	Rim diameter (cm)																			
	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	30-31	32-33	34-35	36-37	38-39	40-41	42+
Rim-top									▮											
Rim-exterior																				
Rim-interior																				
Rim-top and rim-exterior																				
Rim-top and neck																				
Rim-top, neck and shoulder																				
Rim-top and shoulder																				
Rim-exterior and neck																				
Rim-interior, neck and body																				
Rim-interior and shoulder																				
Neck																				
Neck and shoulder																				
Shoulder																				
Body																				
Base																				
Uncertain																				

Rim diameter (cm)	Pinched	Slashed	Cabled	Cabled and finger-tipped	Finger-tipped and tool impressed	Ridged	Stabbed	Tool impressed and stabbed	Tool impressed	Finger moulded corrugations	Finger nail impressed	Finger-tipped	Finger-tipped double row	Tool impressed, finger-tipped and incised	Scored	Cabled and cordoned: Finger-tipped	Cordoned: Plain	Cordoned: Cabled	Cordoned: Fingernail	Cordoned: Finger-tipped	Cordoned: Slashed	Finger moulded dimples	Furrowed	Furrows and finger moulded dimples	Furrows and incised lines	Incised horizontal lines	Incised geometric motifs	Grooved geometric motifs	Grooved horizontal lines	Combed	Circular punch marks	Circular punch marks and incised lines
4-5																																
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32-33																																
34-35																																
36-37																																
38-39																																
40-41																																
42+																																

▮ = 1 vessel

Table 5.7. Early Plainware decoration totals and their relationship to vessel zones and rim diameters (by vessel count).

Decoration/ Vessel zone	Pinched	Slashed	Cabled	Cabled and finger-tipped	Finger-tipped and tool impressed	Ridged	Stabbed	Tool impressed and stabbed	Tool impressed	Finger moulded corrugations	Finger nail impressed	Finger-tipped	Finger-tipped double row	Tool impressed, finger-tipped and incised	Scored	Cabled and cordoned: Finger-tipped	Cordoned: Plain	Cordoned: Cabled	Cordoned: Fingernail	Cordoned: Finger-tipped	Cordoned: Slashed	Finger moulded dimples	Furrowed	Furrows and finger moulded dimples	Furrows and incised lines	Incised horizontal lines	Incised geometric motifs	Grooved geometric motifs	Grooved horizontal lines	Combed	Circular punch marks	Circular punch marks and incised lines	TOTAL
	Mainly coarsware applications																					Mainly fineware applications											
Rim-top		3	7						3		7	41																					62
Rim-exterior		3				1			3		2	8																					17
Rim-interior			1								1	2																					4
Rim-top and rim-exterior												1																					1
Rim-top and neck														1																			1
Rim-top, neck and shoulder				1																													1
Rim-top and shoulder					1							1				1																	3
Rim-exterior and neck								1																									1
Rim-interior, neck and body																											1						1
Rim-interior and shoulder												1																					1
Neck	1						1					9	1				1		1	3	1	1	1			5	3		4	2			34
Neck and shoulder										1														1		1				1			4
Shoulder									2		3	48					4	1		1	2				1	1	1		6		1	1	72
Body									1			2			1					2						3		2	5	2			18
Base																													1				1
Uncertain							1		1		1	16			1		5			7			1			6			2				41
TOTAL	1	6	8	1	1	1	2	1	10	1	14	129	1	1	2	1	10	1	1	13	3	1	2	1	1	16	5	2	19	5	1	1	262

Rim diameter (cm): 4-5, 6-7, 8-9, 10-11, 12-13, 14-15, 16-17, 18-19, 20-21, 22-23, 24-25, 26-27, 28-29, 30-31, 32-33, 34-35, 36-37, 38-39, 40-41, 42+

▮ = 1 vessel

Table 5.8. Mature Plainware decoration totals and their relationship to vessel zones and rim diameters (by vessel count).

for/consequence of the growing emphasis on flattened, pinched and expanded rim forms; these providing new 'panels' for adornment not catered for by the rounded and hooked varieties prevalent in early Plainware groups.

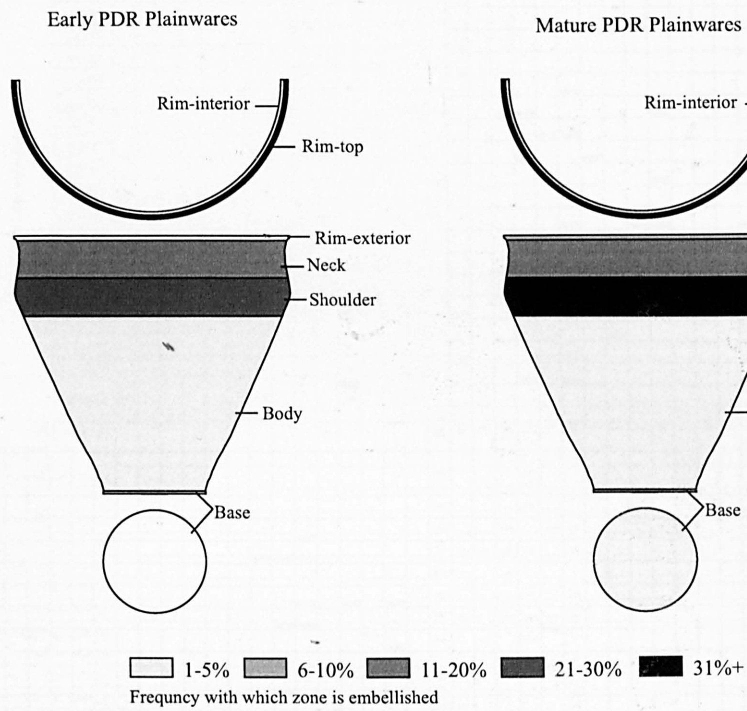

Figure 5.14. The changing focus of decoration on Plainwares.

Any relationship between decoration, vessel form and vessel size is more difficult discern, not least because of the small sample size of the early Plainware groups. However, data from the mature assemblages indicate that all sizes of coarseware were treated, with no particular bias in favour of one size category. Form F and G jars are the most frequently embellished, but this probably reflects their relative abundance. The only notable pattern is with plain and decorated cordons which are found exclusively on large and very large jars.

The decorated finewares of this phase are predominantly bowls and cups, ornamented on the neck, shoulder and body. As expected, these vessels display rim diameters measuring less than 18cm (small and standard-sized bowls and cups), and although few forms survive, it is interesting that all the classifiable types belonged to Forms J and K. Given that fineware applications are believed to be a late addition to the Plainware decorative repertoire, appearing around the mid to late ninth century BC (Needham 1991, 377), the absence of ornamentation on bowl of Forms L, M, or N is intriguing, since these share an equally late origin; particularly Forms M and N. In other words, it appears that 'traditional' or established fineware forms received the first decorative treatments, not the new types grafted into the mature Plainware series.

5.5.6 The currency and chronology of mature Plainwares

There can be no doubt that the currency of the mature Plainware phase was broadly coeval with that of the Ewart Park metalworking tradition. Although direct depositional associations between pottery and datable objects of Late Bronze Age metalwork remain rare in East Anglia, there are a handful of secure and well documented associations in both hoard and settlement-related contexts. With regard to questions of ceramic chronology, the most significant include the hoards placed in single semi-complete Plainware bowls at Beeston Regis, Norfolk (Lawson 1980b) and Broxted, Essex (McLean 2008); the ceramics stratified with large deposits of Ewart Park-type swords moulds in the Springfield Lyons ringwork, Essex (Buckley and Hedges 1987; Brown and Buckley forthcoming), and the pottery-metalwork associations recorded in the conflagration horizon at the Must Farm platform site, Cambridgeshire (Knight 2009). In these contexts, the metalwork associations confirm that the mature Plainwares post-date c. 1020 BC, and belong to the first two centuries of the first millennium BC.

Intriguingly, one of the two radiocarbon determinations associated with the mould dumps at Springfield Lyons is non-synchronous with the conventional understanding of the Ewart Park metalwork chronology, yielding a date of 1310-1010 cal. BC (2950±45 BP; Table 5.1, no. 3). This will probably be accepted as being a shade too early, and is unlikely to throw doubt on the typo-chronology of the British metalwork sequence. However, it serves to demonstrate the potential dangers of relying on single radiocarbon results, and the difficulties we face with marrying individual determinations with the periodisation of our typological schemes. These problems are particularly acute when it comes to discussions of the pottery, where there has not been a push to model the absolute currency of Late Bronze Age ceramic phases in any systematic manner. Certainly, based on the list of dates presented in Table 5.1, it could be argued that there is no clear-cut chronological separation between early and mature Plainware phases recognised - nor any reason to place a transition around c. 1000 BC. In fact, seven of the 'high precision' determinations associated with the mature Plainware groups have calibrated ranges which straddle this transition by up to two centuries; with some being indistinguishable to those achieved for the early Plainwares. However, these observations do not necessarily discredit the suggested periodisation. Irrespective of these overlapping dates, there is still compelling evidence for typological development within the Plainware sequence which should, in theory, have a temporal dimension. Moreover, where there are unambiguous associations with hoards or individual items of Ewart Park metalwork, the ceramics invariably belong to the mature Plainware tradition, and *must* post-date 1020 BC (accepting conventional metalwork chronologies).

We should therefore be wary of any simplistic or straightforward 'reading' of the present radiocarbon miscellanea. Indeed, typological dating arguably provides a more sensitive gauge of ceramic currency than the patterns revealed in the bracketing of individual calibrated radiocarbon results. For instance, the two sigma ranges of most 'good' Late Bronze Age determinations seem to either begin or end around c. 900 BC. This date appears to be some sort of 'calibration threshold', with results between c. 1200-900 BC being associated with assemblages of both early and mature Plainwares, whilst calibrations of c. 900-800 BC are only associated with the latter. These dating brackets do not reflect any real divisions in the Bronze Age ceramic sequence around 900 BC, but express the limits of resolution provided by single date calibrations with the current radiocarbon curve. What they do confirm, however, is that the early Plainwares do not post-date the tenth century BC, which is something also supported by the pottery-metalwork associations. Assuming then that there is a linear progression from early to mature Plainwares, this transition must have occurred sometime between c. 1150-900 BC. The proposed date around the turn of the millennium is therefore an educated guess at present, but one which fits neatly with the changes to contemporary metalworking traditions. By contrast, the demise of the mature Plainware style is far easier to determine, as none of the reliable dates have end ranges extending more than a few decades beyond 800 BC.

5.6 'Early' Decorated ware groups: developments c. 850/800-600/500 BC

The Bronze Age-Iron Age transition was accompanied by a broadening of the ceramic repertoire and a new emphasis on decoration (Figure 5.15). These changes define Decorated phase assemblages, to which we conveniently assign a start date of c. 800 BC, so as to coincide with the beginning of the Early Iron Age. In reality, it is unlikely that there was a single moment when one ceramic phase switched to the next. Changes may not have been perfectly synchronised between regions, or between sites *within* regions. Instead we should envisage a period of transition, occurring over a few generations, in which new vessel forms and decorative schemes were gradually incorporated into the traditional practices of potting. This process was probably underway in the closing decades the ninth century BC, with changes becoming formalised in the period *after* 800 BC, during the Earliest Iron Age (c. 800-600 BC).

Opportunities to document and detail the transformations which occurred during the Bronze Age-Iron Age transition (c. 850-750 BC) are scarce in East Anglia. With the exception of the ringwork

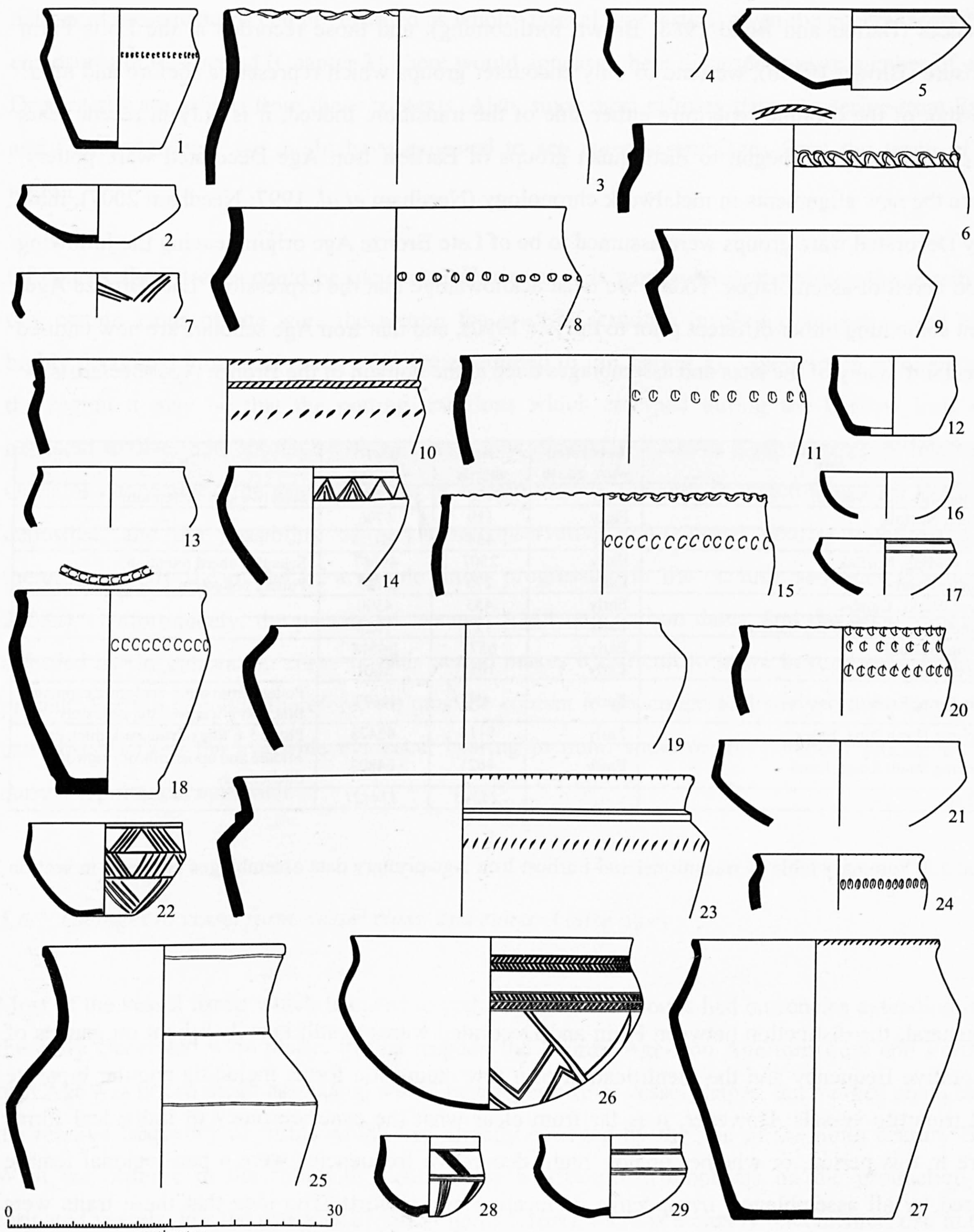

Figure 5.15. Vessels characteristic of early Decorated ware groups. 1-2. Mucking South Rings, Essex; 3-4. Mucking North Ring, Essex (after Bond 1988, 30, Fig. 21, nos. 30, 35); 5-10. West Harling, Norfolk (after Clark and Fell 1953, 16, 19, 21, Figs. 10, 13, 15, nos. 1, 4, 8, 37, 69, 74); 11-13. Ormesby, Norfolk; 14-21. Exning, Suffolk; 22-24. Gravel Hill, Suffolk; 25. Lofts Farms, Essex (Brown 1988b, 266, Fig. 15, no. 53); 26-27. Cromer, Nofrolk (after Cunliffe 2005, 616, Fig. A:5, no. 15); 28-29. Fengate, Cambs. (after Hawkes and Fell 1945, 206, 209, Figs. 5, 7, nos. K1, R4).

sequences (Barrett and Bond 1988; Brown forthcoming), and those recorded at the Lofts Farm enclosure (Brown 1988b), we tend to only encounter groups which represent a 'before and after' snap-shot of the ceramic repertoire either side of the transition. Indeed, it is only in recent years that ceramicists have begun to distinguish groups of Earliest Iron Age Decorated ware pottery. Before the new alignments in metalwork chronology (Needham *et al.* 1997; Needham 2007), most Early Decorated ware groups were assumed to be of Late Bronze Age origin, leaving the following period bereft of assemblages. Today, we must acknowledge that the expression 'Late Bronze Age' meant something rather different prior to the late 1990s, and that Iron Age scholars are now entitled to 'reclaim' many of the sites and assemblages once in the domain of the Bronze Age specialists.

Site	Decorated ware phase	No. sherds	Sherd wt. (g)	Notes
Warborough Hill, Norfolk	Early	460	3793	Selective sherd retention?
Cromer, Norfolk	Early	189	4796	-
Ormesby, Norfolk	Early	454	7028	-
West Harling, Norfolk	Early	2507	49387	Selective sherd retention
Fengate, Cambs.	Early	270	6739	Pottery collection
Tower Works, Cambs.	Early	455	4500	-
Trumpington Park & Ride, Cambs.	Early	127	1025	-
Exning, Suffolk	Early	6577	94514	-
Gravel Hill, Suffolk	Early	1037	9661	-
Lofts Farm, Essex	Early	430	4697	Pottery from outer enclosure capping fills, and lower well deposits only
Mucking North Ring, Essex	Early	7116	83478	Phase 5-6 fills of ringwork ditch only
Mucking South Rings, Essex	Early	4621	64803	Middle and upper fills of ringwork ditches only
TOTAL	-	*24243*	*334421*	-

Table 5.9. Summary table of transitional and Earliest Iron Age primary data assemblages analysed in section 5.6.

In general, the distinction between Plain and Decorated wares is still heavily reliant on gauges of decorative frequency and the identification of a few diagnostic forms including angular bipartite and tripartite vessels. However, it is far from clear what the exact currency of individual forms were in this period, or whether or not 'high' decorative frequencies were a pan-regional feature shared by all assemblages, *irrespective* of location and context. The idea that these traits were confined to the transition and Earliest Iron Age is also an assumption on the part of ceramicists, but one which provides a convenient linearity to the regional ceramic sequence.

Looking down the list of primary data sites assigned to this period (Table 5.9), and analysed in detail in the following sections, there may indeed be good grounds for scepticism – not least because several assemblages derive from 'old' excavations/collections where material may have been selectively retained. Furthermore, most of the sites are located in the north of the region (Norfolk and north Suffolk), with five of the twelve recovered from enclosed settlements. In truth, neither of these patterns can be regarded as wholly typical. For a start, given the general scarcity of enclosures in this period (Chapter 3), there would appear to be a disproportionate number of early Decorated ware groups from these contexts. Also, since most primary data site derive from Essex and Cambridgeshire, we might have expected to see *more* assemblages from the south of the region.

Of course, these trends could be incidental. However, it is worthwhile entertaining the possibility that certain kinds of site were the setting for specific activities involving distinctive and often highly decorated groups of pottery (an issue returned to in Chapter 7). Likewise, in some parts of the region it may be that the potting traditions which emerged during the Earliest Iron Age persisted until c. 350/300 BC with relatively few changes - making close phasing problematic. Questions concerning the role and status of certain vessels, the sites in which they were used and deposited, and the possibility of persistent/conservative sub-regional potting traditions, may therefore muddy the model of a simple linear progression in the ceramic sequence (Brudenell 2008a). Unfortunately, the paucity of 'secure' AMS radiocarbon dates, and the poor resolution afforded by the calibration curve for this period makes it difficult to move beyond speculation at present. For the moment, therefore, we must be content to document and analyse the changes we can observe from the available evidence, bearing in mind some of the potential pitfalls of the current typological approach.

5.6.1. Changes in vessel form, vessel class, and rim and base types

Most of the vessel forms which featured in mature Plainware groups had currencies extending into the early Decorated ware phase. In this respect, the Bronze Age-Iron Age transition and Earliest Iron Age was not so much associated with a new repertoire of vessel shapes, but marked changes to the relative frequency of forms which had already emerged by the end of the ninth century BC. What we observe in the following centuries is a widespread emphasis on the production of carinated vessels. For the category of jars (Figure 5.16A), there is a clearly documented rise in the frequency of pots with marked shoulders and hollowed or concave necks (Form H), as well as those displaying angular tripartite profiles with upright, everted or flared rims (Form I). Bipartite (Form E) and weakly shouldered jar types (Form G) also become more prevalent, whilst other vessels with 'simple' shapes or round-shouldered profiles diminish in significance - particularly straight sided or convex walled jars (Form B), and barrel/tub-shaped vessels (Form D).

The same patterns can be traced in the bowl series, though the trends are somewhat more exaggerated. Figure 5.16B demonstrates a marked increase in the frequency of angular bipartite

(Form M) and tripartite bowls (Form N), set against a declining representation of round bodied forms (Form K), and shouldered bowls with hollowed or concave necks (Form L) – types which dominated the mature Plainware repertoire[17]. With regards to vessel form and rim type, the only correlation of note is between beaded rims (Type 9) and the Form M bipartite bowls (Figure 5.17). These are widely recognised as one of the main diagnostic ceramics of this period, with an ancestry in the late ninth century BC. The Type 9 rims are commonly burnished, and in general, there is an increased proportion of this kind of surface treatment across all rim type categories (Figure 5.16D).

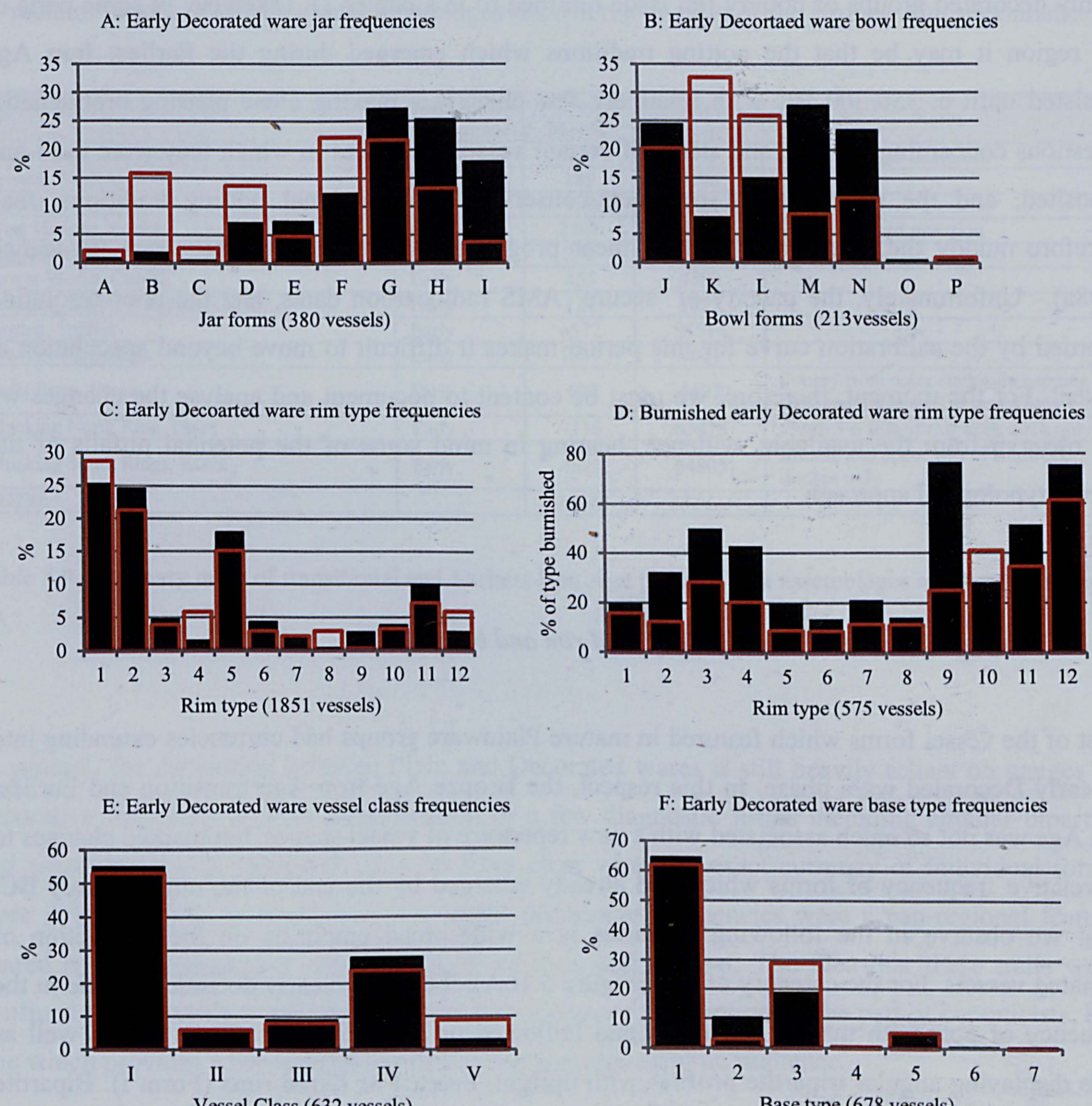

Figure 5.16. Early Decorated ware rim, base and vessel class frequencies. For comparison, mature Plainware frequencies are marked in red.

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[17] The frequency of hemispherical Form J bowls is largely unchanged, though this is partly due to the large number recovered from the Mucking North Ring (33 different vessels). In other assemblages they are not as common. This may reflect the 'transitional' nature of the North Ring assemblage.

The shifts in vessel form representation do not alter the overall class profile of PDR assemblages (Figure 5.16E). There are likewise few changes to the type or frequency of rim and base categories (Figure 5.16 C & F). The sporadic inclusion of foot-ring bases (Type 6; four examples) represents the sole addition to the repertoire. The examples recorded here are unlike those commonly encountered in later groups, and are best considered 'proto' foot-rings, differing only slightly from the shallow and less pronounced omphalos varieties (Type 5.2).

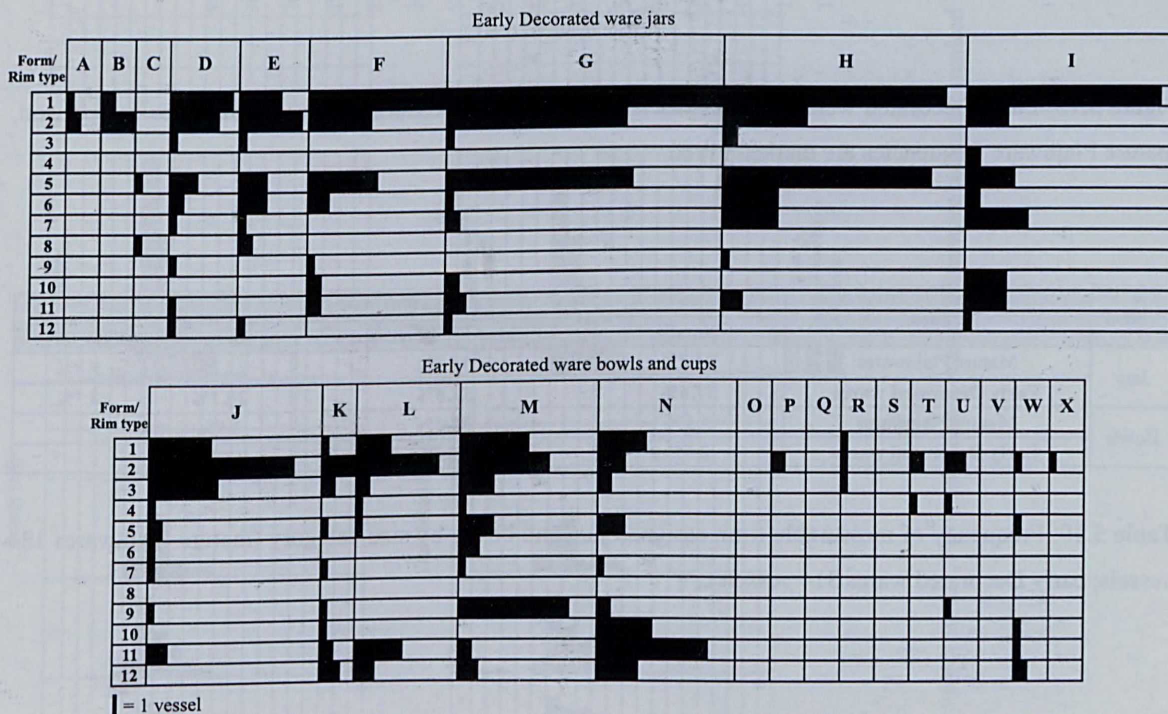


Figure 5.17. Relationship between early Decorated ware rim types and vessel forms.

5.6.2 Changes in vessel size and vessel function

There is no indication that the Bronze Age-Iron Age transition coincided with any major changes to vessel sizes, or the overall range of vessel rim diameters within archaeological (or 'dead') assemblages. Indeed, the shape of the graph in Figure 5.18 is almost identical to that revealed for the mature Plainware ceramics, implying that similar use and breakage rate patterns are responsible for their signature. Employing the same vessel-size categories as those used to analyse the Plainware groups, we can also observe that there are no significant changes to the relative proportions of small, medium and larger sized vessels within the general jar-bowl classification (Table 5.10). Certainly, burnished fineware bowls are more common in early Decorated ware groups, but, irrespective of their form, the vast majority are still of 'standard-size' (14-19cm).

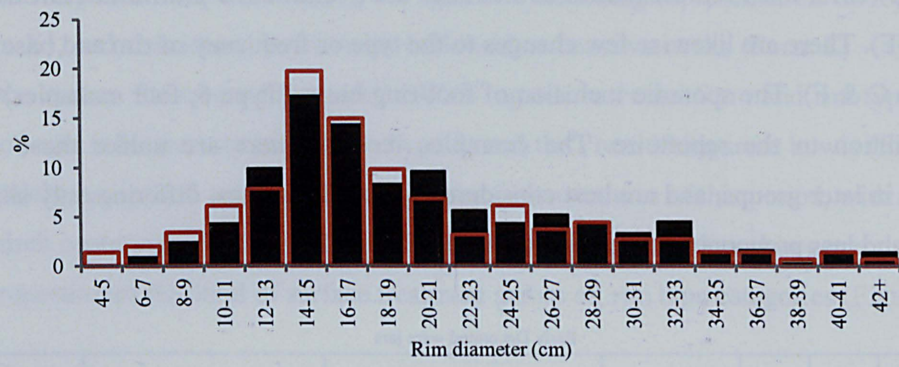


Figure 5.18. Early Decorated ware rim diameter frequencies (575 measurable vessel rims). For comparison, mature Plainware frequencies are marked in red.

Vessel	Phase	Size category			
		Small	Medium/ Standard-sized	Large	Very large
Jars	Mature Plainwares	*27.7%*	*34.8%*	*27.7%*	*9.8%*
	Early Decorated wares	***31.6%***	***31.6%***	***28.1%***	***8.7%***
Bowls	Mature Plainwares	*5.5%*	*87.5%*	*6.9%*	-
	Early Decorated wares	***2.5%***	***84.7%***	***12.7%***	-

Table 5.10: Frequency of measurable form assigned jars and bowls by size-category (mature Plainwares 184 vessels; early Decorated wares 314 vessels).

The patterns are more complex for the jars, though once again there are hints that certain forms were commonly associated with particular size categories. Form D and E vessels, for instance, are mainly small sized jars, whereas the bi-modal distribution of Form G diameters reveals that most fall within the small or large category (Figure 5.19). By contrast, the majority of Form I jars are large to very large vessels, whilst Forms F and H find equal representation in each size category. There is no simple explanation for these trends. The general lack of any hard and fast form-size correlation suggests a degree of fluidity in potting practices, with potters able to produce different sized jars around a relatively narrow range of vessel shape 'themes'.

Judging by the surviving residues on form assigned vessels and measurable rims, there would appear to be no significant alteration in the types or sizes of pot being used for cooking in the Earliest Iron Age (Table 5.11). As with the mature Plainwares, residues are present across all Class I jar-size categories with no obvious bias towards one group. In the small to large-size categories, frequencies were remarkably similar, differing by just 3.3%, and mirroring the degree of variance recorded on the Class I mature Plainwares. Admittedly, residues are slightly more common on very large jars, but in both cases, these figures are likely to be skewed by the small sample size. It

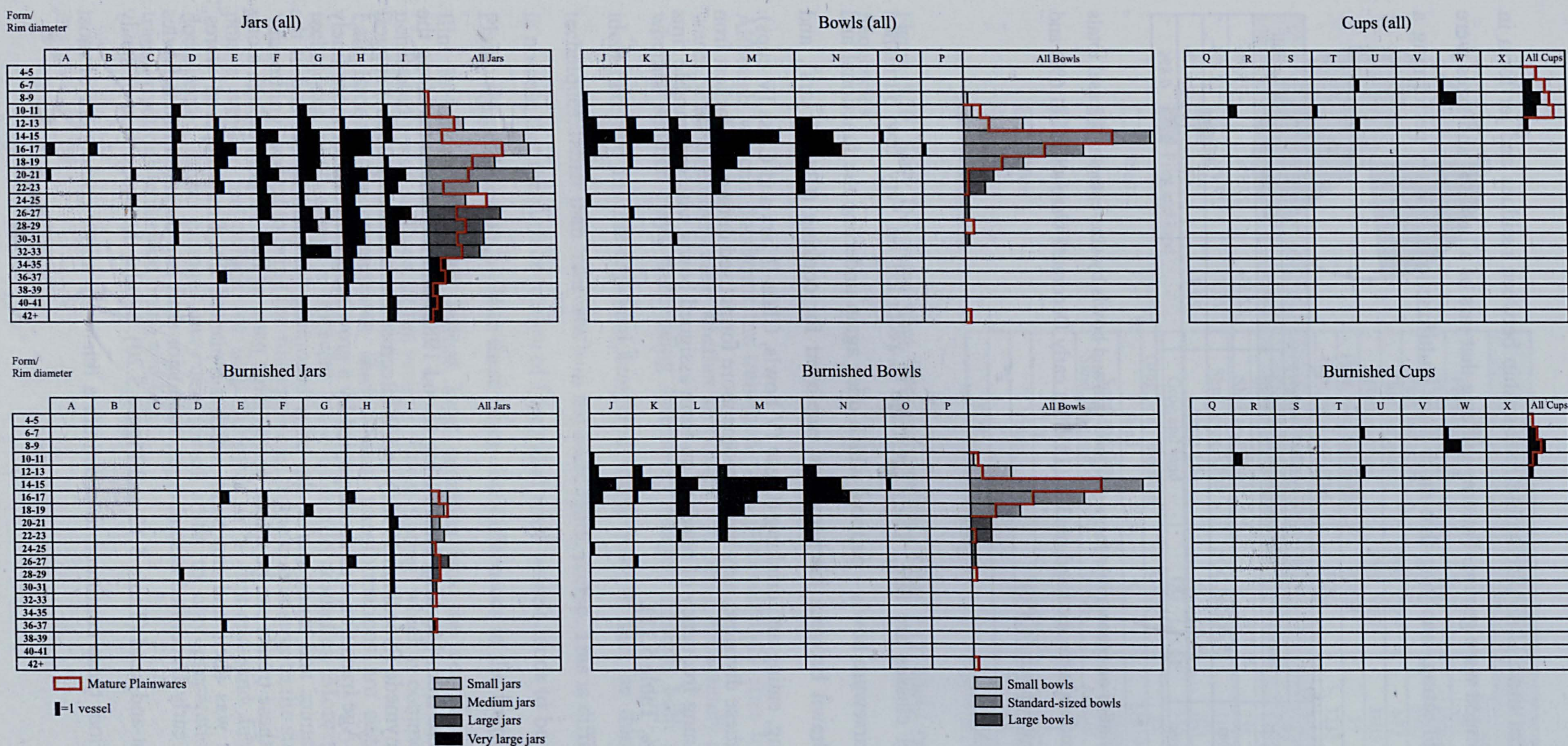


Figure 5.19. Relationship between early Decorated ware rim diameters and vessel forms. For comparison, mature Plainware totals are marked in red.

should also be stressed that there is no discernible relationship between residues and jar form in either Plain or early Decorated ware groups. Patterns indicate that jars of all shapes and sizes were used directly for cooking/heating, implying that most were multifunctional vessels performing a variety of culinary roles

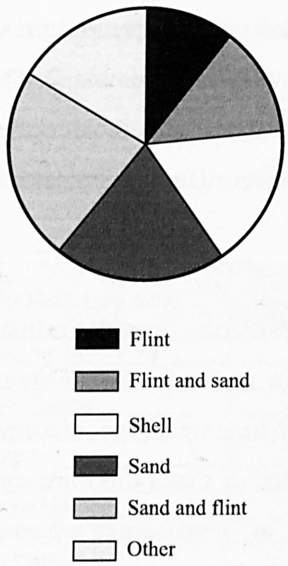
Vessel	Phase	Size category				% overall
		Small	**Medium/ Standard-sized**	**Large**	**Very large**	
Jars	Mature Plainwares	*25.8%*	*25.6%*	*22.5%*	*27.3%*	*25.0%*
	Early Decorated wares	*19.4*	*16.1*	*16.3*	*29.4%*	*18.4%*
Bowls	Mature Plainwares	*25.0*	*14.3*	*20.3*	*X*	*15.2%*
	Early Decorated wares	*33.3%*	-	-	*X*	*0.8%*

Table 5.11. Frequency of residues on measurable form assigned jars and bowls by size-category (vessel totals as in Table 5.10). In all, residues were recorded on 392 (12159g) early Decorated ware sherds (1.6%) and 975 (22497g) mature Plainware sherds (4.4%).

Residues on other vessel classes are rare. Their presence is recorded on very few burnished finewares or Class III coarseware bowls - patterns which once again underline the functional and conceptual distinctions drawn between kitchenwares employed for cooking (Class I jars), and tablewares used for serving, eating and drinking (Class IV bowls, Class II jars and Class IV cups). There are even hints that these divisions may have become more formalised during the Earliest Iron Age, judging by the declining frequency of residues on form assigned bowls with measurable rims (a fall from 15.2% to 0.8%; Table 5.11).

5.6.3 Changes in fabrics

Published pottery sequences from Mucking North Ring (Bond 1988) and the other sites along the Thames Valley (e.g. Runnymede (Needham 1996c) and Whitecross Farm (Barclay 2006)) suggest that the Bronze Age-Iron Age transition was accompanied by a growing preference for more finely gritted flint tempered ceramics and sandy wares; the latter becoming dominant by the end of the Early Iron Age. Some of these trends can be traced across large parts of East Anglia, though along the western fen edge, it was shell and not sand which supplanted the flint tempered wares. However, in the region's early Decorated assemblages, the major shift is a decline in flint fabrics relative to those with flint-and-sand (Table 5.12 and Figure 5.20). Whilst the proportion of sandy wares did rise in this period, these continued to constitute a relatively minor component of most assemblages.



Fabric	Fabric group codes	Total wt. (g)	%
Flint	F	127784	38.2
Flint and grog	FG, GF	251	0.1
Flint and sand	FQ	149964	44.8
Flint and voids	FVO	5921	1.8
Flint and quartz	FQZ, QZF	673	0.2
Flint and veg.	FVE, VEF	3805	1.1
Flint, sand and chalk	FQCH	35	<0.1
Flint, sand and grog	FQG	3235	1
Shell	S	7038	2.1
Shell and sand	SQ, QS	3585	1.1
Shell and grog	SG	172	0.1
Shell and flint	SF	258	0.1
Shell, grog, sand	SQG, SGQ	118	<0.1
Grog	G	103	<0.1
Grog and sand	QG	416	0.1
Grog, shell and sand	GSQ	35	<0.1
Sand	Q	11819	3.5
Sand and flint	QF	17840	5.3
Sand, grog and shell	QSG	770	0.2
Quartz	QZ	76	<0.1
Veg.	VE	54	<0.1
Voids	VO	427	0.1
?	?	42	<0.1
TOTAL	-	*334421*	*99.8*

Figure 5.20. Early Decorated ware fabric composition. Table 5.12. Early Decorated ware fabric group frequencies.

Although we can document the transition from predominantly flint to flint-and-sand tempered wares, it is not entirely clear whether sand itself was being deliberately added to fabric recipes, or whether sandier clays were being selectively sought. Though both remain a possibility, the identified rise in flint-and-sand tempered wares may in fact be due to changes in finishing techniques, rather than 'real' shifts in the basic fabric recipe. This is difficult to prove. However, it is notable that the surface texture of Decorated ware vessels tends to be much smoother than their Plainware predecessors, despite there being few differences in the frequency or modal size of the flint inclusions employed. Indeed, later ceramics lack the very rough and extensively flint-penetrated vessel surfaces, or the vertical 'finger-fluting' which is commonly found on the walls of Late Bronze Age coarsewares. Such textual transformations are suggestive of new finishing techniques, and perhaps a different sense of tactile aesthetics. More significantly, this kind of 'smoothing' served to bring the finer particles in the clay matrix to the surface of the vessel, giving pots a sandier feel which we then interpret as a flint-and-sand fabric. In other words, the documented fabric changes may not reveal shifts to clay preparation techniques, but rather transformations in surface finish and feel.

5.6.4 Changes in decoration

The distinction between Late Bronze Age and Earliest/Early Iron Age ceramics is often judged by considering the range and frequency of decorative applications evident in a given assemblage. This being the case, it is ironic that there are so few publications which detail the incidence of decoration in a quantifiable and easily comparable manner - with even fewer offering estimates of the frequencies that typify regional Decorated ware groups .

Complementing patterns established elsewhere in southern Britain, the evidence from the primary data sites suggests that the Bronze Age-Iron Age transition heralded a marked increase in the incidence of vessel decoration, alongside major changes to the range of treatments recorded, and the vessel zones embellished. As discussed above, shifts in the incidence of decoration are most reliably gauged by calculating the proportion of vessel rims ornamented, as sherd counts are easily skewed[18]. On average, 27.1% of vessel rims were ornamented in the early Decorated ware groups, compared to just 7.7% amongst the mature Plainwares. As Table 5.13 demonstrates, these frequencies are considerably higher when just the coarseware rims are taken into account. Closer scrutiny of the data, however, reveals that figures vary on a site by site basis. Most surprising are the comparatively low frequencies calculated for Mucking North Ring (7.2%). These are difficult to square with those given in the original publication, which states that 19.7% of the coarseware rims (61 in total) were decorated in the phase 6 ditch silts (Barrett and Bond 1988, 28).

Admittedly, the frequencies calculated here are based on the combined pottery from ditch phases 5 and 6. This is justified by the presence of refitting sherds between these horizons, and fact that there are no significant changes in rim ornamentation frequencies between them. Reformatting of the original data for this study was problematic, but it clear that there were far more than 61 coarseware rims in the phase 6 ditch assemblage, which yielded over 5000 sherds. One can only assume then that Barrett and Bond's figures were based on sherds selected for illustration, and/or form assigned vessels. Therefore, whilst the published frequencies are more akin to the figures gleaned from the other early Decorated ware groups, they cannot, unfortunately, be relied upon. That being said, quite why the North Ring values are so low is difficult to explain. There can be no doubt that this is a transitional Bronze Age-Iron Age assemblage, given the character of the vessel forms and the range of decorative treatments displayed. However, the general impression is that

[18] On average, 8.0% of sherds were ornamented in the early Decorated ware groups. On a site by site basis, these values ranged from 2.6-58.2%. However, several of the highest figures were a product of either the small assemblage size (Cromer: 58.2%), the recording procedure adopted (Lofts Farm: 17.6%- see footnote 5 this chapter for discussion), or the fact that certain groups constitute collections, in which many of the plain body sherds were discarded (West Harling: 20.3%; Fengate: 37.7%). Of greater relevance are the remaining sites, which provided a range between 2.6-13.2%, with an average of 5.5%; a figure over double that calculated for the mature Plainware groups.

neck ornamentation is relatively common in this assemblage, perhaps suggesting a highly localised decorative tradition (one not evident at the South Rings) which may have skewed the figures. It is also interesting to note that the other 'transitional' assemblages, including Mucking South Rings, Lofts Farm and Ormesby, have, on the whole, slightly lower decorative frequencies than their Earliest Iron Age successors. Although more data is required, this hint at subtle changes to decorative frequency *within* the early Decorated ware sequence itself.

Site/ Decoration totals	Total no. of decorated vessels	No. different rims	No. decorated rims (vessel count)	No. coarseware rim (vessel count)	% Rims decorated	% Coarseware rims decorated
Mucking North Ring	124	399	26	333?	6.5	7.2
Mucking South Rings	207	325	72	180	22.2	27.2
West Harling	373	410	190	326	46.3	56.1
Exning	356	555	175	339	31.5	50.7
Fengate	29	27	6	10	22.2	60.0
Ormesby	6	15	2	13	13.3	15.4*
Gravel Hill	46	63	22	47	34.9	46.8
Trumpington Park & Ride	5	2	1	2	50.0	50.0*
Warborough Hill	37	31	5	19	16.1	26.3
Cromer	4	4	2	2	50.0	100.0*
Tower Works	18	31	8	24	25.8	33.3
Lofts Farm	26	33	4	19	12.1	10.5
TOTAL	*1231*	*1895*	*513*	*1314*	*27.1*	*36.2*

Table 5.13. Early Decorated ware vessel totals and rim ornamentation frequencies. * indicates individual frequencies possibly skewed by low rim numbers (<21).

These points of detail aside, it is evident that vessels were more regularly ornamented after c. 850/800 BC, with around one in four pots decorated, as opposed to fewer than one in ten in the Late Bronze Age. In other words, if it were possible to line up a set of intact mature Plain and early Decorated ware vessels, there would be an obvious visual distinction between the two assemblages – something which is not always apparent when we deal with bags of broken sherds. Moreover, changes in decorative frequency went hand-in-hand with the emergence of a more varied repertoire of motifs and applications, which were now regularly employed across multiple vessel zones (Table 5.14).

In all, 73 different types of vessel decoration are documented in the early Decorated ware groups, with treatments recorded on 27 different vessel-zone categories. The vast majority are coarseware applications (83%); two thirds incorporating fingertip impressions, predominately on the rim-exterior and rim-top. Tool impressions are the second most common, followed by fingernail treatments, slashing, and the moulding of plain and decorated cordons. 'Motifs' not evidenced in earlier assemblages included double rows of tool marks, herringbone patterns, and vessels whose surfaces were rusticated either by random fingertip/nail impressions, or more carefully executed vertical bands down the body of the pot. More significantly, 18% of the decorated coarsewares

Decoration/ Vessel zone	Mainly coarseware applications																																													
	Pinched	Pinched (double row)	Slashed	Slashed & tool impressed	Slashed & finger-tipped	Slashed, cordoned: slashed & slashed	Slashed, cordoned: plain & slashed	Cabled	Cabled & finger-tipped	Cabled & Fingernail impressed	Cabled & cordoned: finger-tipped	Ridged	Ridged & scored	Stabbed	Scored	Scored and pinched	Finger-tipped	Finger-tipped (double row)	Finger-tipped (vertical/& horizontal)	Finger rusticated	Finger-tipped & fingernail impressed	Finger-tipped & pinched	Finger-tipped & tool impressed	Finger-tipped & vertical tool impressed	Finger-tipped & grooved lines	Finger-tipped, incised & finger-tipped	Finger-tipped & cordoned: plain	Finger-tipped & cordoned: cabled	Finger-tipped & cordoned: finger-tipped	Finger-tipped, cordon: plain & finger-tipped	Finger-tipped, cordon: finger-tipped & finger-tipped	Fingernail impressed	Fingernail rusticated	Fingernail & fingertip impressed	Tool impressed	Tool impressed & finger-tipped	Tool impressed & fingernail impressed	Tool impressed & slashed	Tool impressed & incised	Tool impressed & cordoned: slashed	Tool impressed, cordon: plain & finger-tipped	Tool impressed, double cordon: tool impressed	Tool impressed, incised & cordoned: plain	Tooled herringbone pattern	Cordoned: plain	Cordoned: plain & horizontal groove
Rim-top	6							15									85															5			11											
Rim-exterior	1		23					5				1					113			1												11			26										2	
Rim-interior	1		2									1					7																		2											
Rim-top & rim-exterior									1								2				1																									
Rim-top, rim-exterior & neck																																												1		
Rim-top, rim-exterior & shoulder									2	1							1																													
Rim-top & neck	1										1						4					1			1		1	1	1																	
Rim-top, neck & shoulder					1												1																			1										
Rim-top & shoulder									1								18					1										2		1		3										
Rim-top & body																																			1											
Rim-exterior & neck					1						1																		1							1						1				
Rim-exterior, neck & shoulder						2	1										1									1			1	1	1										2		1			
Rim-exterior, neck, shoulder & body																	1		1	1																										
Rim-exterior & shoulder			4	1	2												52	3				1	1									5			13	4	1	1								
Rim-interior, rim-top, neck & shoulder																	1																													
Rim-interior & rim-exterior					1																													1												
Rim-interior, rim-exterior & shoulder																	1																													
Rim-interior & neck																																								1						
Rim-interior & shoulder																	5																			2										
Neck	2		1									1		4	1		12	1														1			4										4	1
Neck & shoulder																	2															1														2
Neck, shoulder & body																																														
Shoulder	8		13									2		7			251															28			29				1					1	2	
Shoulder & body																	1		1					1																						
Body	9	1	1									1		2	3		15			1		1										4	1		5										3	
Body & base																		1	1																											
Base	3											4					4																		1											
Uncertain	2		2									9	1	1	3	1	11								1										3										3	
TOTAL	33	1	46	1	5	2	1	20	4	1	2	19	1	14	7	1	588	5	3	3	1	4	1	1	2	1	1	1	3	1	1	57	1	2	95	11	1	1	1	1	2	1	1	2	14	3

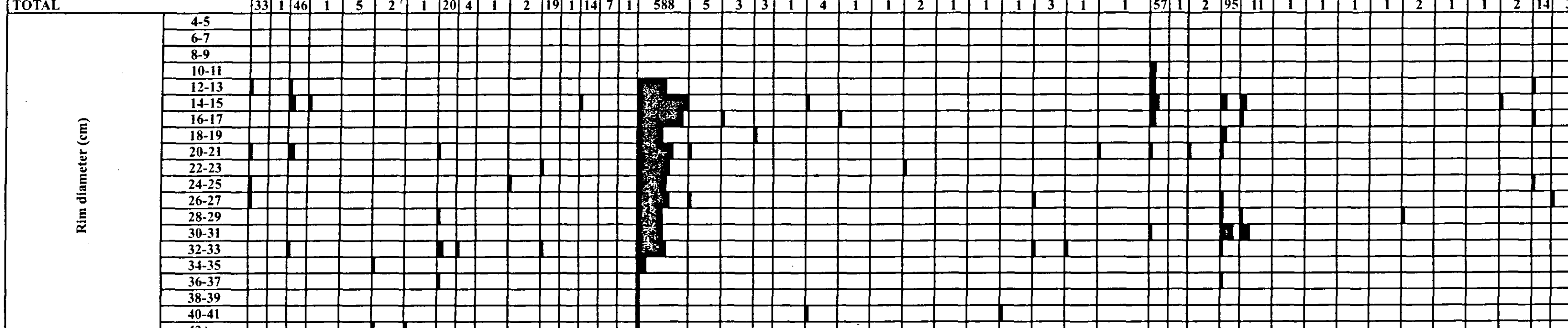
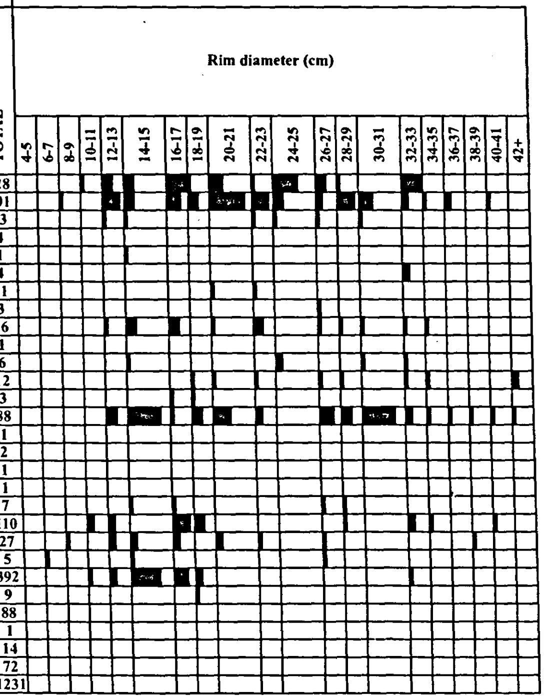
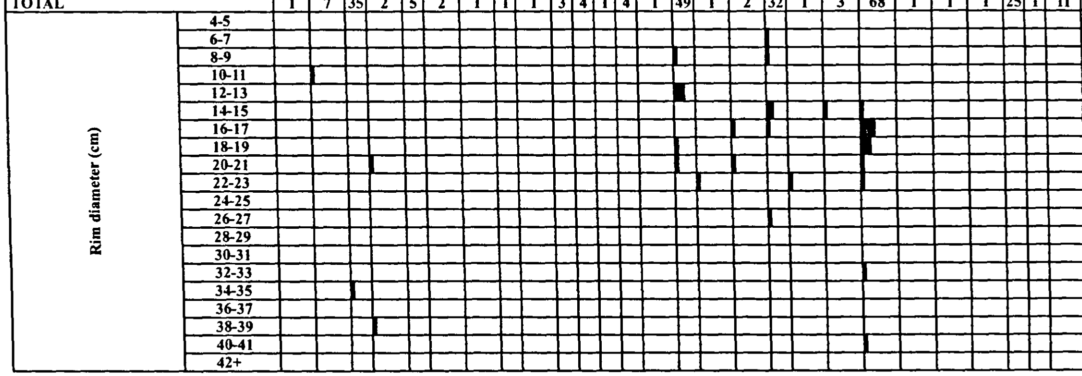


Table 5.14. Early Decorated ware decoration totals and their relationship to vessel zones and rim diameters (by vessel count).

Decoration/ Vessel zone	Mainly coarseware applications									Mainly fineware applications																		
	Cordoned: plain & finger-tipped	Cordoned: fingernail impressed	Cordoned: finger-tipped	Cordon: finger-tipped & finger-tipped	Cordon: tool impressed	Cordon: tool impressed herringbone pattern	Cordon: tool impressed & tool impressed	Cordoned: pinched	Cordon: pinched & pinched	Raised bosses	Stamped	Dimples	Furrows	Furrows & tool impressions	Incised horizontal lines	Incised horizontal lines & ridging	Incised horizontal lines & punched dots	Incised geometric motifs	Incised geometric motifs & punched dots	Grooved geometric motifs	Grooved horizontal lines	Grooved horizontal lines & tool impressions	Grooved vertical lines & fingertip impressions	Grooved vertical lines & dimples	Combed	Incised and combed	Circular punch marks/dots	TOTAL
Rim-top			1												1						4							128
Rim-exterior			1												7	1					8				1			201
Rim-interior																												13
Rim-top & rim-exterior																												4
Rim-top, rim-exterior & neck																												1
Rim-top, rim-exterior & shoulder																												4
Rim-top & neck																												11
Rim-top, neck & shoulder																												3
Rim-top & shoulder																												26
Rim-top & body																												1
Rim-exterior & neck																										1		6
Rim-exterior, neck & shoulder																					1							12
Rim-exterior, neck, shoulder & body																												3
Rim-exterior & shoulder																												88
Rim-interior, rim-top, neck & shoulder																												1
Rim-interior & rim-exterior																												2
Rim-interior, rim-exterior & shoulder																												1
Rim-interior & neck																												1
Rim-interior & shoulder																												7
Neck		3	16		2	1		1					2	1	4			8			29				9		2	110
Neck & shoulder	1			2			1		1						3		2	8	1		2		1					27
Neck, shoulder & body																		4		1								5
Shoulder		1	9								1		1		7			4			14	1			8		4	392
Shoulder & body			2															2		1							1	9
Body		2								1		1			15			6		1	7				4		3	88
Body & base																												1
Base					1										1													14
Uncertain		1	6		2	1				2	3		1		11						3			1	3		1	72
TOTAL	1	7	35	2	5	2	1	1	1	3	4	1	4	1	49	1	2	32	1	3	68	1	1	1	25	1	11	1231





I = 1 vessel

Table 5.14. (Cont.).

are ornamented across two or more vessel zones, often combining different decorative techniques (e.g. slashing and finger-tipping). This compares to just 4% in the mature Plainware phase, demonstrating the more profuse use of ornamentation on individual pots.

Though coarseware applications are mainly associated with Class I jars, there is no evidence for any obvious relationship between decoration, form, or jar size category at this regional scale. On the whole, it appears that all types and sizes of jar were subject to the same kinds of decorative treatment. This is also largely true of Class IV fineware bowls, though the treatments employed are rather different. Once again, the range of decorative techniques was more diverse, and in general, fineware decoration was more common than in the preceding period. Yet, as in the mature Plainware phase, motifs continue to be dominated by single or multiple bands of incised or grooved horizontal lines, mostly applied to the neck and/or bowl shoulder. Combed ornamentation also remains relatively prolific, though it is notable that all except one of these vessels derives from transitional assemblages, suggesting the 'popularity' of the technique dwindled after c. 750 BC. By contrast, motifs with punched dots, and/or grooved and incised geometric lines become far more common; the latter sometimes incorporating chevrons, and the occasional incised herringbone motif, often bordered by parallel grooves.

5.6.5 The currency and chronology of early Decorated wares

At present the currency of the early Decorated ware group cannot be established with any degree of certainty. Though the origins of this tradition appear to lie in the Bronze-Iron Age transition, c. 850-750 BC, most of the sites yielding transitional assemblages and stratified ceramic sequences have low resolution radiocarbon dates. The best support for a pre-800 BC origin comes from a radiocarbon date from the middle ditch silts at Springfield Lyons, calibrated at 900-800 BC (2688±30 BP; Table 5.1, no. 3). Select radiocarbon dates from the upper fills of the Mucking ringworks and Lofts Farm enclosure (Table 5.1, nos. 20, 28, 43) would also seem to support a date around the Bronze-Iron Age transition, although the integrity of these radiocarbon samples is highly questionable. Nevertheless, it is interesting that all the 'earliest' Decorated ware assemblages seem to derive from enclosure contexts - all of which share comparatively early radiocarbon ages (pre-dating 2600 BP), irrespective of their calibrated ranges. It is therefore plausible that the Decorated ware 'style' developed from, and became manifest through, the practices conducted at these enclosures, and only later became the 'standard tradition' across other types of site and settings. Where dated, the region's other early Decorated ware groups certainly post-date the 800 BC calibration threshold, with most falling within the dating plateau between c. 800-400 cal. BC.

The character of the radiocarbon curve means that single un-modeled dates are of poor resolution for the Early Iron Age, making it difficult to gauge the duration of the early Decorated ware tradition. Unfortunately, we cannot rely on pottery-metalwork associations, as these are even rarer during the Bronze-Iron Age transition and Earliest Iron Age. The few that are so far recorded from the Essex enclosure sites do however indicate that the beginnings of this potting style overlapped with the final stages of the production and use of Ewart Park-type metalwork. The only other informative association comes from Hills Road, Cambridgeshire, where the rim of a decorated coarseware jar was found alongside a Hallstatt C razor, dated c. 800-600 BC (Fell 1948). However, none of these give a clear picture of when this potting tradition ended. In the south of the region, the appearance of new ceramic styles associated with foot-ring and pedestal bases suggests that this tradition had ended by the beginning of the sixth century BC. But in areas 'untouched' by these new ceramic fashions, such as parts of north Suffolk, Norfolk and the fens, transformations in the pottery repertoire are less pronounced, providing us with no obvious 'signature' of transition, and very few means of distinguishing assemblages on the grounds of typology alone.

This problem has been thrown into direct focus by a radiocarbon date recently obtained for the West Harling assemblage. Though widely regarded as a 'classic' Decorated ware group of the Earliest Iron Age, the date obtained for this pottery calibrates at 730-260 BC (2350±40 BP; Table 5.1, no. 55), with a 91.1% probability that it falls between 550-360 cal. BC. This is much later than anticipated, and could suggest that the early Decorated ware tradition continues well into the Early Iron Age proper in some parts of the region. Of course, one date is not enough to confirm these patterns, and it may be simply that the site has a more complex history. Then again, it is worth recalling that a disproportionate number of the region's early Decorated ware assemblages seem to derive from the north of the region – an area where we have very few radiocarbon dates, and an impoverished upstanding of the sequence. The potential for error in typological assignment is therefore relatively high, and may in fact affect some of the patterns documented in this section. Hence the end date for the early Decorated ware tradition remains vague, but is suggested to lie between c. 600-500 BC in most parts of East Anglia.

5.7 'Mature' Decorated ware groups: developments in the Early Iron Age c. 600/500 – 350/300 BC

During the sixth century BC a series of new and distinctive sub-regional ceramic styles began to crystallise in East Anglia, marking the beginnings of the mature Decorated ware phase (Figure 5.21). The chronology of these changes is not fully understood, and potentially varied by more than a century across different parts of the region. In northern East Anglia, traits common to early

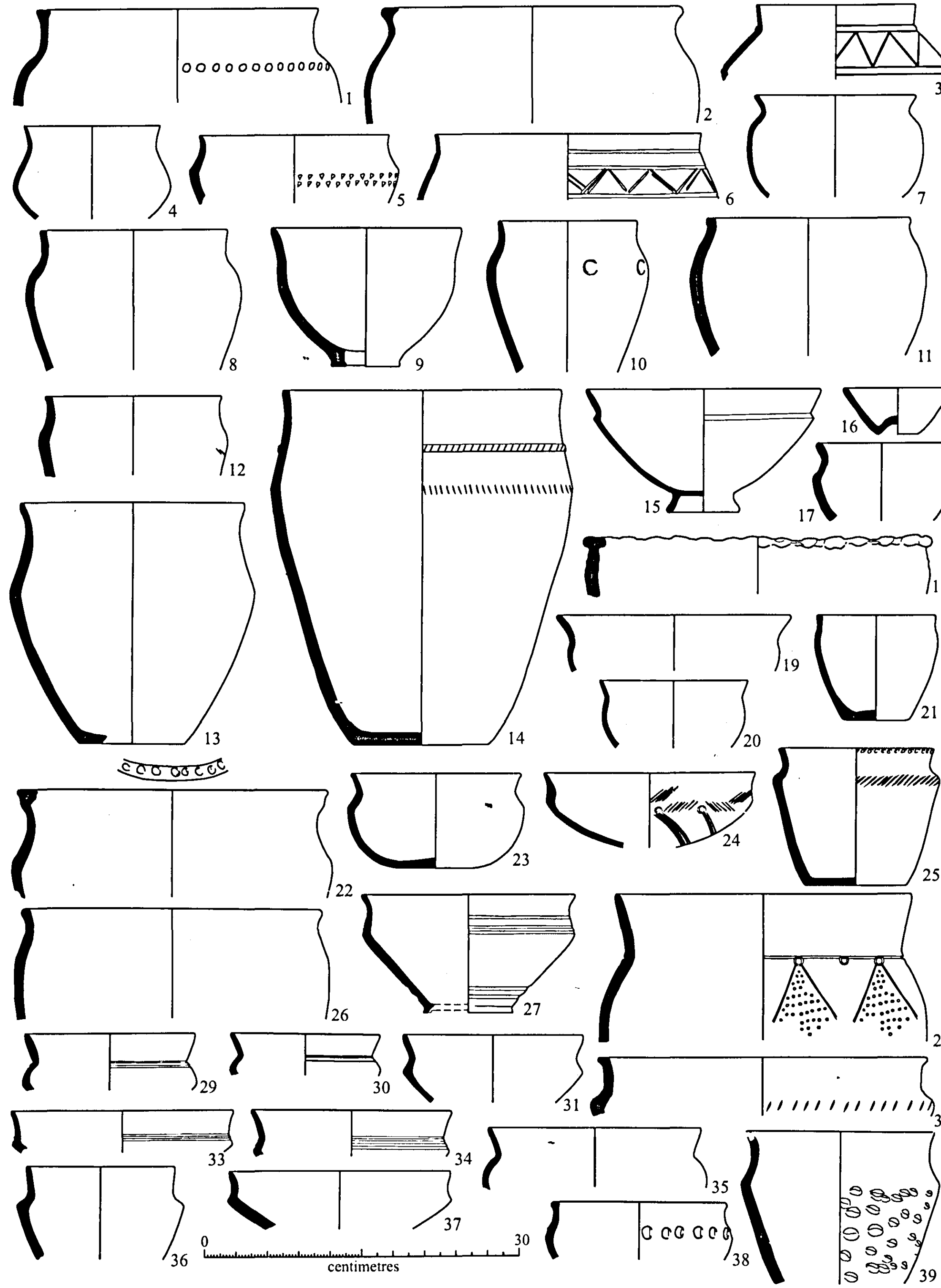


Figure 5.21. Vessels characteristic of the mature Decorated ware group. 1-7. Alysham Bypass, Norfolk; 8-12. Glebe Farm, Cambs; 13-14. Whitehouse Road, Suffolk; 15-20. Wandlebury, Cambs. (after Hartley 1957, 16, Fig. 7, no. 16 and Webley 2005, 42-43, Figs 2-3, nos. 3, 6, 14, 15); 20-22. Rhee Lakeside South, Cambs; 23-25. Bradley Fen/King's Dyke, Cambs.; 26-27. Fordham Bypass, Cambs.; 28-31. Darmsden, Suffolk (after Cunliffe 1968; 185, 188, Figs. 2, 4, nos. 8, 14, 52); 32-36. Lofts Farm, Essex (after Brown 1988b, 267-268, Figs. 16-17, nos. 60, 74); 37-38. Linton, Cambs. (after Fell 1953, 35. Fig. 3, no. 4); 39. Bittering Quarry, Norfolk (after Ashwin and Flintcroft 1999, 244, Fig. 23).

Decorated ware groups, including the preference for bipartite bowls and certain styles of fineware decoration, appear to persist into the fifth or fouth century BC with few modifications. By contrast, in the south of the region more marked transformations occur, heralded by new vessel forms, and new bases types and decorative motifs; some elements potentially influenced by potting traditions on the near Continent (Cunliffe 2005, 98). In this southern area, the distinction between early and mature Decorated ware groups is far more pronounced, making ceramic phasing less problematic.

Yet aside from the obvious stylistic differences which developed in this period (discussed in Chapter 6), we can identify a more general set of changes in the broader character of 'later' Decorated ware assemblages. These include a progressive emphasis on rounded and slack shouldered jar forms, a diminishing application of coarseware decoration, and a marked increase in sandy wares. These coincided with a growing preference for flared profile bowls, a decline in the production of the omphalos base, and its general replacement by foot-ring and pedestal varieties. This series of changes was probably gradual, but broad regional shifts *can* be documented with the data. Importantly, they are temporal transformations which underlie some of the more overt sub-regional contrasts in ceramic style which scholars have been fixated with for the last 40 years.

Site	Decorated ware phase	No. sherds	Sherd wt. (g)	Notes
Redagte Hill, Norfolk	Mature	436	1768	-
Alysham Bypass, Norfolk	Mature	1244	9045	-
Fengate, Cambs.	Mature	584	10330	Pottery collection
Kings Dyke-Bradley Fen, Cambs.	Mature	788	5734	-
Rhee Lakeside South, Cambs.	Mature	484	6535	-
The Holme, Cambs.	Mature	66	1424	-
Fordham Bypass, Cambs.	Mature	1925	26889	-
Landwade Road, Cambs.	Mature	10481	118201	-
Trumpington Park & Ride, Cambs.	Mature	7632	91505	-
Glebe Farm, Cambs.	Mature	1468	11083	-
Wandlebury, Cambs.	Mature	1823	15259	-
Linton, Cambs.	Mature	309	9396	Pottery collection
Darmsden, Suffolk	Mature	2343	35091	Selective sherd retention
Whitehouse Road, Suffolk	Mature	994	11985	-
County Farm, Suffolk	Mature	572	10448	-
Slough House Farm, Essex	Mature	466	3140	-
Rook Hall, Essex	Mature	494	4206	-
Lofts Farm, Essex	Mature	2918	35982	Pottery from upper well deposits only
Beacon Green, Essex	Mature	2603	29110	-
North Shoebury, Essex	Mature	1027	36903	-
TOTAL	-	*38657*	*474034*	-

Table 5.15. Summary table of Early Iron Age primary data assemblages analysed in section 5.7.

5.7.1 Changes in vessel form, vessel class, and rim and base types

The pottery of the 'full' Early Iron Age forms a continuous typological sequence with that from the preceding period. Over the course of the sixth and fifth centuries BC, however, there were some significant transformations to bowl shape, and important shifts in the relative frequency of various 'traditional' vessel forms. Although jar shapes remain indistinguishable from those in the early Decorated ware groups, there is a general decline in the frequency of angular varieties, such as Forms H and I, relative to those with rounded and weakly marked shoulders, particularly Forms F and G (Figure 5.22A). The latter become progressively more common towards the close of the Early Iron Age, to the extent that the jar component of some assemblages resemble Middle Iron Age-type groups.

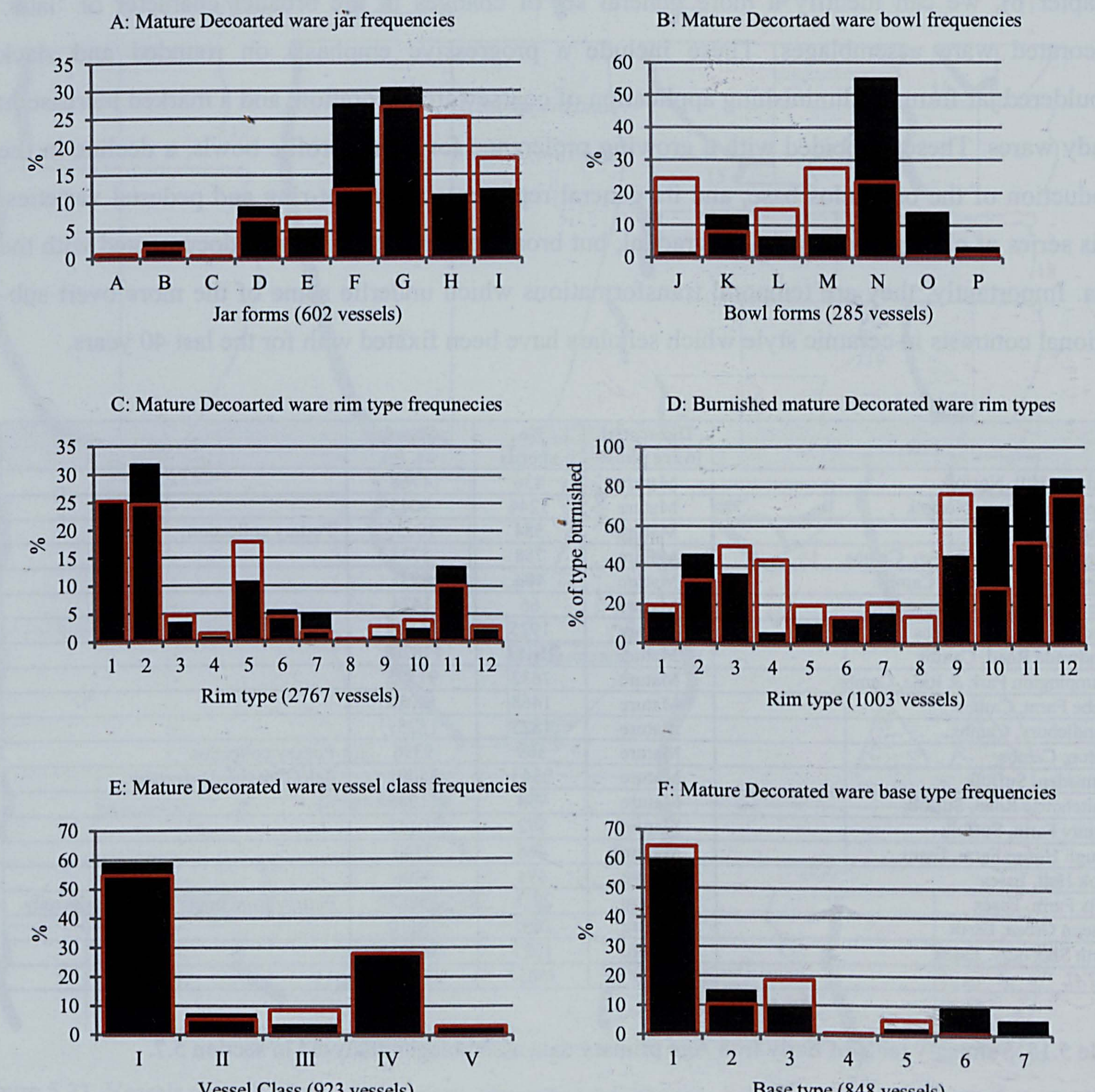


Figure 5.22. Mature Decorated ware rim, base and vessel class frequencies. For comparison, early Decorated ware frequencies are marked in red.

Changes to bowl form frequencies are equally pronounced (Figure 5.22B). Hemispherical bowls of Form J almost disappear altogether, having featured prominently since the beginning of the PDR sequence. The frequency of Form M and L bowls also declines, whilst there is a marked rise in angular tripartite vessels of Form N. These account for over 50% of the all form assigned bowls of this phase, with dominant varieties including the new and distinctive N4 'Darmsden-Linton'-type bowls and the flared vessels of Form N5, whose rim diameter clearly exceeds that of the shoulder. There is also a new emphasis on tripartite bowls with pronounced rounded shoulders and everted necks (Form O) – a vessel type which hardly registers in earlier groups. Typologically, these are closely related to Form K3 and K4 round bodied bowls, which continue to feature through the period.

The appearance of bowls was further transformed by the widespread adoption of foot-ring (Type 6) and pedestal bases (Type 7); a common component of the fineware repertoire. These base types are thought to be modelled on continental prototypes of the sixth century BC and later (Hodson 1962, 142; Barrett 1978, 286-287), and form a diagnostic lynch-pin in current schemes of typological dating. In East Anglia their occurrence before the fifth century BC has recently been confirmed at Glebe Farm, Cambs., where a pedestal base was associated with radiocarbon date of 800-510 BC (2520±40; Table 5.1 no 34). On average, these forms (Types 6 and 7) account for c. 14% of bases in mature Decorated ware assemblages (Figure 2.22F), and in most areas, replace the omphalos (Type 5).

Changes to rim forms were less pronounced, though there are some important shifts (Figure 5.22 C-D). Firstly, there is a relative increase in the frequency of rounded rims (Type 2), and a fall in externally expanded varieties (Type 5); both of which are linked to the declining use of rim decoration. The fashion for moulding expanded rims appears to have been closely related to rim-exterior ornamentation, whereby the pinching or 'clubbing' of the lip served to accentuate the decorative relief. As rim-exterior decoration declines (see below), so does the number of expanded rims. Likewise, as rim-top applications fall, fewer rims end up flattened by finger-tipping or tooling, resulting in the relative increase of rounded forms (Type 2).

Another small but important change was the rise in T-shaped rims (type 7). These are a minor component of all PDR assemblage, but are notably more prolific and distinctive in Early Iron Age assemblages, where flanged (variety 7.3), clubbed (variety 7.4) and triangular profiled (type 7.5) varieties occur with some regularity - particularly on Form H jars (Figure 5.23). Everted rounded rims (Type 11) also climb in frequency, with 80% belonging to burnished finewares. Unsurprisingly, these are closely associated with Form N and O tripartite bowls, with Type 2 rims showing a similarly strong correlation with these and other bowl forms (Figure 5.23).

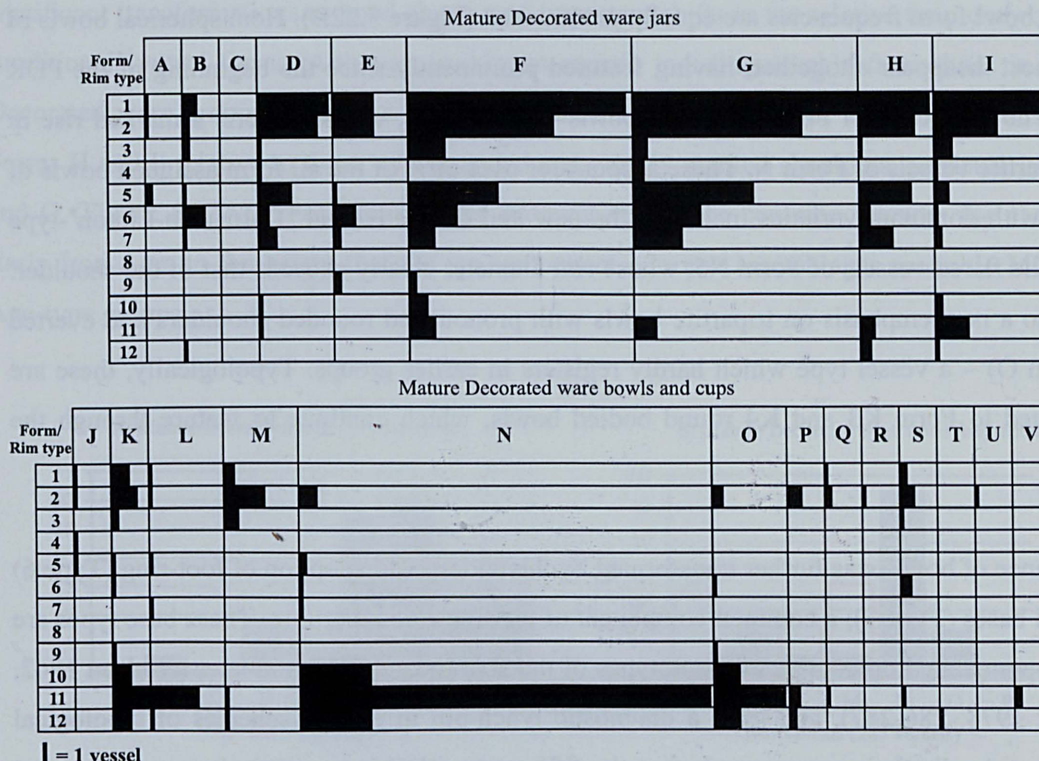


Figure 5.23. Relationship between mature Decorated ware rim types and vessel forms.

5.7.2 Changes in vessel size and vessel function

Measurements of rim diameter show that small vessels are more common in the Early Iron Age (Figure 5.24). Though the shape of the distribution is not too dissimilar to that displayed by earlier groups, the graph is clearly unimodal, with no 'subsidiary' peaks along the tail. The contrasts with the early Decorated ware assemblages come into sharper focus when the data are examined by vessel-size category. Table 5.16A demonstrates the emphasis on small jars, with just under half of all rims measuring less than 18cm in diameter. This rise is matched by a relative fall in the frequency of large jars, with other size categories and residue frequencies remaining broadly stable (Table 5.17).

These trends are reversed for the bowls, where there is a marked increase in the frequency of larger vessels measuring over 19cm in diameter. In earlier groups, the vast majority of bowls belong to the 'standard-size' category, with a pronounced peak in diameters at 14-15cm. After c. 600 BC, however, bowl diameters become more variable, with most rim measurements now falling within a broader peak range which plateaus at 14-21cm, with a small secondary peak at 28-29cm (Figure 5.25). No doubt some of this greater variability is a product of bowl rims becoming more flared during the Early Iron Age, meaning that vessel capacities for rims measuring 14-21cm may have been broadly similar. Nevertheless, there are clearly many more large sized bowls in mature Decorated ware assemblages, suggesting the emergence of new size categories which fit awkwardly with the imposed divisions.

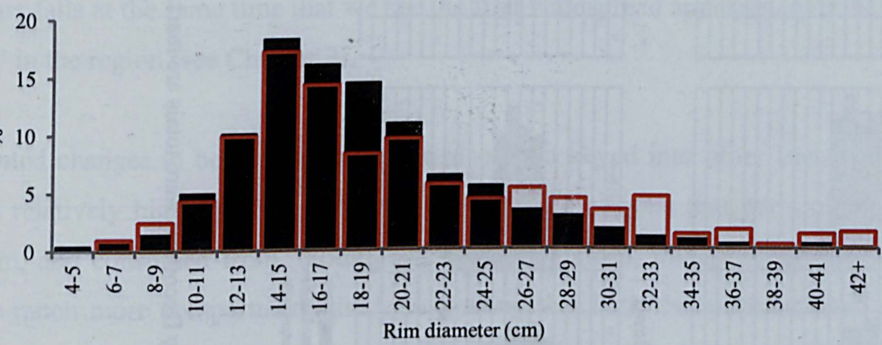


Figure 5.24. Mature Decorated ware rim diameter frequencies (989 measurable vessel rims). For comparison, early Decorated ware frequencies are marked in red.

Vessel	Phase	Size category			
		Small	Medium/ Standard-sized	Large	Very large
Jars	Early Decorated wares	*31.6%*	*31.6%*	*28.1%*	*8.7%*
	Mature Decorated wares	**47.0%**	**35.6%**	**14.0%**	**2.3%**
Bowls	Early Decorated wares	*2.5%*	*84.7%*	*12.7%*	-
	Mature Decorated wares	**10.4%**	**57.7%**	**31.4%**	-

Table 5.16. Frequency of measurable form assigned jars and bowls by size-category (early Decorated wares 314 vessels; mature Decorated wares 622).

Vessel	Phase	Size category				% overall
		Small	Medium/ Standard-sized	Large	Very large	
Jars	Early Decorated wares	*19.4%*	*16.1%*	*16.3%*	*29.4%*	*18.4%*
	Mature Decorated wares	***16.2%***	***16.0%***	***18.6%***	***0.0***	***15.9%***
Bowls	Early Decorated wares	*33.3%*	-	-	*X*	*0.8%*
	Mature Decorated wares	***19.0%***	*1.7%*	*4.7%*	*X*	*4.5%*

Table 5.17. Frequency of residues on measurable form assigned jars and bowls by size-category (vessel totals as in Table 5.16). In all, residues were recorded on 1296 (28770g) mature Decorated ware sherds (3.4%).

Assuming for the moment that there were no major shifts in breakage or deposition rates, these combined changes in vessel size may be interpreted as reflecting broader transformations in culinary habits. For instance, the high frequency of small jars could indicate that meals were being

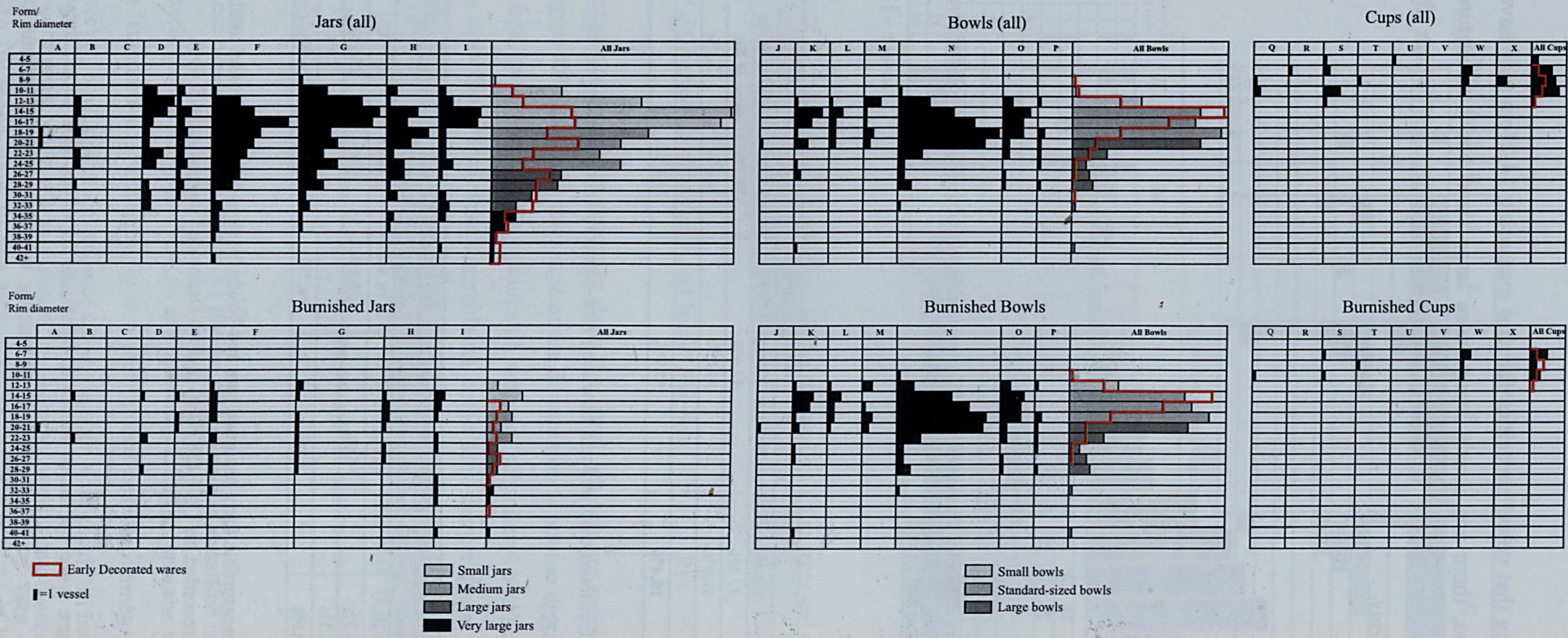


Figure 5.25. Relationship between mature Decorated ware rim diameters and vessel forms. For comparison, early Decorated ware totals are marked in red.

prepared for consumption by smaller social groups in the Early Iron Age, hinting at potential changes in the size and composition of the family/ household unit. The lower number of very large jars could also reflect this trend; none of which had residues on (Table 5.17). Alternatively, the decline in large vessels may reflect new storage strategies, with bulky foodstuffs now being kept in pits as opposed to pots. It may be no coincidence, for example, that the frequency of large and very large sized jars falls at the same time that we see the first widespread appearance of the classic Iron Age 'pit-silo' in the region (see Chapter 2).

The documented changes in bowl size may have also been keyed into other transformations. For example, the relatively high frequency of large bowls could suggest that parts of the meal were now served in, and consumed from, 'communal' vessels. Indeed, the structure of the meal may have become much more compartmentalised, suggesting that both the aesthetics and etiquette of dining were shifting in important ways. Here it is worthwhile noting that a small number of Early Iron Age finewares have limescale deposits on their interior surfaces – something very rarely encountered in earlier assemblages. Some of these sherds belonged to foot-ring and pedestal bases with perforated holes drilled after firing. These modified pots presumably served as a form of colander for steaming and straining foodstuffs, suggesting new techniques of cooking, and potentially, whole new cuisines.

5.7.3 Changes in fabric

Mature Decorated ware assemblages are generally characterised by diverse fabric types; most of which incorporate flint, sand and/or shell inclusions (Figure 5.26).

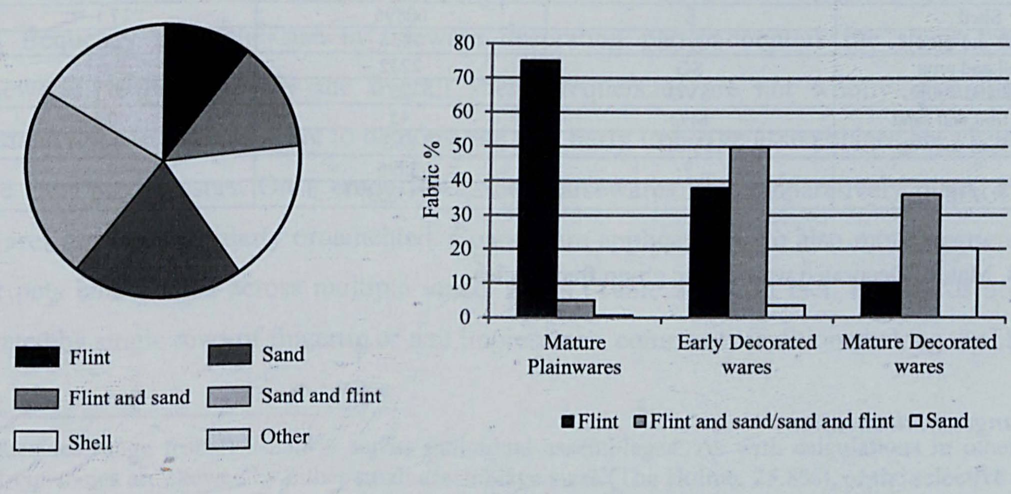


Figure 5.26. Mature Decorated ware fabric composition (left), and changes in fabrics through the PDR sequence (right).

The growing emphasis on sandier wares – first documented in the Earliest Iron Age - intensified after c. 600 BC, with vessels tempered with sand or a combination of sand-and-flint now dominating. As with pottery in the previous phase, the flint used in these vessels tends to be crushed to a uniform size, but is now more consistently sorted throughout the clay matrix. Few inclusions also penetrate the surfaces of pots, indicating a greater investment in exterior finish. Indeed, the desire to achieve smooth surfaces - even on the coarsewares - may have been the catalyst behind the growing emphasis on sandy fabrics. Certainly, by the end of period the character of the sandy wares is indistinguishable from those in Middle/later Iron Age assemblages.

Fabric	**Fabric group codes**	**Total wt. (g)**	**%**
Flint	F	36611	10.3
Flint and grog	FG, GF	17145	4.8
Flint, grog and sand	FGQ, QFG	34	<0.1
Flint, grog and shell	FGS, GSF	571	0.2
Flint and shell	FS, SF	480	0.1
Flint and sand	FQ	46682	13.1
Flint, sand and mica	FQMI	351	0.1
Flint and voids	FVO	133	<0.1
Flint and veg.	FVE, VEF	196	0.1
Flint and chalk	FCH, CHF	237	0.1
Flint, veg. and sand	FQVE	857	0.2
Flint, chalk and sand	FQCH, QCHF, QFCH, CHFQ	6085	1.7
Quartz and flint	QZF	3209	0.9
Quartz, flint and sand	QZFQ	172	<0.1
Quartz	QZ	879	0.2
Quartz and sand	QQZ	123	<0.1
Veg.	VE	3122	0.9
Veg. and sand	VEQ, QVE	747	0.2
Veg. and chalk	VECH	116	<0.1
Veg. sand and shell	VEQS	561	0.2
Grog	G	469	0.1
Grog and sand	GQ, QG	218	0.1
Chalk	CH	4261	1.2
Chalk and sand	CHQ, QCH	2190	0.6
Chalk and shell	CHS	450	0.1
Sand	Q	71522	20.1
Sand and flint	QF	82409	23.2
Sand and voids	QVO	130	<0.1
Sand, shell and grog	QGS, QSG, SQG, SGQ	1217	0.3
Sand, shell and quartz	QSQZ	13	<0.1
Shell	S	60896	17.1
Shell and sand	SQ, QS	7356	2.1
Shell and grog	SG	2232	0.6
Shell and voids	SVO	20	<0.1
Shell, flint and sand	SFQ	45	<0.1
Shell, flint and veg.	SVEF	698	0.2
?	?	3396	1
TOTAL	-	*355833*	*99.8*

Table 5.18. Mature Decorated ware fabric group frequencies.

5.7.4 Changes in decoration

Though levels of decoration undoubtedly declined after c. 600 BC, different figures point to different degrees of change. Using the index preferred in previous analyses, frequencies of rim ornamentation show a fall from an average of 27.1% in the early Decorated ware phase to just 8.5% by the end of the PDR sequence; a figure only marginally higher than that calculated for the mature Plainwares. On the other hand, changes in the gross frequency of decorated sherds are far less dramatic, falling from 8.0% to 6.3%[1].

Site/ Decoration totals	Total no. of decorated vessels	No. different rims	No. decorated rims (vessel count)	No. coarseware rim (vessel count)	% Rims decorated	% Coarseware rims decorated
Aylsham Bypass	27	38	0	14	0.0	0.0
Beacon Green	98	154	20	104	13.0	19.2
Bradley Fen	23	37	3	25	8.1	12.0
County Farm	12	27	7	24	25.9	29.2
Darmsden	119	399	23	201	5.8	10.9
Fengate	85	75	22	55	29.3	38.2
Fordham Bypass	106	126	10	83	7.9	12.0
Glebe Farm	22	63	6	39	9.5	15.4
Landwade Road	396	808	49	509	6.1	9.0
Linton	54	100	3	55	3.0	5.5
Lofts Farm	137	173	5	105	2.9	4.8
North Shoebury	56	117	13	89	11.1	14.6
Redgate Hill	17	31	1	20	3.2	5.0
Rhee Lakeside South	17	40	5	32	12.5	15.6
Rook Hall	37	49	2	17	4.1	11.8
Slough House Farm	15	14	2	8	14.3	25.0*
The Holme	8	9	2	4	22.2	50.0*
Trumpington Park & Ride	231	450	60	343	13.3	17.5
Wandlebury	19	116	7	78	6.0	9.0
Whitehouse Road	45	32	2	19	6.3	10.5
TOTAL	*1524*	*2858*	*242*	*1824*	*8.5*	*13.3*

Table 5.19. Decorated mature Decorated ware vessel totals and rim ornamentation frequencies. * indicates individual frequencies possibly skewed by low rim numbers (<21).

These indices differ because the decline in decoration was a phenomenon exclusively associated with coarsewares, and in particular, applications on coarseware rims. On the contrary, fineware decoration probably peaked in the Early Iron Age, with half the decorated vessels bearing 'fineware applications' compared to figures between 17-26% in earlier ceramic phases. In terms of gross frequency then, the rise in fineware decoration partly counters the sharp fall on the coarsewares, explaining why the overall sherd frequencies are not wholly dissimilar. More importantly, these patterns serve to demonstrate that Early Iron Age assemblages are visually quite unlike their predecessors. On a crude level, the coarsewares are comparatively plain, whilst the finewares are more regularly ornamented. Coarseware applications are also more restricted[2], with fewer pots embellished across multiple vessel zones (Table 5.20). In fact, two thirds are simply decorated by single rows of fingertip or nail impressions, commonly positioned along the shoulder

[1] Frequencies range from 1.9-25.8% across individual assemblages. As with calculations in other groups, some frequencies are skewed by either small assemblage sizes (The Holme: 25.8%), or the selective retention of decorated sherds (Fengate 23.8%; Linton: 20.1%).

[2] 62 forms of vessel decoration are documented in the mature Decorated ware group, with treatments recorded over 24 different vessel-zone categories.

Decoration/ Vessel zone	Mainly coarseware applications																																									
	Pinched	Pinched (double row)	Pinched rusticated	Crimped	Slashed	Slashed & finger-tipped	Slashed, grooved & Tooled herringbone pattern	Cabled	Cabled & finger-tipped	Cabled & finger-tipped (double row)	Stabbed	Scored	Finger-tipped	Finger-tipped (double row)	Finger-tipped (vertical/& horizontal)	Finger rusticated	Fingertip & nail rusticated	Finger-tipped & pinched rusticated	Finger-tipped & slashed	Finger-tipped & tool impressed	Finger-tipped & scored	Finger-tipped & grooved lines	Finger-tipped & incised lines	Fingernail impressed	Fingernail impressed (double row)	Fingernail rusticated	Fingernail & fingertip impressed	Tool impressed	Tool impressed (double row)	Tool impressed (vertical row)	Tool impressed & incised	Cordoned: plain	Cordoned: plain & horizontal groove	Cordoned: plain & geometric incised lines	Cordoned: plain & fingernail impressed	Cordoned: finger-tipped	Cordon: tool impressed	Cordon: tool impressed herringbone pattern	Cordon: tool impressed & tool impressed	Cordoned: slashed	Cordon: slashed & slashed	Cordoned: incised
Rim-top	1				7			26			2		71											25				6														
Rim-exterior				2	5								17											3				8														
Rim-interior													27											1																		
Rim-top & neck													1									1																				
Rim-top & shoulder									1	1			8							1							1															
Rim-top & body													1											1																		
Rim-exterior & neck							1																																			
Rim-exterior, neck & shoulder																																										
Rim-exterior & shoulder						2							7						1					2				4														
Rim-interior and rim-top													2																													
Rim-interior & rim-exterior													2															1														
Rim-interior, rim-exterior, neck, shoulder & body																		1																								
Rim-interior & neck													1																													
Rim-interior & shoulder													1																													
Neck													6	3																1		9	1				1	1		1		
Neck & shoulder													1											1				1						1	1				2		1	
Neck, shoulder & body																																										
Neck, shoulder & base																																										
Shoulder	3				15						3	1	186	5	1	1								14	1			20	1		1	1								1		
Shoulder & body			1																		2									1												
Body		2	9										1		4	15	1									1				1		1										
Body & base																																										
Base	1										4	1	5			1								1				1														
Uncertain			1								1	6	108	3		9							1	20		5		3				5	1	1		1				1		1
TOTAL	5	2	11	2	27	2	1	26	1	1	10	8	445	11	5	26	1	1	1	1	2	1	1	68	1	6	1	44	1	3	1	16	2	2	1	1	1	1	2	3	1	1
Rim diameter (cm) 4-5																																										
6-7																																										
8-9																																										
10-11																																										
12-13																																										
14-15																																										
16-17																																										
18-19																																										
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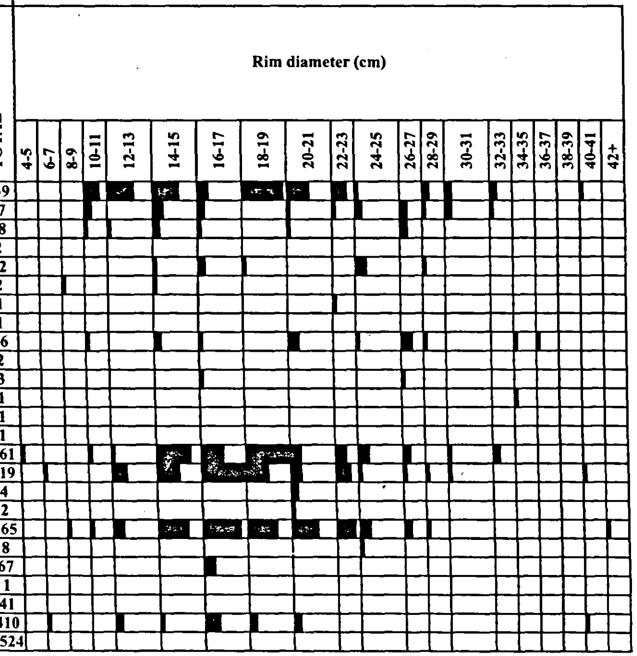
30-31																																										
32-33																																										
34-35																																										
36-37																																										
38-39																																										
40-41																																										
42+																																										

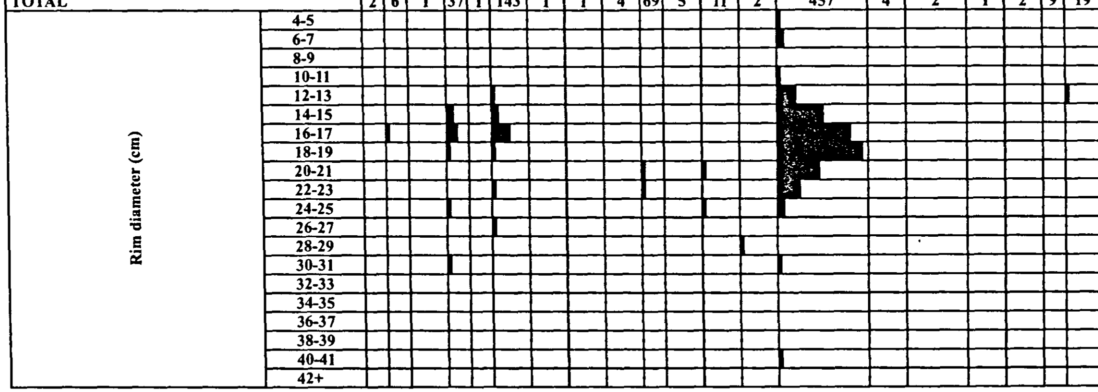
Table 5.20. Mature Decorated ware decoration totals and their relationship to vessel zones and rim diameters (by vessel count).

Decoration/ Vessel zone	Mainly fineware applications																				
	Raised bosses	Dimples	Dimples & Punched dots	Furrows	Furrows & deimples	Incised horizontal lines	Incised horizontal lines & stab marks	Incised horizontal lines & tool impressions	Incised horizontal lines & punched dots	Incised geometric motifs	Incised geometric motifs & punched dots	Grooved geometric motifs	Grooved geometric motifs & punched dots	Grooved horizontal lines	Grooved horizontal lines & tool impressions	Grooved horizontal lines & finger-tip impressions	Grooved vertical lines & dimples	Burnished geometric motifs	Combed	Circular or square punch marks/dots	TOTAL
Rim-top														1							139
Rim-exterior						1								1							37
Rim-interior																					28
Rim-top & neck																					2
Rim-top & shoulder																					12
Rim-top & body																					2
Rim-exterior & neck																					1
Rim-exterior, neck & shoulder										1											1
Rim-exterior & shoulder																					16
Rim-interior and rim-top																					2
Rim-interior & rim-exterior																					3
Rim-interior, rim-exterior, neck, shoulder & body																					1
Rim-interior & neck																					1
Rim-interior & shoulder																					1
Neck				15		18			1	3	1		1	98	1						161
Neck & shoulder			1	3		4				4		2	1	92	1	1	1			1	119
Neck, shoulder & body										1		2			1						4
Neck, shoulder & base														2							2
Shoulder	1	4		9	1	22			2	22	1	1		143	1					4	465
Shoulder & body						1				2		1									8
Body	1	2		4		7				5		1		6					2	4	67
Body & base										1											1
Base						1								24				1		1	41
Uncertain				6		89	1	1	1	30	3	4		90		1		1	7	9	410
TOTAL	2	6	1	37	1	143	1	1	4	69	5	11	2	457	4	2	1	2	9	19	1524

Rim diameter (cm)



Rim diameter (cm)



▮ = 1 vessel

Table 5.20. (Cont.).

or rim-top. Forms of tooling, cabling and slashing are also recorded, but not in any great frequency. Slightly more common are vessels carrying distinctive forms of fingertip and pinched rustication, though

As with previous ceramic phases, there is no evidence that particular types of coarseware application were employed on specific forms or sizes of pot. With the finewares, by contrast, there exists a strong correlation between Form N tripartite bowls and the execution of grooved horizontal lines along the base of the neck and shoulder. Many of these vessels are classified as N4 type 'Darmsden-Linton' bowls, displaying between one and five carefully defined grooves along this zone. Some of these distinctive pots also carry grooves above the foot of the base. In total, 77% of the decorated finewares are adorned with grooved or incised horizontal lines, compared to just 56% in the early Decorated ware phase. Punched dots, circlets and geometric motifs also feature more prominently; the single line chevron pattern being especially common in some assemblages – a motif often associated with the 'Chinnor-Wandlebury' style (Cunliffe 2005, 101-102). In others, affinities to the 'West Harling-Fengate' group could be cited (*ibid*, 94-96), as some of the fineware bowls display geometric motifs on the belly. This decorative style has its ancestry in the Earliest Iron Age, but remained in vogue in some areas until the end of the PDR sequence

5.7.5 The currency and chronology of mature Decorated wares

Establishing a start date for the maturation of the Decorated ware tradition is extremely difficult, owing to both the plateau in the radiocarbon curve, and the possible late continuation of earlier ceramic styles in northern East Anglia. At present, 18 of the radiocarbon determinations associated with Early Iron Age-type assemblages fall within the c. 800-400 BC range (Table 5.1), overlapping with calibrations for groups assigned to the Earliest Iron Age. The nature of the radiocarbon curve at this point means that most dates remain vague whatever the integrity of the samples. As it stands, three dates from Glebe Farm, Milton Landfill and Stansted Airport currently provide the 'best' resolution terminations of c. 800-520 cal. BC (Table 5.1, nos. 33-34, 37). Importantly, the Glebe Farm and Milton Landfill assemblages are both associated with definite mature Decorated ware assemblages, which, based on the presence of foot-ring and pedestal bases, are unlikely to pre-date c. 600 BC.[21]

[21] Only a single sherd is illustrated from the dated pit 436091 (pit group 2) at the M11 site, Stansted Airport (Levers 2008, appendix 17, Fig. 17.7, no. 31), making it difficult to judge the affinity of the assemblage. A pedestal footed jar was however recovered from pit group 3, thought to be contemporary (*ibid*, Fig. 17.7, no. 30). Worryingly, a jar associated with the sites second Early Iron Age radiocarbon determination (780-420 BC; Table 5.1, no. 41) is listed as Late Bronze Age in the illustrated catalogue (*ibid*, 17.35 and Fig. 17.4, no. 24). This must be of later origin, and throws doubt on the other divisions of the material.

We should be reasonably confident then that some of the diagnostic features of this group developed as early as the sixth century BC. A series of luminescence dates on pottery from Landwade Road, Cambs. tends to support this claim. These cluster in the sixth and fifth centuries BC, with a pooled mean date of occupation centred upon 520 BC ± 80 ± 180 (Barnett 2000, 454). The fineware component of this assemblage was prolific in decorated Form N4 tripartite bowls of 'Darmsden-Linton' type. As discussed in the following chapter, these bowls are the principal type-fossil of Cunliffe's (2005, 102-103) 'Darmsden-Linton' style-group, whose chronology has been widely disputed. Although ninth to seventh century BC origins have been suggested by some authors (e.g. Martin 1999b, 80), there is no unequivocal evidence that these bowl forms were in circulation prior to the sixth century BC, as nearly all have been found alongside foot-ring and pedestal bases. Unfortunately, few of the associated radiocarbon dates provide the resolution necessary to establish their true currency. Perhaps the most significant is that derived from pit 2187 at the SCS sub-site, Stansted Aiport. This determination now calibrates at 730-360 cal. BC (Table 5.1, no. 54), but a with 92.4% probability that the pottery belongs to the period between 550-360 cal. BC.

Whilst we may be some way off tying down the currency of individual vessel forms or different kinds of decorative treatment, it is now clear that the broad range of pottery 'types' which define Cunliffe's 'Darmsden-Linton' and 'Chinnor-Wandlebury' style-groups have a similar chronology. Regardless of what significance we attach to these groupings, the radiocarbon evidence suggests that the two 'styles' were broadly contemporary; both probably emerging in the sixth century BC, and both commonly associated with foot-ring and pedestal bases. Pottery with so-called 'Chinnor-Wandlebury' affinities has been radiocarbon dated at Glebe Farm, Trumpington, Milton Landfill and War Ditches (Table 5.1, nos. 45-46, 51-52, 59-60): none of whose determinations are significantly earlier or later than those associated with 'Darmsden-Linton'-type groups.

The chronological relationship to the 'West Harling-Fengate' group is also coming into sharper focus. Though characteristic elements of this 'style' undoubtedly emerged in the Earliest Iron Age (such as use of a geometric motifs on the belly of fineware bowls), in the fens and parts of north Suffolk and Norfolk it remained in vogue throughout the mature Decorated ware phase. An important association is revealed at The Holme site, Earith, where a Form N4 'Darmsden-Linton' type bowl was recovered alongside other finewares, whose affinities clearly lay with the 'West Harling-Fengate' group. Though the accompanying date falls within the c. 800-400 cal. BC range (Table 5.1, no. 38), the presence of the Form N4 bowl means the assemblage was unlikely to have been deposited before the sixth century BC.

The extended currency of the 'West Harling- Fengate' fineware 'style' is further suggested by the discovery of a foot-ring base at Vicarage Farm (Pryor 1974, 18, Fig. 18, no. 19). Whilst the associated radiocarbon date is too broad to be of any value (Table 5.1, no. 58, the three results achieved for the typologically comparable assemblage at Bradley Fen/King's Dyke, would seem to confirm the long currency of this 'style' (Table 5.1, nos. 44, 50, 53). All calibrate between c. 800-400 BC at the conventional 2σ range (94.5%), but with an 87.2% probability that one determination (2470±40 BP) lies between 550-380 cal. BC, and a 78.1% probability that a second (2400±40 BP) falls between 600-390 cal. BC. The latter derives from a feature which also yielded fragments of a copper-alloy ring-headed swan's neck pin. In general, pottery-metalwork associations tended to be more common in the Early Iron Age, though none have so far helped to refine regional ceramic chronologies to any significant degree.

Care is obviously needed when trying to interpret the significance of individual radiocarbon results. This is aptly demonstrated by the dates recently obtained for the War Ditches hillfort, where a small group of mature Decorated ware pottery was recovered (Pickstone and Mortimer 2010). A date derived from residue on a vessel stratified low within the ditch sequence yielded a single determination of 750-380 cal. BC (Table 5.1, no. 51). However, when this was modelled with other radiocarbon results, it was suggest that that the construction and initial occupation horizon spanned a brief period of less than a hundred years between the late fifth and late fourth centuries BC (R. Mortimer *pers comm.*). Such a 'late' currency may not have been anticipated from the single pottery date, reminding us of the difficulties we face in interpreting individual radiocarbon determinations.

This problem is particularly acute at the end of the mature Decorated ware sequence, where dates from Glebe Farm, Trumpington, and Rhee Lakeside South all yield similarly late calibration of c. 400-200 cal. BC – determinations with bimodal probability distributions (Table 5.1, nos. 601-62). Though it is difficult to prove with any certainty, the 'real' dates of these groups presumably lie at the beginning of this range, between c. 400-350/300 BC. This would accord well with the typological evidence, as all contain jar forms and fabric types which foreshadow those of the Middle/later Iron Age. The weight of evidence therefore places the end for the mature Decorated ware phase around c. 350/300 BC.

5.8 Summary

This chapter has given an exhaustive and exhausting account of the composition and chronology of the PDR tradition in East Anglia. Drawing on a vast data set, it has documented the specificities of ceramic change, and linked these into a coherent chronological framework, structured around a revision of Barrett's original 1980 model. To date, this is the first attempt at constructing a regional pottery sequence for the Late Bronze Age and Early Iron Age, and presents a detailed picture of ceramic change gleaned from the careful quantitative analysis of data routinely recorded by pottery specialists. Still, the new scheme is not without its problems. For one, there are difficulties in defining the beginning and end dates of some of the phases, mainly owing to the paucity of reliable high-precision radiocarbon dates. Secondly, because certain traits and decorative features appear to have different currencies in some parts of East Anglia, is it difficult to model or describe a 'neat' region-wide sequence of typological development - the patterning is more complex and not always synchronous. Though it would be helpful if there was a simple progression from one ceramic phase to the next across East Anglia, it now seem unlikely that changes were always this uniform. We certainly cannot expect the patterns to directly mirror those from Wessex and the Thames Valley, or indeed sequences of change established for other types of material culture, such as Bronze Age metalwork. Of course, there are connections. But regionality must be recognised within the chronology of broader ceramic traditions, just as it is now appreciated for traditions of enclosure, settlement architecture or burial practice in this period.

These issues have not been fully resolved here. In fact, I have tried not to become too bogged down by the details of intra-regional variability, particularly in relation to the topic of ceramic 'style-zones'. This is partly because these issues are tackled in the following chapter. However, the main reason was to prevent discussion becoming centred upon the currency of individual styles of fineware pot - one of the many legacies of Cunliffe's approach. This kind of narrow focus now impedes progress in understanding ceramic sequence, since it overlooks the wider changes in the character of pottery repertoires. Nevertheless, this chapter has pointed to instances where there may be divergent sequences in the region, particularly with regard to the 'late' continuation of the early Decorated ware styles in northern East Anglia. Moreover, by tracking broader temporal changes in forms, fabrics, vessel sizes and styles of surface treatment, I have built up a series of benchmark 'averages' (or *standard ceramic profiles*) for the periods assemblages, which can now be used to assess the degree of intra-regional variability by comparative means. Having established a chronological framework, we must continue to explore these questions of spatial/geographic variability, and tackle issues surrounding the recognition and interpretation of style-zones.

Chapter 6

Spatial patterning, styles-zones and society

6.1 Introduction

Pottery distributions have traditionally been used by prehistorians to delineate the extent of cultural units or spheres of interaction and exchange. However, the question of what these spatial patterns reveal in social terms has always been more difficult to answer. Although archaeologists are now less optimistic about the ability of such patterns to reflect singular social categories or simple economic processes in any direct manner, we can retain the notion that there is a relationship between the social and the material on some level, even if this connection is resolved in complex and contingent ways. Unfortunately in later prehistoric pottery studies, this whole topic has become something of an '*elephant in the room*' in recent years, with ceramicists continuing to use, discuss and amend conventional spatial groupings, such as Barry Cunliffe's pottery style-zones, whilst at the same time dodging the issue of what these mean in social terms. Debate often centres upon material classification, with the assumption that the identification of ceramic affinities represents the endpoint in the interpretative process.

Having detailed temporal trends in the ceramic record in the previous chapter, the aim here is to explore the dynamics of spatial variability at the same regional scale. This chapter examines geographic patterns in the distribution of PDR ceramics across East Anglia with the objective of addressing what these tell us about the character and complexity of prehistoric communities in the late second and earlier first millennia BC.

6.2 Sites, findspots and landscape patterning

Since the advent of commercial archaeology, keeping a handle on how many sites there are for each period in prehistory has become extremely difficult, both on a regional and national scale. Even for an area the size of East Anglia, there are problems trying to accurately document the number and location of sites with PDR pottery – just one class of artefact for one relatively brief period in prehistory. As discussed in Chapter 4, extracting this information from the region's HERs is by no means a simple process, with the results from various searches requiring close scrutiny and careful cross-checking. Whilst producing a complete corpus of known ceramic collections was never the intention of this thesis, it is essential to have some basic understanding of the number, location and density of dated findspots if we are to try and judge the significance of regional spatial patterns. Before attempting to draw any meaningful inferences from attribute distributions, we require some appreciation of the blank areas and biases in the dataset at hand.

6.2.1 Site numbers and county biases

In total, 1281 sites/PDR ceramic findspots with grid references were identified in the HER survey (Table 6.1). Though this is an impressive figure, less than half (44.6%, 543 sites) can be phased to either the Late Bronze Age or Early Iron Age, since most collections are small groups of plain body sherds which are difficult to date beyond a 'generic' PDR category. Nevertheless, these totals are still significant when considering that only 7138 later prehistoric pottery collections (Late Bronze Age to Late Iron Age) were recorded in a national PCRG survey of England between 1996-1998 (Morris and Champion 2001). For the period in question, this included 500 records of Late Bronze Age and/or Early Iron Age PDR collections from East Anglia, indicating that figures have more than doubled in the last 15 years, largely as a result commercially funded work.

County	Area (sqKm)	No. sites with PDR pottery	No. sites per sqKm	No. sites with LBA pottery	No. sites with EIA pottery
Norfolk	5371	304	0.06	42	52
Suffolk	3801	361	0.09	18 .	36
Essex	3670	302	0.08	108	103
Cambridgeshire	3389	251	0.07	76	108
TOTAL	*16231*	*1218*	*0.08*	*244*	*299*

Table 6.1. PDR find spot totals for East Anglia (for sites investigated/reported prior to 2008).

On a sub-regional level, East Anglia's largest counties - Norfolk and Suffolk - have yielded the greatest number of sites, but the smallest number of period phased assemblages (Table 6.1). The survey of Suffolk, for instance, identified only 54 such collections, compared to 211 in Essex. These discrepancies reflect the difficulties practitioners have had in coming to terms with the ceramic sequence in Norfolk and Suffolk - counties which have few useful radiocarbon determinations (Chapter 5), and until recently, few large groups of PDR pottery from excavated contexts. Only in the last decade has a more secure ceramic framework been developed for this region, thanks mainly to the published work of Sarah Percival (1999; 2000)[22].

[22] The skill and knowledge of the ceramicists is another factor conditioning the identification of Late Bronze Age and Early Iron Age sites. Though mention has been made Sarah Percival's work in Norfolk, Essex has undoubtedly benefitted from the longer-term commitment to later prehistoric pottery studies by Nigel Brown and Paul Sealey, who have ensured a consistency and clarity in recording, reporting and dating of assemblages in the last three decades.

By contrast, biases in the geography of development are responsible for a legacy of large-scale excavation in Essex and Cambridgeshire, which has facilitated the understanding of ceramic chronology and regional variability in these areas (see Chapter 3 for discussion). Their higher proportion of phased assemblages is a reflection of the greater opportunities for open-area excavation, which has enabled the recovery of large assemblages from closed contexts. Indeed, most findspots from Essex and Cambridgeshire relate to intrusive archaeological interventions, whereas those from Norfolk and Suffolk are largely from fieldwalking and/or metal detecting surveys – investigations which tend to yield small abraded sherds which even the most experienced practitioner would struggle to date.

There is therefore no simple relationship between the number of findspots and the number of closely dated assemblages. Nevertheless, the region does still boast a large number of PDR collections assignable to either the Late Bronze Age or Early Iron Age. Though there are 55 more Early Iron Age sites/findspots than Late Bronze Age ones, the figures are not significantly different given the disparity in the length of the two periods (Late Bronze Age = c. 350 years (1150-800 BC); Early Iron Age = c. 450 years (800-350 BC)). In short, there are no major changes in the number of sites through time, which tends to support the impression that there are broad underlying continuities in the settlement record (see Chapter 3)[23].

6.2.2 Material distributions and density biases

Sites/findspots with PDR pottery are distributed across East Anglia, with dense concentrations in select landscapes (Figure 6.1). Whilst the distribution is by no means uniform, there are few substantial 'blank zones' beyond the wetland landscapes of the Fens and the Norfolk Broads. One such area is the spine of high ground running between northwest Essex and northeast Suffolk, which has only a light scattering of widely dispersed sites. Other blank zones are more localised, including areas of the Boulder Clay plateau between the rivers Cam, Ouse and Nene in Cambridgeshire, tracts of high ground in north Norfolk, patches of the London Clay Lowlands in southwest Essex, and the northern tip of the Sandlings region in northeast Suffolk.

It cannot be assumed, however, that the current scarcity of sites in these zones reflects a real absence of occupation during the late second and early first millennia BC. Numerous factors condition the survival and visibility of sites (Chapter 3), and consequently, the possibility of finding later prehistoric pottery. As a traditional agricultural heartland of southern England,

[23] Per century, the Late Bronze Age can be calculated as having marginally more findspots (70 compared to 66 in the Early Iron Age).

centuries of ploughing in East Anglia are likely to be responsible for the paucity of sites in some regions, particularly on the fertile Boulder Clay uplands, which display only a thin scattering of findspots (land generally over 50m OD, see discussion in section 6.2.3). Because prehistoric pottery is relatively fragile and friable in nature, sherds rarely survive for more than a few decades in the ploughsoil (Pendleton 1999, 63).

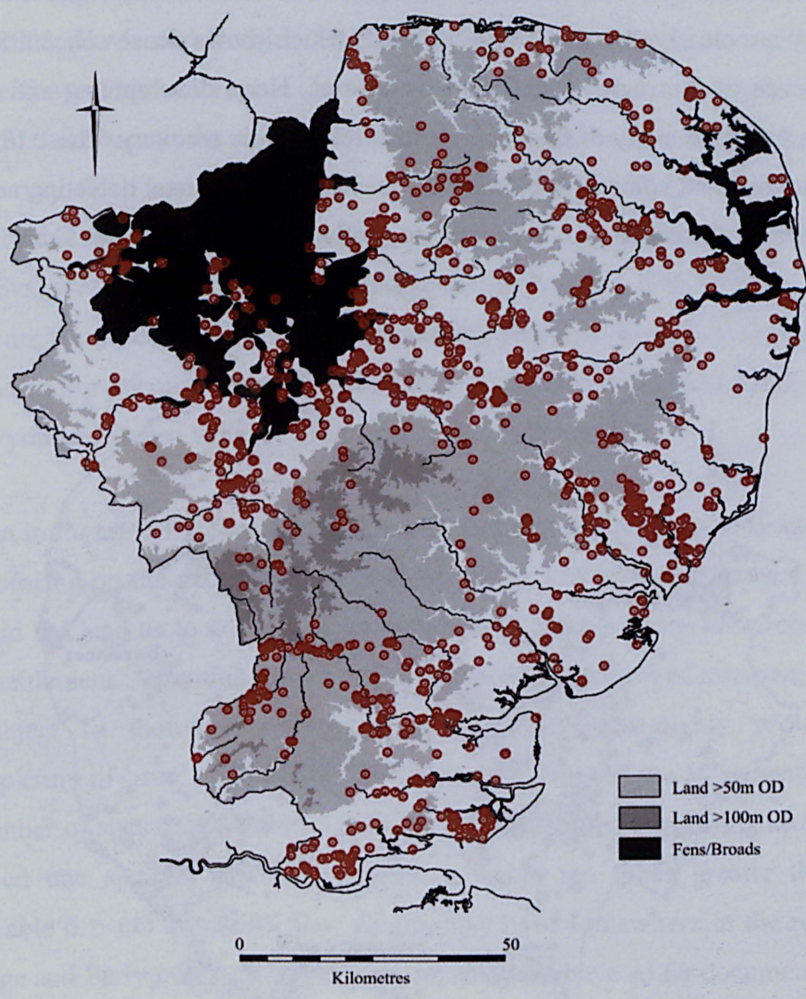


Figure 6.1. Distribution of 1218 PDR findspots in East Anglia.

Points of survival aside, in most instances the blank zones in distribution are more likely to reflect an absence of systematic fieldwork, no doubt guided in part by a lack of rural development, but also by long standing assumptions about the inhabitability of the region's 'claylands' in prehistory. By contrast, the opposite is true for those areas displaying dense findspot concentrations, which have all been subject to extensive archaeological investigation; some for over half a century. Strictly speaking then, distributions do not *necessarily* map the areas which were preferentially settled in the past, but first and foremost highlight the places which have a legacy of intensive fieldwork. Variations in the geography of archaeological activity thus skew the distributions, creating particular kinds of spatial patterns that require careful interpretation.

As discussed in Chapter 3, most archaeological interventions in East Anglia have been linked to, or facilitated by, development in one way or another, meaning that the locations with high density distributions tend to coincide with the areas that have witnessed extensive development. These biases in recovery are clearly displayed by Figure 6.2, which shows dense concentrations abutting the suburbs of seven of the region's major urban centres. Here, development and infrastructural improvement has provided many of the opportunities for ceramic recovery. These towns and cities also support museums, and some of the larger archaeological and metal detecting societies whose activities, interests and reports have served to both enhance but also skew local density distributions.

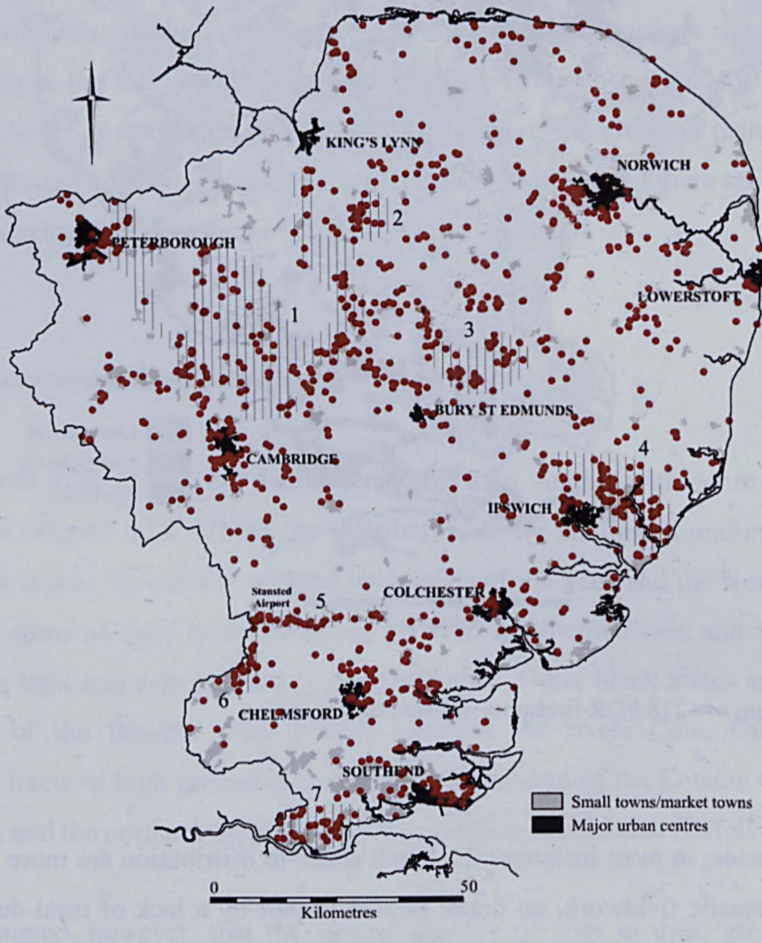


Figure 6.2. PDR findspots in relation to major urban areas and select zones subject to extensive field survey/excavation 1. Fenland Survey/fen-edge; 2. Barton Bendish Survey; 3. Area of survey by Edward Savoury and Basil Brown; 4. South East Suffolk Survey; 5. Sites investigated along the A120; 6. Sites investigated along the M11; 7. Sites investigated in the Gray-Thurrock region.

The other findspot concentrations in Figure 6.2 are also result of collection biases, either owing to repeated archaeological responses to development, or extensive parish-based or landscape fieldwalking surveys conducted by researchers and enthusiasts. In Essex, the clear line of dots in the northwest of the county marks the route of developer-funded excavations along the A120 between Stansted Airport and Braintree (Timby *et al.* 2007). Archaeological responses to development and aggregate extraction also account for concentrations around the airport itself (Cooke *et al.* 2008; Havis and Brooks 2004), the line of the M11 (Roberson 1975), and several locations in the Grays-Thurrock region (Jones and Jones 1975; Jones and Bond 1980; Bond 1988; Wilkinson 1988). Likewise to the north, the site clusters around the Fens reflect both the impact of the Fenland Survey (Hall and Cole 1994), and in Cambridgeshire, the more recent large-scale excavations afforded by quarrying in landscapes such as Fengate, Barleycroft/Over, Earith and Wicken (see Evans *et al.* 2008; 2009 for overview). In Norfolk and Suffolk, several findspot concentrations are the product of extensive fieldwalking projects. Notably visible are the results of the Barton Bendish Survey on the fen-edge in Norfolk (Rogerson 1999), and the South East Suffolk Survey in the Fynn and Deben valleys[24] (Martin 1999b, 51-52).

The distribution in Figure 6.1 is therefore the outcome of a complex range of factors, few of which have a *direct* bearing on the geographic patterning of later prehistoric settlement. These realities, however, should not lead us to despair, since we can still make some *general* observations about the density of settlement. Assuming that each dot/findspot is indicative of a settlement site, then the landscapes subject to thorough archaeological investigation arguably present us with a representative picture of 'true' site densities in the past. In some of the aforementioned areas, it is clear that a number of sites occur within 0.5-1.0km of one another, suggesting settlement densities regularly exceed one site per square kilometre: a figure ten times greater than the average calculated in Table 6.1. On this basis, East Anglia may have somewhere in the region of 16000+ Late Bronze Age and Early Iron Age settlements, meaning we have so far documented just c. 7.5%.

Of course, such crude reckonings are not entirely justified since settlement densities are never entirely uniform. There will have undoubtedly been marked variations in the desirability of certain landscapes and settings (see section 6.2.3), with some environs preferentially avoided or impossible/difficult to occupy (e.g. in-fen wetlands, rivers, and heavily forested regions). Likewise, not all the sites would have been occupied simultaneously, and these figures need to be set against our ideas about the longevity of settlement (see Chapter 3). Nevertheless, it is entirely reasonable to assert that large tracts of the landscape were densely occupied during the late second and early first millennium BC. This alone has far reaching implications, challenging us to think about the scale

[24] Other localised clusters in Suffolk result from field survey by Edward Savery, Mike Hardy and Basil Brown (Pendleton *pers comm.*).

and character of communities in a completely different light. Settlement densities on this scale were scarcely thought possible 20 or 30 years ago, when sparsely occupied landscapes were generally envisaged (see discussions by Evans *et al.* 2009, 185-186). Now we must contemplate a situation in which neighbouring farmsteads were most likely intervisible: the distance between settlements potentially traversed within a few minutes' walk. In these contexts, face-to-face interaction with people beyond the farmstead would have been an inevitable and *unavoidable* part of everyday life. This is more than just a matter of seasonal activities periodically bringing together members of a wider community (e.g. for the harvest or construction projects), but interactions and chance encounters occurring on a daily basis in the course of basic domestic duties, such as collecting firewood or fetching water. As we shall see, this has a highly significant bearing on the ways in which we understand the nature, extent and duration of ceramic traditions.

Though it would be helpful to discuss settlement densities in relation to the Late Bronze Age and Early Iron Age separately, the number of well dated sites/ceramic findspots is too small and widely distributed to provide any detailed regional assessment at present. Only in parts of Cambridgeshire and Essex has the landscape been investigated intensively enough to shed some light on these dynamics. For reasons discussed in section 6.2.1, Norfolk and Suffolk have comparatively few closely dated ceramic assemblages, creating some large blank zones in the phased distribution plots presented in Figure 6.3. In both instances, these correspond to the region's band of clay uplands, which arc across East Anglia. These areas were certainly not empty or impenetrable in this period (see Figure 6.1), but have so far only yielded a small number of closely datable pottery groups. This means that when we come to discuss the topic of ceramic style-zones and examine the distribution of particular kinds of dated pot (below), patterns may be misleadingly split by this blank zone, or otherwise appear to be bounded by it. Put simply, *the edges of a distribution do not necessarily delineate a 'real' physical or cultural boundary/barrier, but an underlying bias in recovery.*

These issues aside, it is apparent that the phased plots in Figure 6.3 are broadly similar, echoing the patterns in Figure 6.1. We can assume, therefore, that all the distributions are influenced by a comparable set of biases already discussed. Though the consistency between the period plots would suggest that there are few differences in the *general* location of Late Bronze Age and Early Iron Age sites, these patterns can be detailed further by exploring their relationship to the region's geology, topography and hydrology.

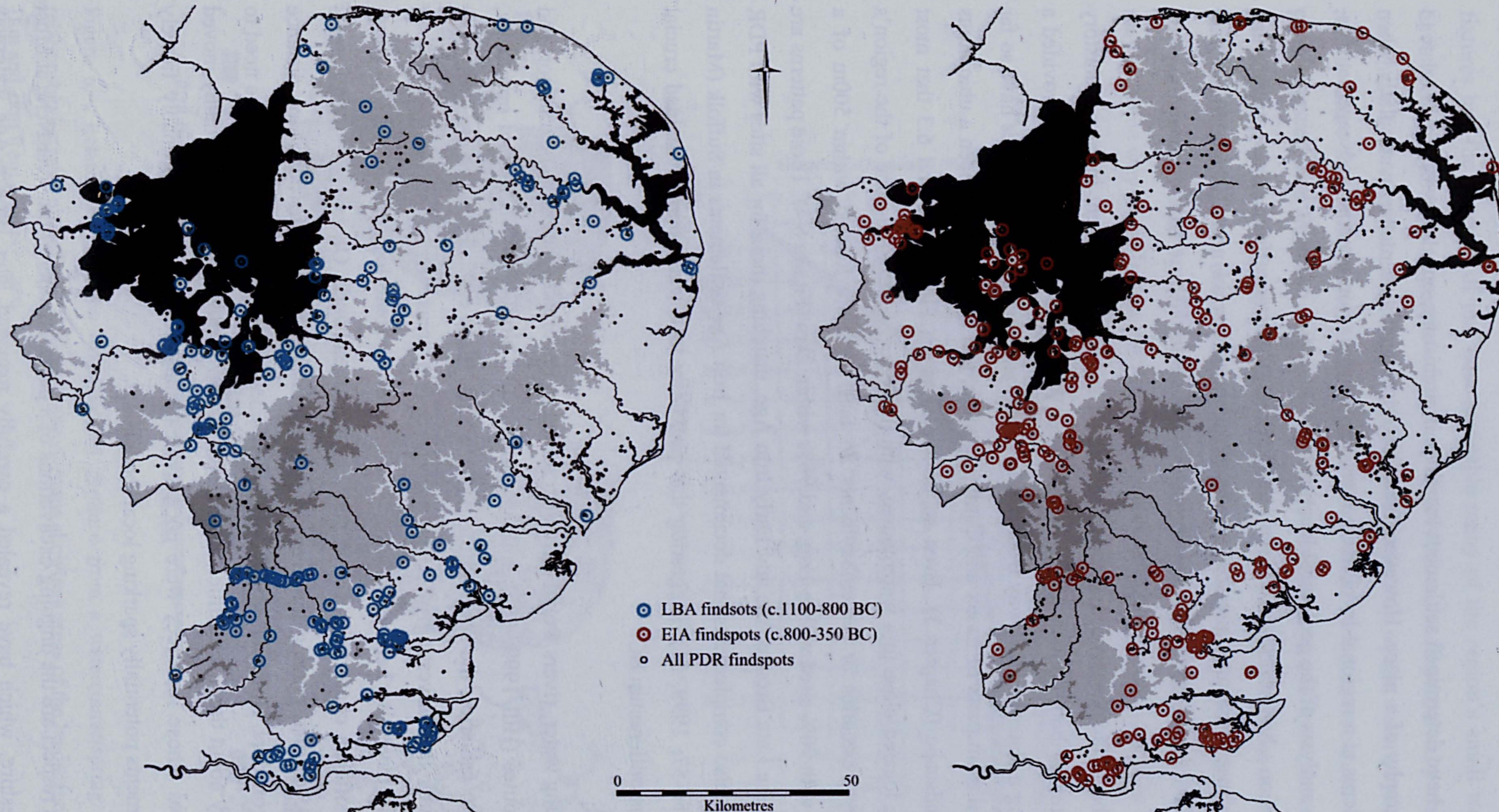


Figure 6.3. Distribution of 543 phased PDR findspots (Late Bronze Age: 244; Early Iron Age: 299).

6.2.3 Landscape settings: the geographic and geological location of sites

Many factors will have determined settlement locations in prehistory, only a few of which relate to the physical geography of a place. However, these material conditions matter, particularly when working with patterns at a regional level. Here then, the focus is upon general landscape settings, which includes an analysis of the geological location of sites (surface geology), and their relation to topography (elevation - height above sea level) and hydrology (distance from rivers, streams and springs). In some sense, these are quite abstract variables, but, as Garrow notes (2006, 16), they are ones that '*would have had effects which were relevant to people in the past*' (his emphasis).

One of the most basic factors governing the *possibility* of sustained settlement in later prehistory was access to water for both humans and livestock alike. Whilst wells and waterholes provided a means of achieving a water supply away from rivers, stream and springs, these fixtures have so far only been reported from parts of Essex and Cambridgeshire, and may not have been a ubiquitous feature of the landscape (Chapter 3). Even so, it is clear from Figures 6.1 and 6.3 that most sites/findspots are located close to a watercourse, with many strung out along one of the region's major river valleys, estuaries or fen-embayments. In fact, 70% are located within 500m of a waterway/spring, with 90% sited within 1km, and 98% within 2km (Figure 6.4). These patterns are consistent in both the Late Bronze Age and Early Iron Age, matching those for all sites with PDR pottery. This trend also complements that documented for Iron Age settlements in Suffolk (Martin 1988, 68; 1993, 56-57; 1999, 51), suggesting that proximity to a watercourse remained crucial throughout the first millennium BC.

As well as providing water, rivers would have also served as important boundaries or transport and communication routes (Hill 1999, 187); linking communities along the valleys, and eventually, providing access to estuaries, the sea, and the wider world. These ecotones offered opportunities for fishing, fowling, the harvesting of reeds, and, in certain areas, salt production. Sources of potting clay would have also been exposed by water action in some locations, whilst the rivers themselves were often a context for votive deposition of metalwork. On top of this, waterside pastures provided seasonal grazing for livestock, with animals potentially herded some distance along the valley corridors. However, in light of the settlement density estimates above, we need to think more closely about the practicalities and politics of how people and animals actually moved through landscapes whose resources were no doubt carefully controlled, and probably fiercely guarded (infringements potentially sparking local feuds).

Significant in this respect are the ongoing excavations of a paleaochannel of the river Nene at Must Farm, Cambridgeshire, which have revealed a carefully managed later Bronze Age waterway equipped with numerous fish traps and closely-spaced weirs (M. Knight *pers comm.*). These fixtures beg the question of just how navigable many of the region's small watercourses would have been, suggesting that people's freedoms to travel down such perceived prehistoric 'highways' may have been overestimated. Rights of access to/ownership of the waterways may have been as real as those for fieldsystems, areas of pasture, woodland or other resources. The movement of people, goods, and livestock across the landscape/riverscape would have almost certainly called call for some measure of negotiation, making the formation and maintenance of social alliances - both within and between communities – an economic necessity. The forging of these relationships was perhaps facilitated by new forms of exchange and hospitality in the Late Bronze Age, which may go some way to explaining the development and spread of the PDR ceramic tradition.

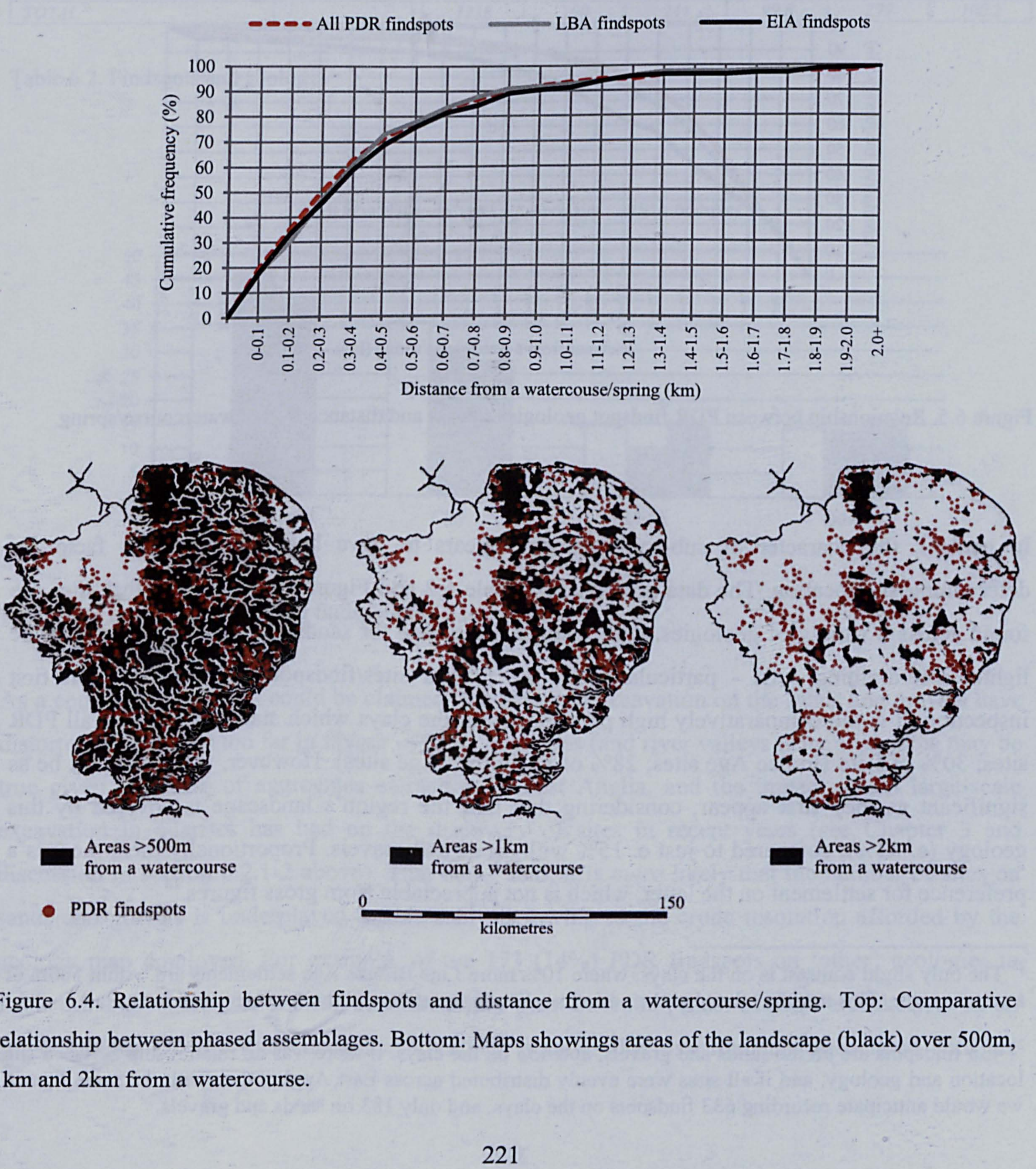


Figure 6.4. Relationship between findspots and distance from a watercourse/spring. Top: Comparative relationship between phased assemblages. Bottom: Maps showings areas of the landscape (black) over 500m, 1km and 2km from a watercourse.

At present we can only speculate about some of these processes and dynamics. However, it may have been important for groups to settle close to a watercourse, not just to ensure water supply, but to gain access to, and claim rights over, tracts of the rivers and streams themselves. When distance from a water source is plotted against basic surface geology (Figure 6.5), it is clear that there are few major differences in relationship: only chalk landscapes yielding a slightly higher percentage of sites more than 500m from a watercourse/spring (patterns remaining broadly similar for sites dated to the Late Bronze Age or Early Iron Age[25]). This geology is restricted to the region's 'uplands' (generally over 50m OD), where there are currently fewer tributaries or other natural sources of water supply.

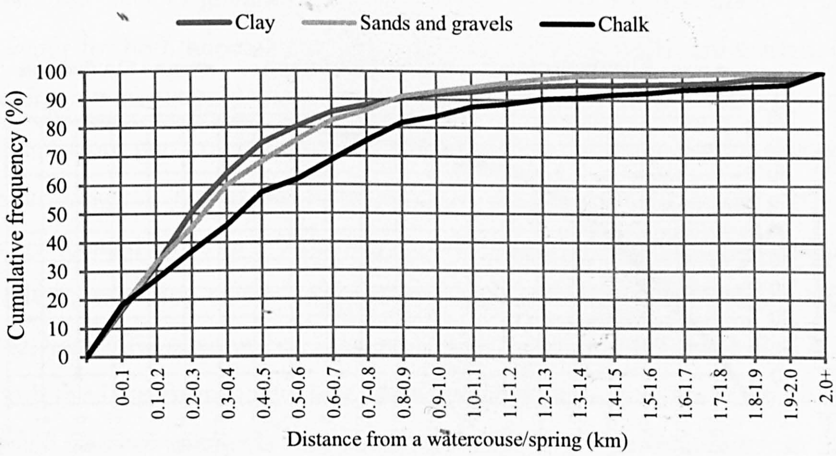


Figure 6.5. Relationship between PDR findspot geologies (basic) and distance from a watercourse/spring.

In general, the character of sub-soil geology appears to have been an important factor in determining site location. The data presented in Table 6.2 and Figures 6.6-6.7 show that sites are found across a variety of geologies, with a slight preference for sands and gravels supporting the lighter free-draining soils - particularly for the phased sites/findspots. Nevertheless, on first inspection, it is the comparatively high percentages on the clays which standout (36% of all PDR sites; 30% of Late Bronze Age sites; 28% of Early Iron Age sites). However, these may not be as significant as they first appear, considering that half the region's landscape is covered by this geology (c. 52%), compared to just c. 15% with sands and gravels. Proportionally then, there is a preference for settlement on the latter, which is not appreciable from gross figures.[26]

[25] The only slight contrast is on the clays, where 10% more Late Bronze Age settlements are within 500m of a water source. This may be related to the period's reliance on cattle, and their greater need for water.

[26] 436 findspots are on the sands and gravels, and 433 on the clays. If there was no relationship between site location and geology, and if all sites were evenly distributed across East Anglia, then with the same figures we would anticipate recording 633 findspots on the clays, and only 183 on sands and gravels.

Geology	Basic geology	No. PDR findspots	% PDR findspots	No. LBA findspots	% LBA findspots	No. EIA findspots	% EIA findspots
Alluvium	Other	66	5.4	9	3.7	19	6.4
Ampthill or Kimmeridge clay	Clay	13	1.1	2	0.8	7	2.3
Bagshot Beds	Other	6	0.5	0	0.0	5	1.7
Brickearth	Other	3	0.2	0	0.0	0	0.0
Chalk	Chalk	176	14.5	24	9.8	46	15.4
Cornbrash	Other	3	0.2	0	0.0	2	0.7
Crag	Other	42	3.5	4	1.6	5	1.7
Glacial sands and gravels	Sands & gravels	208	17.1	35	14.3	44	14.7
Lacustrine	Other	3	0.2	2	0.8	0	0.0
London Clay	Clay	51	4.2	17	7.0	14	4.7
Lower Greensand	Sands & gravels	10	0.8	3	1.2	3	1.0
Oxford Clay & Kellaway beds	Clay	6	0.5	1	0.4	2	0.7
Peat	Other	50	4.1	18	7.4	16	5.4
River terrace gravel deposits	Sands & gravels	209	17.1	73	29.9	72	24.1
Thanet Beds	Sands & gravels	8	0.7	2	0.8	5	1.7
Till	Clay	353	29	52	21.3	56	18.7
Upper Greensand and Gault	Clay	10	0.8	2	0.8	3	1.0
Windblown sand	Sands & gravels	1	0.1	0	0.0	0	0.0
TOTAL	-	*1218*	*100*	*244*	*99.8*	*299*	*100.2*

Table 6.2. Findspots and geology.

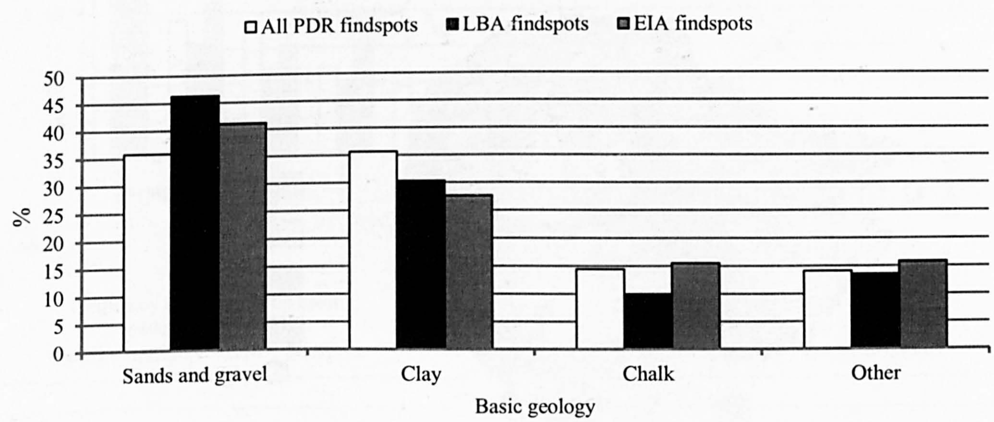


Figure 6.6. Relationship between findspots and basic geology.

As a counter argument, it could be claimed that biases in excavation on the sands and gravels have distorted the patterns too far in favour of these geologies (and river valleys generally). This may be true given the scale of aggregates extraction in East Anglia, and the impact which large-scale excavation in quarries has had on the discovery of sites in recent years (see Chapter 3 and discussion in section 6.2.1-2 above). That being said, it is *more* likely that the number of sites on sands and gravels is underplayed in this analysis, owing to the crude resolution afforded by the geology map employed. For example, of the 173 (14%) PDR findspots on 'other' geologies in Table 6.2 and Figure 6.6, 116 fall on alluvium or peat. In reality, most of these are likely to be on gravel fringes skirting these deposits. A case in point is the nine findspots associated with the

Barleycroft/Over landscape, Cambridgeshire, which are sited on peat on the geology map, but actually lie on sands and gravels (as proved by excavation).

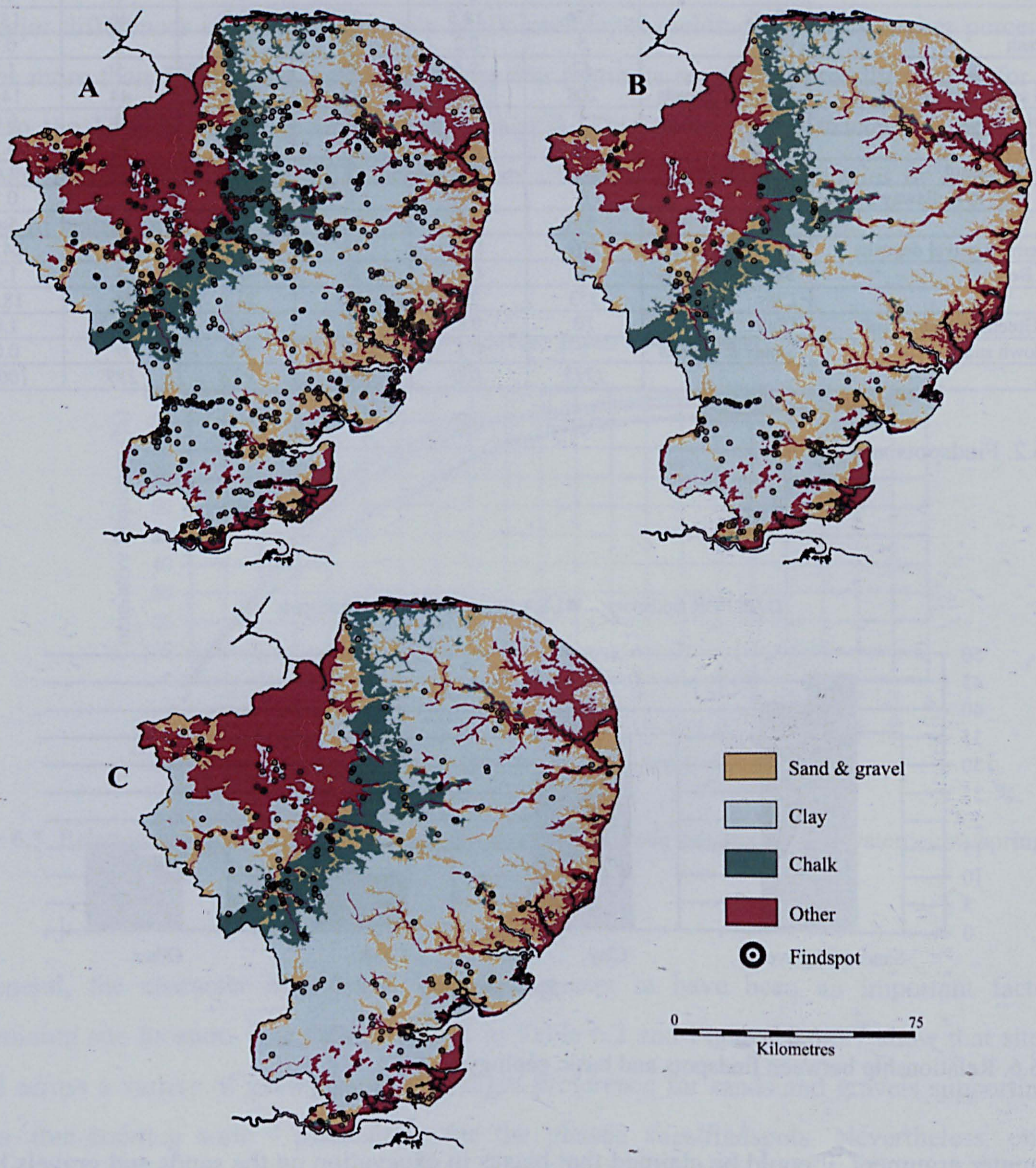


Figure 6.7. Distibution of findspots in relation to basic geology. A. All PDR findspots; B. Late Bronze Age findspots; C. Early Iron Age findspots.

It is also notable that many of the sites on the region's Boulder Clay plateau are located towards the edge of this deposit (Figure 6.7), where the geology is likely to be more variable, supporting pockets of lighter soils and areas of better drainage (potentially 'readable' from the different hues in the local natural vegetation). In fact, few sites sit firmly in the middle of this clay mantle, away from major river valleys. Thus although the claylands were quite extensively occupied during this period, it appears the clay fringes were favoured - settlers perhaps seeking out the more manageable (and already cleared?) parts of these landscapes which, due to local variations in topography and drainage, may have been comparatively simple to cultivate.

Despite generalisations in the archaeological literature, the claylands were *not* an undifferentiated landscape mass (Clay 2002): different parts presented different problems and potentials. But as with earlier periods, it was still the region's lighter soils on the sands, gravels and chalks that were evidently preferred, and intensively occupied. Patterns are once again similar between the Late Bronze Age and Early Iron Age (Figure 6.6); the only slight difference being the latter's higher frequency of chalkland sites.

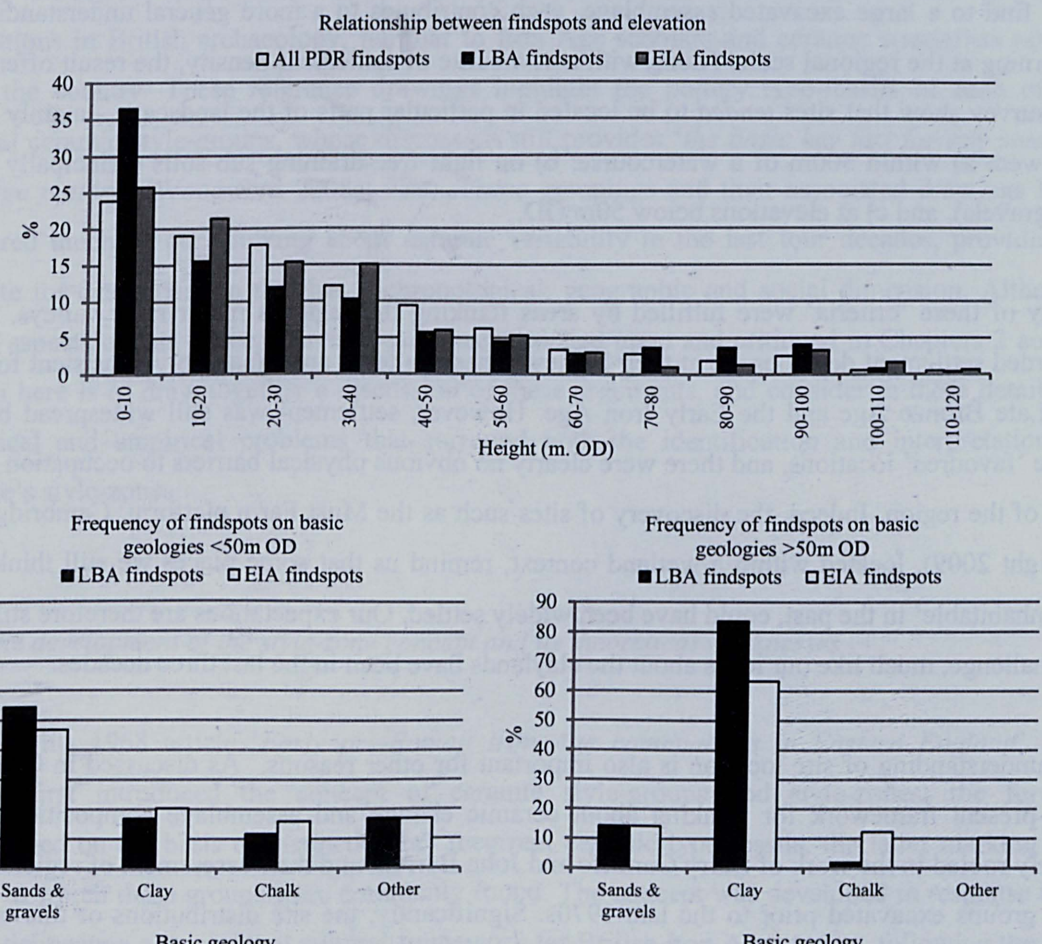


Figure 6.8. Graphs displaying the relationship between findspots, elevation and geology. In total there are only 98 dated findspots above 50m OD (49 Late Bronze Age; 49 Early Iron Age).

Given the tendency for sites to be located on sands and gravels near to watercourses, it is not surprising that 82% (80% Late Bronze Age; 84% Early Iron Age) of findspots are situated at low-lying elevations below 50m OD (Figure 6.8). In fact, only c. 35% of the East Anglian landmass rises above this – a region dominated by the heavy clays that were less intensively settled. In general then, there is a negative correlation between elevation and the number of findspots.

6.2.4 Landscape patterning summary

East Anglia now boasts records of an extraordinary number of sites with PDR pottery. Indeed, totals calculated and presented in this chapter are quite staggering when compared to those available to scholars in previous decades – many of whom simply mapped 'Iron Age' material distributions (e.g. Martin 1988, 69, Fig. 59). Although the dots represent anything from a single stray find to a large excavated assemblage, each contributes to a more general understanding of patterning at the regional scale. Along with a new sense of settlement density, the result offered by this survey show that sites *tended* to be located in particular parts of the landscape - mainly zones that were a) within 500m of a watercourse; b) on light free-draining sub-soils (principally sands and gravels), and c) at elevations below 50m OD.

Many of these 'criteria' were fulfilled by areas flanking the region's major river valleys, where recorded settlement densities are at their highest. These patterns are remarkably consistent for both the Late Bronze Age and the Early Iron Age. However, settlement was still widespread beyond these 'favoured' locations, and there were clearly no obvious physical barriers to occupation in any part of the region. Indeed, the discovery of sites such as the Must Farm platform, Cambridgeshire (Knight 2009), located within a wetland context, remind us that some places we still think of as 'uninhabitable' in the past, could have been widely settled. Our expectations are therefore still open to challenge, much like our ideas about the claylands have been in the last three decades.

An understanding of site location is also important for other reasons. As discussed in Chapter 5, our present framework for thinking about ceramic change and assemblage composition is still firmly rooted in the work of Barry Cunliffe and John Barrett, and their assessment of regional type-site groups excavated prior to the late 1970s. Significantly, the site distributions of this era now look quite different to those of today, which begs the question of whether we can still rely on these previous understandings of material variability. Cunliffe's style-group divisions are particularly problematic in this respect; based on assemblages from the region's more 'exceptional' sites such as the West Harling ringworks (which have no other definite Early Iron Age parallels) or the Wandlebury hillfort (one of only a small number of hillforts in East Anglia) . In fact, most of the assemblages Cunliffe (1968, 177-180) consulted to construct his original style-zone groupings derived from sites in Norfolk and Suffolk: the two counties which now have the fewest number of datable assemblages, and some of the greatest problems with ceramic chronology. We must therefore reconsider the significance and utility of these groupings in light of this recent evidence.

6.3 Interrogating style-zones

> *'The concept of a style-zone is here used quite loosely to mean a defined geographic region within which, in a particular time frame, a distinctive range of pottery is commonly in use'* (Cunliffe 2005, 87)

The 'Appendix A' section of Barry Cunliffe's *'Iron Age communities in Britain'* (1974, 315-351; 1978, 349-386; 1991, 553-590; 2005, 611-651) contains one the most influential series of pottery illustrations in British archaeology, familiar to Iron Age scholars and ceramic specialists up and down the country. These reference drawings highlight the pottery type-fossils of each of his regional ceramic style-groups, whose discussion still provides *'the basic key text for any study of Iron Age pottery'* (Woodward 2008a, 289). These groupings and their associated drawings have structured much of our thinking about ceramic variability in the last four decades, providing a template for categorisation that has a chronological, geographic and social dimension. Although certain aspects of this concept have already been touched upon and critiqued in Chapters 2 and 5, the aim here is to draw together a discussion of these arguments, and consider in more detail the theoretical and empirical problems that surround both the identification and interpretation of Cunliffe's style-zones.

6.3.1 The development of the style-zone concept and its theoretical weaknesses

It was in his 1968 article *'Early pre-Roman Iron Age communities in Eastern England'* that Cunliffe first introduced the concept of ceramic style-groups and style-zones: the former distinguished on the basis of distinctive but recurrent ceramic type-fossils; the latter marking the regions in which these groups were commonly found. The concept was developed in response to a need to delineate a new regional cultural framework for British Iron Age studies, following the fall from grace of Hawkes' ABC scheme, and the difficulties encountered when trying to apply a conventional 'Childean' model of culture-groups. Cunliffe's style-zone concept provided the first workable alternative to these, offering a means of parcelling up the entire cultural map of Iron Age Britain using the period's most ubiquitous class of find.

Whilst Cunliffe (1968, 182-183) stressed the distinction between style-groups and Childe's notion of cultures, the concepts were nonetheless connected, with both defined by the recurrent association of material traits. In fact it was implicit in the 1968 article that style-groups were a form of substitute for the more desirable, but less obtainable, culture groupings in regions where other material type-fossils were scarce. Cunliffe certainly never rejected Childe's culture concept in this paper, and where possible, attempted to emulate these groupings by relating his pottery categories to other 'distinctive' type-fossils, such as the occurrence of rectangular huts (*ibid* 1968, 180). However, the question of what these divisions revealed in social terms was never expanded upon in 1968, though it was implicit that pottery was a normative medium, reflecting corporate identity on some level.

With the publication of '*Iron Age communities*' in 1974, Cunliffe detailed style-groups for the whole of Britain, illustrating a series of style-zone maps. Former groups were reorganised slightly differently, and the rhetoric of culture-history was abandoned. As if to distance the concept from its earlier roots, style-zones were largely discussed in terms of contact and interaction, or exchange and marketing patterns from production centres - the language of a new socio-economic prehistory. The links between style-zones and social groups were only fleetingly alluded to. However, more explicit references appeared in print in the early 1980s (Cunliffe 1982, 168; 1984a, 23, 32), and with the third edition of '*Iron Age communities*', published in 1991, the regionalisation of ceramic styles was argued to reflect the early emergence of formalised tribal territories:

> '*in the distinctive style-zones which begin to crystallize in the sixth century BC we may be seeing incipient tribal groupings. Once established these entities are maintained throughout the Middle Iron Age with little change. The broader regional groupings which it is possible to discern by the third century may indicate tribal confederacies*' (Cunliffe 1991, 93).

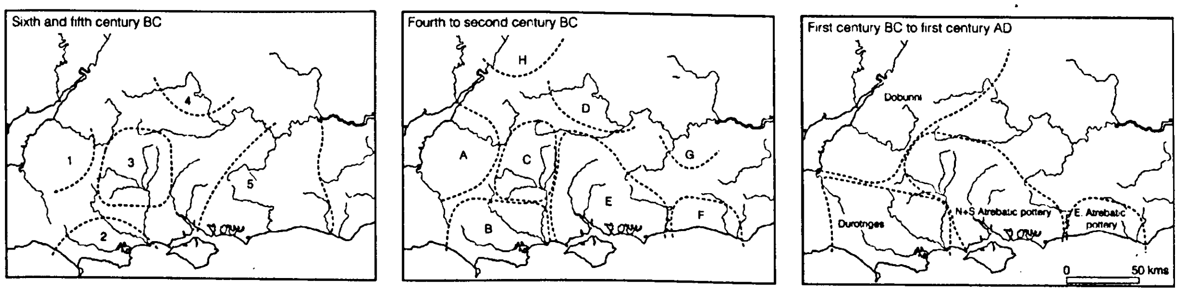


Figure 6.9. The genesis of ethno-tribal boundaries in central southern Britain based on the distribution of regional pottery styles (adapted from Cunliffe 2005, 592, Fig. 21.4). Note the discrete distributions.

As framed by Cunliffe, style-zones were claimed to map the social territories of discrete tribal groups, who recognised their ethnicities through differing ceramic traditions. Furthermore, noting that some style-zone boundaries showed only subtle geographic shifts through time (despite the pots themselves changing in dramatic ways), Cunliffe broached the idea of 'ethnogenesis', tracing the origins of named Late Iron Age tribes back to the sixth century BC via style-zone distributions (Figure 6.9). If there was any residual ambiguity surrounding Cunliffe's take on the relationship between pots and people, then this was entirely stripped away in the latest edition of '*Iron Age communities*', where he underlines his opinion that ceramic categories communicate ethnic identity in a direct fashion:

> '*the conscious choice of decorating pottery in a distinctive manner took with it a sense of communal identity and the desire to distinguish self from others living in neighbouring regions. In such a case pottery styles become a surrogate for ethnicity*' (Cunliffe 2005, 88)

This statement, more than any other, gives us our clearest insight into Cunliffe's understanding of what pots and style-groups represent. The sentiments expressed are in fact remarkably similar to those of Brailsford, who nearly half a century earlier claimed that pottery was '*pre-eminently representative of a whole people*' (Brailsford 1961, 93). In both these instances the relationship between pots and people, or style-zones and tribal entities, is a matter of simple equivalence. For Cunliffe ceramic traditions reflect one very particular form of large-scale social grouping - *the tribe* - whose boundaries are cast as fixed and stable through time. In this model, tribal groupings and the ethnicities expressed by ceramic traditions become timeless constants - the cultural backdrop to other socio-economic and political institutions which Cunliffe is primarily concerned with. Although the pots themselves change throughout the period, as documented in Chapter 5, the basic style-zone distributions alter very little. Ceramic change in this context is therefore only a matter of chronological significance, as the kinds of identities and meanings expressed by pots remain constant. In this regard there is no real sense of change or dynamism at this base level, as ceramic traditions only ever speak of one scale of social resolution throughout the period.

In summary, Cunliffe's interpretation of style-zones remains problematic. At its heart, the concept has a rather simplistic and normative take on the relationship between the social and material, expressed in the idea that pots *reflect* ethnicity in a straightforward manner. As such, pots become passive bearers of identity, instead of utensils that were made and used in the course of social action. Even if we were to accept that pots 'communicated' ethnicity in the way that Cunliffe envisages, we get no closer to understanding how these identities were themselves created or maintained. There is certainly no discussion of the social settings in which 'messages of identity' were conveyed. Similarly, there is no indication of how these 'messages' may have been controlled, and/or how their meanings were rendered intelligible by the 'receivers'. More to the point, why is it that pottery only reflects one kind of social identity (ethnicity) in the first place?

As discussed in Chapter 2, current approaches to this topic stress that identity is a process rather than a given entity, arising though practice and engagement. Grasping the relationship between pots and people is not then a matter of treating the former as a conventionalised sign system for the latter. Rather than *assuming* that identity was communicated or reflected by differing ceramic styles, as Cunliffe has done, we must try instead to understand how different qualities of identity emerged though the contexts of interaction *made possible* by the creation and use of varying styles of pot. Certainly, the material should invite us to consider more than just one dimension of communal identity. But this is not explored by Cunliffe, who only stresses the relationship between style-zones and tribal ethnicity. Missing is an acknowledgement that pots were potentially implicated in the formation of other kinds of identity which nest within, or even cut across, the groups that he identifies.

6.3.2 The empirical weakness of the style-zone groupings

East Anglia is home to four of Cunliffe's Early Iron Age style-zones, which occupy slightly different regions and blocks of time: *West Harling-Fengate* (c. 800-600 BC), *Ivinghoe-Sandy* (c. 800-600 BC), *Chinnor-Wandlebury* (c. 600-400/300 BC) and *Darmsden-Linton* (c. 600-400/300 BC). Each group is defined on the basis of select ceramic type-fossils which collectively constitute a repertoire of 'distinctive' forms understood to be in regular use - a range of which are illustrated in the 'Appendix A' section of '*Iron Age Communities*' (Figure 6.10). Although Cunliffe presents these as 'objectively' defined groupings, we are given few clues as to how he arrived at his choices for inclusion, or what thresholds he set when deciding if a type was commonly in use or not. This is perhaps understandable when we remember that the style-groups for Eastern England were formulated in the 1960s, when only a handful of sizable assemblages existed; many of which would be considered small by today's standards. In a context where there was no regional ceramic framework, foregrounding the few diagnostic elements which linked together disparate assemblages was a justifiable approach. However, when pottery is only sampled at a small number of mutually distinct points, distributions patterns may appear to be discrete, making it possible to argue for the existence of distinct style-zones.

This is the case with Cunliffe's distributions, which have always worked with a small number of dots. For example, when he first published his discussion of the ceramic traditions in Eastern England, his maps displayed only 22 different style-zone assigned sites for the whole of East

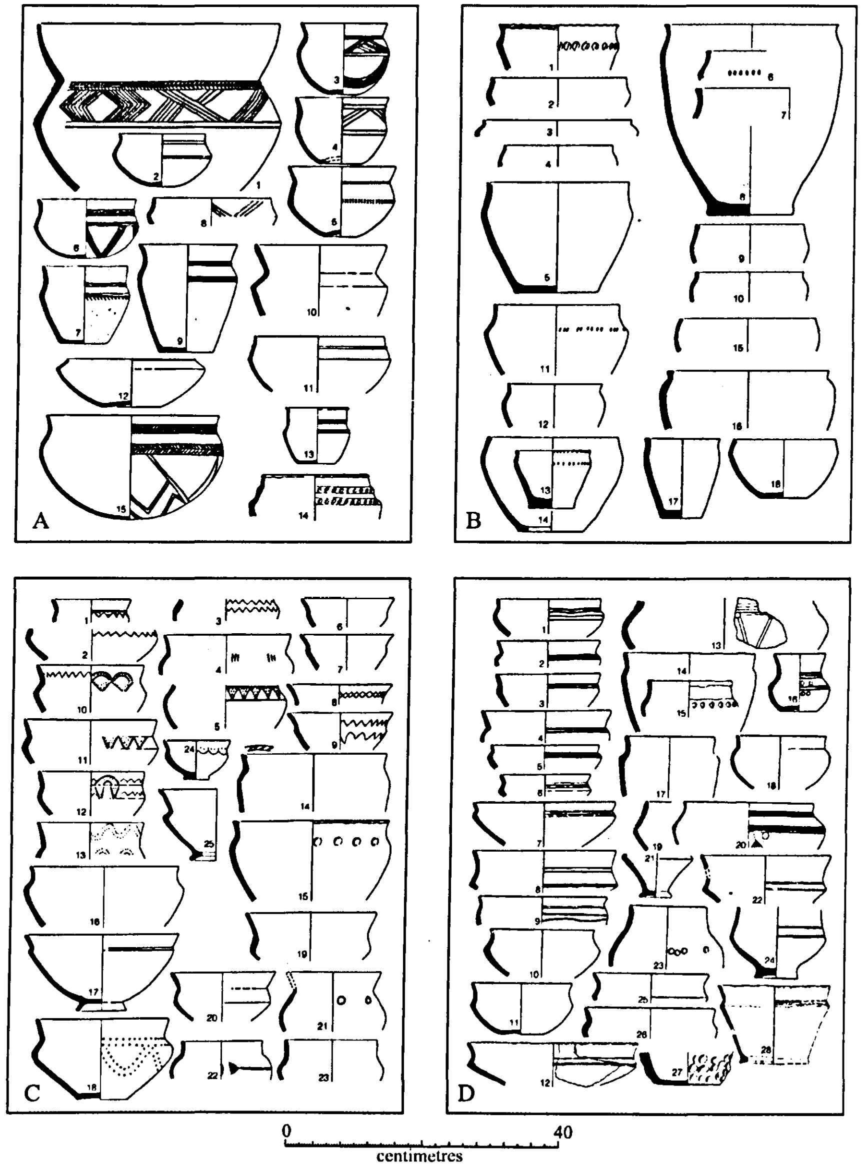


Figure 6.10. Cunliffe's style-zone type-fossils. A. West Harling-Fengate group; B. Ivinghoe-Sandy group; C. Chinnor Wandlebuy group; D. Darmsden-Linton groups (after Cunliffe 2005, 616, 618, 623-624, Figs. A:5, A7, A:12-A:13)

Anglia: 12 with 'Darmsden style' pottery, and just five each with 'Fengate-Cromer style' or 'West Harling style' wares (Figure 6.11). What is more striking is that these figures have not changed significantly through the various editions of '*Iron Age communities*' (Table 6.3). In four decades, a total of only 13 new dots have been added to the distributions in East Anglia; a region where five different Early Iron Age style-zones have been identified. Furthermore, the original distributions have only been amended twice in this period: once in 1974, and once again in 2005. Each time, the result was either the creation of new style-groups to accommodate the extra sites (Chinnor-Wandlebury and Ivinghoe-Sandy in 1974), or the amalgamation of existing groups (the West

Harling-Staple Howe group and Fengate-Cromer group being collapsed to form a West Harling-Fengate group in 2005). Some dots were even dropped from the distributions altogether. Minor additions therefore disrupted existing patterns to the extent that whole new categories were required upon revision.

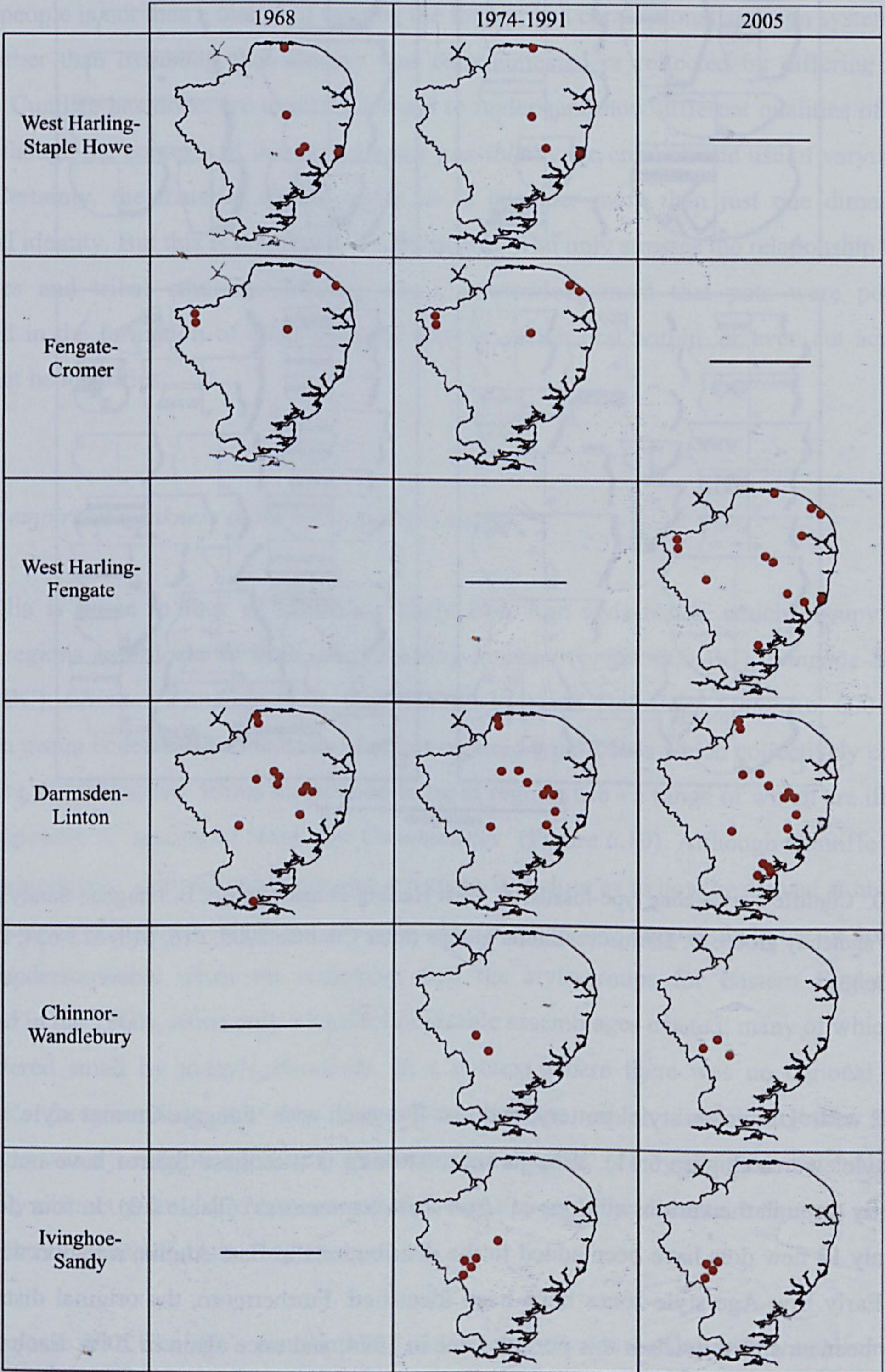


Figure 6.11. Cunliffe's style-zone distributions 1969-2005.

Year of publication	Early Iron Age style-zones of East Anglia						Total no. sites
	West-Harling-Staple Howe	Fengate-Cromer	West Harling-Fengate (from 2005)	Darmsden-Linton	Chinnor-Wandlebury	Ivinghoe-Sandy	
1968	5	5	-	12	-	-	22
1974	4	5	-	10	2	5	26
1978	4	5	-	10	2	5	26
1991	4	5	-	10	2	5	26
2005	-	-	13	15	3	4	35

Table 6.3. Number of style-zone assigned sites/findspots plotted by Cunliffe for East Anglia from 1968-2005.

Given that Cunliffe has only plotted a maximum of 35 different style-zone assigned findspots at any one time for East Anglia, we may wonder what impact the site numbers discussed in section 6.2.1 would have on these patterns. In fact, Cunliffe's figures include just 12% of the Early Iron Age sites/findspots now recorded by this study (or 3% of all PDR sites). Nevertheless, it is clear from Table 6.3 that plotting new 'dots' has not been a high priority since the original inception of the style-zone concept, meaning that even the latest distributions of 2005 still present patterns largely based on data available in early 1970s. This has helped maintain the illusion that style-zones are real bounded entities.

Those who have worked with the region's ceramics during the recent surge in excavation have become more attuned to the variability in Early Iron Age pottery collections. A criticism of Cunliffe's groupings is that they focus too narrowly upon decorated fineware bowls, which tend to constitute a relatively minor component of most assemblages. As Hill notes (1998, 25), even small groups of Early Iron Age pottery often display considerable diversity in vessel form and surface treatment (though within the bounds of each basic vessel class category). The problem is that a restricted focus on select finewares and specific motifs tends to miss this variety. More broadly, and as we saw in Chapter 5, most vessel types have long currencies and may be present in assemblages throughout East Anglia - even if their relative frequencies fluctuate in patterned ways over time and space. However, the existence of these wider traditions, operating at a scale *beyond* the regional style-zone, has not been problematised to the same extent. Their discussion is often subsumed into general descriptions of chronological trends, which for Cunliffe, acts *only* to frame the more pressing issue of the style-zones. Likewise, local patterns in ceramic tradition are written off as not being '*entirely characteristic of a regional group*' (Cunliffe 2005, 87); glossed over as mere local colour. Cunliffe's style zone concept therefore brings forth a particularistic understanding of ceramic variability, which privileges certain kinds of patterns (whose validity is questionable) which operate at one specific scale of spatial resolution - *the regional*. This ultimately directs interpretation along a particular pathway, and downplays the significance of other potentially meaningful trends.

These issues aside, whether we find fault or not with Cunliffe's style-zone concept, it still commands a privileged place in ceramic studies. Through its longevity alone, the concept has accrued an influence or legacy which maintains our interest. Indeed, style-group 'thinking' is now so embedded in our approach to Early Iron Age pottery, that it permeates the day-to-day classification or 'typing' of assemblages according to this scheme. The irony is that this approach is founded upon a series of group descriptions that are not sufficiently detailed to serve as unambiguous guides to categorisation (see Chapter 5). With a few exceptions, most of the vessel type descriptions for each style-group are so vague that pots from nearly any Early Iron Age assemblage could be incorporated within them. In the Darmsden-Linton group, for example, Cunliffe states that the most characteristic vessel is a tripartite fineware bowl with a sharp narrow shoulder and short everted rim, decorated with horizontal grooves below the neck angle. These are distinct types of bowl, well-illustrated in the Appendix A section of '*Iron Age communities*' and categorised as Form N4 vessels in this thesis. However, the other vessel types listed - 'similar' bowls with rounded shoulders; large bowls with widely flared rims; shouldered jars, frequently decorated – are universals of the Early Iron Age repertoire. A more specific description of these vessels in never given, meaning a wide range of forms could potentially be interpreted as belonging to the same group, even if there are marked differences between individual examples.

Disconcertingly, there are even contradictions in the descriptions themselves. For example, in 1968 Cunliffe states that vessel decoration in the Darmsden-group is uncommon '*other than the grooving on the shoulder of bowls*' (Cunliffe 1968, 179). Six year later, in the first edition of '*Iron Age communities*', he contradicts this by claiming that jar forms are '*frequently, but not invariably, decorated*' (Cunliffe 1974, 39). Are we then expected to encounter lots of decoration across vessels, or very little? Equally, when is it appropriate to label an assemblage 'Darmsden-Linton'? How many 'types' have to be present? Are certain ones more significant than others?

Although there are no answers to these questions in the literature, the practice of classifying assemblages according to Cunliffe's 'loose' descriptions goes on regardless. Unsurprisingly, even a cursory comparison of pottery reports and assemblages from East Anglia shows that different ceramicists often end up discussing quite dissimilar groups of material under the same style-zone label. On occasions, style-group affinities have apparently been 'read' on the basis of one or two sherds, and at worst, determined by the site's location within the presumed boundaries of a style-zone 'heartland'.

Because of these ambiguities, the identification of affinities is too often coloured by the known and published distributions of each style-group. Thus when looking at material in Norfolk, one notes the tendency for Early Iron Age pottery to be described as being of 'West Harling-type', whereas in

Suffolk and Essex, assemblages are aligned with the Darmsden-Linton group, whether or not these labels are always justified. To a certain extent, different counties have laid claim to different style-groups; Sealey (1996, 47), for example, declaring that '*The ceramic of the Essex EPRIA is the Darmsden-Linton pottery style-zone*'. The problem with these statements is that they become a self-fulfilling prophecy. Each time affinities are established on geographic grounds, the 'reality' of discrete groups and discrete distributions become ever more concrete. This ultimately skews our patterns, fostering a false impression of where the discontinuities in ceramic traditions lay – the boundaries worryingly crystallising around our modern county borders.

6.4 Back to basics: attribute patterning at the regional scale

Given the problems noted above, it is proposed here that we abandon the 'group' format altogether, and consider instead what spatial patterns are revealed in the distribution of a broad range of *individual* ceramic attributes. This resolves the problem of deciding which 'types' are characteristic enough to constitute a style-group, removing the need to set and justify a criterion for distinguishing the distinctive components from the 'background noise'. Furthermore, it allows us to start from a position where we do not *assume* that style-groups exist as real, coherent or intrinsically significant entities, which only require our careful definition in order to disclose discrete and meaningful patterns. Instead, the approach is to consider the distribution of a range of individual attributes - including the different types of fabrics, forms, and surface treatments documented in Chapters 4 and 5 - to see if, where and when regional spatial patterning exists. This approach remains open to the possibility that different attributes may reveal contrasting or overlapping distributions. The question then is at what scales of geographic resolution can we see patterned variability? How do these patterns contradict or correspond to Cunliffe's discrete style-zones? And how might this help us to understand the different scales at which potting traditions worked in the Late Bronze Age and Early Iron Age?

In the following sections I present a description of the patterns revealed by the plotting of individual ceramic attributes. This focuses exclusively on those traits which show intra-regional variability. As such, it excludes many of the fabric types, vessel forms and styles of decoration detailed in Chapter 5, which constitute the more 'universal' components of the PDR repertoire: each drawn over an area far larger than that of the study zone. The existence of these wider traditions is itself an interesting phenomenon, and is discussed in section 6.5, where I also tackle the question of what these collective spatial patterns tell about the social in East Anglia.

6.4.1 Fabric distributions

Most PDR assemblages in East Anglia are dominated by fabric groups with burnt flint inclusions, whose frequency and grading is closely connected with the class and/or size of vessel (see Chapter 5). Beyond this shared tradition of adding crushed burnt flint to the matrix of potting clays, there is a background of subtle variation in fabric recipes, which are generally thought to reflect the idiosyncrasies of individual potters, and their responses to the differing characteristics and availability of local potting clays. As very little work has been conducted on clay procurement patterns on a site-based or regional scale in East Anglia, it is difficult to trace pattern in most PDR fabrics, especially in the flint tempered wares. However, there are trends in the distribution of sites yielding pottery with shell inclusions, which are restricted to the areas around the Fen basin, and South Essex along the Thames estuary.

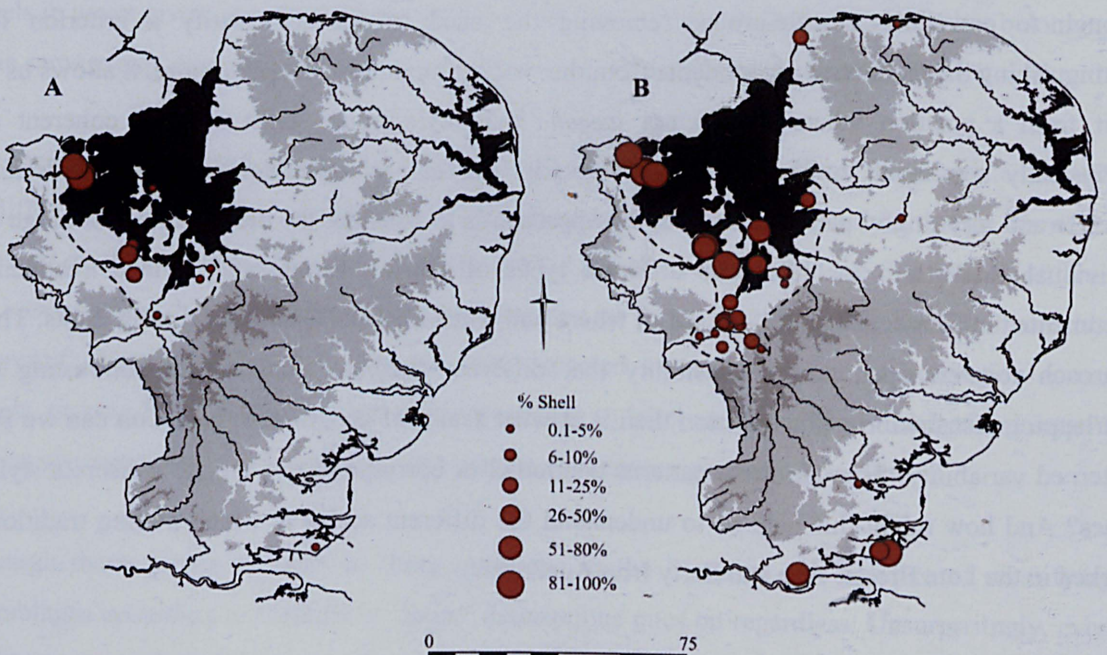


Figure 6.12. Distribution of PDR shelly wares. A. Late Bronze Age distribution; B. Early Iron Age distribution (dashed lines mark the distribution 'core').

In the Late Bronze Age, shell-tempered wares dominate assemblages from sites skirting the western and southern fringes of the fen basin and some of the in-fen islands, where shell-rich Jurassic clays are located (Amphill Clay, Kimmeridge Clay, Oxford Clay). The distribution in

Figure 6.12A shows frequencies declining as one moves eastward around the fen margins, into a region beyond the shell-rich geological deposits. These patterns continue in this area during the Early Iron Age, although the distribution extends further east around the fen basin, and penetrates south, upstream along the Cam and Granta valleys in Cambridgeshire. Here sites commonly yield a small percentage of shelly fabrics; some possibly derived from the Jurassic fen clays, whilst others may originate from local shelly chalk formations. The patterns are nonetheless confined to these valley systems, with only a few outlying sites located along the rest of the chalk belt to the north.

In southern Essex, shelly wares are characteristic of Early Iron Age assemblages on the Southend Peninsula, but have also been identified in some Late Bronze Age groups. The source of the shell has not been established, though shelly sands have been encountered in the alluvial deposits at Foulness (Wymer and Brown 1995, 4), whilst dumps of shell were recorded in features at North Shoebury (*ibid* 1995, 88). Elsewhere along the Thames estuary, Early Iron Age shelly wares have been recorded at Rainbow Wood, Thurrock (Potter 1974), but are not reported to be present in other local assemblages of this date. In this instance, the shell may derive from patches of Woolwich Clay (Hamilton 1988, 76). Beyond this zone, however, the PDR assemblages of southern East Anglia are largely devoid of shell fabrics. The only 'outliers' are found along the Blackwater estuary, where a few shelly sherds have been recorded at Maldon and Heybridge, possibly acquired from south Essex (Brown 1992, 18).

6.4.2 Vessel form distributions

The majority of PDR vessels were not produced around a set of explicit design grammars, but a general series of categorical 'themes' sharing common elements (such as coarseware, fineware, jar, bowl, cup, open vessel, closed vessel, large pot, small pot, carinated pot etc.). Most of the broad vessel 'types' we distinguish can therefore be recognised over large areas of southern Britain. We can, however, identify seven different plain and/or decorated fineware forms in East Anglia which do exhibit a more restricted distribution; each of which is described in turn below:

Late Bronze Age Form J decorated bowls (Figure 6.13): Plain bowls of Form J are a regular component of the region's Late Bronze Age assemblages, but decorated varieties are geographically restricted, principally deriving from sites in southeast Essex between the lower Chelmer valley and the Thames estuary. The bowls, which are generally of variety J2, are decorated with grooved, incised or combed horizontal lines on the vessel neck immediately below the rim. Some also display a second discrete band of decoration around the girth. Similar decorated bowls are found further downstream along the lower Thames valley, and on the opposite side of the estuary in northern and eastern Kent - published examples from Late Bronze Age/Earliest Iron Age contexts at South Hornchurch, Greater London (Guttman and Last 2000, 342, Fig. 17, no. 50) and Highstead (Bennett *et al.* 2007, 139, Fig. 73, no. 212) and Hacklinge, Kent (Perkins *et al.* 1994, 282, Fig. 20, HA5). Their main distribution may therefore be centred upon the lower Thames region, southeast Essex and northern and eastern Kent.

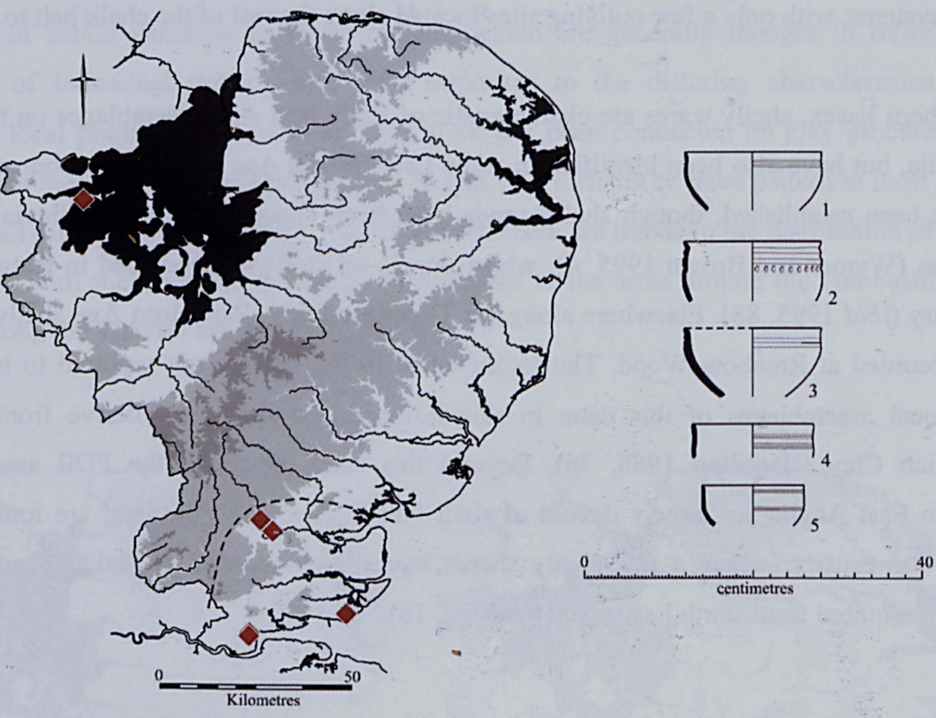


Figure 6.13. Distribution of Form J decorated fineware bowls (dashed lines mark the distribution 'core'). 1-2. Mucking North Ring (after Bond 1988, 29, Fig. 20, no. 7); 3. Broomfield (after Atkins 1995, 9, Fig. 7, no. 19); 4. North Shoebury (after Wymer and Brown 1995, 81, Fig. 63, no. 54); 5. Mucking South Rings.

Form I4 jars (Figure 6.14): These medium to large-sized tripartite fineware jars display angular or well-rounded shoulders and tall flared necks. The form appears during the Bronze Age-Iron Age transition, and is associated with Earliest and Early Iron Age Decorated ware assemblages. It is a rare jar form present on sites dispersed around the region's periphery. However, the core of the distribution lies in southeast Essex between the lower Chelmer/Blackwater valley and the Thames estuary. With the exception of the jar from Tower Works, Cambridgeshire, all the vessels are decorated (plain cordons, incised horizontal lines, grooved or incised geometric motifs and punched dots, circles or dimples).

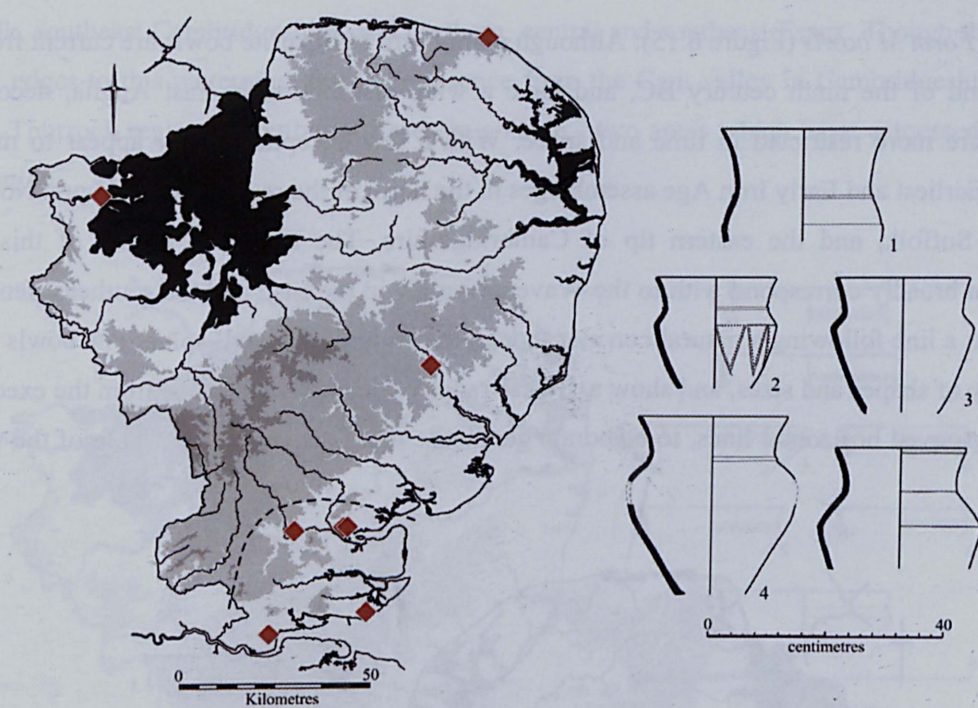


Figure 6.14. Distribution of Form I4 jars (dashed lines mark the distribution 'core'). 1. Cromer; 2. Mucking; 3. Tower Works (after Evans 2009, 190, Fig. 5.5, no. 2); 4. Springfield Lyons (after Brown and Buckley forthcoming); 5. Lofts Farm (after Brown 1988b, 266, Fig. 15, no. 53).

Figure 6.15. Distribution of decorated Form M bowls (dashed lines mark the distribution 'core'). 1. Ixworth Thorpe; 2-3. Gravel Hill; 4-5. Exning; 6. Fordham Bypass; 7. Lofts Farm (after Brown 1988b, 267, Fig. 16, no. 69); 8. Woodston.

Decorated Form M bowls (Figure 6.15): Although plain Form M bipartite bowls are current from at least the end of the ninth century BC, and have a wide distribution in East Anglia, decorated examples are more restricted in time and space. With a few exceptions, they appear to mainly feature in Earliest and Early Iron Age assemblages in the north of the region, centred upon Norfolk, northwest Suffolk, and the eastern tip of Cambridgeshire. The southern 'limits' of this core distribution broadly correspond with to the Waveney valley in the east, and the southeast fen-edge in the west; a line following a natural corridor though the region's 'upland' spine. The bowls occur in a variety of shapes and sizes, and show a diverse range of decorative designs, from the execution of single grooved horizontal lines, to elaborate geometric motifs covering the whole of the vessel exterior.

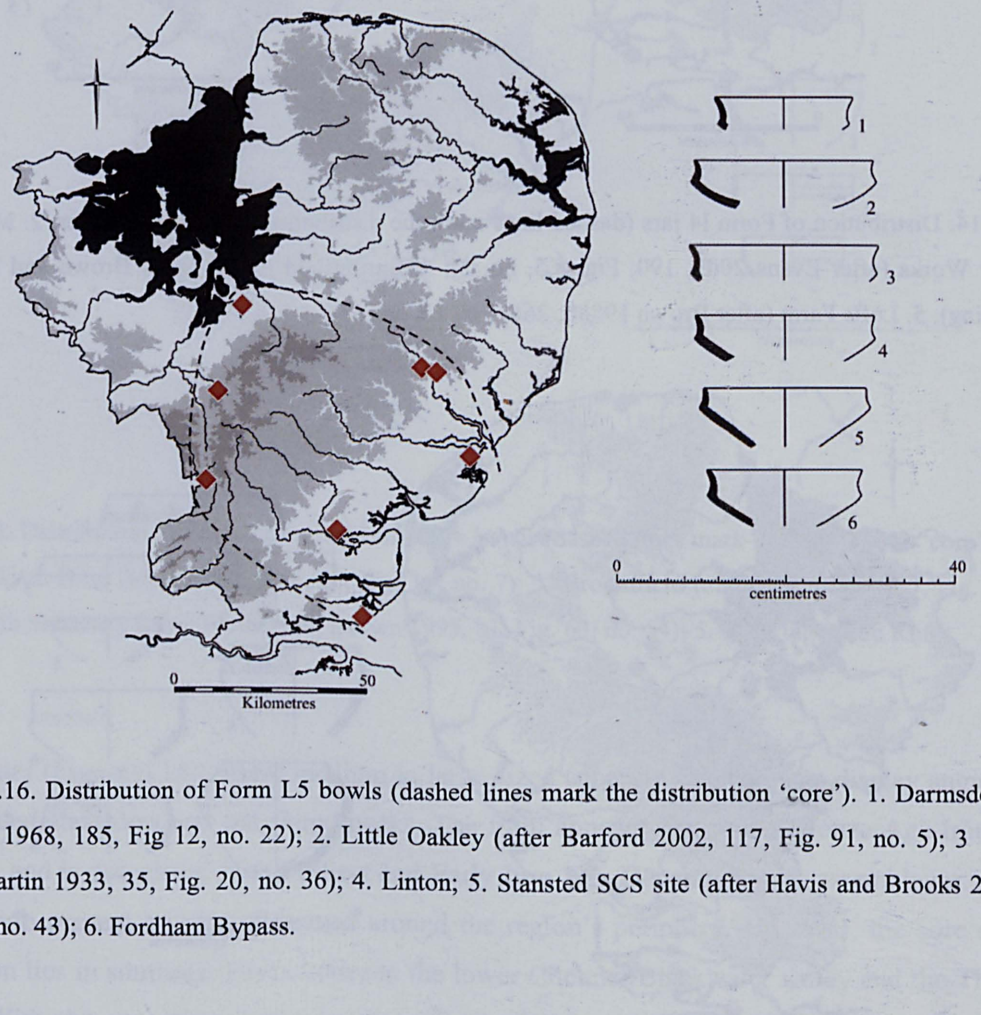


Figure 6.16. Distribution of Form L5 bowls (dashed lines mark the distribution 'core'). 1. Darmsden (after Cunliffe 1968, 185, Fig 12, no. 22); 2. Little Oakley (after Barford 2002, 117, Fig. 91, no. 5); 3 Barham (after Martin 1933, 35, Fig. 20, no. 36); 4. Linton; 5. Stansted SCS site (after Havis and Brooks 2004, 50, Fig. 36, no. 43); 6. Fordham Bypass.

Early Iron Age Form L5 bowls (Figure 6.16): The relatively shallow bowls of Form L5 display flared lower walls, angular shoulders and upright concave necks. They appear in the ceramic repertoire during the sixth century BC, and have a similar currency to Form N4, N5 and O1 bowls (discussed below). These vessels are relatively rare, and none of the recorded examples are decorated. Their distribution is centred upon the southern half of the region, covering parts of south

Suffolk, southeast Cambridgeshire, and northern, central and southeast Essex. Though there are no 'hard' edges to this patterning, but their absence from the Cam valley in Cambridgeshire and the Grays-Thurrock region in southwest Essex in notable - two areas which have witnessed extensive excavation.

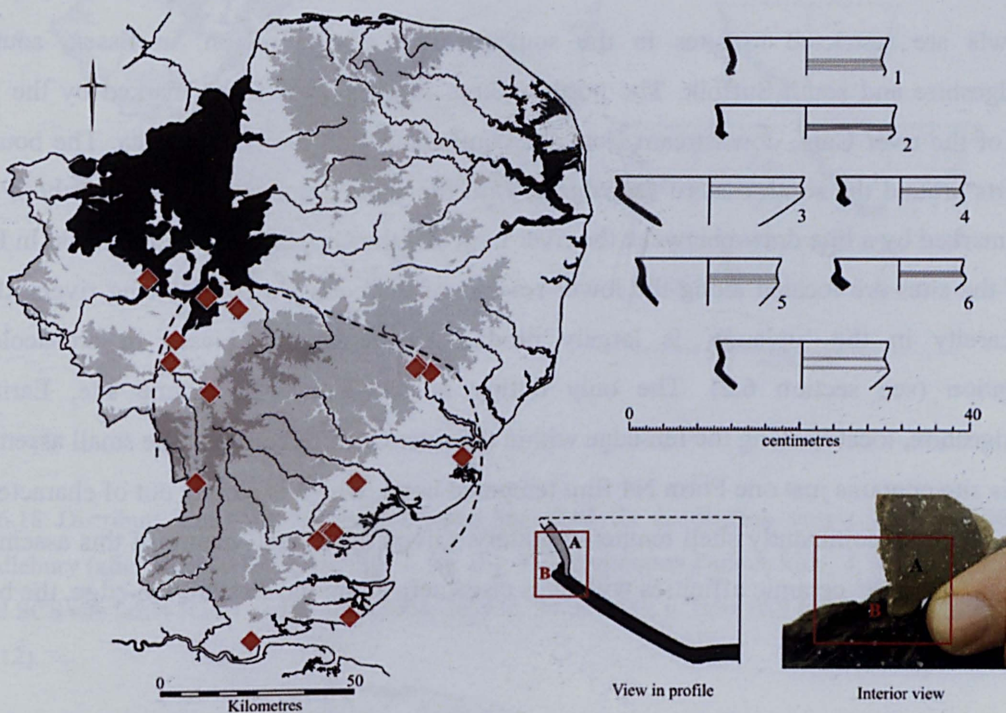


Figure 6.17. Distribution of Form N4 bowls (dashed lines mark the distribution 'core'). 1-2. Lofts Farm (after Brown 1988b, 267, Fig, 16, no. 60); 3-4. Linton; 5-6. Darmsden (after Cunliffe 1968, 185, Fig. 2, nos. 2, 4); 7. The Holme. Bottom right: method of manufacturing a bowl from Beacon Green (rim of the bowl has been deliberately lightened in the photo).

Early Iron Age Form N4 'Darmsden-Linton' type bowls (Figure 6.17): Cunliffe's term 'Darmsden-Linton' is retained as label for the group of Form N4 tripartite bowls that possess narrow but sharply defined shoulders and everted rims (present from the sixth century BC onwards). These bowls are normally black with smoothed or burnished surfaces, and are regularly adorned with one or more horizontally grooved lines between the neck angle and shoulder. Although these bowls are visually quite alike, the length of the rim varies from vessel to vessel, as does the degree to which the neck is flared. The interior neck angle is often not as sharply defined as the exterior angle, giving the rim shape an internal convexity. Variations on these themes (both within and between assemblages) mean that some of the more exaggerated bowls possess profiles which overlap in shape with those of Form L5 and N5 vessels. However, the type is also distinguished by its method of manufacture. Broken sections of numerous bowls from different sites show that the rims (and sometimes parts of the exterior shoulder angle) were often added as a separate strip of clay joined to the shoulder. Brown (1988b, 272) has noted that a similar technique was also commonly used in the manufacture of Form I3 tripartite jars, regularly found in association within these vessels.

The bowls are restricted to sites in the southern half of the region, in Essex, southeast Cambridgeshire and south Suffolk. The north-western limit appears to be marked by the lower reaches of the river Cam, downstream from the confluence with the river Granta. The boundary then skirts around the south-eastern fen-edge toward the river Kennet, whilst the northern limits may be marked by a line drawn between the river Lark and the Gipping valley in Suffolk. In Essex, most of the sites are located along the lower reaches of the county's east flowing rivers, though their scarcity in the 'uplands' is largely product of geographic biases in archaeological investigation (see section 6.2). The only outlier is found at The Holme site, Earith, in Cambridgeshire, located along the fen-edge within the river Ouse catchment. The small assemblage from this site contains just one Form N4 flint tempered bowl, which is clearly out of character with the rest of the predominantly shell tempered pottery. Given the overall nature of this assemblage, which has 'stronger' ceramic affinities with sites elsewhere along the western fen-edge, the bowl is thought to be an import.

Early Iron Age form N5 bowls (Figure 6.18): These open tripartite bowls with short angular or marked shoulders and flared rims are present in the ceramic repertoire from the sixth century BC onwards. They are restricted to sites in the southern half of the region, but are principally found along the Cam valley and the flanking 'uplands' in southeast Cambridgeshire and northwest Essex. These bowls are normally plain, burnished, and carefully fired in a reduced atmosphere to create a dark grey/black appearance. They are a 'type' recognised by Cunliffe as belonging to his Chinnor-Wandlebury group, with a few examples displaying the characteristic decoration of incised chevrons or punched dot motifs on the shoulder or neck. In shape, some of the vessels overlap with the more flared end of the spectrum of form N4 'Darmsden-Linton' type bowls, the two forms being recorded together in several of the assemblages. The distribution along the Cam valley is however striking, with nearly all the Early Iron Age sites excavated along this corridor yielding fragments of these bowls[27]. The linear 'core' to this distribution extends southwest beyond the region into southern Bedfordshire and Hertfordshire along the Chiltern ridge.

[27] This is contrary to Hill's (1998, 25) claim that there are no parallels in Cambridgeshire for the reconstructed and widely published form N5 bowl from Wandlebury (Harley 1957, 16, Fig.7, no. 16). Whilst there may be no *identical* vessels, there are numerous good examples of bowls produced around the same theme.

Figure 6.18. Distribution of Form N5 bowls (dashed lines mark the distribution 'core'). 1. Great Wilbraham; 2. Wandlebury (after Hartley 1957, 16, Fig. 7, no. 16); 3. Trumpington Park & Ride; 4. Abington Pigotts; 5. Stansted SCS site (after Havis and Brooks 2004, 36, Fig. 36, no. 63); 6. Edix Hill (after Malim 1997, 34, Fig. 19, no. 12).

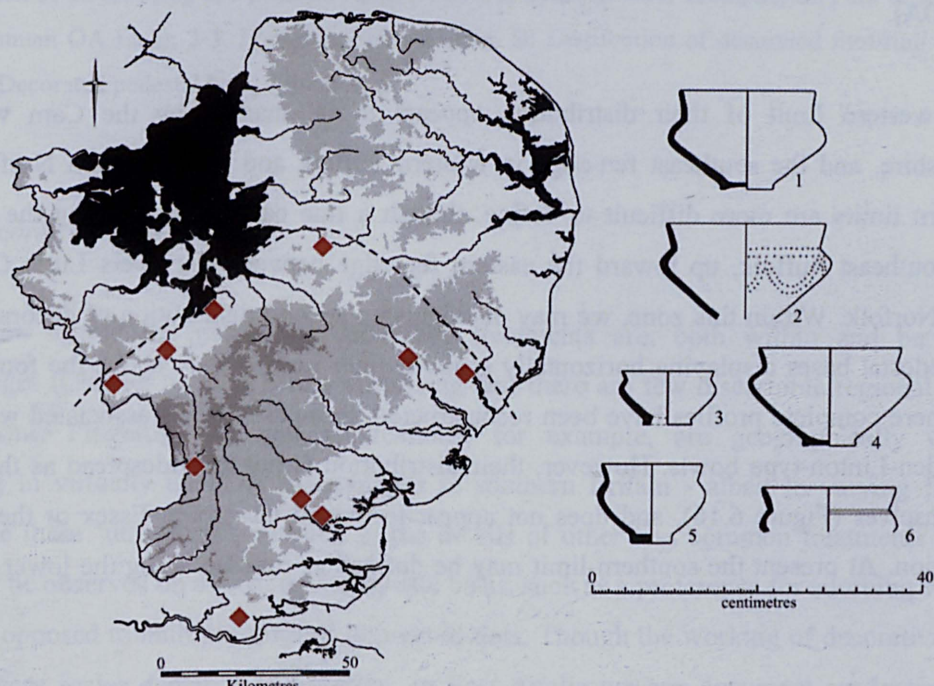


Figure 6.19. Distribution of Form O1 bowls (dashed lines mark the distribution 'core'). 1. Rectory Road (after Wilkinson 1988, 79, Fig. 68, no. 5); 2. Abington Pigotts (after Fell 1953, 37, Fig. 5A); 3-4. Stansted SCS site (after Havis and Brooks 2004, 45, Fig. 31, nos. 16-17); 5. Thetford Castle; 6. Darmsden (after Cunliffe 1968, 185, Fig. 2, no. 8).

Early Iron Age Form O1 bowls (Figure 6.19): The tripartite bowls of form O1 have pronounced rounded shoulders and flared rims rising from a well-defined neck angle. These vessels are current from c. 600 BC, but are never prolific in East Anglian assemblages; partly because the bowls are usually fractured along the weak neck angle. They are so far only documented from sites in central and southern parts of the region. To date, none have been found beyond the Cam valley in Cambridgeshire, or north of a line drawn between the rivers Little Ouse/Thet in Norfolk and the river Deben in Suffolk. Some of the bowls are decorated with grooved horizontal lines below the neck angle - similar to those regularly adorning Form N4 vessels - whist other have punched dot/tool impressed motifs. In rare instances where the lower half of these bowl survive intact, most appear to be equipped with foot-ring or stepped bases: the latter possibly mimicking the external appearance of a foot-ring.

6.4.3 Base form distributions

Foot-ring and pedestal bases were adopted in parts of southern Britain during the sixth century BC. Although they form a regular component of some Early Iron Age assemblages in East Anglia (see Chapter 5), they are principally found on sites located in the central and southern parts of the region (Figure 6.20A).

The north-western limit of their distribution appears to be marked by the Cam valley in Cambridgeshire, and the southeast fen-edge in western Suffolk and south-western Norfolk. The north-eastern limits are more difficult to define, though a line can be dawn along the Gipping valley in southeast Suffolk, up toward the eastern fen-edge between the rivers Little Ouse and Wissey in Norfolk. Within this zone, we may distinguish a second distribution of decorated foot-ring and pedestal bases displaying horizontally grooved lines immediately above the foot (Figure 6.20B). Where complete profiles have been reconstructed, these are always associated with Form N4 Darmsden-Linton-type bowls. However, their distribution is not as widespread as that of the bowls themselves (Figure 6.16), and does not appear to extend into south Essex or the Thames estuary region. At present the southern limit may be defined as running along the lower Chelmer valley.

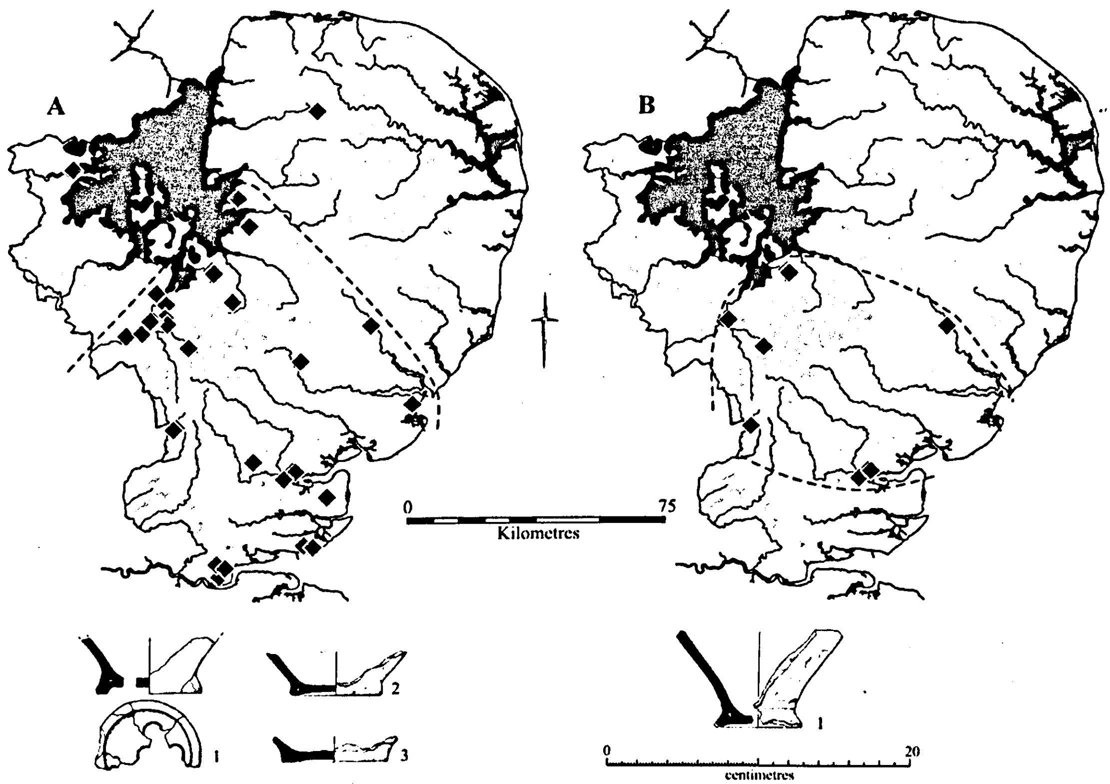


Figure 6.20. Distribution of foot-ring and pedestal bases (dashed lines mark the distribution 'core'). A: Distribution of all foot-ring and pedestal bases. 1. Drilled pedestal base, Trumpington Park & Ride (courtesy of M. Hinman OA East); 2-3. Foot-ring bases, Linton. B: Distribution of decorated foot-ring and pedestal bases. 1. Decorated pedestal base, Linton.

6.4.4 Decorative distributions

Given how varied the details of decorative treatments are, both within and between PDR assemblages (Chapter 5), it is hardly surprising that there are few discernible regional patterns in distributions. Fingertip and nail applications, for example, are geographically widespread, occurring in virtually all PDR assemblages in southern Britain - albeit in varying frequencies. Alongside these 'universals', patterns in the details of other less common treatments and motifs may only be observed on a local or site-by-site basis, such as a preference for adorning vessels with single as opposed to multiple rows of impressed dots. Though the working of decorative traditions at both these scales demands explanation, in East Anglia we can document six instances where patterns in ornamentation appear to operate on an intermediate regional scale:

Late Bronze Age and Earliest Iron Age combed decorated finewares (Figure 6.21): Combed decorated finewares are present on sites in southeast Essex between the lower Chelmer valley and the Thames estuary. Their distribution in East Anglia and surrounding areas mimics that of the Form J decorated bowls discussed in section 6.4.2, with examples from across northern and eastern Kent (Perkins *et al.* 1994, 282-283, Fig. 20), and broader parallels from Belgium and northeast France (Couldrey *et al.* 2007, 120, 169). In East Anglia, combing was normally applied to bowls as one or more horizontal bands on the neck and/or shoulder/girth (Forms J-K, and to lesser extent M-N). Present, but less common, are combed arcs and diagonal bands, and sherds belonging to combed decorated fineware jars (e.g. Wymer and Brown 1995, 82. Fig. 64, no. 61).

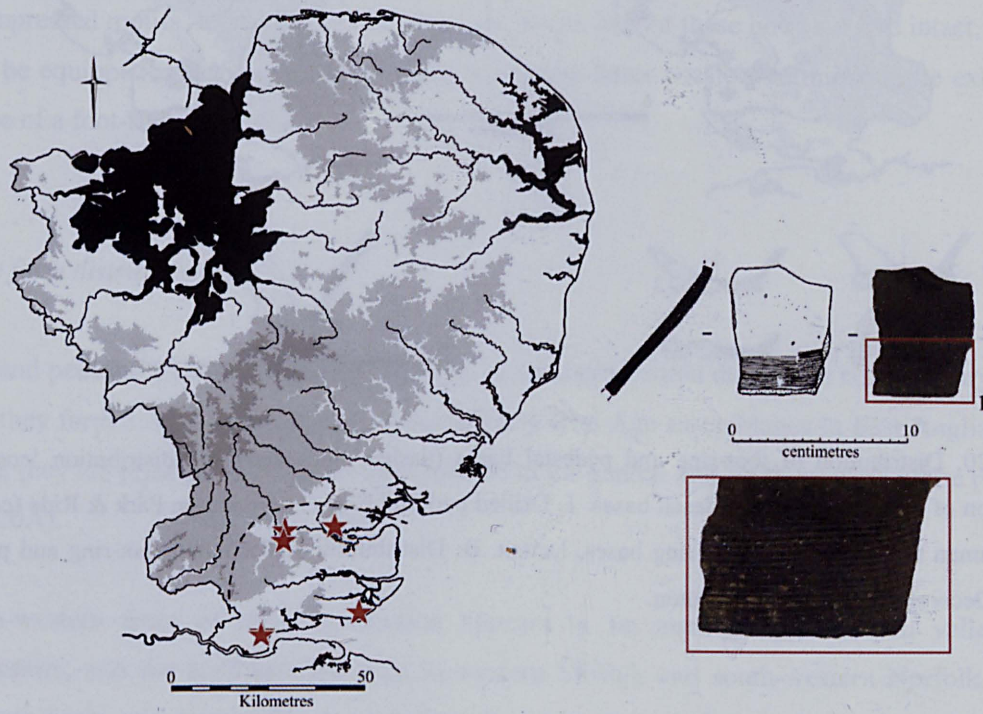


Figure 6.21. Distribution of combed decorated finewares (dashed lines mark the distribution 'core'). 1. Detail of a combed Late Bronze Age jars, North Shoebury (after Wymer and Brown1995, 82. Fig. 64, no. 61)

Earliest and Early Age Iron red-finished 'haematite coated' pottery (Figure 6.22): 'Haematite coated' pottery is scarce in East Anglia, and has only been reported at a handful of sites. Most have yielded just a few body sherds displaying distinctive bright red glossy surfaces, which can be achieved through a number of different techniques (Middleton 1987, 259-261; 1995, 203). Their distribution in East Anglia is split by the spine of high ground which arcs northwards through the region. To its east, sites with red-finished pottery occur along the river valley lowlands and estuaries of Essex and south Suffolk. This east coast distribution may even be extended northwards to incorporate the outlying findspots from the Aylsham Bypass, Norfolk. The second group, immediately west of the region's uplands ridge, displays a similar linearity and skirts along the base of the highland zone around the lower Cam valley and the southeast fen-edge. Once again, the boundaries may be extended northward to include the outlying findspots at Snettisham, Norfolk, creating a distribution which broadly mirrors the line of the Icknield Way

Figure 6.22. Distribution of red-finished 'haematite coated' pottery (dashed lines mark the distribution 'cores'; dotted line mark the possible extension of the core zones). 1. Photo of a red-finished N4 'Darmsden-Linton'-type bowl, Slough House Farm; 2. Photo of haematite slip on a shell-tempered fineware bowl, North Shoebury.

Earliest and Early Iron Age herringbone decorated vessels (Figure 6.23): Vessels adorned with incised or tool-impressed herringbone patterns are mainly found in the northern half of the region, with the core of the distribution centred upon eastern Norfolk and Suffolk (with a second group possibly centred around Peterborough). The herringbone motif is normally bound by grooved or incised parallel lines. Where present on jars, they commonly adorn a neck cordon.

Grooved and incised decoration below the shoulder of Earliest and Early Iron Age bowls and cups (Figure 6.24): Fineware bowls with decoration on their belly are conventionally linked to Cunliffe's Fengate-Cromer/West-Harling-Fengate group. These vessels have been found in many parts of the region, but are commonly associated with Decorated ware assemblages in northern East Anglia, particularly along the western fen-edge in Cambridgeshire, eastern Norfolk and the north-

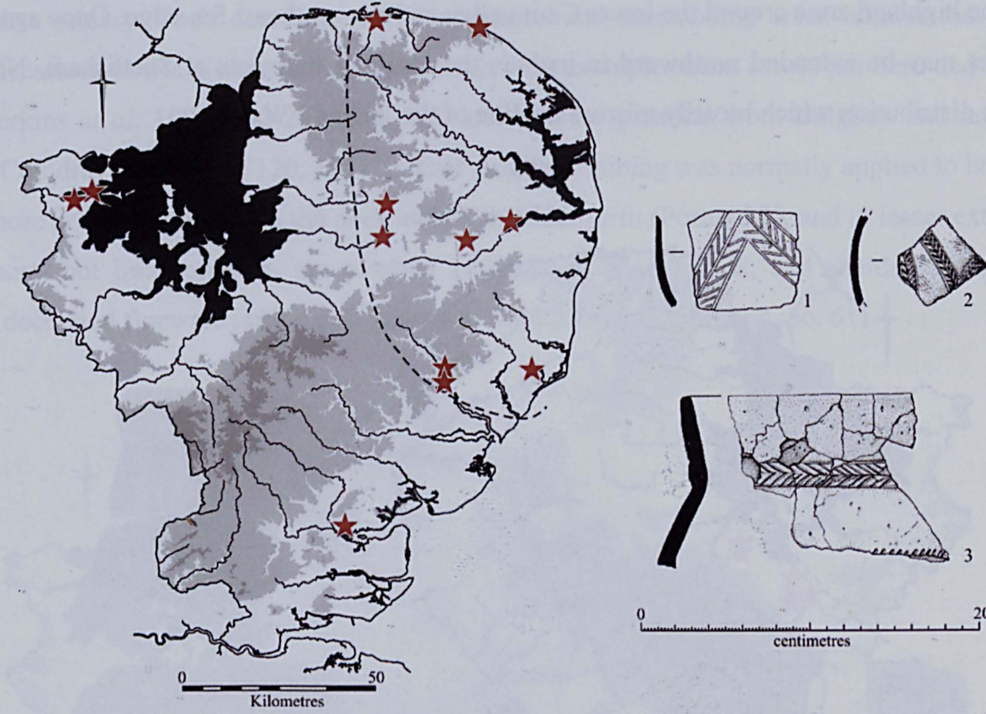


Figure 6.23. Distribution of herringbone decorated vessels (dashed lines mark the distribution 'core').1. Barham (after Martin 1993, 37, Fig. 22, no. 61); 2. Shropham (NAU Archaeology 2007); 3. Orton.

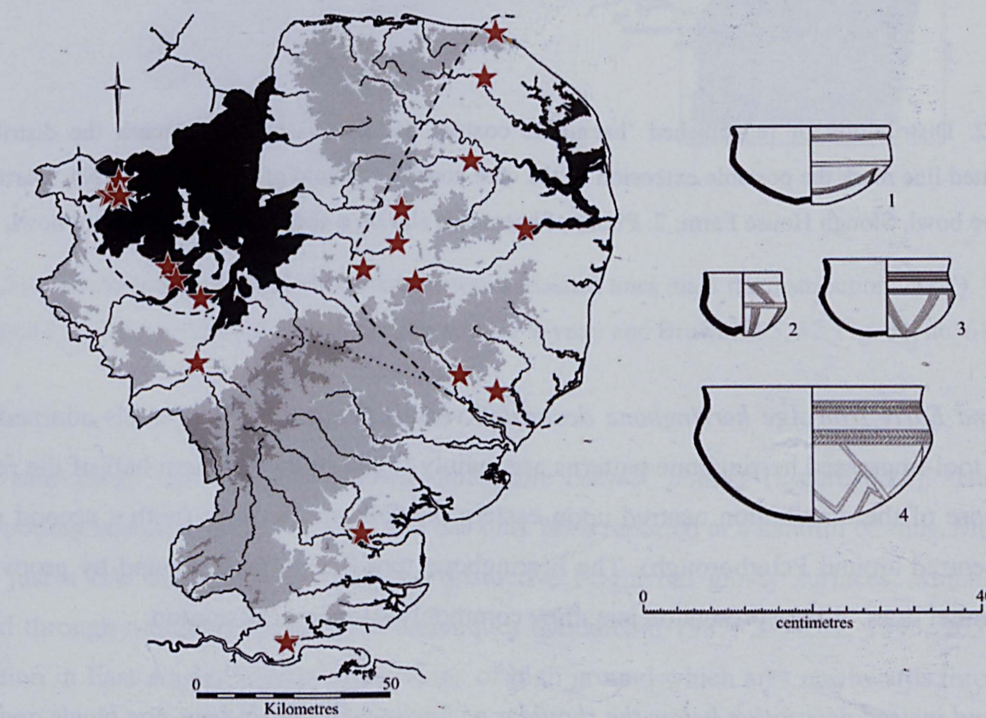


Figure 6.24. Distribution of fineware bowls and cups decorated below the shoulder (dashed lines mark the distribution 'cores'; dotted line mark the possible extension of the core zones). 1. Mucking; 2. Pre-War gravel pits, Fengate; 3. Little Bealings (after Martin 1993, 56, Fig. 37, no. 20); 4. Cromer (after Cunliffe 1974, 327, A:12, no. 1).

eastern half of Suffolk. Though Figure 6.24 highlights two separate distributions, the absence of large assemblages from western Norfolk may obscure the pattern. That said, the bowls from the western fen-edge are commonly made in shell, sand, or sand and shell tempered fabrics, whereas those from the eastern group are normally flint gritted. The outliers in Essex are difficult to account for, although most vessels appear to date to the Earliest Iron Age. It may be that decorating bowls on their underside was a more widespread practice during and immediately after the Bronze Age-Iron Age transition, only persisting into the Early Iron Age proper in the northern half of the region.

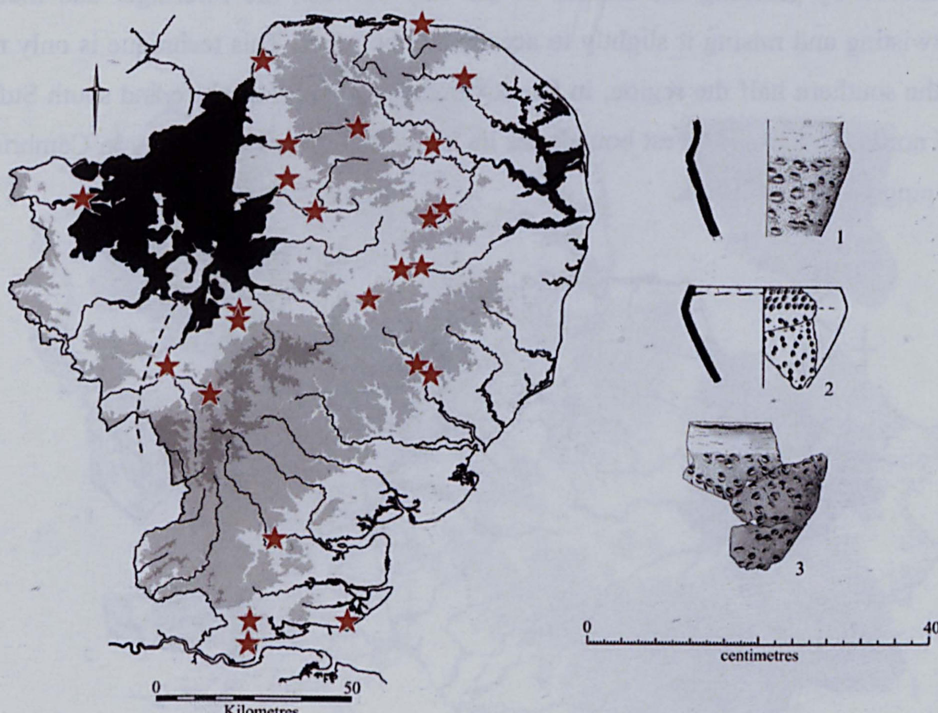


Figure 6.25. Distribution of fingertip and fingernail rusticated vessels (dashed lines mark the distribution 'core'). 1. Beeston Quarry (after Ashwin and Flitcroft 1999, 244, Fig. 23, P34); 2. West Harling (after Clark and Fell 1953, 18, Fig. 12, no. 26); 3. Landwade Road (courtesy of R. Mortimer OA East).

Earliest and Early Iron Age fingertip and fingernail rusticated vessels (Figure 6.25): Coarseware sherds whose surfaces are covered by fingertip or nail impressions (randomly applied or in neat rows) form a widespread if minor component of Decorated ware assemblages, and are particularly well represented in the north of the region. They are not, however, a universal feature, and are all but absent from sites west of the Cam valley in Cambridgeshire: an area which has witnessed pockets of intensive archaeological investigation. In fact, the only example from this region is a single sherd from the Pre-War gravel pits at Fengate, which may belong to a rusticated Beaker.

Little is known about the form of the vessels these sherds belonged to. At present, partial profiles exist for just three jars illustrated in Figure 6.25. Their resemblance to decorative techniques used on late Urnfield vessels in the Low Countries has been noted by several scholars (Cunliffe 1968, 179; Harding 1974, 136; Brown 1988b, 272). However, the chronology is too early for most of the East Anglian examples, and stronger connections are arguably found with the La Tène I rusticated jars from the Champagne region, France (Stead *et al.* 2006, 47-48, Fig. 18, c-d; 178, Fig. 37, S4.2).

Early Iron Age pinched rusticated vessels (Figure 6.26): This method of coarseware rustication is closely related to the fingertip and nail technique discussed above. However, the pinched rusticated effect is achieved by pinching the surface of the clay between the forefinger and thumb, and sometimes twisting and raising it slightly to accentuate the relief. This technique is only recorded on sites in the southern half the region, in Essex, southeast Cambridgeshire and south Suffolk. At present, the northeast and northwest boundaries lie along the lower Cam valley in Cambridgeshire and the Gipping valley in Suffolk.

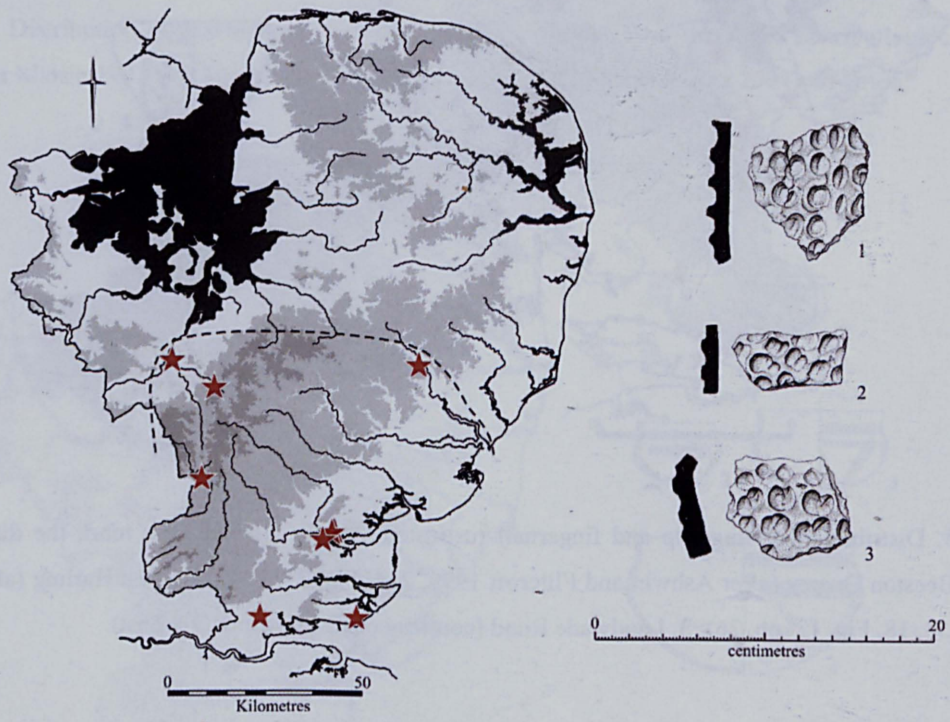


Figure 6.26. Distribution of pinched rusticated vessels (dashed lines mark the distribution 'core'). 1-3. Linton

Early Iron Age circlet stamped decorated vessels (Figure 6.27): Stamped circlets appear on a small number of fineware sherds/vessels in East Anglia. The stamps consist of single or double circlets and are sometimes filled with a white paste inlay. Some form part of elaborate decorative schemes incorporating grooved and incised geometric motifs and punched dots, whilst a number also have red-finished 'haematite coated' surfaces. Their distribution is restricted to sites along the river valley lowlands and estuaries of Essex and south Suffolk: a region which is also home to the eastern distribution of red-finished pottery (see above). Parallels with the stamped pottery in Cunliffe's (1974, 31; 1978; 1991, 64-65; 2005, 90-92) Earliest Iron Age 'Early All Cannnings Cross' group from Wessex have been noted by several authors (Balkwill 1979, 208; Brown 1998, 136). However, a date in the eighth or seventh centuries BC seems a shade too early, especially given the association with Form N4 'Darmsden-Linton' type bowls at Darmsden, Suffolk (Cunliffe 1968, 184-189; Balkwill 1979, 207-208) and Slough House Farm, Essex (Brown 1998). Their connection to this Wessex tradition could therefore be misleading.

Figure 6.27. Distribution of circlet stamped fineware vessels (dashed lines mark the distribution 'core'). 1. Darmsden; 2. Slough House Farm.

6.4.5 Summary of distribution patterns

The different attributes mapped in section 6.4 display varying distributions that cannot be combined into discrete, homogenous style-zones. Rather, when the dashed lines of each attribute distribution are overlain (Figure 6.28), what we see is a complex network of overlapping boundaries which bear no relation to the stable, clear-cut patterns that Cunliffe identifies. Several general observations can be pulled from this tangle. First, it is clear that intra-regional variability does not just emerge during the Early Iron Age, as is often assumed, but can be traced back into the Late Bronze Age. Admittedly, variability is more visible in the ceramic record after c. 800 BC, but there is nonetheless evidence that certain fineware vessels and methods of decoration were already regionally restricted in the Late Bronze Age.

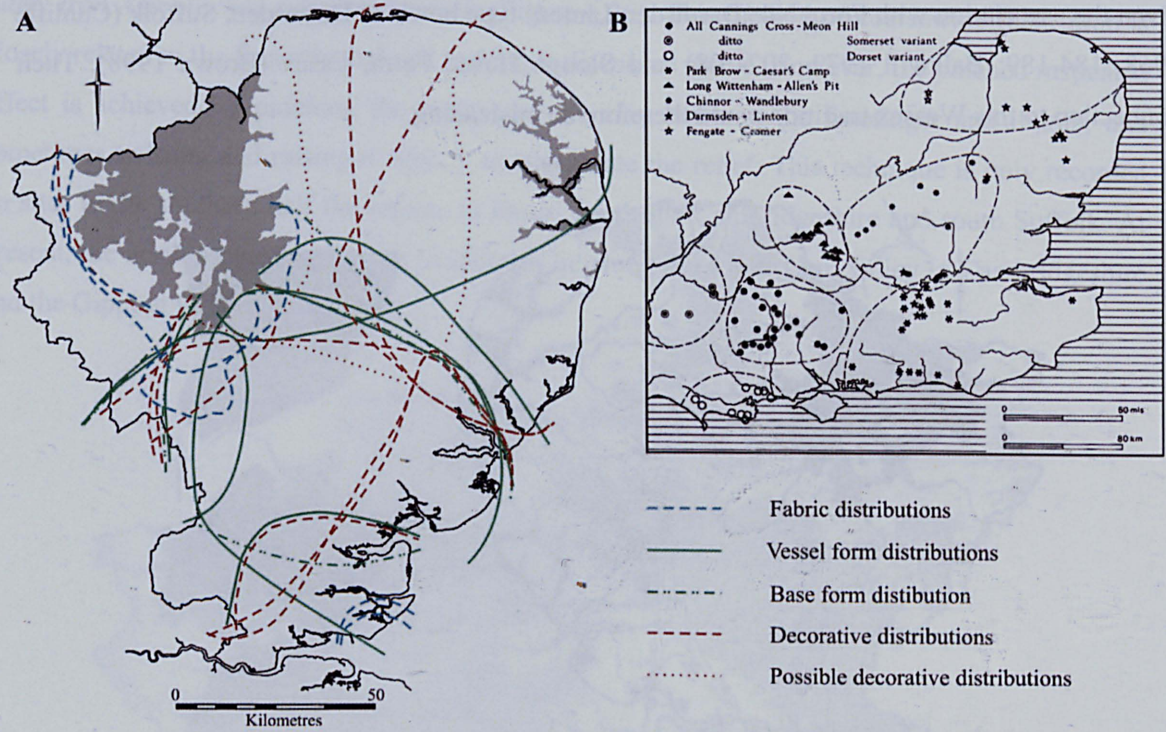


Figure 6.28. Discrete and non-discrete distributions. A. Complex overlapping boundaries revealed by the analysis in this chapter; B. Discrete style-zones plotted by Cunliffe (1974, 36, Fig. 3:5).

Second, there is some consistency in where the geographic boundaries of several distributions lie. Many, for example, appear to fall around the Cam valley in Cambridgeshire, the Gipping valley in Suffolk, or the area of southeast Essex between the Chelmer valley and the Thames estuary. These valley systems may mark important social thresholds on some level, though the boundaries were by no means static or impenetrable. Indeed, the coincidence may be misleading in some cases, as the areas immediately surrounding these valleys have comparatively few well-dated assemblages. This is particularly true of the Cam valley in Cambridgeshire, which at one level of resolution defines the general limits of various distributions, but on another, contains within it a series of cross-cutting boundaries. In this instance, the complexity of the divisions seem to correspond to the richness of the Early Iron Age ceramic record in this region, suggesting that patterning is partially conditioned by the intensity of fieldwork - the more pottery we have, the more potential there is to distinguish local and intra-regional differences.

This observation dovetails into the third and final point which is that the documented patterns work at different temporal and geographic scales. Some of the distributions are evidently confined to just one or two major river valley systems, whist others encompass large parts of the region. Many in fact extend beyond the boundaries of the study zone, and a few may be keyed into broader traditions which are paralleled on the near Continent. These distributions work at different temporal scales, with some persisting longer than others. What we have, therefore, is a 'snapshot' of these various dynamics.

6.5 Discussion: pottery traditions in context

So what do these patterns tell us? To begin with, they demonstrate that regional material patterning in East Anglia is far more complex than Cunliffe's style-zone model allows. Although there is some correspondence between individual distributions, and arguably a coarse grained distinction between assemblages from the northern and southern halves of the region, the patterns do not resolve themselves along the neat lines suggested by Cunliffe. Clearly, we cannot group all these individual distributions and bind them together into discrete style-zones. Nor can we assume that they remained stable though time. The patterns are 'messier' than this, reflecting a more complex and changeable set of material traditions, operating at different temporal and geographic scales. It makes no sense to collapse these into singular (and consciously expressed) statements of tribal grouping. The social (people) and the material (pots) were certainly related, but it was not a matter of simple and singular equivalence as Cunliffe supposed.

We can begin to explain these patterns by considering how certain ceramic traditions might have been maintained and reproduced on a regional scale. Though we have talked about particular traits as being geographically 'restricted' in their distribution, they still cover large areas encompassing several major river valleys, with most extending beyond the boundaries of the study region itself. The persistence of these traditions was almost certainly rooted in the context of learning. Ethnographic and ethno-archaeological studies (e.g. Arnold 1985; Gosselain 2000) suggests that the skills and technical competence required for pottery production were most likely learnt during childhood; attained through a combination of formal tutelage, mimicry, and general participation in clay procurement, processing and firing activities (e.g. Gosselain 1998, 94).

Most of the primary fashioning techniques and other less salient stages of the ceramic production sequence were probably taught on a formal basis by family members or relatives experienced in potting. These individuals may have supervised the building and early forming stages of vessel production, stepping in to help novices overcome difficulties, and correcting their gestures and postures until the actions became embodied motor habits. These 'ingrained' dispositions, are believed to constitute a very stable element of pottery traditions, and are thought to reflect some of the most rooted and enduring facets of social identity, such as kinship, gender and class sub-divisions (Gosselain 2000, 193).

These aspects of technology have a major potential but are rarely explored in British ceramic studies (Hill 2002a, 77). Instead, archaeologists have traditionally sought to identify bounded social grouping via 'stylistic' traits, even though these features might be more manipulable on a conscious level, and less securely aligned on any one category or scale of corporate grouping. However, it is important to recognise that the social context of learning was not simply framed by these close-knit one-to-one relationships between a teacher and a novice in a single set place. Although we tend to think about the transmission of technical knowledge as occurring through these kinds of interaction in household/kin-related settings, the manufacturing of pottery involved a number of stages, many of which required group participation and learning in different contexts.

Importantly, different tasks in the production process were likely to have been carried out across different parts of the landscape, and probably involved different participants. Clay procurement activities, for example, were possibly organized at an inter-household level, with members from different local farmsteads gathering together to dig, extract and work raw materials. Sites renowned for their clays may have attracted potters from several local communities in the same river valley, each of which may have favoured sources they traditionally returned to, and possible held rights of access over. It was probably in the context of these activities that young potters from different settlements were indoctrinated with the same skills of sourcing and extracting suitable potting clays, and instructed on how to select, prepare and mix tempering ingredients.

Fleshing out the details of these practices is difficult with the available data in East Anglia, though the widespread presence of shelly wares on Early Iron Age sites along the Cam Valley, Cambridgeshire, might suggest that sources were shared. In this instance, some could have been collected by groups whose task it was to herd livestock along water meadow pastures in the summer months. These individuals would have been ideally placed to extract clay from beds exposed along watercourses whilst their cattle grazed. Procurement was probably a seasonal activity scheduled around these and other such demands in the annual agricultural calendar (Hill 2002a, 78). Certainly, not all the individuals who helped in these activities may have been potters themselves. Different tasks in the production process may have been apportioned to different groups on the basis of age or gender, helping to mark and reproduce different identities along the manufacturing sequence.

What we can say is that the practices surrounding the production of ceramics, and the contexts in which these conventions were learnt and transmitted, were never just tied to one place or one social arena. Life was played out in multiple contexts, and the various practices responsible for the widespread and long-term reproduction of pottery traditions were keyed into various spheres of sociality. At a very basic level, regular social networking between potters from different households and neighbouring farmsteads would have aided the diffusion of technological knowledge, building up a shared set of dispositions that would have guided collective perceptions of what constituted an acceptable range of variation in choices at different stages of the production sequence. As Dietler and Herbich (1998, 253) note, many of these technical and aesthetic tendencies are learnt in the context of normal 'domestic' labour, structured by networks of personal interaction and authority amongst kin, friends, neighbours, and other community members (not all of whom were potters).

Frequent and routine face-to-face interaction beyond the household or farmstead was crucial to these processes, and as I discussed in section 6.2, would have been a necessary and unavoidable part of social life in the late second and early first millennium BC. If my extrapolations of settlement densities are anywhere near accurate, then it is reasonable to assume that most of East Anglia's lighter soils were densely occupied, with settlements located close to one another. The daily rhythm of domestic duties and the seasonal demands of the agricultural cycle would have constantly thrown people together, providing contexts for social interaction between individuals and groups nested within the broader sphere of a neighbourhood community. These would have ranged from the frequent daily encounters between kin and neighbours in adjacent households, through to cycles of inter-farmstead labour possibly organised along age and gender lines, and, periodic group gatherings involving larger sections of the community. Each worked on different temporal cycles, involving varying scales of corporate participation in different places.

The complex and extensive social network forged through these encounters and activities would have facilitated the widespread diffusion of pottery skills, habits, and 'fashions'. In terms of production techniques, the patterning of decorative styles and vessel form traits in East Anglia constitute what Gosselain (2000, 191-193) defines as the more 'readable' elements of the manufacturing process. As the techniques employed in secondary vessel forming stages and decoration remain more visible on finished products, Gosselain (*ibid*, 209) argues that these salient features of the manufacturing procedure are more receptive to copying and manipulation by other potters, who may have adopted them without necessarily uprooting ingrained dispositions that guided other (mainly earlier) stages of ceramic production. These 'stylistic' traits can therefore be widely distributed in space - as they are in East Anglia - and are documented as cross-cutting linguistic or other significant ethno-cultural boundaries in several ethnographic case studies (e.g. Dietler and Herbich 1998, 256; Gosselain 1998, 103; Hegmon 1998, 275-276).

Although this model does not explain why particular vessel shapes or decorative styles are adopted over large areas (or what meaning they had), it does help us think about which traits often end up displaying regional patterning. At the very least, they serve to identify loosely situational networks of interaction, in which geographic proximity and processes of stylistic imitation could have been important. However, it would not just have been knowledge of form and finishing techniques which passed along these complex social networks, but also the pots and the potters themselves. Indeed, patterns of intra and inter-community exchange may account for many of the distributions documented. In this context, it is perhaps significant that most of the mapped attributes relate to fineware vessels and elaborately decorated pots. Given the time and skill invested in the production of these vessels, some *potentially* accrued a social value which was different to other contemporary ceramics, making them an attractive medium for exchange. Certain finewares may have been caught up in the upper tiers of ranked spheres of exchange, and could have been considered 'status ceramics' (a topic considered in the following Chapter). Indeed, a few of these exchange networks may have been very extensive, and it seems possible that some of the 'red-finished' haematite coated pottery could have been acquired through chains of contact which led back to central southern England.

Other gift exchange networks possibly operated on a local level between kin-groups, neighbours, and other inter-community contacts established between settlements dotted along river valleys. If these areas were as densely occupied as we now think, then the periodic or cyclical movement of people, goods and animals through these landscapes – each potentially divided by complex tenurial rights - may have presented various practical and political problems eased by gift exchanges; some incorporating pottery (see section 6.2). Although we are primarily dealing with 'sedentary' communities in this period, certain members of these groups would have been involved in seasonal or periodic activities which took them well beyond their day-to-day 'home-range taskscapes' (droving livestock, salt production, hunting, fishing, raiding parties etc.). Some pots may have moved with these people, or could have been exchanged along the routes they travelled. Others were potentially made in the context of these activities, contributing to the wider distributions documented. In some instances, potters may have married into non-local communities, but retained their traditional ways of making and decorating pots learnt in childhood.

Ultimately, and in the absence of more detailed technological studies, we can only speculate about the mechanisms which drove these patterns. In most cases, it is likely we are seeing parallel processes operating simultaneously: pots, people and ideas circulating within social networks at a variety of different temporal and geographic scales (creating assemblages with heterogeneous 'stylistic' affinities). Our patterns therefore underline just how complex the relationships were between pots and social groupings in the Late Bronze Age and Early Iron Age.

It is important to remember that the distributions presented in this chapter work with select elements of the ceramic repertoire, which only constitute a fraction of most PDR assemblages. The focus has been confined to variability visible at an intra-regional scale. If we were to shift the boundaries of the study region, or change our analytical scale, it is quite likely that other patterns would come in to focus, cross-cutting those already identified, or nesting within their limits. Likewise, as more assemblages are recovered in the future, we will no doubt be able to delineate other patterns and modify those we have.

Yet in blurring these boundaries we grasp something of the nature and scales of networks though which social life was played out in the late second and early first millennium BC. We gain an appreciation that groups and individuals inhabited varied social worlds whose boundaries were not fixed by their respective households, farmsteads or even tribal territories (if these existed). People 'belonged' to different social groups in the context of different settings and practices, which is why our patterns do not just speak to one fixed scale of social resolution. Social life was never constant in this way, and individuals created, contested, and shuffled their identities in different settings. Pots offered a medium for this discourse, and practices bound up with their production, use and deposition provided the settings for the articulation of identity. In certain contexts, specific types of pot *may* have become 'ethnic banners', or symbols of age, gender or authority. But these facets of identity were not static. Pots which enabled the attainment and/or communication of one form of identity in a particular context could easily act to engender others in a different social setting (even within the same community). We cannot therefore close down the meanings of these vessels, or hang one form of identity, or one form of social correlate, onto each distribution.

In the end, our distributions tell us little about the ways pots enabled the formation of identities through practice. Our dots reveal the location and distribution of sites yielding a particular form of vessel or decoration. This is important. But it takes no account of the character of sites themselves, the nature of assemblages, or even relative frequencies of vessels and traits. They also say little about contexts of use or deposition. These issues are no less important, but their investigation requires a different focus; one which allows close contextual comparisons and the asking of rather different (if related) questions: Why it is that some vessels have intra-regional distributions while other forms are 'universal'? Did different vessels have a particular social value, and if so, how was this manifest in their biographies and in their treatment in particular settings? These questions can only be addressed by looking at contrasts in the content and character of different assemblages in greater depth. In the following chapter we therefore examine whether assemblage variability is linked to the form of settlements and the context in which pots were used and consumed.

Chapter 7

Sites and settings: inter-settlement ceramic variability

7.1 Introduction

In the previous chapter, I dispelled certain assumptions about the homogeneity and spatial exclusivity of Cunliffe's ceramic style-groups, and demonstrated that regional stylistic variability operates at a number of overlapping spatial and temporal scales. In this chapter I want to challenge another widely held assumption about PDR ceramics, specifically the idea that there are basic underlying regularities in the overall composition of pottery assemblages, irrespective of the form, scale and character of the settlements from which material groups derive. The aim then is to shift the resolution of our analysis away from an examination of broad regional trends (Chapters 5 and 6), to explore the extent to which variability is manifest at the level of assemblages from different kinds of settlement/social setting.

This chapter focuses on contrasts in the content of Late Bronze Age and Early Iron Age assemblages derived from the different categories of site documented in Chapter 3 - *open settlements, aggregated 'pit-dominated' settlements, enclosures* and *ringworks*. It addresses whether variation in the region's settlement record coincides with differences in the composition of PDR assemblages. Furthermore, it considers what these differences reveal about the nature, scale and significance of practices conducted in these settings, with particular reference to the role that pots played in cooking, serving and storage.

7.2 Unmasking assemblage variability

At the heart of the PDR ceramic tradition there is a basic categorical distinction between coarsewares and finewares, and the classes of jar, bowl and cup (Barrett 1980a). Though there are distinguishable sequences of development for individual vessel forms, fabrics, decorative motifs and so forth (as documented in Chapter 5), the vessel class categories are thought to be a base level component of the tradition, perceived to constitute a functional range of utensils employed across the whole of lowland southern Britain. However, somewhere along the line, this concept of 'universal' vessel categories has become confused with the notion that there is uniformity in their representation across all PDR assemblages. Put another way, we have come to assume that there are regularities in assemblage composition, and have tended to accept that different sites yield the same 'package' of vessels, irrespective of their form, character or status within the social landscape.

This assumption appears to stem from John Barrett's (1980) characterisation of the PDR tradition, where he identified trends in the compositional fingerprint of pottery groups. By demonstrating broad similarities in the frequency representation of vessel classes in seven assemblages (Figure 7.1), Barrett argued that there was a consistent underlying pattern to the composition of PDR groups in which Class I coarseware jars formed the major element of the 'domestic' repertoire, followed by Class IV fineware bowls (*ibid*, 302-303). These patterns were thought to represent a universal 'vessel hierarchy', and were taken to be a general feature of the period's ceramic record. Barrett's reading of these trends has therefore fostered the impression that there is a ubiquitous and undifferentiated 'package' of PDR vessels, employed for similar cooking and consumption activities across all Late Bronze Age and Early Iron Age settings.

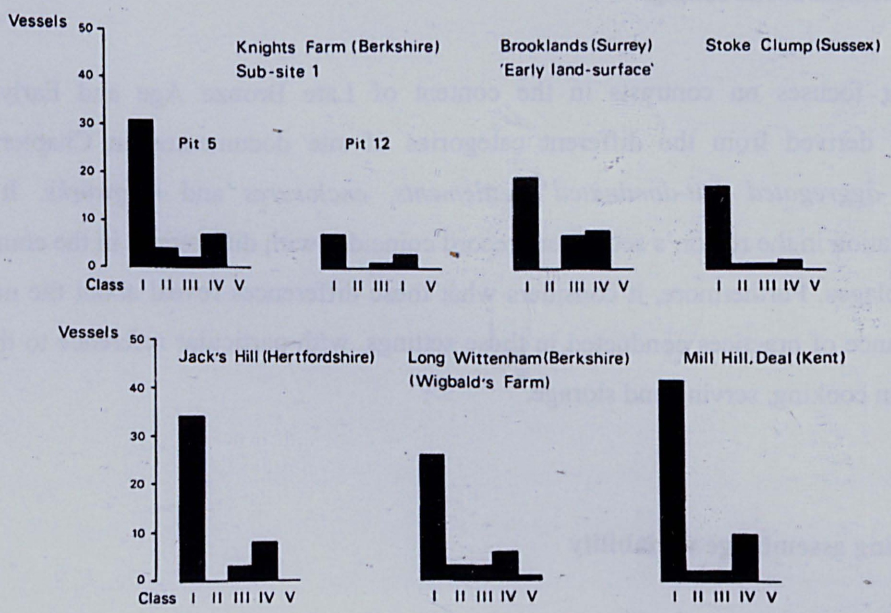


Figure 7.1. Barrett's demonstration of the similarities in vessel class frequency for seven assemblages – none from East Anglia (after Barrett 1980a, 302, Fig. 4). In each case Class I coarseware jars dominate, followed by Class IV fineware bowls. The results of this study have found wide acceptance.

These assumptions have not been questioned in the last few decades, despite mounting evidence that the picture is more complex (Medlycott 2011, 21). Unlike Roman ceramicists, who have embraced investigations of compositional variability, exploring distinctions in social and functional terms (e.g. Biddulph 2005; Evans 2001; Pitts 1999), later prehistorians have been reluctant to engage with this topic (though see examples by Woodward 1995; 1997; Hill 2002b; Pope 2003;).

Indeed, most recent pottery reports contain no discussion of vessel class frequencies, and as Brück (2007, 33) had noted, information on the relative qualities of coarsewares and finewares is simply not available for most sites. Instead, ceramicists have sought to identify variability and regionalism in the finer details of individual attributes - decorative motifs, vessel forms and so forth. These may be crucial (as demonstrated by Chapter 6), but they can gloss over the basic differences in assemblage composition, which may shed new light on patterns of ceramic consumption. This topic is therefore worthy of reconsideration, especially since the data sets at our disposal are now far richer than those available three decades ago.

7.2.1 Base-level variability in Late Bronze Age assemblages (c. 1150-800 BC)

Although Late Bronze Age assemblages contain vessel forms whose appearance is broadly similar from one part of East Anglia to the next, there are patterned differences in the character of these pottery compositions which ceramicists have tended to overlook. Contrary to the notion that groups are homogenous, a straightforward comparison of vessel class frequencies reveals a basic distinction between a) assemblages dominated by Class I coarseware jars, and b) assemblages characterised by a high proportion of Class IV burnished fineware bowls (Figure 7.2).

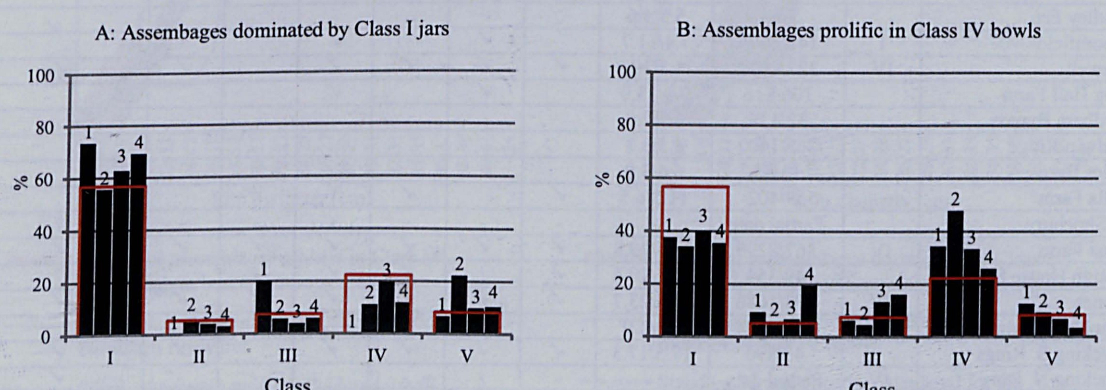


Figure 7.2. Contrasts in Late Bronze Age vessel class composition (for primary data sites with 15 or more form/class assigned vessels). A: 1. Addenbrooke's; 2. Broomfield; 3. Godwin Ridge; 4. Striplands Farm. B: 1. Burwell; 2. Must Farm; 3. Stonea; 4. Mucking North Ring (ditch fills 1-4). For comparison, the *standard ceramic profile* calculated for all Late Bronze Age assemblages is marked in red (see Chapter 5). In graph A, between 56-93% of form-assigned vessels in each assemblage are classified as Class I jars, with a mean average of 71%. The frequency of other class categories varies, but rarely exceeds the 20% mark - Class IV bowls seldom being the second most common element of these assemblages (mean average 11%). By comparison, Class IV bowls are relatively prolific in assemblages included in graph B, with frequencies ranging from 26-48% (mean average 35%), whilst Class I jar frequencies range between 34-40% (mean average 37%).

Though we can only reliably document these trends across eight assemblages at present, the patterns go hand in hand with contrasts in other attributes which we can trace more broadly. For example, when we compare these groups against patterns in surface treatment, we observe a general correlation between assemblages prolific in Class IV bowls and those with a higher than average frequency of burnishing (Table 7.1). Whilst this relationship is not altogether surprising, given that Class IV bowls are burnished finewares, the correspondence suggests the differences in Class composition are consistent. Moreover, since these two trends match, the frequency of burnishing offers a general guide to the form of composition in instances where groups have few Class assigned vessels. Therefore, where assemblages have a low frequency of burnishing, typically under 10-15%, we are likely to be observing Class I jar dominated groups, whereas in instances when frequencies peak above 15-20%, patterns are indicative of groups prolific in Class IV bowls.

Site	Class 'signature' (after Fig. 7.2)	Total no./wt. (g) sherds burnished	% burnished by count/wt.	> LBA av. % by count	> LBA av. % by wt.	> Mean % by count	> Mean % by wt.	Greater than 1 STD. > Mean count	Greater than 1 STD. > Mean wt.	Groups perceived to be prolific in burnished finewares and/or Class IV bowls
Addenbrooke's	I	54/339	5.1/4.2							
Aylsham Bypass		46/154	7.1/3.9							
Bradley Fen		7/44	5.5/4.6							
Broomfield	I	141/1979	7.4/11.7		✓		✓			
Burwell	IV	327/4579	21.3/19.7	✓	✓	✓	✓		✓	✓
Frog Hall Farm		106/816	9.0/13.0		✓		✓			
Fordham Bypass		32/129	6.7/2.9							
Godwin Ridge	I	265/1407	4.3/3.1							
Hales Barn		13/65	6.4/3.9							
Lofts Farm		69/402	11.5/6.5	✓		✓				
N. Shoebury		Partial data	-	-	-	-	-	-	-	?
Must Farm	IV	367/8299	38.6/29.8	✓	✓	✓	✓	✓	✓	✓
Slough House Farm		49/354	15.1/10.4	✓		✓	✓			?
Stonea	IV	193/1686	25.5/23.7	✓	✓	✓	✓	✓	✓	✓
Striplands Farm	I	221/1594	5.3/3.9							
Mucking S. Rings		43/890	17.5/17.3	✓	✓	✓	✓		✓	✓
Mucking N. Ring	IV	Partial data	-	-	-	-	-	-	-	✓
County Farm		5/49	2.2/3.3		-					
Broads Green		13/67	3.9/2.7							
Caple		17/267	2.7/3.9							
Rhee Lakeside South		9/259	3.5/5.2							
*LBA TOTAL**	-	*1977/23379*	*9.1/10.8*	-	-	-	-	-	-	-
Mean average % by count/wt.			*10.4/9.1*							
Standard deviation for count/wt. %			*9.4/8.1*							

Table 7.1. Late Bronze Age burnishing frequencies and the relationship to vessel Class signature. * All totals and averages exclude the partial data from North Shoebury and Mucking North Ring. Note that assemblages prolific in Class IV bowls have burnishing frequencies consistently above the calculated averages.

Similar trends can also be traced in relation to vessel size, though the patterns are more difficult to untangle. On the basis that bowls tend to have small rim diameters (generally below 19cm, see Chapter 5) one might expect assemblages prolific in burnished finewares/Class IV vessels to display a much higher frequency of small-mouthed pots. Though there are hints of this (Figure 7.3), the picture appears more complex, with most Late Bronze Age assemblages yielding a high frequency of small vessels irrespective of Class composition or burnishing frequencies. Differences are, however, observable in vessel sizes. The graphs in Figure 7.3 reveal that large-rimmed vessels with diameters exceeding 25cm are slightly more common amongst groups prolific in burnished finewares/Class IV bowls. Indeed, further analysis of these trends shows that these groups have a higher proportion of large to very large-sized jars (Figure 7.4).

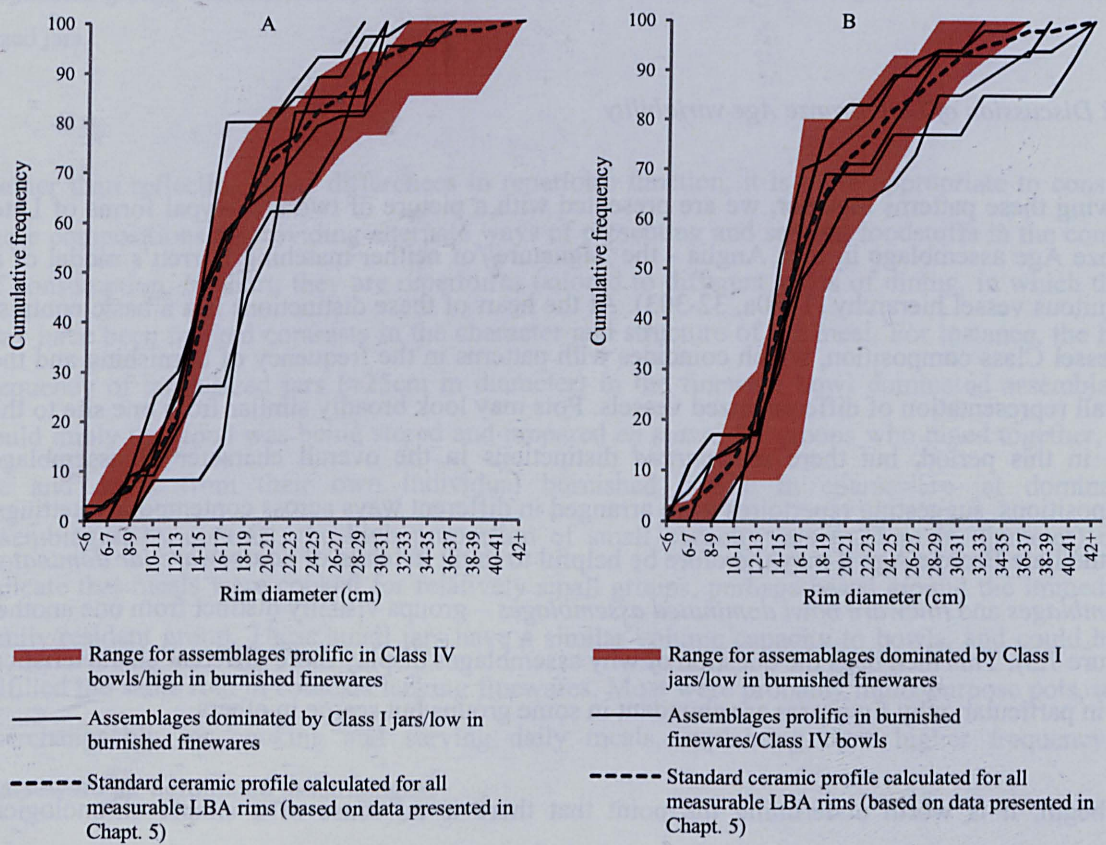


Figure 7.3. Comparison of the cumulative frequency of Late Bronze Age rim diameters for assemblages with over ten measurable vessel rims. A. Assemblages dominated by Class I jars/a 'low' frequency of burnishing (Caple, Lofts Farm, Striplands Farm, Broomfield, Godwin Ridge, Addenbrooke's). B. Assemblages prolific in Class IV bowls/a 'high' frequency of burnishing (Must Farm, Stonea, Mucking North Ring, Mucking South Rings, Burwell). Ranges are derived from the highest and lowest frequency values for each rim diameter point.

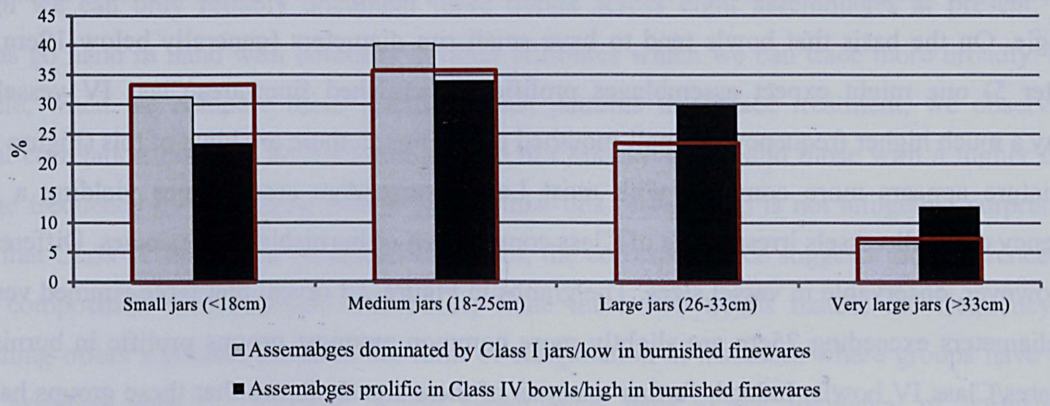


Figure 7.4. Contrasts in jar-size category frequencies. For comparison, the *standard ceramic profile* calculated for all Late Bronze Age jars is marked in red (see Chapter 5).

7.2.2 Discussion of Late Bronze Age variability

Drawing these patterns together, we are presented with a picture of two archetypal forms of Late Bronze Age assemblage in East Anglia - the 'signature' of neither matching Barrett's model of a ubiquitous vessel hierarchy (1980a, 32-303). At the heart of these distinctions lies a basic contrast in vessel Class composition, which coincides with patterns in the frequency of burnishing and the overall representation of different sized vessels. Pots may look broadly similar from one site to the next in this period, but there are *marked* distinctions in the overall character of assemblage compositions, suggesting repertoires were arranged in different ways across contemporary settings. For the Late Bronze Age it may therefore be helpful to think in terms of *coarseware jar dominated assemblages* and *fineware bowl dominated assemblages* – groups visually distinct from one another (Figure 7.5). This then begs the question of why assemblages display these different characteristics, and in particular, why finewares are abundant in some groups but scarce in others.

To begin, it is worth underlining the point that there is no sense of a simple chronological progression to these trends within the Late Bronze Age sequence. Nor does it seem likely that we are 'capturing' repertoires from sites geared specifically to tasks of just food preparation and cooking on the one hand (with coarseware dominated assemblages), or serving and consumption on the other (with fineware dominated assemblages). Whilst there were no doubt some functional distinctions in the way specific pots were deployed in these groups, we are not dealing with a straightforward distinction between 'producer' or 'consumer' sites/assemblages, as both compositions include vessels capable of performing a variety of roles.

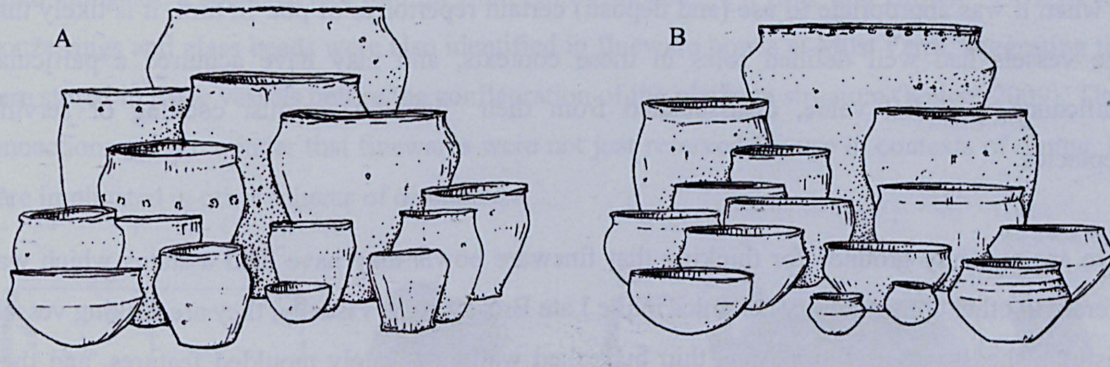


Figure 7.5. Visualising archetypal Late Bronze Age assemblages. A: Coarseware jar dominated groups prolific in small to medium-sized jars, with only a few burnished fineware bowls and cups. B: Fineware bowl dominated groups characterised by numerous burnished bowls and cups and a greater emphasis on larger-sized jars.

Rather than reflecting gross differences in repertoire function, it is more appropriate to consider these compositions as providing alternate ways of presenting and serving foodstuffs in the context of consumption. In short, they are repertoires tailored to different kinds of dining, in which there may have been marked contrasts in the character and structure of the meal. For instance, the high frequency of large-sized jars (>25cm in diameter) in the fineware bowl dominated assemblages could imply that food was being stored and prepared *en masse* for groups who dined together, but ate and drank from their own individual burnished bowls. In coarseware jar dominated assemblages, by contrast, the high proportion of small capacity jars (<25cm in diameter) may indicate that meals were cooked for relatively small groups, perhaps based around the immediate family/resident group. These small jars have a similar volume capacity to bowls, and could have fulfilled the same role in contexts lacking finewares. Most were probably multi-purpose pots, used interchangeably for cooking and serving daily meals, explaining their higher frequency in coarseware jar dominated assemblages.

More importantly, because we can recognise distinct compositions in the ceramic record, we can infer that the different practices which generated these groups must have occurred with some degree of regularity and/or consistency in order for us to be able to document their varying material signatures. In most assemblages, we are not seeing a snapshot of a ceramic repertoire in use at any one moment, but compositions whose characteristics are the outcome of particular forms of consumption and deposition occurring repeatedly at sites. Following this logic, the existence of these two distinct compositions tells us that different modes of dining *must* have been closely connected to specific sites/settings, indicating that there were conventions guiding a sense of where and when it was appropriate to use (and deposit) certain repertoires of pot. In turn, it is likely that some vessels had well defined roles in these contexts, and may have acquired a particular significance or social value, disassociated from their 'function' as just cooking or serving receptacles.

There are certainly grounds for thinking that fineware bowls may have held a status which was different to other contemporary ceramics in the Late Bronze Age. Visually, they are striking vessels - distinguished by their fine pastes, thin burnished walls, delicately moulded features, and their overall symmetry of form – traits which mark them out amongst the repertoire (Figure 7.6). Compared to other pots, their production entailed a greater labour investment. Whilst there is no evidence to suggest that they were the product of specialist artisans, whose work was organised differently in contextual terms, the knowledge and proficiency needed to mould and fire these intricate vessels may have only been obtained by a few skilled potters. The inference drawn here is that these accomplished individuals would have been found in most communities, though their skill may have given them some local renown. We may therefore envisage a scenario in which finewares were imbued with a special significance *because* their production was relatively more restricted and time consuming.

Figure 7.6. Contrasts in craftsmanship. A: A highly polished carinated bowl from Must Farm, Cambs. (photo courtesy of M. Knight, CAU). C. A typical coarseware jar from Striplands Farm, Cambs.

The association between Class IV bowls and other artefacts also suggests that these finewares were more than just generalised serving receptacles (Figure 7.7). For example, on the few occasions where hoards or items of bronze have been found in direct association with complete/semi-complete pots, it is often fineware bowls which are present. The hoard from Broxted, Essex (McLean 2008), for instance, was deposited within a burnished bowl, whilst a similar vessel was found alongside a socketed axe in a pit from North Shoebury (Wymer and Brown 1995). Several bronze rings and glass beads were also identified in fineware bowls at Must Farm, suggesting they were stored in these vessels before the conflagration of the platform structure (Knight 2009). These connections are a reminder that finewares were not just reserved for use in contexts of dining, but were implicated in other spheres of discourse.

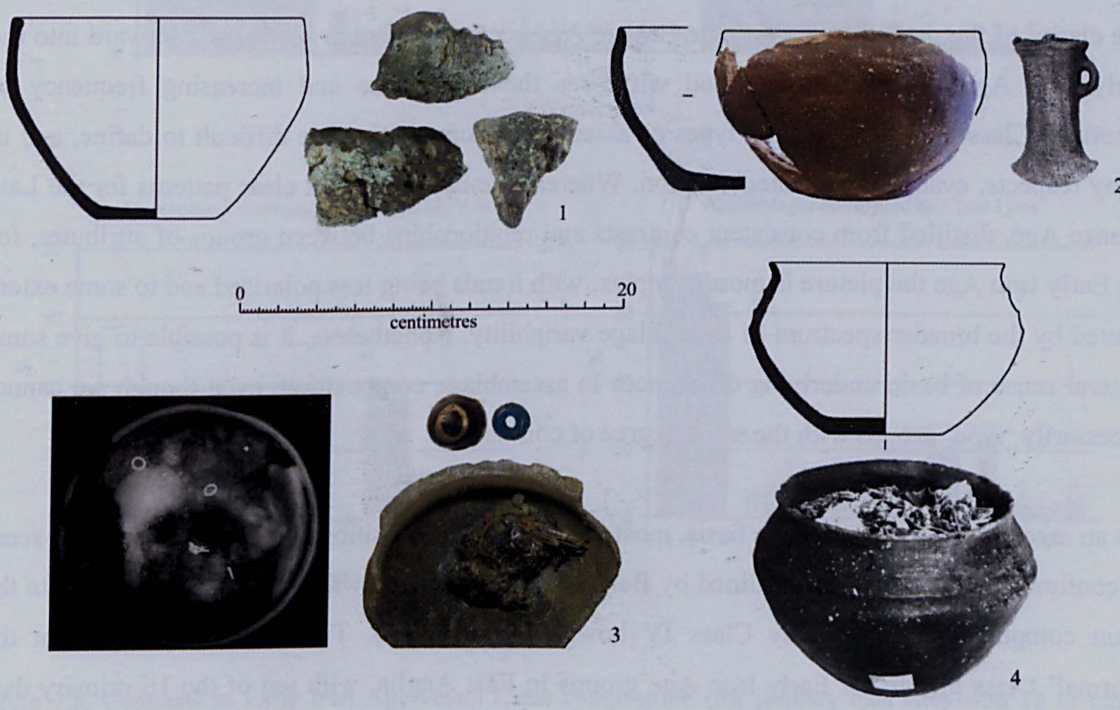


Figure 7.7. High status ceramics? Examples of Late Bronze Age fineware bowls from East Anglia found with metalwork, glass beads and cremations. 1. A hoard of three bronze ingot fragments found within the base of a partially intact Class IV bowl at Broxted, Essex (photo of ingots downloaded from the Portable Antiquities Scheme Website: http://www.finds.org.uk/database/artefacts/record/id/238891); 2. Socketed axe found in a pit with semi-complete Class IV bowls at North Shorbury, Essex (axe photo from site archive, Southend Museum); 3. X-ray and photo (not to scale) of Class IV bowls from Must Farm, Cambs. containing bronze rings and glass beads (courtesy of M. Knight, CAU). 4. A furrowed fineware bowl used as a cremation vessel at Maidscroft, Suffolk (photo after Needham 1995, 161, Fig. 14.2)

Taken together then, it is likely that Late Bronze Age finewares were considered to be special in some way, and were possibly regarded as 'prized' ceramics. However, to better understand the significance of these and other vessels, we need to think more carefully about the various roles which they played in society, and pay closer attention to the settings in which they were used, broken, and ultimately deposited. We should therefore be wary of attempts to homogenise the evidence, or likewise interpret the distinctions in assemblage composition in solely functional terms.

7.2.3 Base-level variability in Early Iron Age assemblages (c. 800-350/300 BC)

The clarity of the patterning in the Late Bronze Age ceramic record is not carried forward into the Early Iron Age. Although the period witnesses the appearance and increasing frequency of decorated Class IV bowls, distinct types of assemblage composition are difficult to define, and in many respects, evade simple categorisation. Whereas we can document clear patterns for the Late Bronze Age, distilled from consistent contrasts and relationships between groups of attributes, for the Early Iron Age the picture is more complex, with trends being less polarised and to some extent diluted by the broader spectrum of assemblage variability. Nonetheless, it is possible to give some general sense of basic underlying differences in assemblage composition, even though we cannot necessarily 'type' groups with the same degree of conviction.

On an assemblage-by-assemblage basis, most vessel class compositions in the Early Iron Age seem to conform to the 'hierarchy' outlined by Barrett (1980a, 303), in which Class I jars constitute the main component, seconded by Class IV bowls (Figure 7.8A). This appears to represent the 'normal' Class profile for Early Iron Age groups in East Anglia, with ten of the 16 primary data assemblages displaying this pattern. Two other groups can also be defined (Figure 7.8 B-C); both of which have 'signatures' in common with the categories of Late Bronze Age assemblage discussed above. The first includes two assemblages dominated by bowls, each displaying a slight emphasis on Class IV vessels (Figure 7.8B) - a pattern consistent with the Late Bronze Age category of *fineware bowl dominated assemblages*. The second group, by contrast, is prolific in Class I jars (Figure 7.8C), and is reminiscent of the *coarseware dominated assemblages*. However, with the exception of Rhee Lakeside South (Figure 7.8C, no. 1) in this category, it is debatable whether the profiles of these assemblages differ enough to justify separating them from those sharing the 'normal' Early Iron Age pattern - in reality, they may just be outliers along the same spectrum of variation.

Ultimately, these divisions are based on a subjective reading of the pattern; other groupings could potentially be formulated. Yet regardless of how these categories are set, in contrast to the Late Bronze Age patterns, there is no neat correlation between these groupings and the variability displayed by other attributes. For example, although assemblages displaying a 'normal' Class

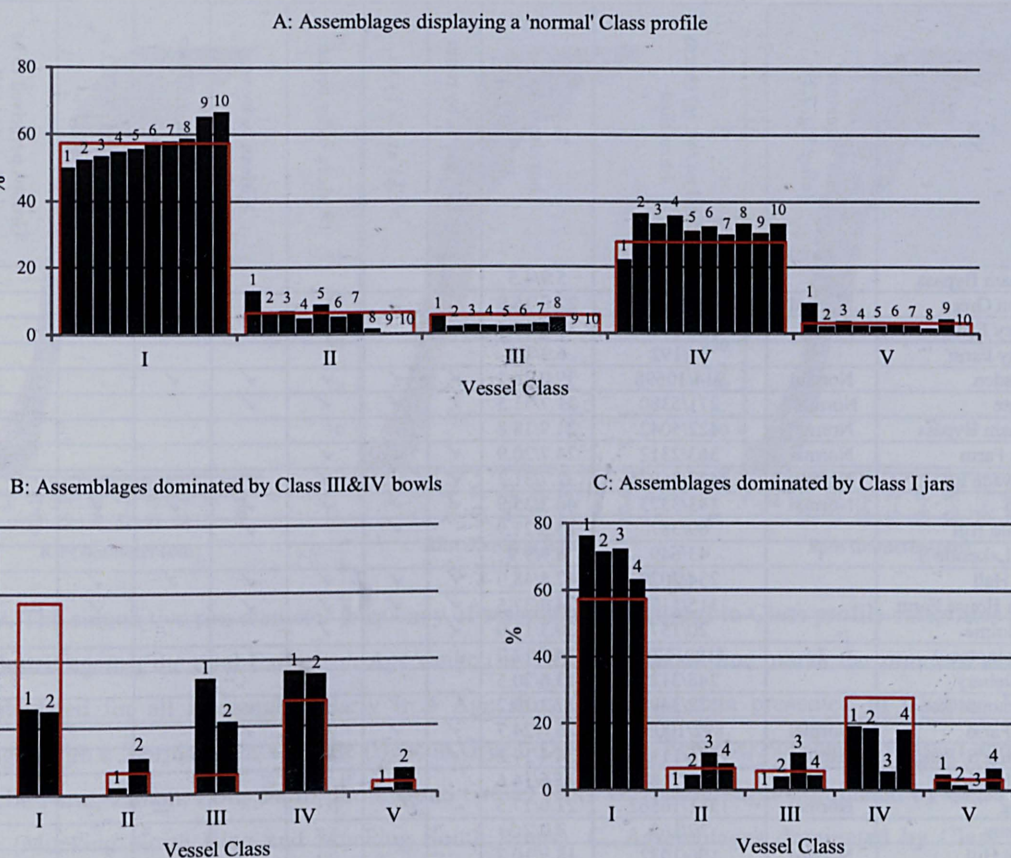


Figure 7.8. Contrasts in Early Iron Age vessel Class composition (for primary data sites with 15 or more form/class assigned vessels). A: 1. Fengate; 2. Linton; 3. Exning; 4. Fordham Bypass; 5. Beacon Green; 6. Darmsden; 7. Landwade Road; 8. Lofts Farm; 9. Gravel Hill; 10. Glebe Farm. B: 1. Mucking North Ring; 2. Mucking South Rings. C: 1. North Shoebury; 2. West Harling; 3. Rhee Lakeside South; 4. Trumpington Park & Ride. For comparison, the *standard ceramic profile* calculated for all Early Iron Age assemblages is marked in red on each graph (see Chapter 5). The 'normal' Class profile for Early Iron Age assemblages is represented by graph A. In groups with this profile, over half of form-assigned vessels are classified as Class I jars (range: 51-67%; mean average 59%), with more than 20% categorised as Class IV bowls (range: 22-36%; mean average 32%). The assemblages in graph B have a Class profile which is reminiscent of the *fineware bowl dominated assemblages* of the Late Bronze Age. Chronology may be significant here, as both derived from the upper ditch silts of the Mucking ringworks; deposits thought to date to the Bronze Age-Iron Age transition. The groups in graph C are coarseware dominated with over 60% of form-assigned vessels classified as Class I jars (range: 63-76%; mean average 71%), and less than 20% as Class IV bowls (range 6-19%; mean average 16%).

Site	Class 'signature' (after Fig. 7.2)	Total no./wt. (g) sherds burnished	% burnished by count/wt.	> EIA av. % by count	> EIA av. % by wt.	> Mean % by count	> Mean % by wt.	Greater than 1 STD. > Mean count	Greater than 1 STD. > Mean wt.	Groups perceived to be prolific in burnished finewares and/or Class IV bowls
Aylsham Bypass		74/409	5.9/4.5							
Beacon Green	Normal	572/4922	22.0/16.9							
Bradley Fen		130/1053	16.5/18.4							
County Farm		36/192	6.3/1.8							
Darmsden	Normal	914/10698	39.0/30.5	✓	✓	✓	✓	✓		✓
Fengate	Normal?	271/5380	31.7/31.5	✓	✓	✓	✓			✓
Fordham Bypass	Normal	422/5042	21.9/18.8							
Glebe Farm	Normal	363/2312	24.7/20.9	✓	✓	✓				
Landwade Rd	Normal	3427/36915	32.7/31.2	✓	✓	✓	✓			✓
Linton	Normal	143/3373	46.3/35.9	✓	✓	✓	✓	✓	✓	✓
Redgate Hill		69/387	15.8/21.9		✓		✓			
Rhee Lakeside S.	I	43/649	8.9/9.9							
Rook Hall		234/2020	47.4/48.0	✓	✓	✓	✓	✓	✓	✓
Sough House Farm		115/1178	24.7/37.5	✓	✓	✓	✓		✓	✓
The Holme		20/157	30.3/11.0	✓		✓				
Trumpington	I	112011785	14.4/12.7							
Wandlebury		248/3129	13.6/20.5							
Whitehouse Road		172/3498	17.3/29.2		✓		✓			
Lofts Farm	Normal	892/10051	26.6/24.7	✓	✓	✓	✓			✓
Mucking S. Rings	III&IV	1126/11130	24.4/17.2	✓		✓				✓
West Harling	I	392/7187	15.6/14.6							
Exning	Normal	1381/16562	21.0/17.5							
Ormesby		32/165	7.0/2.3							
Gravel Hill	Normal	196/1032	18.9/10.7							
Warborugh Hill		68/396	14.8/10.4							
Cromer		112/2008	59.3/41.9	✓	✓	✓	✓	✓	✓	✓
Tower works		111/1229	24.4/27.3	✓	✓	✓	✓			✓
Mucking N. Ring	III&IV	Partial data	-	-	-	-	-	-	-	✓
North Shoebury	I	Partial data	-	-	-	-	-	-	-	-
*TOTAL**		*12683/142859*	23.2/20.8	-	-	-	-	-	-	-
*Mean average % by count/wt.**			*23.4/21.0*							
*Standard deviation for count/wt. %**			*13.0/11.9*							

Table 7.2. Early Iron Age burnished frequencies and the relationship to vessel Class signature. * All totals and averages exclude the partial data from North Shoebury and Mucking North Ring.

profile commonly have a higher than average frequency of burnishing, there is no one-to-one relationship: some assemblages exceed all the formulated averages, whilst others fail to register (Table 7.2). Clear patterning is equally difficult to discern in relationship to vessel size (Figure 7.9). When plotted against the complete range of cumulative rim diameter frequencies, groups with a 'normal' Class profile, or ones dominated by Class I jars show the same spectrum of variation – both with one another, and the overall Early Iron Age range. The only distinctive signature is given by the two assemblages prolific in Class III & IV bowls (Figure 7.9B); the shape of the graph suggesting these contain a high proportion of large vessels (a pattern paralleled in the fineware bowl dominated assemblages of the Late Bronze Age).

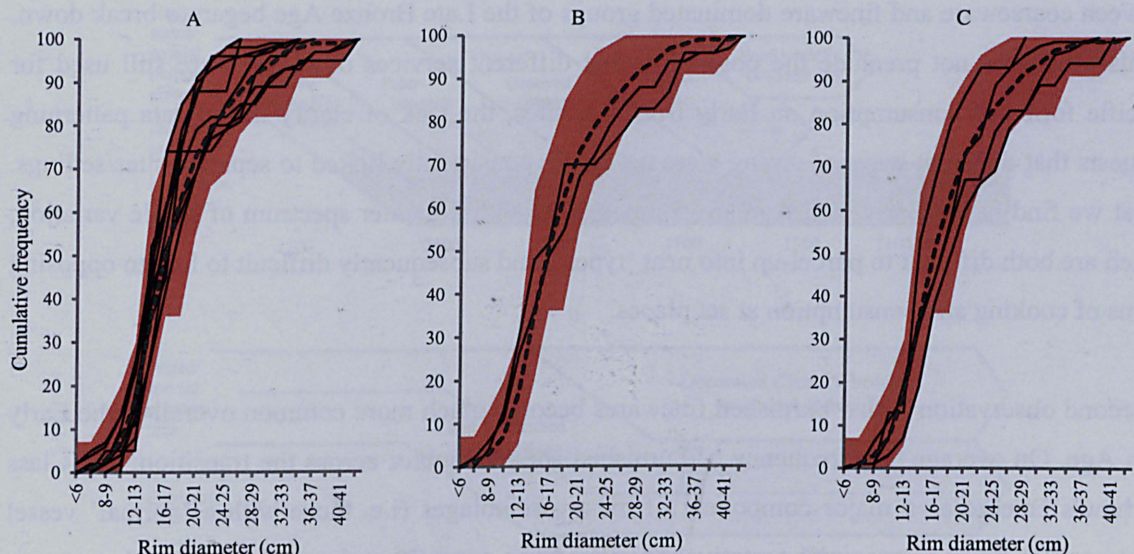


Figure 7.9. The cumulative rim diameter frequency of assemblages assigned to Class profile categories (A, B and C), plotted against the total Early Iron Age range (in red). The dashed line marks the *standard ceramic profile* calculated for all measurable Early Iron Age rims (based on data presented in Chapter 5). A. Assemblages with a 'normal' Class profile (Beacon Green, Darmsden, Fengate, Fordham Bypass, Landwade Road, Glebe Farm, Linton, Lofts Farm, Exning and Gravel Hill). B. Assemblages dominated by Class III & IV bowls (Mucking North Ring and Mucking South Rings). C. Assemblages dominated by Class I jars (North Shoebury, Rhee Lakeside South, Trumpington Park & Ride and West Harling).

7.2.4 Discussion of Early Iron Age variability

Distinct types of assemblage composition are difficult to define in the Early Iron Age ceramic record. Different groups may be distinguished on the basis of vessel Class profile, but there is no conclusive evidence that these divisions are echoed in the patterning of other attributes. If anything, attempts to correlate these traits only serve to highlight the complexity of variation – patterning being anything but uniform. This is not cause for despair, as the aim of the exercise was not to define neat groups, but to explore the *possibility* that patterned variation might exist within period assemblages. To this end (and contra Barrett's model), we can show that there *are* underlying contrasts in assemblage composition in the Early Iron Age, though admittedly, variability seems to work on different levels, and in ways which are hard to comprehend, especially without further investigation into the contexts from which the material derives.

At this stage, however, we can make some important observations, particularly in relation to the contrasts between the Late Bronze Age and Early Iron Age. Firstly, the absence of distinct types of assemblages after c. 800 BC suggests that the culinary practices which underpinned the divisions between coarseware and fineware dominated groups of the Late Bronze Age began to break down. Whilst this does not preclude the possibility that different services of vessel were still used for specific forms of consumption on Early Iron Age sites, the lack of clarity in the data patterning suggests that different ways of dining were no longer consistently linked to separate sites/settings. What we find in the Early Iron Age are compositions with a greater spectrum of subtle variation, which are both difficult to parcel-up into neat 'types', and subsequently difficult to link to opposing forms of cooking and consumption at set places.

A second observation is that burnished finewares become much more common overall in the Early Iron Age. On average, the frequency of burnished sherds doubles across the transition, and Class IV bowls emerge as a major component of most assemblages (i.e. those with a 'normal' vessel class profile). Even in examples tentatively assigned to a coarseware dominated group, the average burnished sherd component is greater than that in the preceding period (see Tables 7.1 and 7.2). Thus, having argued that finewares formed a 'special' category of vessel in the Late Bronze Age, featuring prominently in some assemblages but scarcely in others, there is a sense that the conventions which regulated the roles of these vessels were transformed. In fact, their higher frequency across all kinds of assemblage post-800 BC suggest that these pots now filtered into an everyday repertoire of cooking and serving vessels, and were no longer just reserved for specialised forms of dining.

A similar process of transformation was described by Richard Bradley (1984, 70-73) for ceramics dating to fourth to second millennium BC (Figure 7.10A). Although his model focused on the status of pots as *prestige goods*, it is a useful device for thinking about the changing significance of finewares in the PDR tradition. What we may infer from the widespread use of burnished pottery in the Early Iron Age is that distinctions in commensal activities were no longer being marked by the mere presence of Class IV bowls or other finewares. Indeed, if significance was still attached in any way to the use of these vessels, it seems more likely that importance was now placed on the *style* of burnished bowl employed in formal dining, not just the presence of any fineware (Figure 7.10B).

With the onset of the Early Iron Age, decorated bowls possibly emerged as the new 'special purpose' ceramic of the PDR tradition – the existence of similarities in style over wide areas suggesting that a strong set of conventions guided their production, if not their use, and deposition. These were not prestige goods in the strict, anthropological sense of the term: objects with biographies that were intimately linked to the reproduction of authority in broad political systems. But they were valued items associated with certain forms of dining, and thus linked to the reproduction of particular kinds of social relations; not all of them political with a 'capital P'

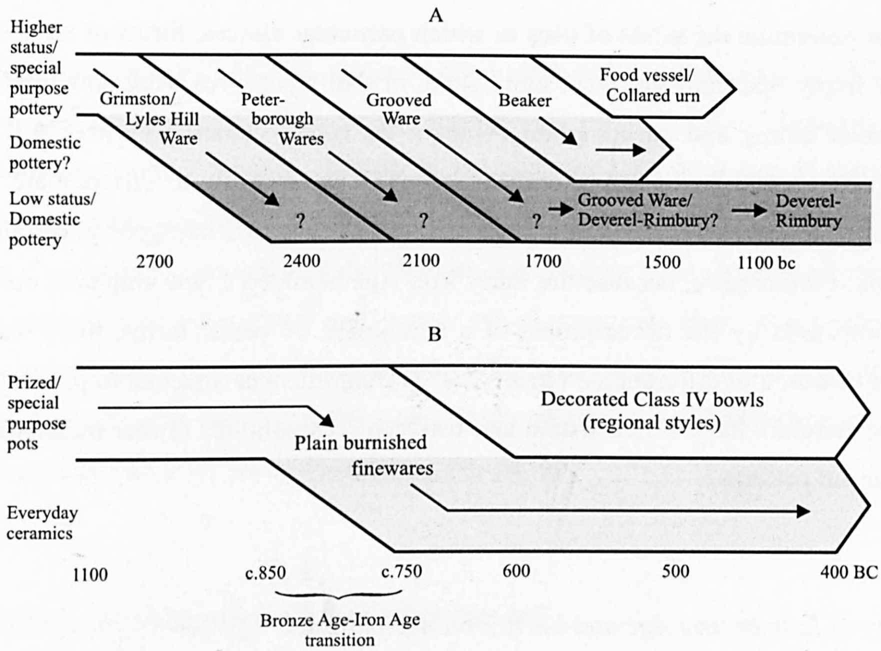


Figure 7.10. Modelling the changing roles of pots. Model A represents Bradley's original scheme for a succession of earlier prehistoric pottery styles (adapted from Bradley 1984, 72, Fig. 4.2). Each style began as a high status/specialised ware, but was progressively downgraded over time (as a product of wider availability and emulation), before finally filtering into the 'domestic' sphere. This process then created the impetus to develop new styles to serve as prestige objects. Inspired by this scheme, Model B charts the shift in the significance of PDR finewares across the Bronze Age-Iron Age transition. Whereas all burnished pots may have been special purpose ceramics in the Late Bronze Age, their widespread occurrence after c. 800 BC suggests that their roles were recast. These filtered into the everyday repertoire, whilst decorated Class IV bowls emerged as the ceramics used in a more restricted range of settings.

A good example are the Form N4 Darmsden-Linton-type bowls, which show similarities of form and decoration over large parts of Essex, south Suffolk and southeast Cambridgeshire (Chapter 6). These feature prominently in groups from Darmsden, Landwade Road, Fordham Bypass, Lofts Farm and Beacon Green, and are present in ten of the assemblages listed in Table 7.2 - many of which also have high burnishing/fineware frequencies. Certainly, if these pots had clearly defined/specialised roles, or were perceived to have a certain renown, then it might go some way to explaining why their production was more standardised, and why they share a regional distribution when other forms of pot remain 'invisible' at this scale.

Ultimately, whatever drove the changes in assemblage composition around c. 800 BC, the patterns suggest that the role of certain pots was transformed. If anything, assemblage compositions become more complex and variable in this period, making it if difficult to ring-fence set 'types' of assemblage, or determine the kinds of uses to which particular classes, forms or sizes of pot were put. This may imply that practices were more fluid, or that repertoires were now interchangeable between different dining and consumption contexts. At times, certain pots may still have been reserved for particular forms of eating and drinking, but we struggle to differentiate them at an assemblage level. In effect, their ceramic 'signature' is lost within a background of other patterns of consumption. Furthermore, because the Early Iron Age heralded a new emphasis on decoration, and was accompanied by the development of a new series of vessel forms, there was a greater range of ways in which to differentiate repertoires. The significance attached to pots with different attributes may therefore have varied within and between communities, further muddying the sense of simple clear-cut patterns.

7.2.5 Summary of Late Bronze Age and Early Iron Age patterns

> '*It is increasingly notable that the occurrence and abundance of 'fine wares' versus 'coarse wares' varies markedly from site to site and across the region.*' (Medlycott 2011, 21)

The compositional signature of PDR assemblages in East Anglia is more complex than we have supposed. The discussions in section 7.2 demonstrate profound contrasts in the 'profile' of groups dating to the Late Bronze Age and Early Iron Age. Yet even though we can dismiss the notion that there existed a uniform 'vessel hierarchy' in the PDR tradition (Barrett 1080, 303), we can still trace patterns in the data and chart some of the key changes to composition.

For the Late Bronze Age, it has been possible to identify two forms of assemblage, primarily distinguished by their emphasis on either coarseware jars or fineware bowls. These opposing compositions are thought to derive from different practices of cooking and consumption involving distinctive repertoires of vessel. Furthermore, patterns suggest that Class IV bowls and other finewares had well defined roles in this period, and were possibly recognised as 'special purpose' ceramics utilised in a restricted range of contexts. However, these seem to have been transformed across the Bronze Age-Iron Age transition, resulting in the reconfiguration of assemblage compositions in the Early Iron Age. A strong temptation would be to explain these changes by recourse to the kind of prestige goods model offered by Richard Bradley (Bradley 1984). This is certainly attractive, especially given the evident investment in their production, and hints that subtle protocols guided the specification of their forms. But this idea does not take us very far and is probably too restrictive. Consumption involving ceramics may have been socially significant, but not perhaps in ways that spoke directly to the reproduction of regional structures of political authority.

So where does this leave us? Dining seems to have mattered, and the way that foodstuffs were prepared, cooked and served within pots appears to have changed through time. These transformations may reflect broader changes in the customs and etiquettes of consumption, the structure of mealtimes, and the size and composition of dining groups (and possibly changes in cuisine). But if we want to understand these changes, and explore their social implications, we need to put these patterns into context and pose a new set of questions: How does ceramic variability work in relation to site categories? What are the differences between assemblages from open and enclosed settlements? And can we harness this patterning to an understanding of the different scales of community that were recognised during this period?

7.3 Compositions and categories: outlining the data set

Before examining the connections between assemblage composition and different forms of settlement, it is necessary to outline a series of site-type and assemblage categories to aid the process of comparison. Though the analysis in section 7.2 was not geared towards the definition of set types of assemblage, the recurrent patterns revealed in the data nevertheless suggest that we might usefully distinguish three principal forms of PDR composition; each summarised in Table 7.3.

Type	Category	Principal features	Date range
A	Coarseware jar dominated assemblages	1. Class profile dominated by coarseware jars (av. >70%) 2. Low frequency of burnishing (av. <10% by sherd count or weight)	LBA though to EIA
B	Fineware bowl dominated assemblages	1. Class profile dominated by fineware bowls (av. >30% Class IV bowls AND <40% Class I jars) 2. A relatively high frequency of burnishing (av. > 20% in the LBA and Earliest IA)	LBA and Earliest IA
C	Assemblages with a 'normal' vessel Class profile	1.Class profile 'balanced' between coarseware jars and fineware bowls (av. >55% Class I jars AND <35% Class IV bowls) 2. A relatively high frequency of burnishing (av. >20% in EIA)	EIA

Table 7.3. Principal PDR compositions based on the patterns discussed in section 7.2.

These categories are devised as an aid to describing the *basic* character of assemblages, bypassing the need to repeat patterns presented in the previous section. As they are not defined on a strict period basis, *where appropriate,* the discussions which follow are less constrained by a chorological structure, allowing us to examine patterns from different settlement contexts more freely. The settlement categories themselves are defined as either 'open' or 'enclosed', and are subdivided into four principal site-types (Figure 7.11); each of which has been introduced in Chapter 3.

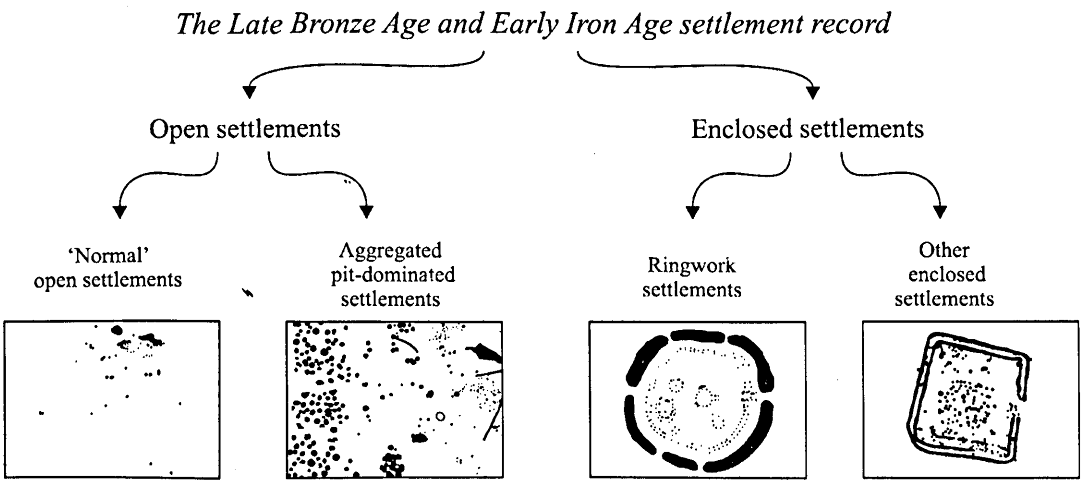


Figure 7.11. Principal site-type categories. Hillforts are excluded as none of the region's sites have been extensively excavated (hence there are no substantial assemblages for comparison).

With regard to the primary data sites, the site-type category is not always clear; either because the 'site' constitutes a single feature whose settlement affinities remain uncertain (owing to limited excavation, or the relative isolation of the feature), or the material derives from 'old' excavations lacking reliable contextual information. Others, such as the Must Farm platform site, the Warborough Hill 'barrow', or the buried soil 'midden' on Godwin Ridge simply do not fit within this scheme. Assemblages from these and other sites which are ambiguous or impossible to classify have therefore been excluded from the following analyses, though the data set is supplemented by a selection of other published and unpublished groups listed in Table 7.4 (55 site assemblages). Combined, these form a substantial body of data with which to explore the relationship between settlement form and assemblage composition.

7.4 Pottery groups from open settlements

Most of the region's Late Bronze Age and Early Iron Age sites fall within the category of 'open settlements', generally characterised by extensive, low density feature scatters comprising swathes

Site	Data	Settlement type	Assemblage type	Assemblage date	No sherds	Wt. (Kg)	MNV	Pottery reference (Secondary data only)
Fordham Bypass, Cambs.	Primary	Open settlement	C	EIA	1925	26.889	173	-
Landwade Road, Cambs.	Primary	Aggregated pit-dominated settlement	C	EIA	10481	118.201	1108	-
North Shoebury, Essex	Primary	Open settlement	A	LBA	?	25.127	83	-
North Shoebury, Essex	Primary	Open settlement	?	EIA	?	36.903	163	-
Trumpington Park & Ride, Cambs.	Primary	Aggregated pit-dominated settlement	A	EIA	7759	92.530	632	-
Glebe Farm, Cambs.	Primary	Open settlement	C	EIA	1468	11.083	85	-
Gravel Hill, Suffolk	Primary	Open settlement	C	EIA	1037	9.661	82	-
Rhee Lakeside South, Cambs.	Primary	Open settlement	A	LBA	258	5.003	40	-
Rhee Lakeside South, Cambs.	Primary	Open settlement	A	EIA	484	6.535	49	-
Addenbrooke's, Cambs.	Primary	Open settlement	A	LBA	1049	8.156	62	-
Burwell, Cambs.	Primary	Open settlement	B	LBA	1534	23.224	114	-
Stonea Grange, Cambs.	Primary	Open settlement	B	LBA	757	7.108	58	-
Striplands Farm, Cambs.	Primary	Open settlement	A	LBA	4153	41.079	329	-
Bradley Fen/Kings Dyke, Cambs.	Primary	Open settlement	C	EIA	788	5.734	49	-
Godwin Ridge, Cambs. (excluding midden)	Primary	Open settlement	A	LBA	806	4.623	57	-
Alysham Bypass, Norfolk	Primary	Open settlement	A	LBA	650	3.987	32	-
Alysham Bypass, Norfolk	Primary	Open settlement	A	EIA	1244	9.045	53	-
Fordham Bypass, Cambs.	Primary	Open settlement	?	LBA	479	4.421	25	-
Moulton, Suffolk	Secondary	Open settlement	A	EIA	607	7.374	41	Brudenell 2011
Caple, Suffolk	Primary	Open settlement	A	LBA	631	6.852	36	-
Broads Green, Essex	Primary	Open settlement	A	LBA	336	2.481	23	-
Game Farm, Suffolk	Secondary	Open settlement	A	LBA	1290	11.362	?	Last 2004
Slough House Farm, Essex	Primary	Open settlement	?	LBA	325	3.388	22	-
Slough House Farm, Essex	Primary	Open settlement	B	EIA	466	3.140	24	-
Colchester Garrion Site, Essex	Secondary	Open settlement	A	LBA	250	3.798	?	Sealey 2006
Beacon Green, Essex	Primary	Open settlement	C	EIA	2603	29.110	198	-
Boreham Interchange, Essex	Secondary	Open settlement	A	LBA	2086	15.480	?	Brown 1999b
Foxhall Farm, Essex	Secondary	Open settlement	C	EIA	2424	15.070	?	Brown 1995b
Pheasants' Walk, Norfolk	Secondary	Open settlement	?	EIA	1470	10.129	c.31	Thompson 2009
Orsett, Essex	Secondary	Open settlement	C	EIA	?	?	?	Barrett 1978
Hall Road, Essex	Secondary	Open settlement	?	LBA	1138	12.222	c.34	P. Thompson *pers comm.*
Ormesby St Margaret, Norfolk	Primary	Open settlement	A	EIA	454	7.028	30	-
Whitehouse Road, Suffolk	Primary	Open settlement	C	EIA	994	11.985	54	-

Table 7.4. List of site assemblages used in the analyses in section 7.4 and 7.5. MNV = minimum number of vessels calculated as the total number of different rims and bases identified. * Vessel count based on rims only.

Site	Data source	Settlement type	Assemblage type	Assemblage date	No sherds	Wt. (Kg)	MNV	Pottery reference (Secondary data sites only)
Wandlebury, Cambs.	Primary & Secondary	Aggregated pit-dominated settlement	C	EIA	2348	28.277	c.294	Hill 2004; Hartley 1957
Hatismere High School, Suffolk	Secondary	Open settlement	A	LBA	1195	21.196	101*	S. Percival *pers comm.*
Springfield Park, Essex	Secondary	Open settlement	A	LBA	3517	27.567	214*	Court and Mephan 2004
Harford Farm, Norfolk	Secondary	Open settlement	A	LBA	1643	9.785	95*	Percival 2000b
Honeypots Plantation Site, Norfolk	Secondary	Open settlement	C	EIA	1019	8.072	96	Percival 2007
Valley Belt, Norfolk	Secondary	Open settlement	A	EIA	2208	17.678	?	Percival 2000a
Great Holts Farm, Essex	Secondary	Open settlement	A	LBA	829	14.245	?	Brown 2003
Edix Hill, Cambs.	Secondary	Aggregated pit-dominated settlement	?	EIA-MIA	6396	80.362	?	Woudhuysen 1997
Harston Mill, Cambs.	Secondary	Aggregated pit-dominated settlement	A?	EIA-MIA	10444	109.941	?	Last andThompson forthcoming
West Harling II, Norfolk	Primary	Ringwork settlement	A	EIA	2240	44.563	486	-
Mucking South Rings Essex	Primary	Ringwork settlement	B	LBA-EIA	10030	118.358	792	-
Mucking North Ring, Essex	Primary	Ringwork settlement	B	LBA-EIA	9628	117.666	771	-
Exning, Suffolk	Primary	Ringwork settlement	C	EIA	6577	94.514	798	-
Springfield Lyons, Essex	Secondary	Ringwork settlement	C	LBA-EIA	11989	84.288	?	Brown forthcoming
Carlton Colville, Suffolk	Secondary	Ringwork settlement	?	LBA	495	2.831	?	Percival 2009
Frog Hall Farm, Essex	Primary	Enclosed settlement	A	LBA	1183	6.257	50	-
Hales Barn, Suffolk	Primary	Enclosed settlement	A	LBA	203	1.682	17	-
Lofts Farm enclosure, Essex	Primary	Enclosed settlement	C	LBA-EIA	892	9.140	63	-
Broomfield, Essex	Primary	Enclosed settlement	A	LBA	1912	16.953	84	-
County Farm, Suffolk	Primary	Enclosed settlement	A	LBA-EIA	1039	13.044	74	-
Stantsed Site SCS, Essex	Secondary	Open settlement	C	EIA	13492	120.100	?	Brown 2004
Stantsed Site CIS, Essex	Secondary	Open settlement	?	EIA	3965	28.440	?	Brown 2004

Table 7.4. (Cont.). List of site assemblages used in the analyses in section 7.4 and 7.5. MNV = minimum number of vessels calculated as the total number of different rims and bases identified. * Vessel count based on rims only.

of pits, postholes and structural remains (Chapter 3). Details in layout vary, but the underlying architectural grammar of settlement is remarkably consistent for much of the period. Only after c. 600 BC does the picture become more complex, with some unenclosed sites beginning to attract a new and unprecedented scale of occupation, leaving behind extensive but comparatively dense feature agglomerations, typically characterised by large pit clusters.

Leaving aside these aggregated pit-dominated sites (discussed in section 7.4.3), the general impression is that open settlements reflect the traces of small-scale farmstead-type settings, composed of dispersed structures and fixtures belonging to one or two household groups[28], probably organised around extended families. Although on a site by site basis there are contrasts in the extent of open settlement remains, there is little sense that patterns of occupation were structured at different orders of magnitude. In cases where settlement extent is not obviously linked to the scale of the excavation (which is usually the determining factor), contrasts are more likely to reflect the duration of occupation, and the degree to which certain locales became a focus for reiterative patterns of dwelling. In other words, whether we are dealing with settlements occupied for one or several successive generations, at any given moment we are most likely witnessing the (partial) imprint of life played out amongst one or two contemporary households. The question is, how were ceramic traditions articulated within these localised social contexts?

7.4.1 Assemblage compositions from open settlements

On initial inspection there appears to be no obvious relationship between open settlements and the form of assemblage composition (Figure 7.12A). Collectively, these sites yield all types of PDR composition, albeit with over half (59%) the examples having coarseware jar dominated assemblages (Type A), and just under a third (32%) with groups displaying a 'normal' profile (Type C). Chronology, however, plays a role in these patterns, with relationships more polarised on a period basis (Figure 7.12B). In fact, the data show that Late Bronze Age open settlements are predominately associated with Type A assemblages (88%), whereas Type C groups are exclusive to the Early Iron Age. Clear trends in the latter period are once again more difficult to discern, but just over half the Early Iron Age open settlements yield Type C assemblages (60%), with a third associated with Type A groups (35%). In neither period are fineware bowl dominated assemblages (Type B) typical, with only three examples recorded.

[28] Following Sørensen (2010, 123), I use the term 'household' to refer to '*a constellation of people who live together most of the time and who, between them, share the activities needed to sustain themselves as a group in terms of sustenance and social needs*'.

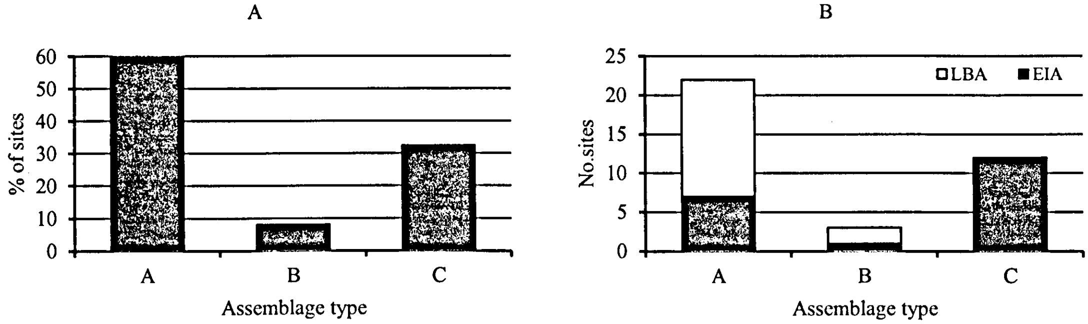


Figure 7.12. Assemblage type composition from open settlements (37 site assemblages). A: Composition by frequency. B: Composition by period.

If we are dealing primarily with farmstead-type sites organised around extended families or kinship-linked households, what do these compositions reveal about the role of pots and the nature of commensality in these contexts? For the Late Bronze Age, the patterns imply that most assemblages were dominated by un-burnished coarseware vessels, of which the vast majority were jars. Assuming a *general* relationship between the composition of archaeological pottery assemblages ('dead' assemblages) and the daily repertoire of vessels used in the past ('living' assemblages), most pots in these contexts were probably small to medium sized jars employed for various cooking and serving roles (see discussions in section 7.2.1). We may therefore envisage a ceramic service primarily composed of plain coarseware vessels, dominated by a series of small to medium-sized jars, and a few larger pots. Finewares were included in this repertoire, but the data suggests they formed a minor component of the day-to-day ceramic service (Figure 7.13).

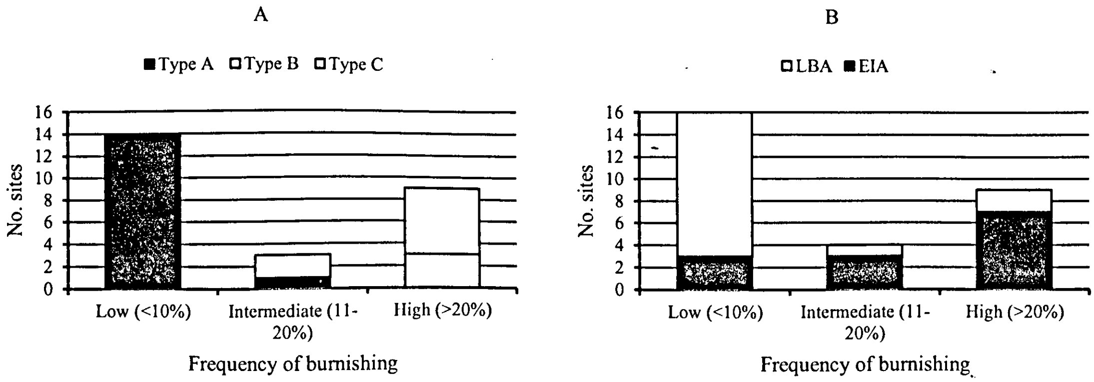


Figure 7.13. Burnishing frequencies on open settlements A. Frequency by assemblage type (26 site assemblages). B. Frequency by period (29 site assemblages).

Though we should be wary of making too many interpretive leaps between 'dead' and 'living' assemblages, the overall impression is that most vessel services from Late Bronze Age open settlements were rather utilitarian – simple unembellished repertoires of plain (and probably locally-made) coarseware pots, whose roles were geared towards the mundane daily tasks of cooking, serving and storing foodstuffs and beverages. Though the act of dining together may have been important to the way that groups expressed and confirmed their sense of solidarity in these settings, there is little indication on ceramic grounds that mealtime was a lavish or formal affair. Certainly, the paucity of burnished pottery suggests that 'tablewares' and other specialised serving vessels (which may have been 'prized' objects) were deemed unnecessary/inappropriate for most meals, and may have had their use restricted in these contexts. The lack of extravagance that we perceive in the ceramic record is perhaps a reflection of the fact that we are mainly dealing with traces of routinized cooking and consumption practices occurring with within small-scale close-knit household groups – contexts where displays of opulence and excess served little purpose or were deliberately suppressed.

Inevitably our understanding of what norms and conventions guided the use of different vessels is somewhat hazy. Burnished finewares were clearly not prohibited from use on open settlements as they are present in all assemblages, but it is apparent that their involvement in everyday dining was relatively limited. That said, there are instances where the fineware component comes into sharp focus in these settings, namely on the few Late Bronze Age and Early Iron Age open settlements yielding Type B assemblages. These compositions present us with a completely different picture of consumption, which raises the issue of whether certain groups were distinguishing themselves by dining in different ways. In light of the suggestion that Late Bronze Age finewares may have been 'prized' ceramics (section 7.2.2), it is tempting to view these distinctions as linked in some way to a social hierarchy, which is otherwise untraceable in the architectural imprint of open settlement. However, upon closer examination, the compositional signature of these Type B assemblages is found to be based on only one or two large fineware-rich deposits on these sites, implying that their fingerprint is a consequence of a very specific form of practice.

At Stonea, for example, well F.920 yielded a third of the site's Late Bronze Age pottery, and 72% of all the burnished finewares (Figure 7.14B). This feature contained fragments of no fewer than 22 different vessels, including partial profiles of five separate burnished bowls and a fineware jar (40% of all form assigned vessels). On the contemporary settlement at Burwell, over 20kg of pottery were retrieved from pit F.26, containing 83% of the site's finewares and fragments of 69 different vessels (Figure 7.14A). A fifth of the sherds in this feature were burnished, and the partial profile of 12 finewares could be reconstructed: eight bowls, three jars and a cup (38% of all form assigned vessels). In both cases, the categorisation of these site assemblages was effectively determined by the character and composition of material from just these features. The same is also true for the Early Iron Age Type B assemblage from Slough House Farm, where fragments of eight vessels were recovered from pit F.403 (43% of the entire assemblage, 71% of the burnished sherds). Amongst them was a large, elaborately decorated haematite coated jar, deposited along with fragments of three burnished bowls - two of which were also ornamented (Figure 7.14C).

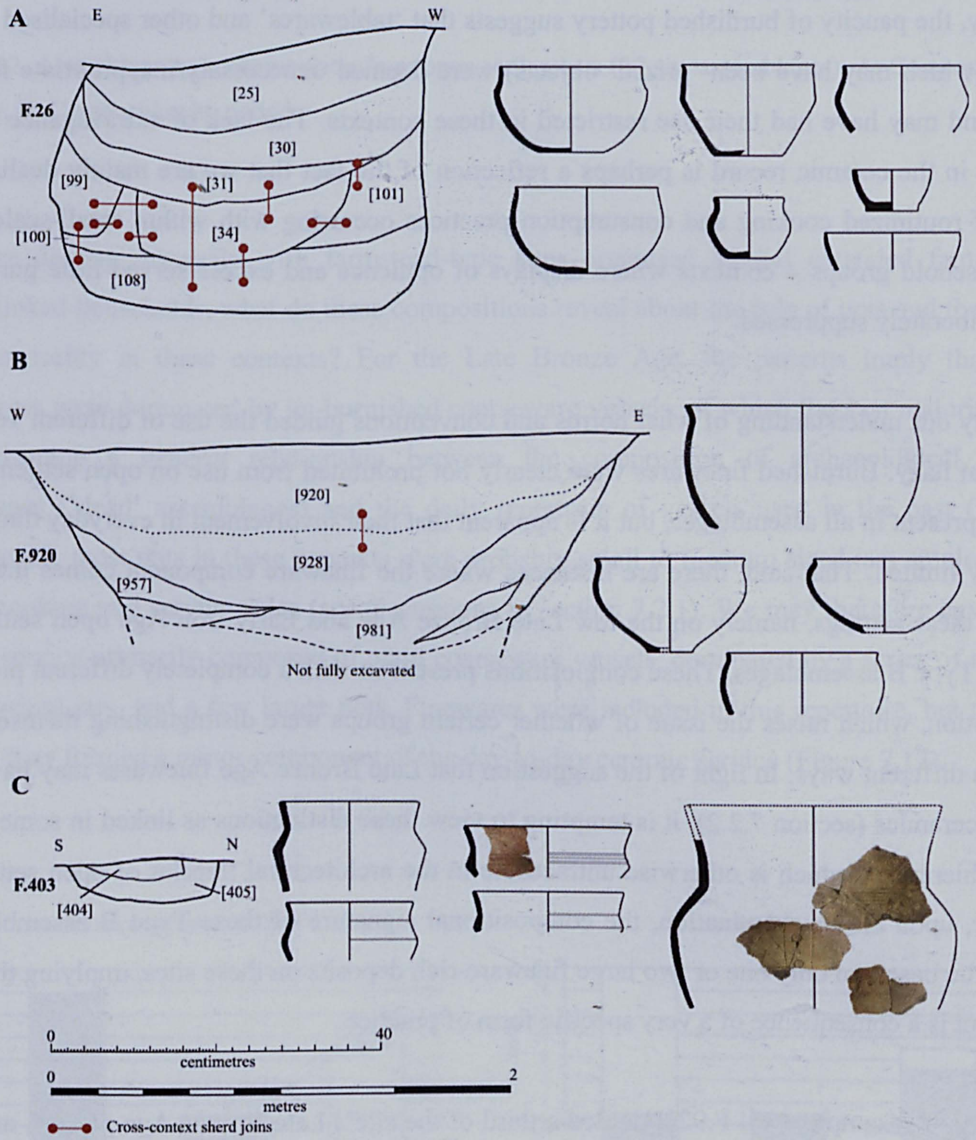


Figure 7.14. Features with fineware-rich pottery deposits. A: Pit F.26, Burwell, showing a selection of Late Bronze Age fineware bowls and cups. B: Well F.920, Stonea, showing a selection of Late Bronze Age fineware bowls. C: Pit F.403, Slough House Farm, showing a section of plain and decorated Early Iron AGe fineware bowls and jars.

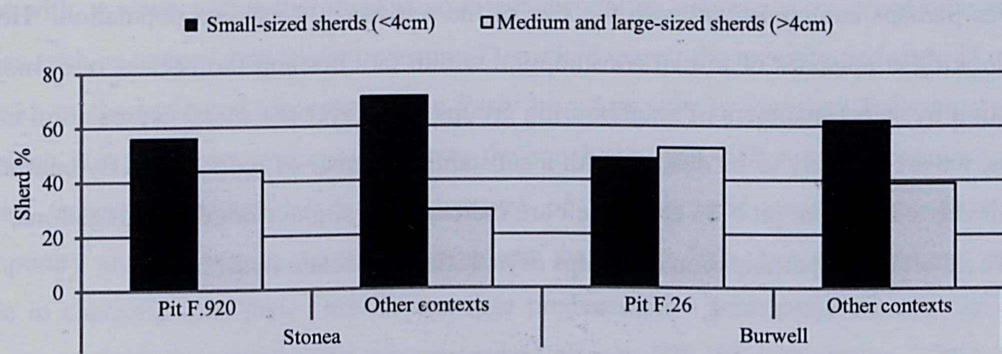


Figure 7.15. Comparison of sherd size frequencies for Late Bronze Age deposits from Stonea and Burwell. Comparative data is unavailable for all Early Iron Age contexts at Slough House Farm.

In all three examples, the fineware signature results from large quantities of burnished pottery being deposited together in one or two features. In addition, there are hints that the fragments which entered these pits were comparatively fresh and un-abraded, suggesting that elements of these fineware services were broken and deposited *en masse* in close succession. For instance, at Stonea and Burwell, medium and large-sized sherds were more common within the fineware-rich pit assemblages (Figure 7.15). Furthermore, 28% and 30% of sherds from these contexts at Slough House Farm and Burwell refitted, adding to the impression that finewares were deposited soon after breakage. This raises important questions about depositional practice, and implies that certain types, groups or sets of pots may have been singled out for particular forms of post-breakage treatment - a topic detailed in Chapter 8. More pertinent in the context of present discussions is the suggestion that there were specific moments/events on open settlements which called for the use of a fineware dominated service of vessels. These speak of, and arguably derived directly from, set-piece practices of dining which were clearly different in nature to the daily cooking and eating activities associated with Type A coarseware repertoires. Though it is hard to pin down the specifics of how finewares functioned in these settings (beyond vague references to specialised serving/dining equipment), unlike their porous coarseware counterparts, burnished vessels had the *potential* to hold liquids, suggesting that drinking may have been an integral part of these activities. Finewares almost certainly had proscribed roles in these events, and it is perhaps appropriate to think of these services as specialised vessel-sets geared towards formal dining.

If we are correct in this interpretation, then it is also worth exploring the possibility that the number of vessels in these deposits serve as an index to the scale of these formalised activities. Assuming that these derive from single events, the presence of 22 different pots from Stonea and eight vessels from Slough House Farm suggest that these activities were organised for small groups, at a scale which was perhaps commensurate with the size of the settlement's resident population. Here we may be looking at episodes of formal consumption within families and farmsteads, or at most, the participation by select members of neighbouring groups. Whatever the social composition in these examples, we are unlikely to be dealing with a substantial number of individuals. By contrast, the 68 vessels recovered from pit F.26 at Burwell are indicative of slighter larger congregations, which must have involved the participation of groups *beyond* the immediate household.

This is an example of where larger scales of community come into focus on a Late Bronze Age open settlement. It is particularly significant at it shows that pots were not only caught up in consumption practices organised around, and constitutive of, households and/or family groups, but were directly implicated in activities which articulated broader scales of community. Furthermore, feasting and formal dining at this inter-household scale would have provided an important context for exchanges; some of which potentially included pots and the potters themselves (through exogamous marriage). Here it is worth recalling that most of the distributions plotted in Chapter 6 feature fineware vessels – the same 'specialised' ceramics which dominate the service in these consumption events, and which may have been 'gifted' in the context of these settings. Again, this might help to explain how some intra-regional distributions became manifest, and why it is we only see certain vessels featuring in these patterns. Be that as it may, we should not lose sight of the fact that these kinds of events were episodic. Indeed, most assemblage compositions from Late Bronze Age open settlements do not speak of cooking and consumption activities occurring on anything larger than a household scale. However, it is clear that different practices have distinct material signatures in this period; at least at the assemblage-level analysis pitched in this chapter.

7.4.2 Ceramic compositions from Early Iron Age open settlements

Leaving aside the material from Slough House Farm (discussed above), the region's Early Iron Age open settlements tend to yield either Type A or Type C assemblages (Figure 7.12B). The Type C groups are the more common, found throughout East Anglia, whilst Type A assemblages are mainly associated with settlements from the northern half of the region – only one of the six examples documented being from Essex (North Shoebury). There is some indication then that compositional variability works at an intra-regional scale in the Early Iron Age, in a similar fashion to the individual trait distributions discussed in Chapter 6. However, the picture is clearly more complex than this, and we are required to offer some account as to why Type A and C groups are recovered from broadly contemporary settlements in some areas.

To start with, it worth noting that there is no direct correlation between assemblage type and other variables such as pottery date (early or mature Decorated ware); the quantity and style of ceramics recovered, or the scale and character of the Early Iron Age sites in question. Following previous discussions, it is therefore tempting to jump to the conclusion that differences in composition *must* mark an important distinction in the structure of cooking and consumption practices on contemporary sites. However, given the argument that Early Iron Age compositions are more variable in character than their Late Bronze Age predecessors - principally because the roles of some pots, such as finewares, were less proscribed after c. 800 BC (see section 7.2.4) - are the distinctions between Type A and C groups really that significant in this context?

By posing this question I am not suggesting that we discard the assemblage-type categorisations as an analytical tool. Indeed, for thinking about Late Bronze Age patterns they are of direct significance, but *only* because the conventions of this period dictated that different repertoires of vessel (coarsewares versus finewares) should be deployed for use in specific contexts or moments of consumption. As argued in section 7.2.4, some of these distinctions break down across the Bronze Age-Iron Age transition, as burnished finewares filtered into the 'domestic' repertoire. Thus as the dominant ideas about vessel roles were transformed, different classes of pot began to be used more freely/interchangeably between different contexts of dining, and as a consequence, we can anticipate a greater degree of variability in the compositional signature of Early Iron Age groups.

The distinctions between Type A and C assemblages may not therefore be hugely meaningful in this context. The overall impression is that a varied repertoire of pots were employed on open settlements, and that both coarsewares and finewares were utilised for daily meals (though a selection were perhaps still retained for more formal episodes of consumption (decorated fineware bowls?), as demonstrated by the Type B assemblage from Slough House Farm). Furthermore, in a context where it was 'permissible' to chop and change the everyday ceramic service, we may envisage a situation where repertoires fluctuated in response to the various comings and goings from the household, as different members were called to tasks beyond the farmstead at different points throughout the year. Whereas in the Late Bronze Age this waxing and waning of the social group may have seen changes in the number or sizes of coarsewares used (and broken) at mealtimes, in the Early Iron Age, the service may have been adapted by incorporating different categories and combinations of coarse and fine vessels, or plain and decorated wares.

Though it is impossible to gain a clear perspective on how patterns of use were structured in these fluctuating situations, the pots broken (and then deposited) whilst using different 'domestic' repertoires in the Early Iron Age would have contributed to archaeological compositions that were more variable in character than those of the Late Bronze Age. Hence the differences in Type A and C assemblages are probably incidental, or more likely, the product of different depositional practices (the subject of the following chapter). What we can say is that most of these activities were articulated within the context of small-scale social groups, much the way they were in the preceding period.

7.4.3 Ceramic compositions from aggregated pit-dominated sites

Although data are available for just three assemblages from aggregated pit-dominated sites in East Anglia – Trumpington Park & Ride (Type A), Wandlebury (Type C) and Landwade Road (Type C) – there are few details which unite these groups. On an attribute-by-attribute basis, even the two Type C assemblages have only a handful of traits in common. In light of discussions presented above, this in itself is not that surprising, nor particularly meaningful. But in spite of their differences, the one shared and distinctive feature of these assemblages is their size.

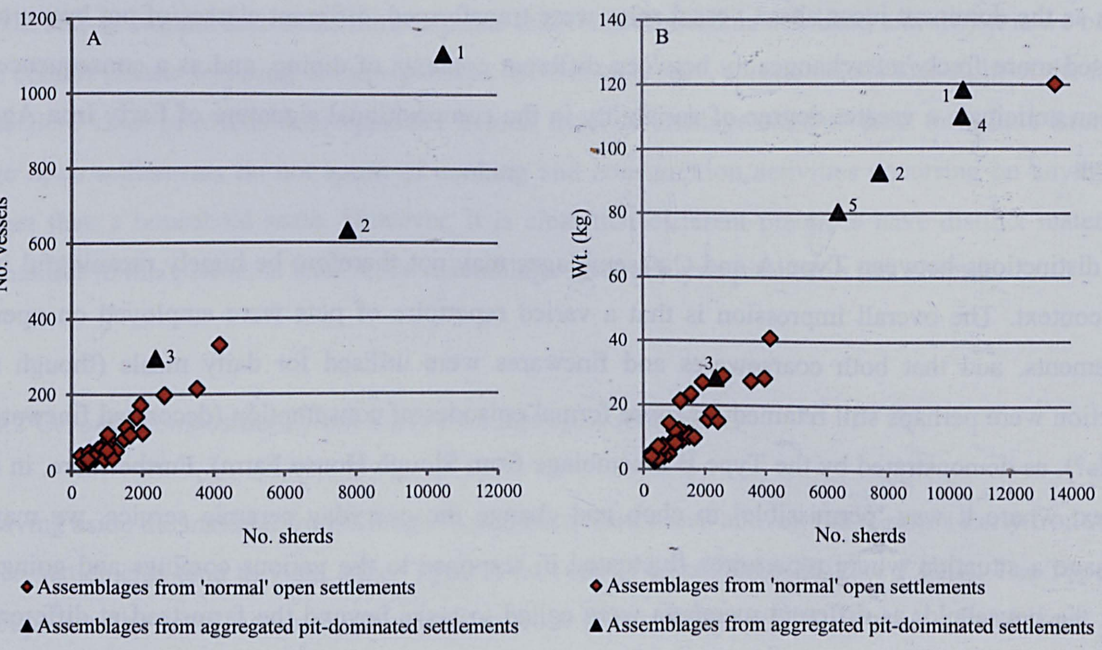


Figure 7.16. Comparison of assemblage sizes from open settlements. A: Sherd count versus vessel count (28 assemblages from 'normal' open settlements). B: Sherd count versus weight (36 assemblages from 'normal' open settlements). 1. Landwade Road; 2. Trumpington Park & Ride; 3. Wandlebury; 4. Harston Mill. 5. Edix Hill. The 'normal' open settlement anomaly on graph B represents the assemblage from Stansted SCS (Brown 2004).

Whether the scale of these groups is gauged by vessel count, sherd count or weight (Figure 7.16), the totals dwarf those achieved by the excavation of other 'normal' open settlements. Whilst acknowledging that recovery is largely determined by the scale of excavation and the intensity of sampling strategies, when set against such comparative figures, these assemblages clearly stand out. Even Wandlebury, which has only seen limited investigation (Hartley 1957; French 2004), has a high vessel count, just shy of 300 different pots. The total from Landwade Road exceeds 1100 vessels, whilst Trumpington's tally surpasses 600. To put these figures into perspective, other open settlement totals rarely exceed the 200 mark, regardless of assemblage type. In fact, over two-thirds yielded fragments of less than 100 vessels, with a mean average of just 78.

The substantial size of the assemblages from pit-dominated sites is commensurate with the scale of their associated settlement swathes, adding to the impression that these places were a focus for occupation by groups significantly larger than just one or two households. Forging a picture of the scale of these communities is more difficult, not least because patterns of residency may have fluctuated over the course of the year, or on longer temporal cycles. However, using the number of recorded vessels as a crude index, we may estimate that settlement aggregations involved groups which were anywhere between four and 20 times larger than those associated with 'normal' open settlements[29].

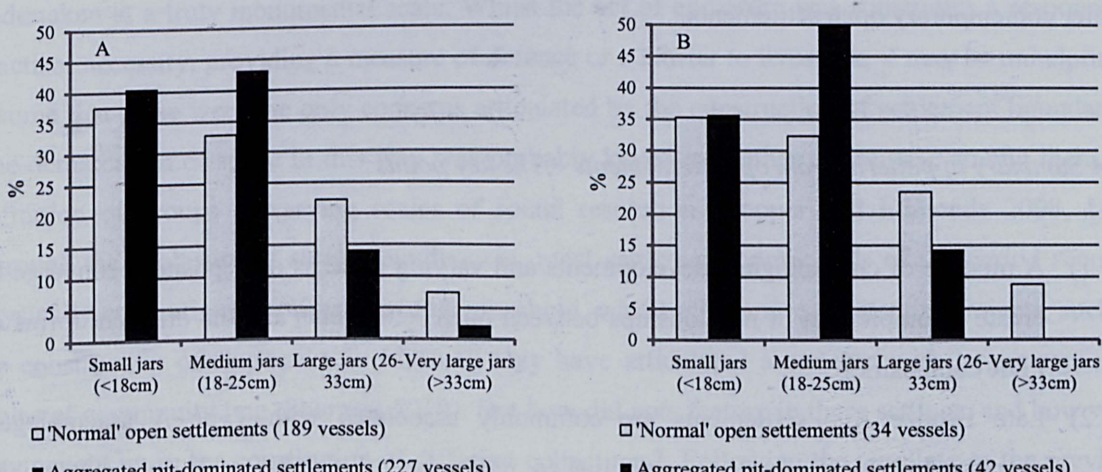


Figure 7.17. Comparison of jar-sizes (graph A) and differences in the relative frequency of jar-related carbonized residues (graph B). Combined, the patterns suggest that medium jars regularly functioned as cooking pots on aggregated sites, whilst small jars were more commonly used in this role on 'normal' open settlements. By extension, these contrasts may imply that meals were frequently prepared and cooked for larger social groups in aggregated settlement contexts.

[29] These figures are calculated on the basis that most 'normal' open settlements display vessels count totals in the region of c. 50-150 vessels, whilst the two extensively excavated pit-dominated sites have figures between c. 600-1100 vessels (hence 600/150 = 4 and 1100/50 = 22, rounded to 20).

Whilst the validity of these extrapolations is debatable, there is no question that the character and material content of these sites indicate that groups were coalescing into larger resident communities towards the close of the Early Iron Age. Even so, beyond the size of their associated assemblages, the ceramic fingerprint is little different to that from smaller open settlements. The only other hallmark of distinction is in the frequency of different sized jars, and their relationship with carbonised residues – patterns which suggest that meals were being prepared and cooked for larger groups (Figure 7.17). It is certainly plausible that commensal activities were structured along different lines in these settings. Whereas tasks were possibly organised *within* kin-related households on most open settlements, on these larger aggregated sites the same activities may have been shared *between* households, or organised along age, gender or kinship paths which cross-cut the extended family unit.

Inevitably, the finer details of these practices evade us, especially at this assemblage-level of analysis. What we can say on the basis of ceramic composition is that aggregated sites *were not* associated with a higher than average representation of any one form, class or style of vessel. In fact, other than the gross quantities of material they yield, and hints that larger groups may have been cooking and eating together, the ceramic signature is no more or less distinct than that from smaller contemporary open settlements.

7.4.4 Summary of patterns from open settlements – The key points

1) A mixture of chronological developments and varying patterns of deposition converge to create a complex set of relationships between open settlements and the different forms of PDR composition.
2) Late Bronze Age settlements are commonly associated with Type A assemblages, characterised by a simple, unembellished repertoire of mainly small coarseware jars. However, pottery compositions from Early Iron Age settlements are more variable in character, through sites typical yield Type A or C groups.
3) Irrespective of date, assemblages from 'normal' open settlements tend to be of a small size. In these contexts, pots were primarily implicated in the commensal activities of small-scale social groups, organised around individual homesteads.
4) The distinguishing feature of pottery groups from aggregated pit-dominated sites is the scale of their assemblages. These are commensurate with the size of their associated settlement swathes, suggesting that groups were coalescing into large resident communities at the end of Early Iron Age. Though there are hints that meals may have

been prepared and cooked for larger corporate groups in these contexts, the overall composition of these pottery assemblages is broadly similar to that from smaller contemporary settlements.

5) On the rare occasions where open settlements yield Type B assemblages, the ceramic fingerprint results from set-piece practices of deposition incorporating large quantities of fineware. The deposits contain fragments of specialised dining services, dominated by burnished bowls - vessel-sets reserved for feasting parties; some of which were participated in by groups larger than the resident population. These are the only instances in which we see pots directly implicated in larger scales of community activity on 'normal' open settlements.

7.5 Pottery groups from enclosed settlements

The practice of enclosing groups of settlement features took a number of forms in the Late Bronze Age and Early Iron Age. The review in Chapter 3 has highlighted the degree to which the character, morphology, and scale of enclosure varied across the region. Architectural constructions range from relatively small compounds encircling a few structures, to programmes of ditching undertaken at a truly monumental scale. Whilst the act of enclosure was sometimes a response to practical necessity, providing a measure of defence or a barrier to livestock, it may be unhelpful to assume that these were the only concerns articulated by the construction of settlement boundaries. The demarcation of space in this way was probably keyed into other discourses; among them the definition of groups at varying scales of social resolution (Cooper and Edmonds 2008, 185). Through the enclosure of single roundhouses, most settlement compounds of the period seem to physically emphasise the primacy of the household, whilst other more substantial projects, such as the construction of ringworks or hillforts, may have articulated a concern with larger corporate scales of community (e.g. Sharples 2010). But how did pots feature in these settings, and how were they caught up in the constitution of different collectives? Following the template of the previous section, we will explore the extent to which we can harness our understanding of ceramic variability to the sliding scale of small to large-sized enclosures in East Anglia. In particular, we will address the issue of whether different forms of enclosure have distinctive ceramic fingerprints, and examine how their 'signatures' compare to those associated with the period's open settlements.

7.5.1 Ceramic compositions from small enclosures

Excluding Ringworks, enclosure sites in East Anglia have yielded relatively small pottery assemblages, differing little in size or character to those from 'normal' open settlements Compositions fall within the Type A or C category, and vessel counts are all below the 100 mark (mean average 54). In short, there are few features which distinguish these groups, and like the assemblages from 'normal' open settlements, the Late Bronze Age sites yield Type A compositions (Broomfield, Frog Hall Farm, Hales Barn), whilst later enclosures, including those whose sequences straddle the Bronze Age-Iron Age transition, yield Type A or C groups (Lofts Farm (C), County Farm (A)).

With nothing marking out these ceramic signatures as distinct, it is difficult to argue that cooking and consumption practices were organised any differently on enclosed sites than they were on contemporary open settlements. Even on sites such as Broomfield and Lofts Farm, where the architecture of the compounds and the gateway structures hint at some form of social distinction (see discussion in Chapter 3), there are few clues from the ceramic fingerprint that day-to-day commensal activities were structured any differently. If the inhabitants of these compounds were local elites, vessel repertoires were not manipulated in such a way as to express 'status' in any obvious manner. Bearing in mind that these pots were probably utilised for meals primarily organised around the household group, it is hardly surprising that ceramics were not a vehicle for display and prestige within these 'private' settings.

Admittedly, the picture of ceramic use at Broomfield and Lofts Farm is more complex than that hinted at by the overall signature of their assemblage compositions, as on both sites there are deposits distinguished by a concentration of finewares – neither of which register at an assemblage-level of analysis. The most significant is a dump of finewares in the northern outer ditch circuit at Lofts Farm, which included fragments from a number of different bowls (Brown 1988b, 271); some with elaborate decoration. By itself, this group has a Type B composition, and is reminiscent of the fineware deposits at Stonea and Slough House Farm, argued to be dumps of pottery used in formal dining. The Lofts Farm example undoubtedly alludes to similar practices, but because the pots were not broken and deposited in quick succession (as they were on the sites mentioned above), it is difficult to gauge the scale at which these activities were conducted – though some possibly involved groups from beyond the enclosure itself. Nevertheless, we cannot argue that formal dining events of this kind were unique to these enclosures, as we have documented similar practices in a variety of settings. Though this example serves to highlight that there are further subtleties to investigate *within* individual assemblages (by examining context and the practices of deposition more closely), it underlines the point that pottery groups from many small enclosures were not radically different to those from 'normal' open settlements.

7.5.2 Ceramic compositions from ringworks

The ringwork sites of East Anglia are characterised by substantial curvilinear boundary ditches, neatly encircling a variety of internal structures. Though they share similarities in form and geometry, the size, date, and occupation history of these places vary quite considerably (Chapter 3), particularly if the West Harling enclosures are included (Clark and Fell 1953). This variability is matched by the compositional signature of their pottery assemblages, with different sites yielding Types A, B and C groups. In this instance, there is no simple correlation between site-type and assemblage fingerprint, even if we sub-divide the groups by date, or geographic region. However, like the pottery groups from aggregated pit-dominated sites, the one feature which unites these assemblages is their size.

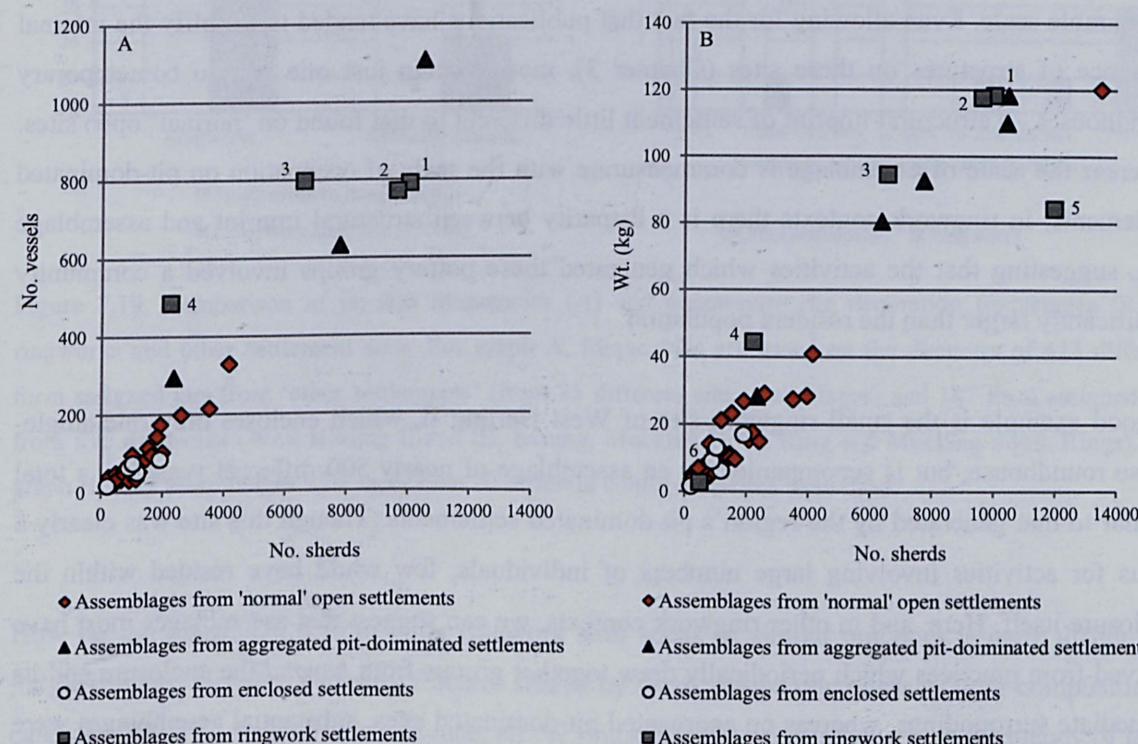


Figure 7.18. Comparisons of assemblage size from ringworks and other forms of settlement site. A: Sherd count versus vessel count. B: Sherd count versus weight. 1. Mucking South Rings; 2. Mucking North Ring; 3. Exning; 4. West Harling II; 5. Springfiled Lyons; 6. Carlton Colville. Totals from West Harling III (Clark and Fell 1953) and Great Baddow (Brown and Lavender 1994) have not been included as both sites have seen limited investigation.

Bar the possible ringwork from Carlton Colville, all the extensively excavated sites in East Anglia are associated with vast pottery assemblages (Figure 7.18). Indeed, even some of the smaller investigations on these sites have generated substantial quantities of pottery. At Exning, for example, excavation of a c.20m long section of ditch, thought to belong to a ringwork or some other form of hilltop enclosure, yielded over 6500 sherds, representing fragments of just under 800 different vessels. This total, and the others achieved by the ringwork sites, dwarf those from contemporary enclosures and most 'normal' open settlements of the period, but are paralleled by the aggregated pit-dominated sites of the Early Iron Age. In both instances, the figures speak of a scale of community much larger than that implicated in the activities in other settings. However, despite these similarities in assemblage size, patterns of occupation on ringworks and pit-dominated settlements were clearly quite different in character.

In terms of residency, the extensive remains on pit-dominated sites suggest nucleated settlement. By contrast, none of the ringworks are large enough to enclose permanent occupation on a comparable scale. Even allowing for the fact that publications have tended to simplify the internal sequence of structures on these sites (Chapter 3), most contain just one or two contemporary roundhouses - a structural imprint of settlement little different to that found on 'normal' open sites. Whereas the scale of assemblage is commensurate with the scale of occupation on pit-dominated settlements, in ringwork contexts there is a disparity between structural imprint and assemblage size, suggesting that the activities which generated these pottery groups involved a community significantly larger than the resident population.

A good example is the small ringwork site of West Harling II, which encloses only one single-phase roundhouse, but is accompanied by an assemblage of nearly 500 different vessels – a total similar to that generated by the region's pit-dominated settlements. Though this site was clearly a focus for activities involving large numbers of individuals, few could have resided within the enclosure itself. Here, and in other ringwork contexts, we can suggest that assemblages must have derived from practices which periodically drew together groups from *beyond* the enclosure and its immediate surroundings, whereas on aggregated pit-dominated sites, substantial assemblages were generated from practices conducted *within* the resident communities. Both categories of sites were a significant focus in the social landscape, but ringworks were a nodal point where disparate groups periodically coalesced, whereas pit-dominated sites were places where large groups dwelt together on a more or less permanent basis.

Although we cannot pin any one 'type' of pottery composition to the ringwork, there are clues to what the nature of the activities were that drew communities to these sites. The most instructive in this respect are the Type B assemblages from the Mucking ringworks; groups prolific in Class IV burnished bowls. Their compositions stand in stark contrast to the Type A and C assemblages which typify open settlements ('normal' or pit-dominated), but have characteristics in common with the feature-based dumps of fineware from Stonea, Burwell and Slough House Farm discussed above. Given these groups were argued to constitute specialised fineware dining services, assembled for formalised acts of consumption, the Mucking compositions are likely to reflect similar practices, only here conducted on a much grander scale. Whilst the vessel counts from Stonea or Burwell speak of 'one-off' events participated in by relatively small groups (from members of the resident population up to groups drawn from a few neighbouring farmsteads), the same activities at Mucking implicated a larger scale of community, well beyond the local.

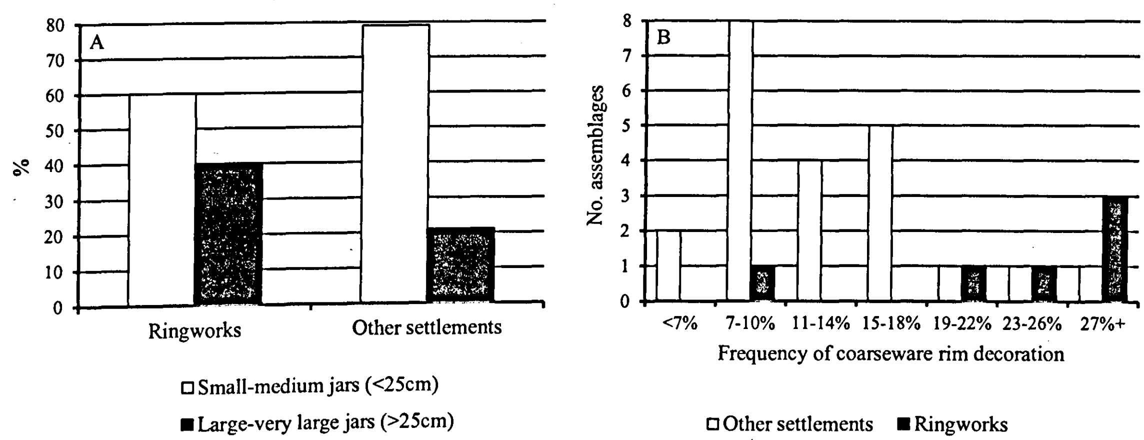


Figure 7.19. Comparison of jar-size frequencies (A) and coarseware rim decoration frequencies (B) on ringworks and other settlement sites. For graph A, frequencies are based on the diameter of 423 different form assigned jars from 'other settlements' (from 25 different site assemblages) and 187 form assigned jars from five ringworks (West Harling II and III, Exning, Mucking North Ring and Mucking South Rings). For graph B, only assemblages with more than 20 different coarseware rims were used.

How far the assemblages from other ringwork sites speak of similar practices is more difficult to judge, through there are certainly features shared by these groups regardless of their compositional category (Type A, B or C). For instance, all the ringworks have a relatively high frequency of large and very large-sized jars suggesting that cooking and storage activities were geared toward the provision of foodstuffs for large congregations (Figure 7.19A). Moreover, there are signs that the visual appearance of vessels in these contexts was important, particularly in the realm of decoration. Meaningful figures are hard to generate, but a comparison of the decorative frequencies on coarseware rims implies that vessels used on the ringworks were more commonly ornamented than those in other contexts (Figure 7.19B). Combined, this emphasis on larger vessels and their decorative elaboration suggests that ringwork assemblages have more in common than the categorisation process gives credit; particularly when the parallels in assemblage size are also considered. On balance, the evidence suggests that similar acts of communal dining were occurring in these settings, but that because these events were organised and executed slightly differently from one site to the next, assemblage compositions vary.

Problems of classification aside, the broader impression is that certain kinds of vessel were selectively deployed in these settings: bowl-rich fineware dining services, profusely decorated coarsewares, and/or large to very-large sized jars – the ceramic paraphernalia of communal feasting. Whether or not these pots were brought to the ringworks or were produced and used exclusively at these places is difficult to ascertain, though variations may be anticipated. Certainly, the range of ceramic forms and decorative treatments evident in these assemblages could be argued to reflect the diverse backgrounds of the groups who attended these events; each of which may have brought finewares or other decorated pots. Indeed, such events may have generated the first 'Decorated ware' assemblages, initiating broader changes in the potting tradition which eventually filtered into, and reverberated throughout, all spheres of ceramic production (hence the recognisable shift from Plain to Decorated wares). In this respect, it is interesting to note that ringworks yield some of the region's 'earliest' Decorated ware assemblages dated to the Bronze Age-Iron Age transition (see Chapter 5).

Whilst we can only speculate about these processes of ceramic change at present, ringworks and other sites with large social catchments would have served as important arenas for interaction and exchange - especially between non-neighbouring groups who may have had little contact at other times of the year. These encounters were important for the wider transmission of potting traditions, both through the sharing of technological knowledge (by discussion and observation), and the exchange of vessels themselves. They would have also served to structure collective perceptions and understandings about how pots should look, how they should be made and used, and by whom. As such, ringworks possibly played a crucial role in the articulation and transformation of regional potting practices, which may go some way to explaining how ceramic traditions were maintained (and at other times rapidly changed) across East Anglia.

What we can be sure of is that activities at the ringworks brought the wider community into sharper focus, creating connections and affiliations between groups at a social scale beyond that of local neighbourhood groups, or perhaps even valley-wide communities. Ceramics were implicated in this by virtue of their use in acts of communal cooking and consumption, as well as through display. Further to the roles these sites may have played in exchange and interaction, the acts conducted in these settings would have also helped to forge a broader sense of collective identity and belonging; one perhaps unrelated to shared locality or descent (criteria which may have been more significant on aggregated pit-dominated settlements). The question of whether or not these events were exclusive to certain members of these groups is unclear. So too is the issue of how feasting in these contexts served to underpin other intuitional relations, in particular those relating to the standing of the inhabitants who presumably hosted these events.

If the assumptions that ringworks served as elite residences are correct, as is commonly suggested in the literature (e.g. Bradley 1984; 2007, 208-209), then it is plausible that the inhabitants' status was partly founded on their ability to muster the resources necessary to stage lavish, large-scale feasts – possibly in competitive cycles with other individuals vying for renown. Be this as it may, the evidence hints that these grand gestures of consumption were a fleeting experiment in aggrandisement. The stratigraphic distribution of pottery within the ditch fills of the Essex ringworks certainly implies these events occurred late within the life-history of the monuments (Figure 7.20). This would suggest that large-scale feasting was a short-lived phenomenon in these contexts, restricted to the terminal Bronze Age and Earliest Iron Age. The chronology may be instructive here, as the period coincides with a time when bronze was beginning to lose its central role in exchange relations. Indeed, with the demise of the '*bronze standard*' (Needham 2007, 39) it could be suggested that spheres of elite competition switched, momentarily, to the realm of large-scale feasting.

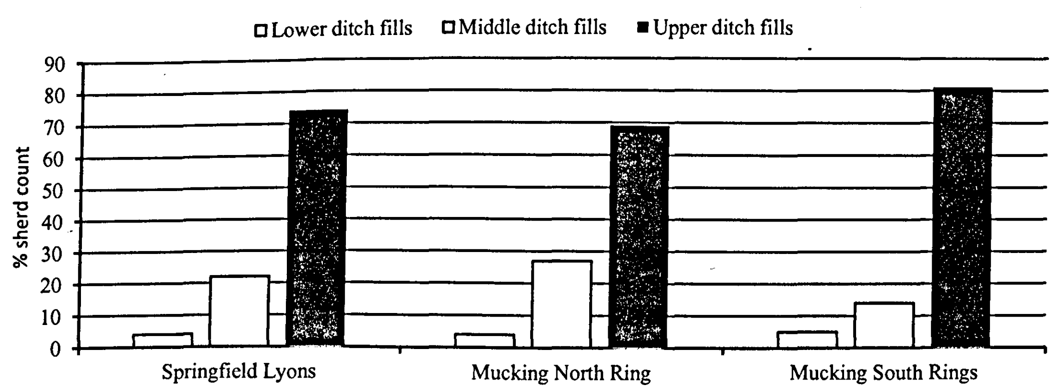


Figure 7.20. Comparison of the relative frequency of sherds in the ditch fills of three major ringworks in Essex. In each case the lower fills have yielded 'mature' Plainware ceramics of the Late Bronze Age, whilst the upper fills have yielded 'early' Decorated ware groups dating to the Bronze Age-Iron Age transition. The sherd count data for Springfield Lyons was courtesy of N. Brown (Lower fill equivalent to Brown's (forthcoming) fill 1; Middle fill equivalent to Brown's fill 2; Upper fill equivalent to Brown's fills 3-4). The Mucking North Ring data is for the Period II ditch only, adapted from Barrett and Bond's (1988, 35) original phasing (Lower fill equivalent to Phase 4; Middle fill equivalent to Phase 5; Upper fill equivalent to Phase 6).

7.5.3 Summary of patterns from enclosed settlements – The key points

1) There is no simple correlation between enclosure form and assemblage type. Instead, the scale of assemblage appears to be more significant. Ringworks tend to have vast ceramic assemblages, whereas other enclosures yield small groups equal in size to those from 'normal' open settlements.
2) Whilst ringwork assemblages vary in their compositional signature, patterns suggest that certain groups of vessels were selectively deployed in these settings: bowl-rich fineware dining services, profusely decorated coarsewares, and/or large to very-large sized jars. These repertoires were geared towards display and the provisioning of containers for cooking and severing large amounts of foodstuff.
3) The size and character of ringwork assemblages suggest that large-scale feasting parties and other episodes of communal consumption were associated with these sites. The activities implicated a scale of community beyond that of the resident population and surrounding settlements. Ringworks acted as nodal points in the wider social landscape, playing a key role in articulating networks of community interaction and exchange, vital to the reproduction and transformation of ceramic traditions.
4) The phenomenon of large-scale feasting had a brief fluorescence on ringwork sites. Evidence from Essex suggests most acts occurred late within the life-history of these monuments, and were associated with the Bronze Age-Iron Age transition.
5) The commensal activities on non-ringwork enclosures were little different to those from 'normal' open settlement, and appear to have been organised around the resident household group. Although the architecture of these sites suggests the residents may have held distinctive positions within the social order, these differences found no expression in the character of the ceramic repertoire.

7.6 Discussion and conclusions

This chapter has sought to challenge the assumption that there are compositional regularities in PDR assemblages, independent of both chronology and social context. It has questioned the notion that sites yield the same basic 'package' of vessels and has demonstrated the degree to which assemblage configurations vary; linking patterns to a discussion of commensal practices. More importantly, it has shown that these sources of ceramic viability are traceable in the settlement record, and has attempted to harness patterns to a broader understanding of the ways that pots were implicated in the constitution of group solidarities at different of scales social resolution.

In the first instance, there are profound contrasts in the compositional 'signature' of Late Bronze Age and Early Iron Age assemblages, indicative of key changes in commensality, and transformations in the values attached to particular classes of pots. For the Late Bronze Age I have documented two distinct forms of assemblage composition, primarily differentiated by the size of their fineware component (coarseware jar dominated assemblages versus fineware bowl dominated assemblages). These differences are thought to reflect the existence of separate vessel repertoires geared towards different forms/ways of dining. I have also suggested that finewares (particularly Class IV bowls) were prized ceramics in the Late Bronze Age, functioning as specialised serving utensils whose use was mainly reserved for formal episodes of consumption – i.e. feasts and other event outside of the normal everyday practices of cooking and eating (activities which implicated coarseware dominated repertoires).

In the Early Iron Age, many of these patterns break down, and it becomes far more difficult to define coherent 'types' of assemblage. Some of this greater variability stems from a recasting of the roles given to certain types of pot. In particular, finewares lost their status as a special category of vessel, and were no longer reserved exclusively for formal dining. Whilst they no doubt still played the same functional role as serving utensils, these pots filtered into all arenas of cooking and consumption, and became a ubiquitous component of the Early Iron Age repertoire. Decorated fineware bowls may have taken their place as 'prized' ceramics, but we do not encounter forms of assemblage dominated by just these pots. Instead, most vessel roles appear to be fluid and interchangeable between different contexts of dining, making it difficult to isolate 'set' compositions and then match them to specific kinds of commensal practice. This is possible for the preceding period, but only because different pots had tightly defined roles, allowing us to spot the contrast in the way they were deployed.

Unsurprisingly, the patterns that I have presented suggest that most compositions reflect the routinized or mundane cooking and consumption practices occurring within the social sphere of small-scale household groups – i.e. the 'typical' farmstead-type settlements of the period (both 'normal' open settlement and non-ringwork enclosures). These are small assemblages (normally <100 vessels), and in the Late Bronze Age are closely associated with coarseware dominated repertoires (Type A), whilst in the Early Iron Age, compositions are characteristically more variable (Type A and C). Yet with several examples, I have also shown that there were moments when fineware dominated services (Type B) were implicated in lavish episodes of consumption in these settings. Whilst some of these events were pitched at a scale suggestive of participation by the resident population or small numbers of individuals, others involved larger congregations from a wider community. Thus the assemblages from these 'typical' farmstead-type settlements do not just speak of activities organised at one scale of social grouping.

In other settings, these larger social worlds come into sharper focus, notably on the region's ringwork sites and aggregated pit-dominated settlements. In both contexts, and even allowing for time depth, it is the size of the assemblages which serves as an index to the different scale of the communities involved. Of greatest relevance are the ringworks, whose deposits have yielded vast quantities of pottery (normally >500 vessels). Although compositions differ somewhat, finewares, elaborately decorated pots and large jars were selectively deployed in these settings, mainly in the context of large-scale and ostentatious feasting events. The size of their assemblages undoubtedly suggests that ringworks were a focus for community gatherings, particularly towards the close of their sequences. Eating and drinking in these contexts helped to foster a sense of community identity, whilst the gatherings themselves provided a novel arena for exchanges and interactions between non-neighbouring groups – contexts where pots and ideas about pots were exchanged and disseminated. These were crucial mechanisms for maintaining ceramic traditions over wide areas, and helped to shape collective understandings of what the roles and values of different vessels were.

In summary, I have been able to trace how pots were caught up in various kinds of commensal practice which worked at different scales, and implicated different kinds of social collective. The patterns are admittedly complex, and there is rarely a direct correlation between the type of assemblage composition and the form of settlement. As a general trend, however, larger scales of community tend to come into focus through the ceramic record in settings where fineware services were deployed; whether these are in the context of inter-household feasting parties on open settlements, or community-wide episodes of conspicuous consumption on the ringworks. Even in the Early Iron Age, when finewares seem to lose some of their potency, it is still through the distribution of distinctive decorated fineware bowls that we can trace broader community networks at a regional scale (Chapter 6). These vessels were clearly implicated in the articulation of wider community relations throughout this period, and at times became a vehicle for display and prestige. To investigate these patterns further, gaining greater insight into the value attached to different vessels, we must now turn to a more detailed examination of pottery deposition, asking whether the value of a pot affected the way it became part of our record.

Chapter 8

The dynamics of pottery deposition

8.1 Introduction

Previous chapters have explored ceramic variability on a largely regional basis, firstly by examining the broadest of temporal and spatial trends in the distribution of pottery (Chapters 5 and 6), and secondly, by running the more fine-grained patterns in assemblage composition against different categories of site (Chapter 7). These have given a flavour of how various types of pots were implicated in different spheres and scales of practice. However, there has so far been little acknowledgment of the part played by deposition in the formation of assemblages with particular compositional characteristics. What we have not yet considered are the varying circumstances in which pots ultimately entered the ground, and the implications that depositional practices have for our understanding of the ceramic record.

On the one level then, there are a series of outstanding questions surrounding sources of bias in the representation of different pots, and whether or not these derive from the way that material was interred. Specifically, we need to determine whether assemblage variability is simply a product of differential survival and other taphanomic factors, or whether there are particular cultural logics guiding the selection, treatment and deposition of pottery: How does the character of pottery deposition work in relation to different sites in East Anglia, and can we track patterns in the pathways that pots go through from breakage to burial? Do the details of how ceramics get incorporated into deposits help us reflect upon the significance of the vessels themselves, and to what extent might we argue that the nature of deposition is influenced by the appearance or original function of the pot?

Beyond these more immediate concerns, it is important to address a series of basic problems with our current approaches to depositional practice. Although this topic has emerged as a major theme in later prehistoric studies, discussion has focused on highly formalised acts of burial at the expense of exploring the wider range of ways that pots enter the ground on settlement sites. As a result, debate has progressed without much understanding of the basic constitution of the ceramic record, with little consideration being given to the overall content, condition and history of the materials implicated. In this chapter I attempt to provide a more balanced account of the different pathways though which pots entered settlement-related features in East Anglia. Moving beyond a narrow focus on formalised acts of deposition, the aim is to understand the circumstances which gave rise to different pottery deposits, and consider how they inform upon the material conditions of everyday life. Through these discussions I hope to offer a more nuanced understanding of the degree of significance attached to deposition as a cultural act, and furthermore highlight the extent to which the pots themselves may have mattered in these practices.

8.2 Approaches to deposition

The issue of how artefacts entered the ground on later prehistoric settlement sites has been approached in several different ways over the last three decades. Prior to the late 1980s, the topic was rarely identified as problematic (Hill 1995, 18, 30-31). Any explicit discussion was largely framed in referenced to formation processes (e.g. Lambrick 1984; Needham and Sørensen 1988) - often linked to Schiffer's (1976) generalising laws of depositional behaviour (e.g. Bradley and Fulford 1980; Halsted *et al.* 1978; Hamilton 1985) - or straightforward assumptions concerning the relationship between the context of artefact discard and the spatial location of discrete activity-zones (e.g. Drewett 1979; 1982; Ellison 1981a; Falsham 1985).

Lost within this approach was a well-developed understanding of what motivated individuals to deposit pots, sherds and other artefacts. Isolating the category of refuse (*primary*, *secondary* or *de facto*), or determining the type of formation process responsible for material patterning (*C-* or *N-transforms*), overlooked the broader issue of what structured perceptions of 'rubbish' and the treatments given to spent materials. These issues started to be explored through ethno-archaeological research in the early 1980s (e.g. Hodder 1982; Moore 1982; 1986), triggering a wave of changes in approaches to deposition (e.g. Richards and Thomas 1984; Shanks and Tilley 1982). Crucial was the acknowledgment that the categorisation, perception and response to 'rubbish' varied cross-culturally, and was not reducible to a series of laws relating to depositional 'behaviour'. Instead, deposition was understood as a distinct form of cultural practice (Thomas 1991, 56), structured by *specific* cultural logics and schemes of symbolic order which were often very different from our own (Brück 1999b). Patterning in the distribution and configuration of artefact deposits was not a straightforward index to the functional zoning of activities on settlements. Rather, it resulted from the playing-out of cultural norms, both though the routinized disposal of day-to-day refuse, but also in the conduct of more considered set-piece practices of deposition; some engaged within the context of ritual (Pollard 2002, 23).

Different components of these ideas have come to be expressed in the concept of 'structured deposition', which has proved highly influential in settlement studies. In its earliest archaeological rendition, the term was used quite specifically to describe material associations in the Neolithic thought to have been produced according to '*highly formalised, repetitive* [and thus potentially ritual] *behaviour*' (Richards and Thomas 1984, 191). Since the early 1990s however, it has been applied much more widely in prehistoric studies to include material that was seemingly selected or arranged within cut or upstanding features (e.g. Cunliffe 1992; Hill 1995; McOmish 1996) or placed in strategic locations (such as major settlement boundaries, e.g. Brossler 2001; Brück 1995; 1999a).

For Iron Age studies, a landmark was reached with the publication of JD Hill's doctoral thesis, *Ritual and rubbish in the Iron Age of Wessex* (1995). This was the first substantive attempt to address the dynamics of deposition within pits and enclosure ditches, grappling with the complexity and partial nature of the archaeological record in Wessex. Building on ideas from Neolithic research, Hill argued that most surviving deposits and artefact associations were a product of deliberate, formalised but infrequent acts of structured deposition involving the selection and placement of materials. More significantly, he untangled and made explicit the nature of the relationship between *structured deposition* and *ritual deposition*; terms and concepts which had a tendency to be used interchangeably, as if synonymous (*ibid* 95-101). Hill identified that practices defined as ritual may have much in common with more mundane activities, for ritual '*draws from and reproduces the same generative principles* [and the same categories of mundane material culture] *as other social practices'* (ibid, 99). He also emphasised differences in the qualities and performances of ritual and non-ritual related action, noting that the former make more explicit the underlying metaphors, linkages, and statements of symbolic intent through the *way* that generative principles are drawn on and reproduced.

This seminal work helped to transform discourse on rubbish, ritual intent and belief systems in later prehistory. It also served to revitalise studies of the everyday (see Chatper 2), which were increasingly recognised as structured by cosmological principles and symbolic referents (e.g. Fitzpatrick 1994; 1997; Parker Pearson 1996). As issues of deposition took centre stage in the 1990s, the attention of some authors turned to the interpretation of structured deposits; particularly those involving the selection and formal arrangement of objects interred at specific times and places. These approaches took several forms. Amongst others, Brück (2001; 2006) and Hill (1995) addressed the potential properties (physical, metaphorical, transformational) that may have been ascribed to materials, and the various conceptual and connotational links that could have been forged between things afforded special attention. Brück (1999a) argued that symbolic connections were made between the life-cycles of people and the materials they used. Given that items involved in such deposits were often fragmented or even ground up, she suggested that acts of destroying (breaking or burnishing) materials may even have a served as a metaphor for the closure of a period of settlement or the ending of someone's life (Brück 2006).

Scholars also considered the location of special deposits in relation to archaeologically visible junctures - major settlement boundaries or postholes at the entrances to roundhouses – leading to suggestions that such deposits were sometimes made in order to mark strategic places (e.g. Parker Pearson 1996) or particular moments in the duration of a household or settlement (e.g. Brück 1999a; Webley 2007a). In contrast, others considered the aesthetic or performative qualities of structured deposits, distinguishing between the acts of selecting items of aesthetic worth (e.g. decorated pottery), and carefully arranging items (that were not necessarily visually attractive in themselves) in such contexts (e.g. Pollard 2001).

Collectively, these works have provided important, thought-provoking insights into the nature of deposition, highlighting its role in the constitution and transformation of value systems. Without question, this has led to a much more sophisticated understanding of ritual and symbolic practice in settlement contexts. But whereas some consider the concept of structured deposition to be thoroughly integrated into mainstream discourse (e.g. Collis 1997, 299), others have started to point out problems in current approaches and their interpretation (Brudenell and Cooper 2008, 16; Garrow 2006, 10; Halsegrove *et al.* 2001, 18-19), and have begun seeking new ways of exploring depositional dynamics; particular in Neolithic studies (e.g. Garrow *et al.* 2006; Beadsmoore *et al.* 2010).

8.2.1 A question of balance? Outstanding issues in deposition and current problems with the discussion of pottery deposits

Even though the concept of structured deposition remains crucial to our understanding of material dynamics in later prehistory, most discussions have focussed upon, and arguably overemphasised, the formal and overtly evocative nature of *all* forms of practice under this banner. Whilst we now recognise that material patterning is structured by cultural norms and schemes of symbolic order - including those encompassing everyday routines - there is still a tendency to write about depositional practice as if *all* acts were carefully considered *performances*. This has undoubtedly helped to shed familiar common-sense approaches to domesticity and settlement practice. But in an overzealous redress, scholars have arguably created a world in opposition, where all tasks and actions conducted in relation to refuse now seem to carry huge symbolic significance. Are we really confident that this is the true picture? Have we struck the right balance in our approach and interpretation, or has our concern with formal deposition come at the expense of other understandings of how material entered the ground?

Recent discussions of ceramic deposition have been particularly narrow in their focus. All too often emphasis is given to the definition and identification of formalised acts of burial, without considering the processes by which material compositions were generated (Though see Garrow *et al.* 2006; Beadsmoore *et al.* 2010). Elsewhere I have argued that this approach is simplistic and mechanistic; geared toward the discussion of very specific kinds of ceramic deposit, whose identification frequently rests on the presence or absence of a selective checklist of traits (Brudenell and Cooper 2008, 17-24). This fixation with recognising 'the special' has blinded ceramicists to other patterns and potential explanations, singling out of some elements within assemblages at the expense of others. At worst, this approach can see deposits potentially lacking in a high degree of structure, treated as if they were explicitly symbolic. It can also cast those deposits not conforming to the criteria of 'special' as being of no importance. Here there is the danger of assuming that structure and significance *only* lies with formal deposits. Ironically, this tends to reinforce rather than undermine simple oppositions between ritual and rubbish, or the sacred and profane. Furthermore, it misses the crucial point that formal deposits are themselves structured in complex and variable ways at different times and places.

Ultimately, ceramicists have become too preoccupied with special deposits, and have fallen into the habit of treating most acts of deposition as highly symbolic, without properly exploring the way that material configurations came about. Clearly, not every deposit was created with the same level of consideration. Nor was every act of interment necessarily performed with the intent of making outwardly explicit symbolic statements. But we currently lack a framework for seriously thinking about these other forms of deposition, and have not yet got to grips with the basic constitution of the ceramic record. In short, we are only capturing part of the picture.

8.2.2 Thinking pots and pathways

Developing a more balanced approach to pottery deposition requires refocusing attention on the broader continuum of depositional practices, instead of weighing discussion in favour of just formal deposits. What we see in the archaeological record is a range of pottery compositions, configured and interred in a variety of different contexts under different circumstances. These include highly structured deposits whose components were carefully selected and formally arranged in the ground, but also groups of material assembled and buried in a less explicitly considered manner. Practice varies in structure and intentionality, grading from the largely unconsidered disposal of refuse at one end of the spectrum, to overtly and explicitly symbolic acts of deposition at the other. With this understanding we can identify three principal forms or 'pathways' of pottery deposition, arranged in respect to the level of consideration given to the material and context of internment:

- Depositional Pathway 1: Instances where pottery is deposited in the form of unconsidered compositions and in an unconsidered manner.
- Depositional Pathway 2: Instances where the context of deposition is selected as a consequence of explicit, formal consideration, but the sherd material implicated does not appear to have been assembled as a result of careful selection.
- Depositional Pathway 3: Instances where the pottery and context of deposition are selected as a consequence of explicit, formal consideration.

These pathways are devised as a general framework for thinking about how pottery was deposited as a consequence of human agency. In this scheme, acts of deposition which may be described as highly structured or overtly formal in nature fall within the realm of Pathways 2 and 3. At the other end of the spectrum, Pathway 1 incorporates deposits where neither the context of burial nor the material interred was specifically chosen (in any direct sense). These constitute 'causal' forms of deposition whose significance has tended to been overlooked. Nevertheless, for analytical purposes, we can use these pathways as a platform for discussing a range of depositional practices. To do this successfully, however, it is important that we first establish an understanding of the structure of the ceramic record in East Anglia. More specifically, we need to determine a sense of the overall size, content and condition of pottery deposits, and assess the extent to which these vary according to context and chronology in the region.

8.3 The structure of the ceramic record

Discussions of pottery deposition are rarely framed by a broader consideration of the structure of the ceramic record. To date, investigations of the basic character of pottery deposits have been secondary to those which isolate and analyse specific (usually 'special') forms of deposit (though see Hill 1995, 38-39). Yet, we cannot realistically hope to comprehend these practices unless we are able to judge their significance in relation to a broader understanding of the context and compositional character of deposits as a whole. To establish this foundation, I will structure the following discussions with an eye to answering three key questions:

1. How much pot survives in the archaeological record and in what state is it recovered?

2. Within and between the major categories of settlement feature (pits, ditches, structures etc) are there contrasts in the relative size, condition and character of pottery deposits?
3. Are there differences in the general size and condition of pottery deposits from different forms of settlement (open settlement, enclosures, ringworks and aggregated pit-dominated sites)?

8.3.1 The size and condition of deposited pottery assemblages

Despite the large-size of some prehistoric assemblages, it is generally acknowledged that the pottery we recover from settlements represents a tiny surviving proportion of the total former ceramic population (Hill 1995, 22; Pollard 2002, 23). Attempting to give this fraction a figure is fraught with difficulties, since the size of the original population is essentially unknowable. Elsewhere, ethnographic breakage-rate averages have been used to gauge the quantities which might be missing (e.g. Hill 1995, 129-131), but there are problems in assuming these figures are relevant to the contexts in question (see discussions by Rice 2005, 295-6). Their use also require estimates of what lies in un-sampled areas of excavated sites, and entails making other conjectural claims about the duration of occupation and the number and size of households present.

Notwithstanding these problems, estimates of pottery populations are still important since we need some idea of what our samples represent. One simple alternative is to work solely from the material record, and attempt to determine what is absent from the preserved and recovered pottery fragments which actually constitute the ceramic assemblage. In essence, these fragments represent a remnant of a set of a number of pots recovered in excavation, which form what we might call the *deposited vessel population.* The aim then is to give a reliable estimate of what percentage of these once complete pots ended up in the ground, and ultimately, our archaeological samples – i.e. the *deposited vessel percentage*, or DVP.

The DVP is straightforward to calculate once estimates are arrived at for the *deposited vessel population*, and the *vessel remnant recovered.* Fortunately, simple counts of the minimum number of individual rims in an assemblage (rim MNI) provide a gauge of the *deposited vessel population*, whilst calculations of the estimated vessel equivalent (rim EVE - a calculation based on the total surviving percentage of each vessels' rim circumference; see Orton *et al.* 1993, 172) offer a measure of the overall remnant of recovered pots. Dividing the latter by the former and multiplying the total by one hundred thus gives us the DVP:

$$DVP = \frac{\text{rim EVE (estimate of the } \textit{vessel remnant recovered}\text{)}}{\text{rim MNI (estimate of the } \textit{deposited vessel population}\text{)}} \times 100$$

Importantly, this calculation generates figures that are independent of assemblage size or excavation methodology, allowing us to compare the results in this study directly.[30] Those for the phased primary data assemblages are listed in Table 8.1. Collectively they demonstrate how low the DVP is for PDR assemblages in East Anglia. With few exceptions, figures suggest that fragments of less than 5-10% of pots destined for deposition ended up in subsoil features or other contexts. Put another way, 90-95% of vessel-related pottery is essentially *missing* from our archaeological assemblages, regardless of how large these are, or how much is excavated. Figures are in fact remarkably similar from one site to the next, despite contrasts in the size, date, and vessel composition of assemblages, or even basic differences in the form and scale of settlement itself.

Above all, the DVP indicates that we are dealing with a record of sherds, as opposed to complete or even partially complete pots. Closer scrutiny of the data confirms this picture. For instance, out of over 5800 different vessel rims examined in this study, three quarters retained less than 6% of their original rim circumference, with only 4% surviving with more than a fifth of the mouth intact (Figure 8.1A). Sherd size analysis also shows how fragmented the material is, with on average, 60% of sherds measuring less than 4cm in diameter (Figure 8.2). These have an interquartile weight range of just 3-5g; figures that are minute considering complete vessels probably weighed between c. 500-3000g (Figure 8.3A).

Ultimately only a small percentage of the pottery discarded on settlements ended up in cut features or other contexts ensuring long-term survival. Though we can never be certain of how much pottery was originally present across sites, the inference to be drawn from the DVP is that most sherds recovered from excavated deposits, tend to only constitute small pieces of the pots they once belonged to. For the most part, this material is highly fragmented, and had arrived in the ground mainly in the form of small sherds. Both these findings have implications for our understanding of depositional practice. Firstly, they suggest that the burial of pottery in cut features was not the principal means by which most ceramic detritus was dealt with on settlement sites. If only 5-10% of pottery (that we know of) ended up in these contexts, we can assert that this form of treatment was not a regular part of day-to-day refuse management. Secondly, given that material is weighted

[30] To give a simple example, if a 'living' assemblage was composed of 10 different vessels, and exactly half of each pot rim was consigned to the ground, but subsequently recovered by excavation, then the total recorded rim EVE (calculated as the sum of the surviving percentage of each vessel rim divided by 100) would be 5 (because 0.50x10), but the rim count (rim MNV) would be 10 (because ten different rims would be identified). The deposited vessel percentage is therefore rim EVE ÷ rim MNV x 100, hence 5÷10 x 100 = 50%.

Site	Assemblage data	Assemblage type	Rim EVE	Rim EVE adjusted	MVV (rims)	DVP
Exning, Suffolk	Earliest IA	C	13.34	35.2	555	6.3
Aylsham Bypass, Norfolk	EIA	A	1.78	3.0	38	7.8
Aylsham Bypass, Norfolk	LBA	A	1.17	2.1	25	8.5
Beacon Green, Essex	EIA	C	5.39	10.4	154	6.7
Bradley Fen/Kings Dyke, Cambs.	EIA	C	3.08	4.2	37	11.4
Bradley Fen/Kings Dyke, Cambs.	LBA	?	0.84	1.0	7	14.9
County Farm, Suffolk	EIA	A	1.79	2.9	27	10.7
County Farm, Suffolk	LBA		0.00	0.6	11	5.0
Darmsden, Suffolk	EIA	C	10.93	25.4	399	6.4
Fengate, Cambs.	EIA	-	2.72	4.4	75	5.8
Fengate, Cambs.	Earliest IA	-	2.53	2.9	27	10.9
Fordham Bypass, Cambs.	EIA	C	5.84	9.7	126	7.7
Fordham Bypass, Cambs.	LBA	-	0.81	1.5	18	8.1
Glebe Farm, Cambs.	EIA	C	2.51	4.9	63	7.7
Linton, Cambs.	EIA	-	5.26	7.6	100	7.6
Lofts Farm, Essex	EIA	-	10.68	14.3	173	8.3
Lofts Farm, Essex	Earliest IA	C	2.57	3.2	33	9.8
Lofts Farm, Essex	LBA		1.40	1.7	20	8.3
Redgate Hill, Norfolk	EIA	-	0.31	1.8	31	5.7
Rhee Lakeside South, Cambs.	EIA	A	3.03	5.1	40	12.7
Rhee Lakeside South, Cambs.	LBA	A	0.86	2.0	24	8.2
Rook Hall, Essex	EIA	-	0.95	3.0	49	6.0
Slough House Farm, Essex	EIA	B	0.52	1.0	14	6.9
Slough House Farm, Essex	LBA	-	0.62	1.2	18	6.8
The Holme, Cambs.	EIA	-	0.27	0.7	9	7.4
Whitehouse Road, Suffolk	EIA	C	2.98	4.0	32	12.6
Wandlebury, Cambs.	EIA	C	5.90	8.7	116	7.5
Trumpington Park & Ride, Cambs.	Earliest IA	-	0.54	0.5	2	27.0
Trumpington Park & Ride, Cambs.	EIA	A	16.85	32.7	450	7.3
Cromer Cliffs, Norfolk	Earliest IA	-	2.18	2.3	4	57.0
Gravel Hill, Suffolk	Earliest IA	C	2.46	4.7	63	7.4
Ormesby, Norfolk	Transitional/Earliest IA	A	1.36	1.7	15	11.4
Tower Works, Cambs.	Earliest IA	-	1.11	2.3	31	7.3
Warborough Hill, Norfolk	Earliest IA	-	0.17	1.6	31	5.2
West Harling, Norfolk	Earliest IA	A	17.73	30.5	410	7.4
Addenbrooke's, Cambs.	LBA	A	1.60	3.2	45	7.1
Broads Green, Essex	LBA	A	0.56	1.0	16	6.3
Broomfield, Essex	LBA	A	2.91	5.5	69	8.0
Burwell, Essex	LBA	B	8.83	11.6	87	13.4
Caple, Suffolk	LBA	A	1.24	2.1	26	8.0
Frog Hall Farm, Essex	LBA	A	0.60	2.0	33	5.9
Godwin Ridge, Cambs.	LBA	A	3.30	20.5	372	5.5
Hales Barn, Suffolk	LBA	A	0.10	0.5	9	5.6
Must Farm, Cambs.	LBA	B	25.15	27.2	59	46.0
Stonea Grange, Cambs.	LBA	B	1.85	4.2	58	7.2
Striplands Farm, Cambs.	LBA	A	6.44	16.3	225	7.2
Landwade Road, Cambs.	EIA	C	8.06	55.0	808	6.8
Mucking North Ring, Essex	LBA	B	3.36	5.1	51	9.9
Mucking North Ring, Essex	Transitional/Earliest IA		2.23	21.2	399	5.3
Mucking South Rings, Essex	LBA	B	1.30	1.7	17	10.0
Mucking South Rings, Essex	Transitional/Earliest IA		14.01	20.7	325	6.4

Table 8.1. DVP for primary data sites (excluding North Shoebury). For vessel rim fragments whose original circumferences could not be established an EVE of 0.05 was assigned. These values have been added to the recorded rim EVE to give the *rim EVE adjusted* figure. It is this which is used for the calculation of the DVP. For description of assemblage type categories see Chapter 7.

in favour of small-sized sherds, we may infer that once pots were broken in these settings, a relatively long period ensued before fragments were deposited in the ground - a period during which sherds were broken down through forces of attrition, abrasion and burning (Hill and Braddock 2006, 178-180). For a minority of sherds then, deposition was the end point of a complex chain of processes starting with the initial breakage of a pot (Figure 8.4).

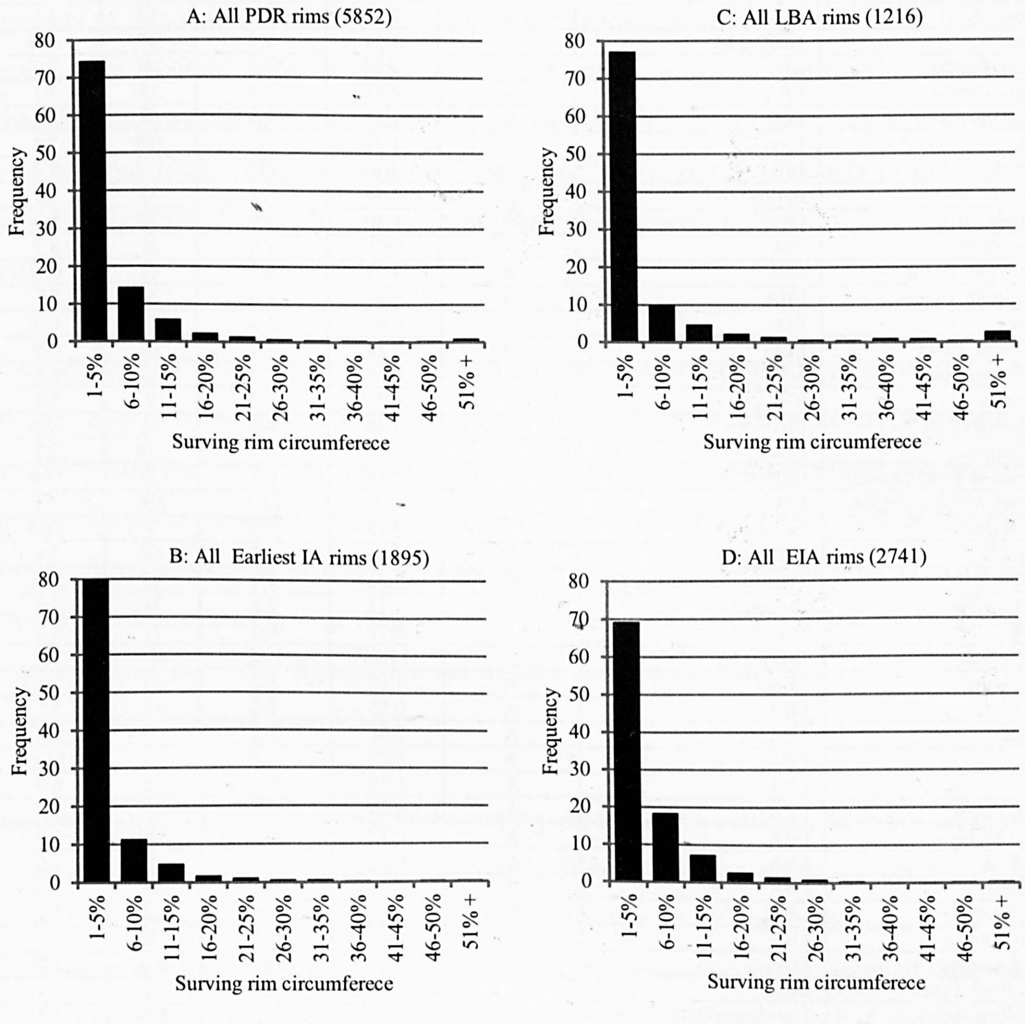


Figure 8.1. Frequency of surviving vessel rim circumferences. A: All PDR vessel rims (5852 in total). B-D: Vessel rims for phased assemblages (Late Bronze Age: 1216 rims; Earliest Iron Age 1895 rim; Early Iron Age 2741 rims). For small sherds where the rim diameter could not be established, the surviving circumferences was estimated at 1-5%. The graphs show very similar patterns. In each case over 90% of rims retained less than 10% of their original circumference.

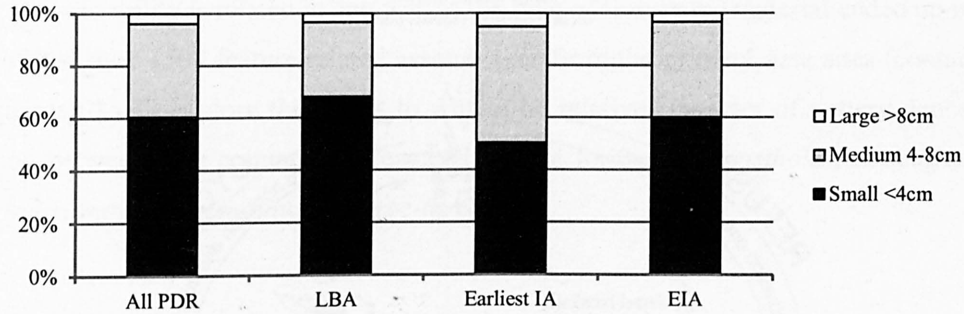


Figure 8.2. Frequency of small, medium and large-sized sherds. Sample based on the measurement of 45942 PDR sherds (17159 Late Bronze Age sherds; 12034 Earliest Iron Age sherds; 16749 Early Iron Age sherds). The relative frequencies fluctuate a little over time, no doubt reflecting the physical strength of favoured fabrics in each period, and their differential resilience to chemical and/or mechanical breakdown (linked to shifts in manufacturing and firing methods).

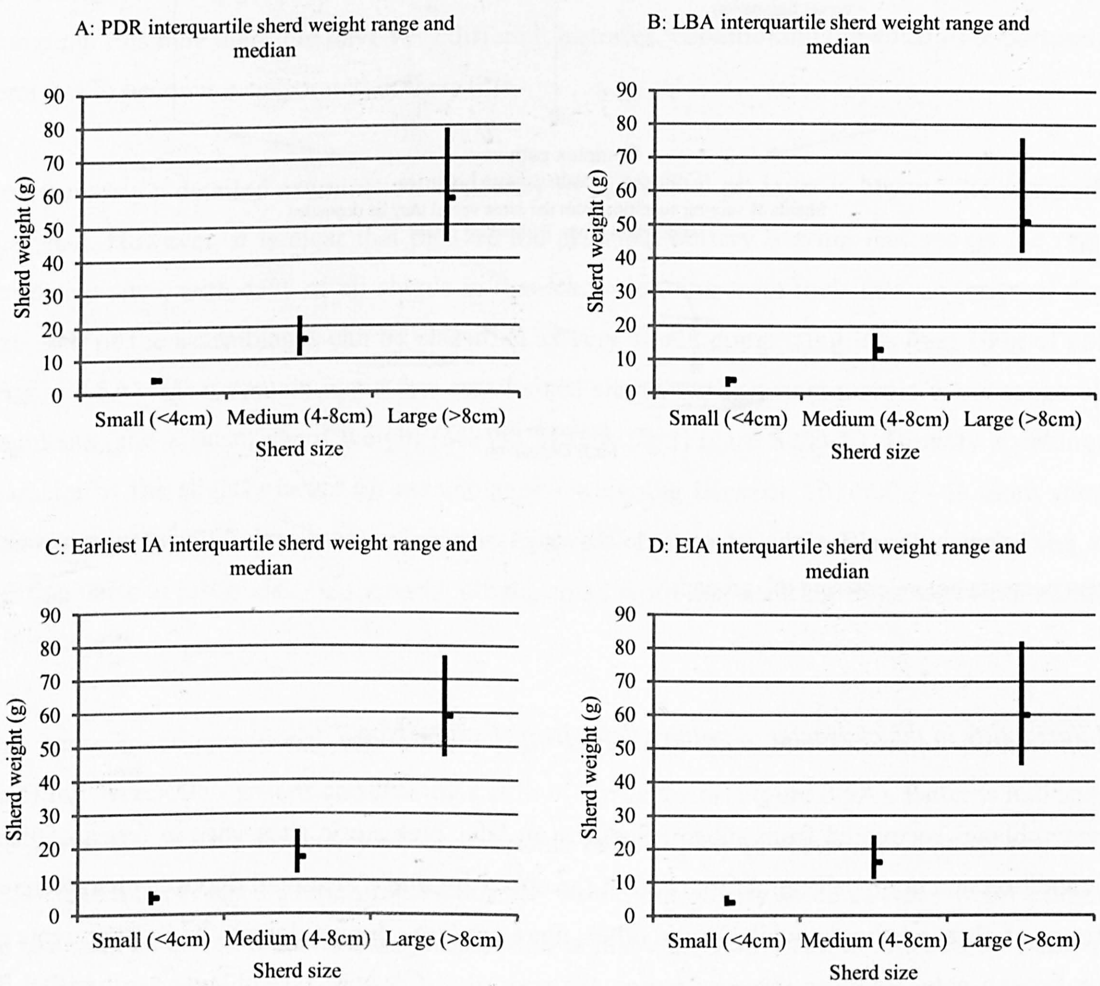


Figure 8.3. Interquartile and median weight range of sherds in different size categories. Sample based on the 14731 individually PDR recorded sherds (6600 Late Bronze Age sherds; 4261 Earliest Iron Age sherds and 3870 Early Iron Age sherds). The ranges and averages are remarkably consistent through time.

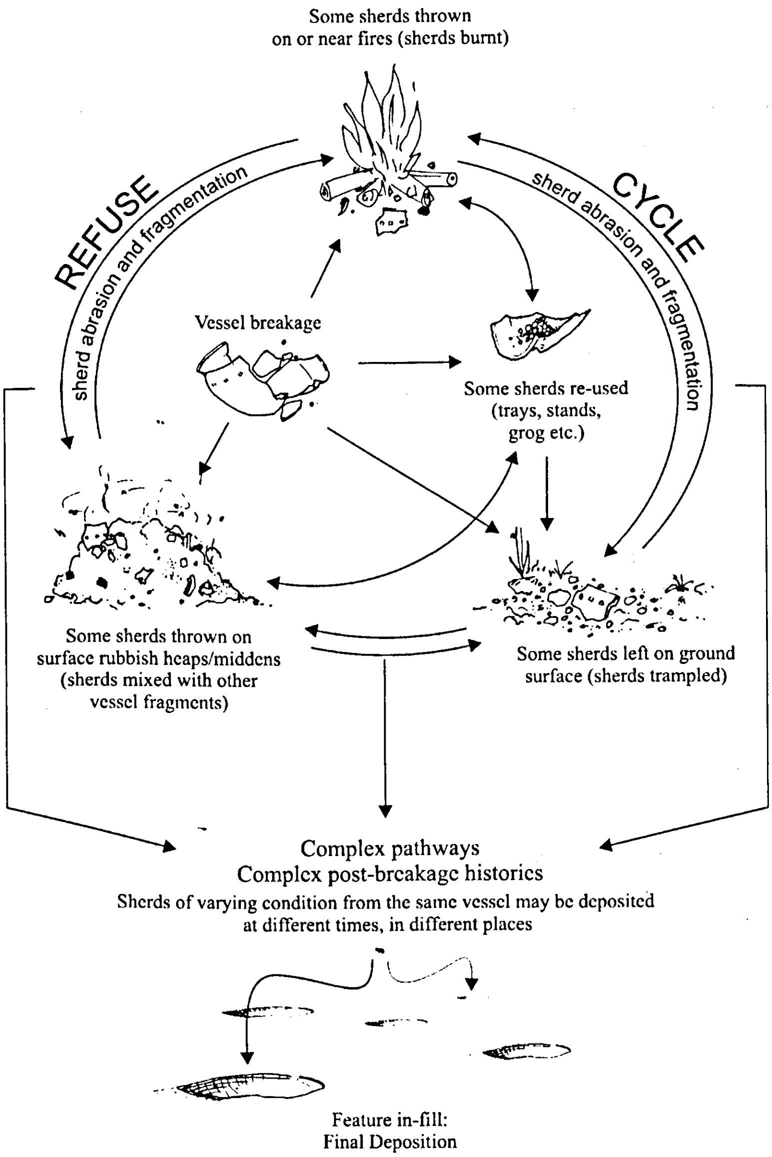


Figure 8.4. Schematic model of the refuse cycle showing how sherds went though different processes and different contexts before entering the ground.

8.3.2 Variability in the character of pottery deposits by feature-type

The assemblages recovered from subsoil features on later prehistoric sites vary in terms of their size, condition and composition. At one end of the spectrum, there are small deposits characterised by groups of abraded sherds, whilst at the other, there are large dumps dominated by fragments of freshly broken pots. Between these extremes, the majority of feature-assemblages are typified by mixed and varied pottery compositions, comprising an assortment of sherds from different vessels in varying states of fragmentation (Brudenell and Cooper 2008, 20). The issue of how these deposits were configured is considered below in section 8.4. Here, however, I want to examine whether this variability is related in any way to the type of feature the material ended up in. Using a sample of just over 1500 feature-related assemblages from the primary data sites (containing over 74000 sherds), I will explore the extent to which the relative character of pottery deposits varies within and between nine commonly excavated feature forms: *pits*, *postholes*, *structures*, *ditches*, *gullies*, *wells*, *waterholes*, *hollows* and *tree-throws*.

8.3.3 Pottery from pits

Pits in this period vary in size and form. Though most tend to be relatively small (under 1.5m in diameter and 1m in depth), some cylinder-type pits of the Early Iron Age are substantial, having large volume capacities. In general, there tends to be a relationship between the size of a pit and the complexity of its fill sequence. Small pits commonly yield single deposits representing one episode of infilling, whilst larger pits usually contain complex and more protracted sequences of silting and slumping. Pits may therefore have very different histories, conditioning the kinds of opportunity for ceramics to become incorporated in their fills.

Unfortunately a detailed examination of pottery by individual pit layer is beyond the scope of this overview. However, it is clear that pits are the principal pottery bearing features on the region's settlement sites, with 45% of all sherds in this study deriving from their fills. In terms of deposit size, half of the assemblages can be classified as very small, comprising less than 100g of pottery (Figure 8.5A). Most contain just a few small-sized sherds with an interquartile count range of 1-7 fragments, and a mean sherd weight (MSW) of only 7g (Figure 8.5D-E). Broadly speaking, the character of the slightly larger pit-assemblages - weighing between 101-500g - is more variable. These typically yield a mixture of sherds from different pots: some deposits containing large refitting parts of just one or two vessels; others, small worn non-refitting fragments from numerous different pots.

This sense of compositional variability is also carried through into the larger pit-assemblages weighing over 500g - groups constituting a fifth of the deposits (Figure 8.5A). Patterns indicate that MSW and the relative frequency of larger sherds (>4cm) rises in relation to deposit size (Figure 8.5D). Yet this is only a subtle progression that would not otherwise be obvious when examining the material. In effect, the overriding impression is that deposits remain dominated by small-sized sherds, albeit with far more of them present - interquartile sherd count ranges falling between 42-79 sherds for deposits >500g, and 113-263 sherds from deposits >1kg (Figure 8.5E). Neither is the composition of most large pit assemblages significantly different from those within the smaller size

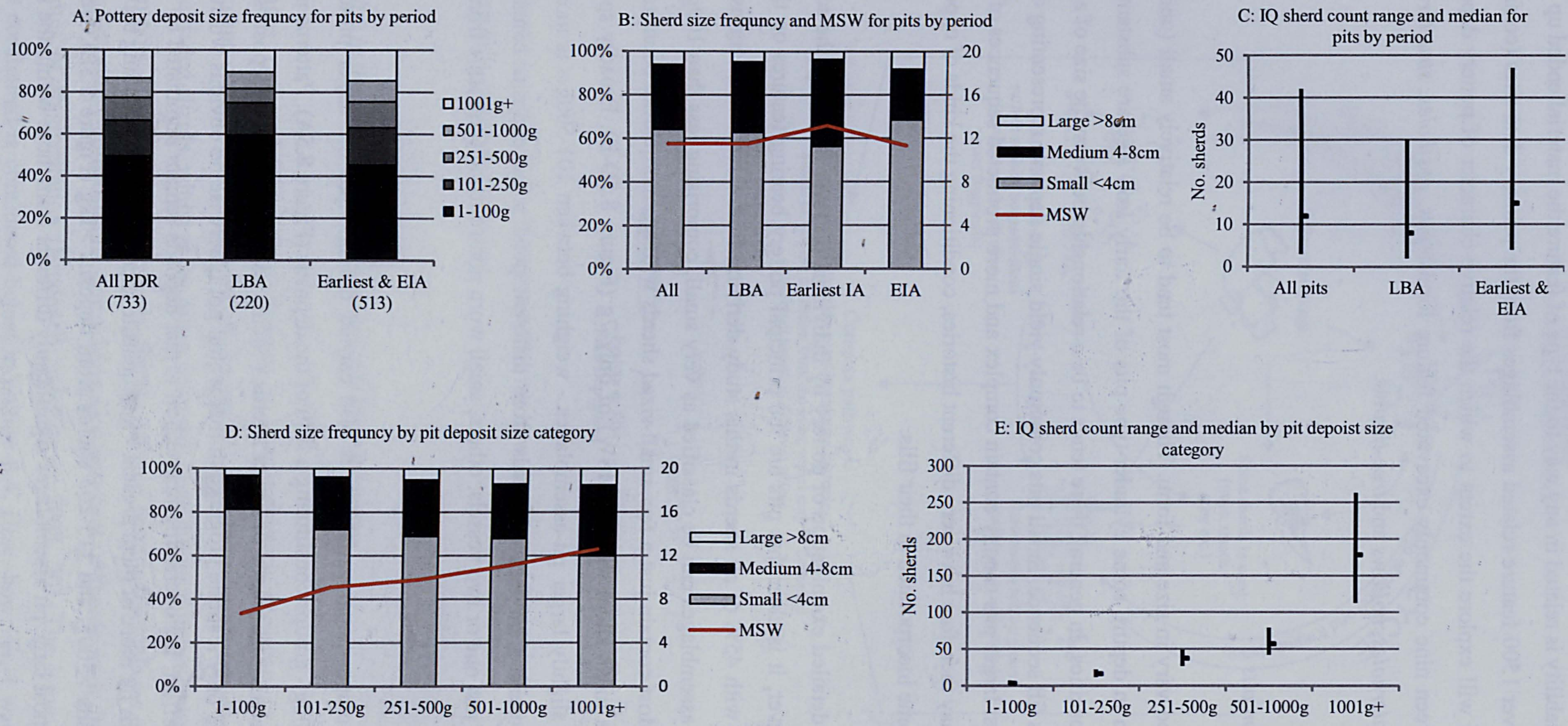


Figure 8.5. Graphs displaying the relationship between pit deposit size, sherd-size frequency, mean sherd weight (MSW) and interquartile (IQ) sherd count range. Figures are based on 33620 sherds (386396g) recovered from 733 pits. Sherd-size frequencies based on a sample of 10559 sherds.

categories. In fact, whether we single out large or small deposits, the spectrum of variation within one category is often as wide ranging as it is *between* categories.

8.3.4 Pottery from structures and postholes

In total, 2% of sherds in this survey derived from the postholes, wall-trenches or short lengths of gully associated with roundhouses. Although these buildings were only identified on a third of the primary data sites, the majority yielded pottery (11 sites out of 33; 23 roundhouses in total), with a median of 12 sherds per structure (Figure 8.6).

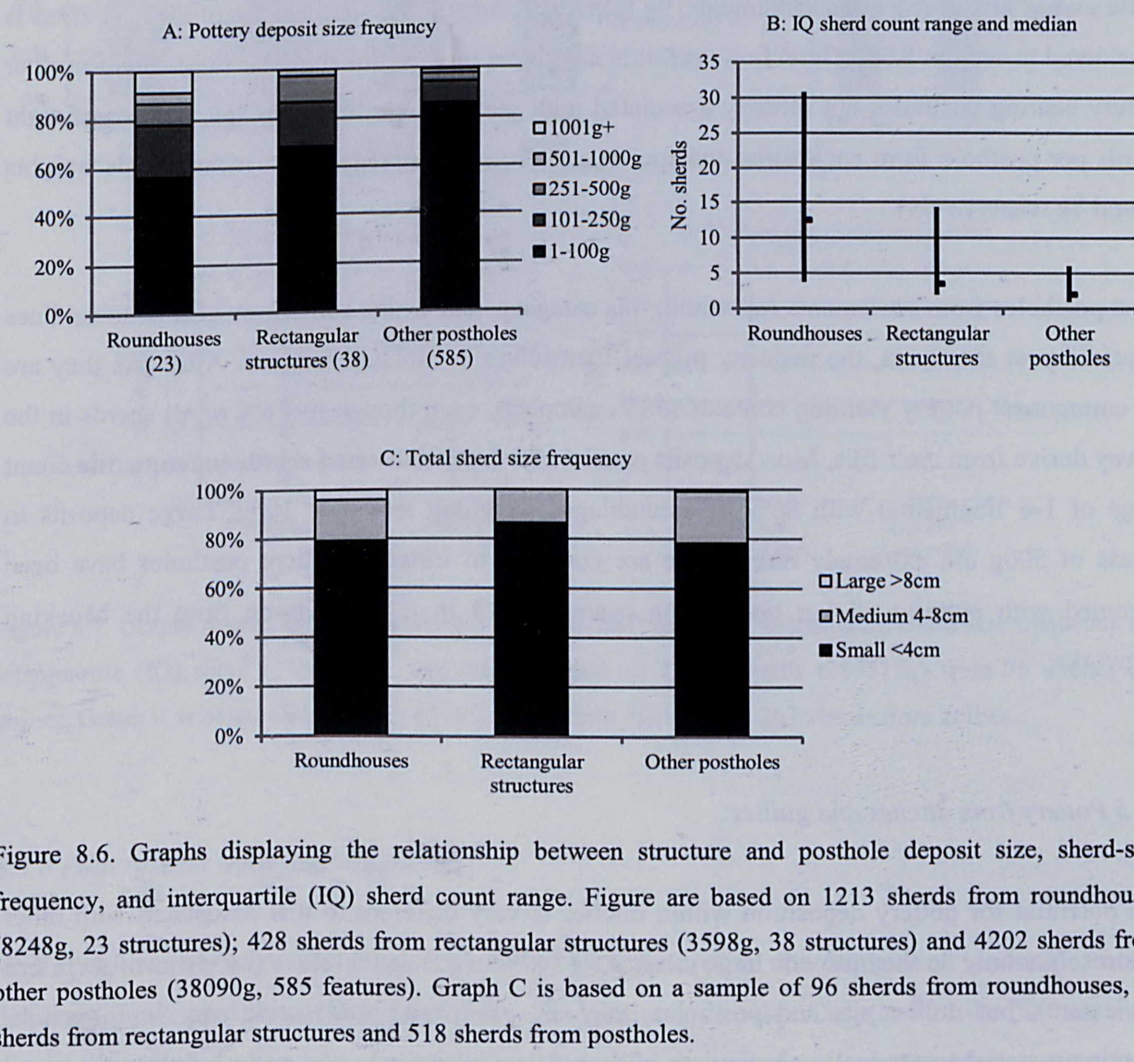


Figure 8.6. Graphs displaying the relationship between structure and posthole deposit size, sherd-size frequency, and interquartile (IQ) sherd count range. Figure are based on 1213 sherds from roundhouses (8248g, 23 structures); 428 sherds from rectangular structures (3598g, 38 structures) and 4202 sherds from other postholes (38090g, 585 features). Graph C is based on a sample of 96 sherds from roundhouses, 66 sherds from rectangular structures and 518 sherds from postholes.

In most instances a small group of pottery - typically weighing less than 251g - was recovered from just one or two perimeter postholes, or footings forming porch/doorway structures (often the most robust postholes). The pottery was highly fragmented (c. 80% measuring <4cm in size) with a MSW of just 7g per building. This figure is broadly consistent across roundhouses from both open and enclosed settlements, even though structures from the latter tended to yield larger assemblages by sherd count - an average of 61 sherds per structure on enclosed settlements compared to ten sherds per structure on open settlements.

Pottery was also recovered from 38 rectangular structures (present on site on 33 sites) including regular four- and six-post buildings and rarer examples of longhouses. Collectively they yielded less than 1% of sherds in this survey; most belonging to small, highly fragmented assemblages comparable to those from the roundhouses. Again, structures from enclosures tended to contain more sherds than those from open settlements (average of 20 sherds compared to nine), but the MSWs were similar (8g open settlements, 9g from enclosures). The significance of these patterns is considered in section 8.3.9. Here, however, it is noted that this relationship also holds true for other pottery bearing postholes not directly associated with recognisable buildings (an average of eight sherds per posthole from enclosures and four sherds from open settlements; mean sherds weights 9g and 8g respectively).

Most postholes from settlements fall within this category, and whilst some form part of fence lines or paired-post structures, the majority present themselves as isolated features. After pits they are the commonest pottery yielding contexts (585 examples), even though just 6% of all sherds in the survey derive from their fills. Most deposits consist of a few small-sized sherds (interquartile count range of 1-6 fragments) with 86% of assemblages weighing less than 100g. Large deposits in excess of 500g are extremely rare. These are confined to instances where postholes have been crammed with pottery; all bar one of the examples (13 in total) deriving from the Mucking ringworks.

8.3.5 Pottery from ditches and gullies

The potential for pottery deposition within ditches is very different to that associated with other features. Not only do they provide large catches for settlement-related refuse (by virtue of their size and extent), but unlike pits and postholes, they are often open and active over long periods, allowing material to gradually accumulate in their fills. Collectively, the pottery from gullies and ditches accounts for 29% of sherds in the survey (Figure 8.7). On open settlements - where these features form a minor component of the architecture – the assemblages were normally small and fragmented; generally comprising a handful of abraded sherds with a low MSW of 6g. In most cases this material derived from the capping fills of Middle Bronze Age fieldsystem ditches, whose denuded earthworks served as a catch for later surface scatters. However, 97% of the ditch-derived pottery came from the boundaries of enclosed settlements. In these contexts, assemblages were substantial (40% yielding over 1kg of pottery), with a median of 140 sherds per ditch, and a MSW of 13g. The largest assemblages derived from the ringworks, where successive dumps of pottery were associated with their tertiary fills. Assemblages were typically mixed in character, containing sherds from many vessels.

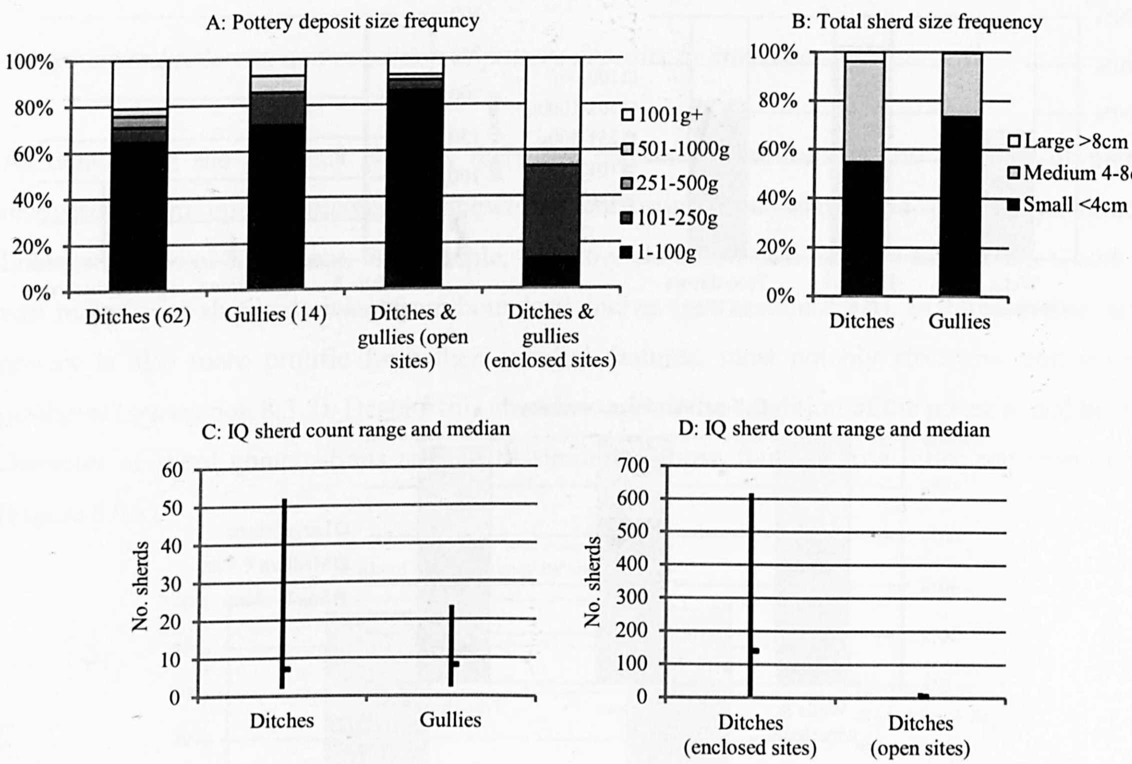


Figure 8.7. Graphs displaying the relationship between ditch and gully deposit size, sherd-size frequency and interquartile (IQ) sherd count range. Figures are based on 22136 sherds (285312g) from 76 ditches and gullies. Graph B is based on a sample of 7092 sherds from ditches, and 267 sherds from gullies.

8.3.6 Pottery from wells and waterholes

Wells and waterholes were substantial, long-lived features in the settlement landscape; many displaying multiple fills and evidence of sustained maintenance (see Chapter 3). Like ditches, these constructions have a capacity to hold large successive dumps of pottery and other accumulated detritus, providing a broader temporal window for depositional acts than smaller short-lived features such as pits and postholes. By count, they constitute the third smallest group of pottery-bearing features in this study, with only 21 examples recorded from eight open settlement sites. Collectively, however, they yield 11% of sherds, with a MSW of 11g (Figure 8.8). Assemblages tended to be substantial, with the bulk of the pottery recovered from the upper silts of waterholes – a depositional pattern also shared by the larger ditches. In total, 48% of pottery groups weighed over 1kg, with three examples yielding more than 10kg: two wells from Striplands Farm, and one from Lofts Farm. Assemblages typically comprised sherds from a large number of different vessels in varying states of fragmentation; similar to most mixed deposits from pits, but on a grander scale.

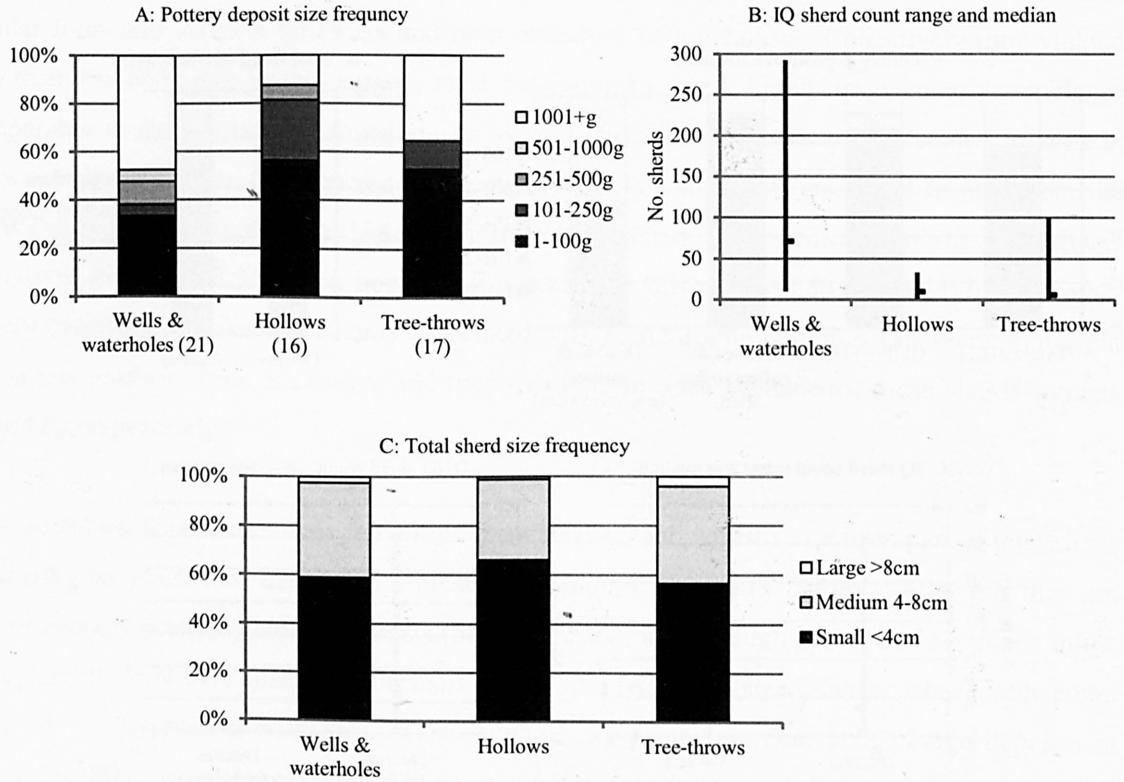


Figure 8.8. Graphs displaying the relationship between the deposit size, sherd-size frequency, and interquartile (IQ) sherd count range for wells and waterholes, hollows and tree-throws. Figure are based on 8154 sherds from wells and waterholes (90758g, 21 features); 2515 sherds from hollows (27631g, 16 features) and 1682 sherds from tree-throws (22958g, 17 features). Graph C is based on a sample of 7773 sherds from well and waterholes, 2226 sherds from hollows and 1681 sherds from tree-throws.

8.3.7 Pottery from hollows and tree-throws

Ten sites in the survey yielded ceramics from tree-throws and hollows, with substantial groups of Early Iron Age pottery deriving from contexts at Beacon Green and the Fordham Bypass Site - deposits which skew the averages. Overall, 3% of sherds were recovered from hollows (16 features) and 2% from tree-throws (17 features). The latter are of natural origin, which normally present themselves as silt-filled kidney-shaped features. Their assemblages typically comprise of a few small abraded sherds, but at Fordham Bypass a cluster of these features were in-filled with eight discrete dumps of pottery with a combined weight of 22.7kg. Hollows, by contrast, are man-made features generally characterised by shallow cuts with irregular profiles and diffuse edges (though the distinction between pits and hollows is somewhat blurred). Associated pottery assemblages are more variable in size and composition, but rarely contain groups of material weighing over 500g (Figure 8.8).

8.3.8 Variability in size and condition of pottery deposits by site-type

As detailed in the previous chapter, there are marked distinctions in the quantity of pottery recovered from open settlements, ringworks, enclosures and aggregated pit-dominated sites. Enclosed forms of settlement, for example, tend to yield substantial ceramic assemblages, with the vast majority of sherds deriving from boundary ditches (see section 8.3.6). In comparative terms, pottery is also more prolific from their internal features, most notably structures and isolated postholes (see section 8.3.5). Despite this abundance, both the condition of the material and broader character of sherd compositions are not dissimilar to those found across other settlement-types (Figure 8.9A).

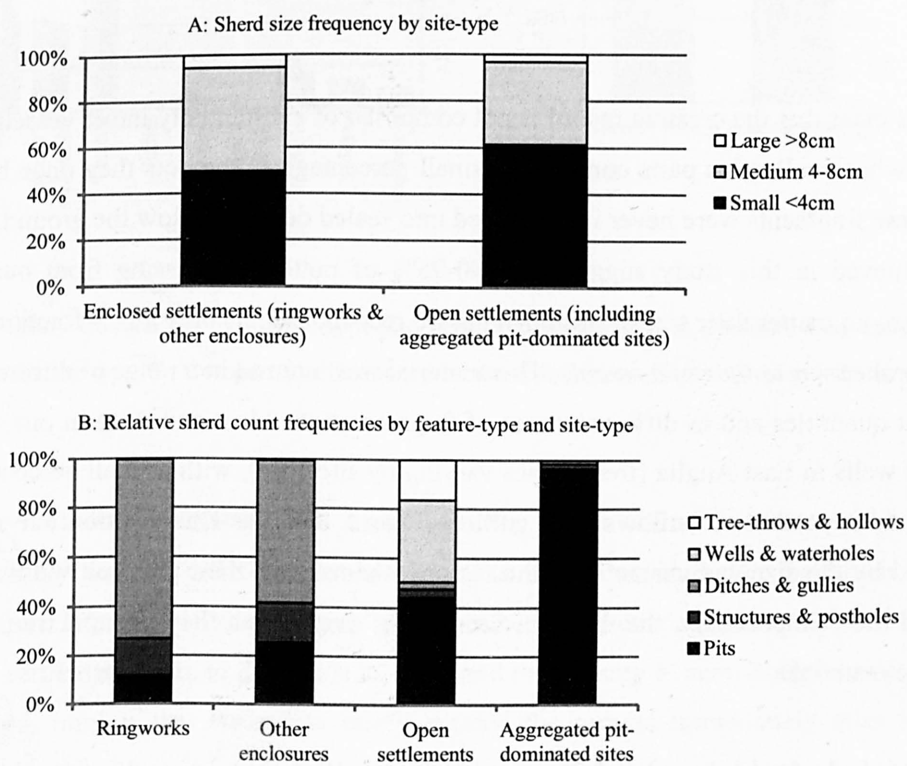


Figure 8.9. Sherd size and sherd count frequencies by site-type. Graph A is based on a sample of 10174 sherds from enclosed settlements, and 28681 sherds from open settlements.

Put succinctly, differences rest in the quantities of pottery deposited on different forms of site, and in particular, the quantities deposited in different types of feature in these settings: ditches from ringworks and enclosures, pits on aggregated sites and wells on open settlements (Figure 8.9B). The condition and configuration of sherd material, however, varies as much within features of the same type on the same settlement, as it does between these features from different forms of settlement; irrespective of how much pottery was interred.

8.3.9 Summary of patterns

If there is one conclusion to be reached from the analyses in section 8.3, it is that discussions of pottery deposition must be predicated on an understanding of how the ceramic record is constituted. Unfortunately, this foundation is often lacking in our studies, and as a result, our discussions of pottery deposition can be somewhat simplistic, or at worst, un-contextual. In addressing this issue, I have attempted to characterise the structure of the ceramic record by exploring variability in the size, condition and composition of pottery deposits at the level of assemblage, feature-type and site-type. Though this has by no means exhausted the possibilities for examining patterning, there are a number of important observations to come out of the analyses conducted.

Firstly, it is clear that the ceramic record is not composed of substantially intact vessels, but rather fragments whose collective parts constitute a small percentage of the pots they once belonged to. Most of these fragments were never incorporated into sealed deposits below the ground. In fact, the figures achieved in this study suggest that 90-95% of pottery is missing from our excavated assemblages, no matter their size or origin. What we recover then, is only a tiny fraction of the pots used and broken – *a sample of a sample*. This material was interred in a range of different contexts, in different quantities and in different states of fragmentation. Most ended up in pits, ditches and the tops of wells in East Anglia (frequencies varying by site-type), with a small percentage finding their way into postholes, hollows and gullies (Figure 8.10A). This distribution was in part conditioned by the size and character of the features themselves, their proximity to the settlement 'core', and more importantly, the different time-scales over which they open, active, and able to accumulate material.

In general, it is the larger, long-lived features which yield the biggest assemblages, with the highest MSW values. However, the patterning is slightly more complicated than this, since all feature categories yield assemblages which vary in terms of their size and condition. From most contexts relatively small groups of pottery are recovered weighing less than 251g, generally comprising fewer than 20-25 sherds. Collectively, these groups constitute 78% of all the feature deposits analysed, even though they contain just 11% of the pottery (Figure 8.10B). These figures are reversed for larger groups weighing over 500g, which yield 83% of the pottery, but account for only 15% of deposits. That said, the condition of the sherds in large pottery groups is often as variable as those from smaller deposits, regardless of feature-type or MSW averages. In each category, a continuum of variation exists, from deposits of large, freshly broken crocks at one end of the spectrum, to groups exclusively characterised by small, heavily worn sherds at the other. Between these extremes, closer examination of the material shows most deposits to comprise mixed and varied assemblages, containing sherds of different sizes, from different vessels, in varying states of abrasion.

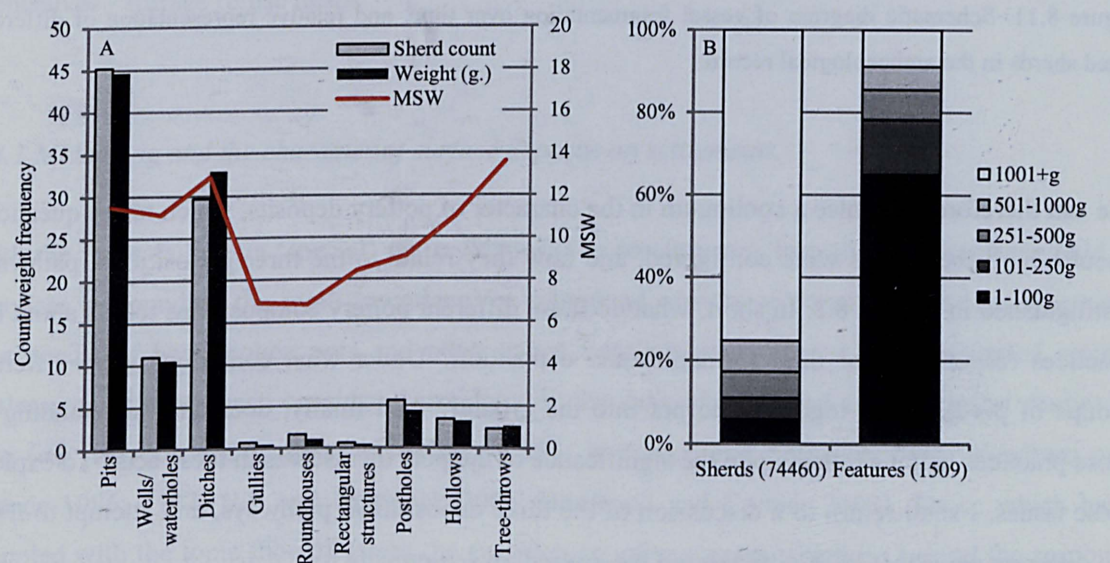


Figure 8.10. Pottery frequencies by feature-type and deposit size category. A: Relative frequency of pottery and MSWs by feature type. B: Comparative frequency of sherd and feature counts by deposit size category.

This diversity in composition suggests that fragments which ultimately came to be deposited together, probably accrued different post-breakage histories. One consistent pattern is that large sherds constitute less than 10% of pottery groups, whether assemblages are analysed by period, feature-type, settlement form, or deposit-size. This, and the scarcity of semi-complete vessels in the ceramic record, implies that fragments rarely entered the ground immediately after a pot was broken. Instead, the dominance of small sherds indicates that the period between breakage and deposition was often quite extensive - time in which fragment size was gradually reduced through abrasion and attrition (Figure 8.11).

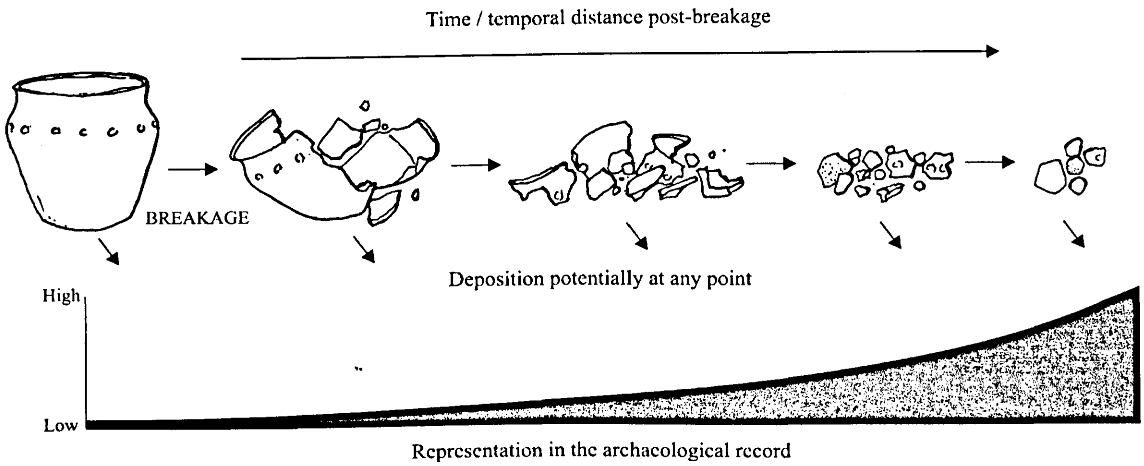


Figure 8.11. Schematic diagram of vessel fragmentation over time, and relative representation of different sized sherds in the archaeological record.

We can therefore recognise a continuum in the character of pottery deposits, which raises questions about how these groups were configured, and how they relate to the three depositional pathways distinguished in section 8.2. In short, what do these different pottery compositions tell us about the practices responsible for their formation and deposition? Under what conditions were different groups of pot gathered together and put into the ground? And finally, does an understanding of these practices help us reflect upon the significance of the pots themselves in these acts? To explore these issues, I shall return to a discussion of the three depositional pathways, and attempt to track the different ways that PDR pots entered the ground on settlements.

8.4 Depositional Pathway 1 - *Instances where pottery is deposited in the form of unconsidered compositions and in an unconsidered manner*

The analysis in section 8.3 has demonstrated that most PDR pottery deposits display mixed characteristics in East Anglia. These vary in terms of their overall size, condition and composition, but rarely show clear indications that the constituent components were specifically chosen for deposition, or carefully placed or arranged within specially selected contexts. Rather, the bulk of these pottery deposits appear to have compiled and interred in what we might call a largely *unconsidered* manner.

Based on these trends, it seems entirely reasonable to assert that the ceramic record of the Late Bronze Age and Early Iron Age *does not* lean more towards those depositional events that might be described as highly structured, formal, or overtly symbolic in nature (a statement some might find controversial). Instead, it is primarily constituted through the conduct of less explicitly evocative acts involving groups of pottery with varying characteristics. These are important, and their study should be regarded as no less significant than that of formal pottery deposits. In fact, this material and its manner of interment can potentially tell us a great deal about routine practice, the conduct of life on settlements, and the broader material conditions of occupation in this period. To realise this potential through we have to understanding more about how deposits with these characteristics were formed in the first place, and secondly, the circumstances which lead to their inclusion in the archaeological record. In both cases, our starting point is with the sources of these deposits themselves - surface refuse heaps.

8.4.1 Middening and the character of surface deposits on settlements

With the focus falling on 'special' pottery deposits in recent years, less attention has been paid to practices surrounding the more 'mundane' or routinized aspects of ceramic refuse management. The details of how broken pots and other spent materials were moved and distributed around settlements sites has been considered in relatively few ethnographic and archaeological studies to date (e.g. Haydon and Cannon 1983; Deal 1985; Needham and Sørensen 1988; Needham and Spence 1996; 1997; Hill and Braddock 2006; Brudenell and Cooper 2008). Those which have grappled with the topic though, stress the complex set of processes which lie behind the response to, treatment, and dispersal of detritus within these contexts (Figure 8.12).

These studies suggest that once broken, most fragments of pot become rapidly scattered across sites, with sherds finding their way onto/into a variety provisional pre-depositional contexts: house floors, yard surfaces, and discrete temporary refuse heaps. At some point however, the bulk of this material is thought to have been transferred onto larger, more established refuse piles or middens[31]. Here, it is envisaged that repeated episodes of discard relating to a range of refuse maintenance practices generated a diverse but relatively consistent accumulation of ceramic material (Brudenell and Cooper 2008, 23). More importantly, it was by drawing on this pottery-rich refuse in depositional acts that the vast majority of ceramics entered sub-soil features in the form of mixed compositions - assemblages characterised by sherds from different vessels in different states of fragmentation (Figure 8.13).

[31] Though I acknowledge that 'midden' is a loaded term (Needham and Spence 1997, 78-79; Garrow 2006, 38), it is used here as a convenient shorthand for labelling formally established artefact-rich refuse heaps.

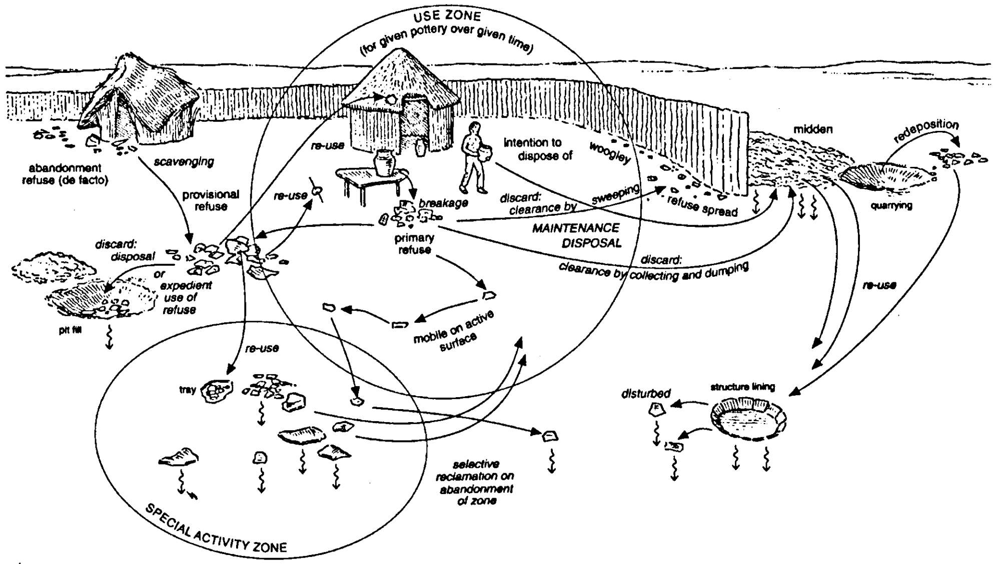


Figure 8.12. Schematic illustration of the movement and uses of pottery on settlement sites post-breakage (after Needham and Spence 1997, 78, Fig. 2).

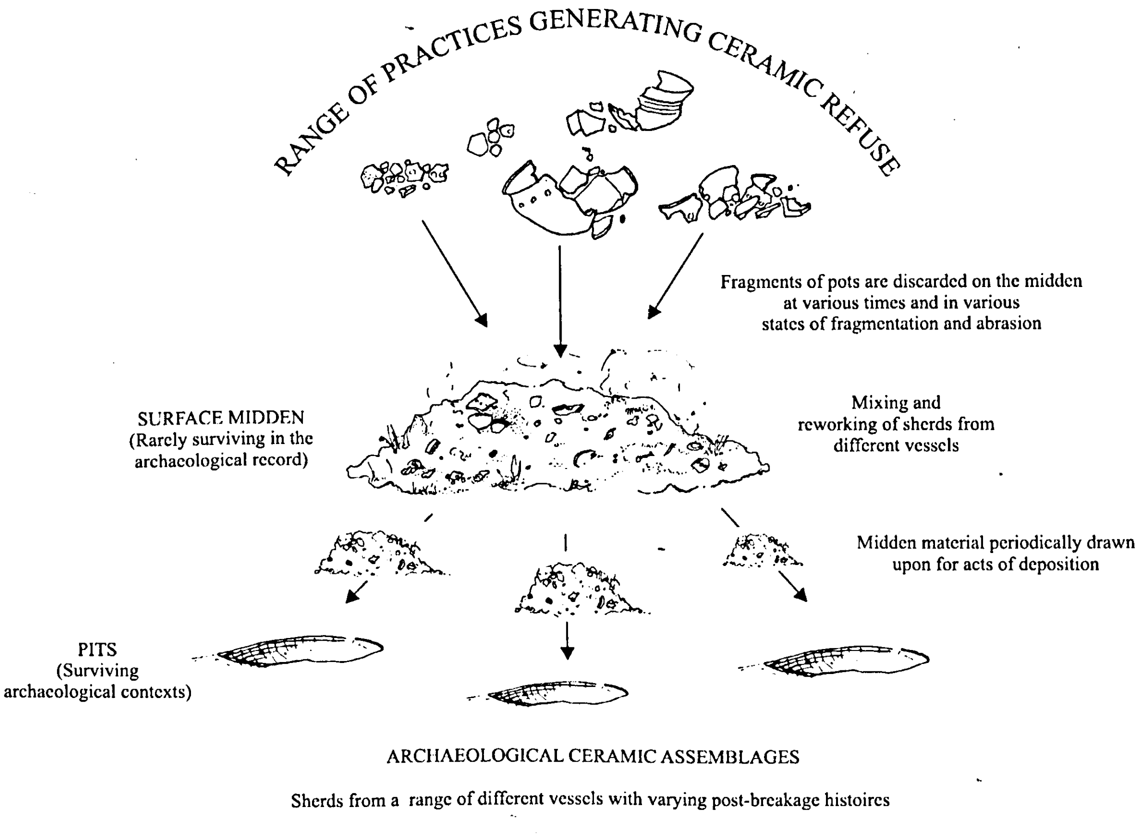


Figure 8.13. Model showing how pottery deposits with mixed characteristics may have been generated. In none of the feature deposits were individual sherd components carefully assembled or specially selected (*unconsidered compositions*). Instead, their configuration is determined by the nature of the midden source, and how much refuse was drawn from it in each depositional event.

The concept of midden formation and surface-refuse maintenance are therefore crucial in the modelling of Depositional Pathway 1. Yet since these deposits themselves rarely survive in the archaeological record, much of our understanding of their character remains based on a combination of inferences drawn from the contents of sub-soil features, ethnographic models, and the partial excavation of a few exceptional midden accumulations in southern Britain – principally Runnymede (Needham 1991; Needham and Spence 1996) and Potterne (Lawson 1994; 2000). Due to a lack of preservation, the opportunities to investigate surface deposits on'normal' farmstead-type settlements of the period have been limited. However, a number of sites in East Anglia now provide evidence of precisely these contexts, allowing us to gain our first real insights into the scale and density of on-site refuse accumulations, and more significantly, a clearer idea of the character, condition and quantity of pottery caught within surface horizons. Their study has profound implications for the way we think about ceramic deposition, and the circumstances behind the interment of most pottery.

The most extraordinary example is from Godwin Ridge on the Cambridgeshire fen-edge: a low-lying (1.5-3.0m OD) elongated sand 'island' surrounded by braided palaeochannels of the river Ouse. Sealed beneath alluvium and peat, the ridge's buried soil (generally 0.20-0.30m thick) contained an abundance of artefacts. This horizon was subject to a rigorous sampling strategy of surface collection and test-pitting, yielding over 5300 Late Bronze Age sherds weighing 40.1kg. Plots of the surface scatter and test-pit density distributions reveal an extensive swathe of ceramic debris, with three principal scatter-zones identified (Figure 8.14). Against this broader sense of distribution, a series of chequerboard-style test-pit grids provided a more detailed window into material patterning. Plots at this micro-scale reveal a number of localized pottery concentrations, representing relic refuse-heaps or formalised middening zones. Refitting vessel fragments within and between these concentrations also demonstrate the dispersal of sherds across contemporary refuse piles, or alternatively, the periodic bulk-shifting of midden material across the site (Figure 8.15).

These sherd connections mirror the kinds of refitting patterns common to feature-derived assemblages; most examples being short cross-context joins between neighbouring features, with a few more extensive connections. The parallels between the nature of surface test-pit and feature derived assemblages runs deeper at Godwin Ridge, since the condition and overall composition of material in each group was remarkably similar. Both were essentially characterised by small mixed groups of abraded sherds from different vessels, interspersed amongst a few larger 'fresher' fragments - compositions typical of PDR assemblages (see section 8.3). Indeed, such was the nature of some test-pit groups that it was easy to forget that one was *not* looking at discrete feature

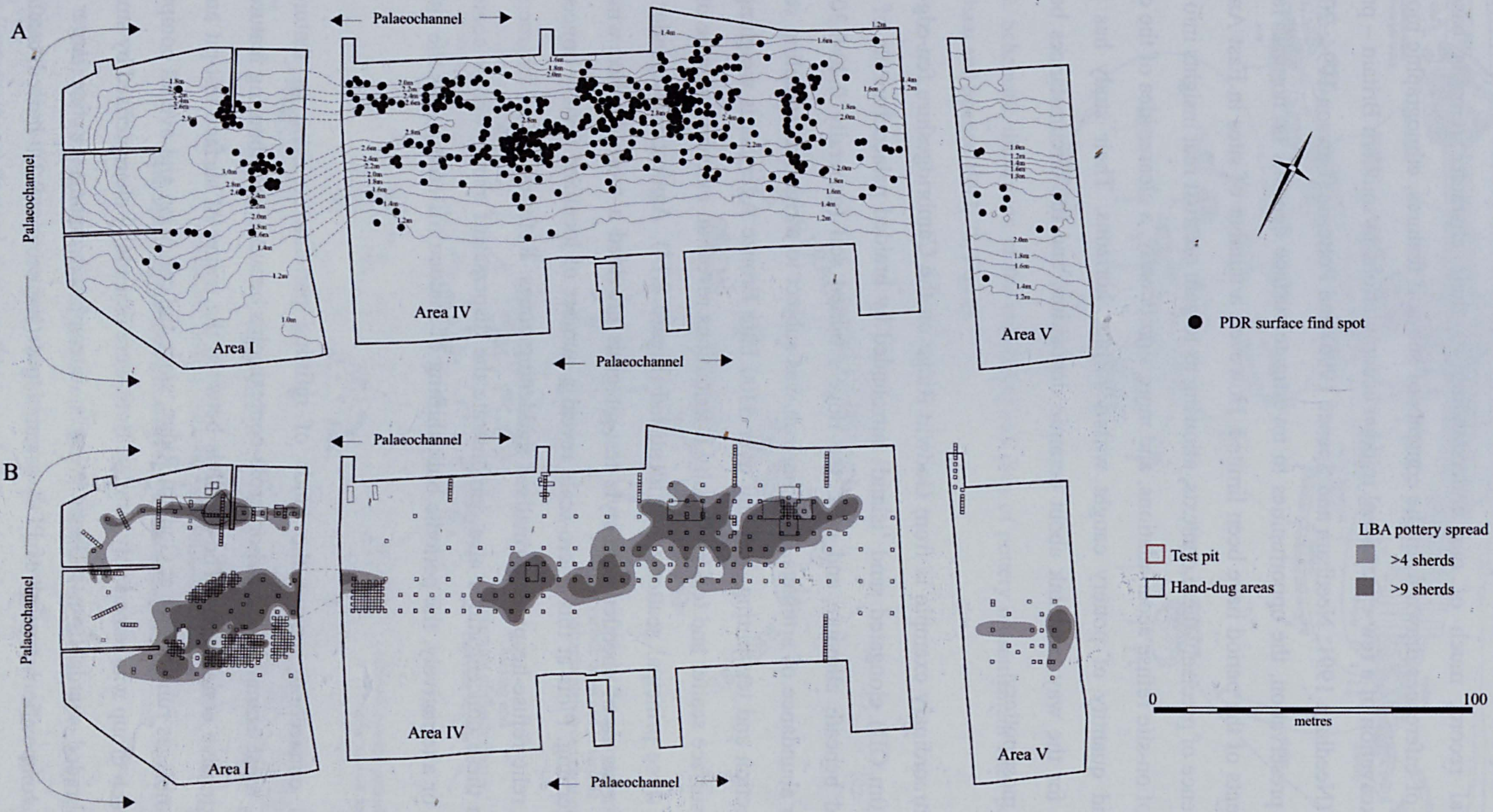


Figure 8.14. The distribution of Late Bronze Age pottery in the buried soil of Areas I, IV and V, on the western end of Godwin Ridge. A: distribution of sherds collected from the surface of the buried soil. B: density distribution based on pottery excavated from 1m test-pits (roughly 8% of the buried soil sampled; C. Evans *pers comm.*). Figures adapted from originals produced by A. Hall (Courtesy of the CAU).

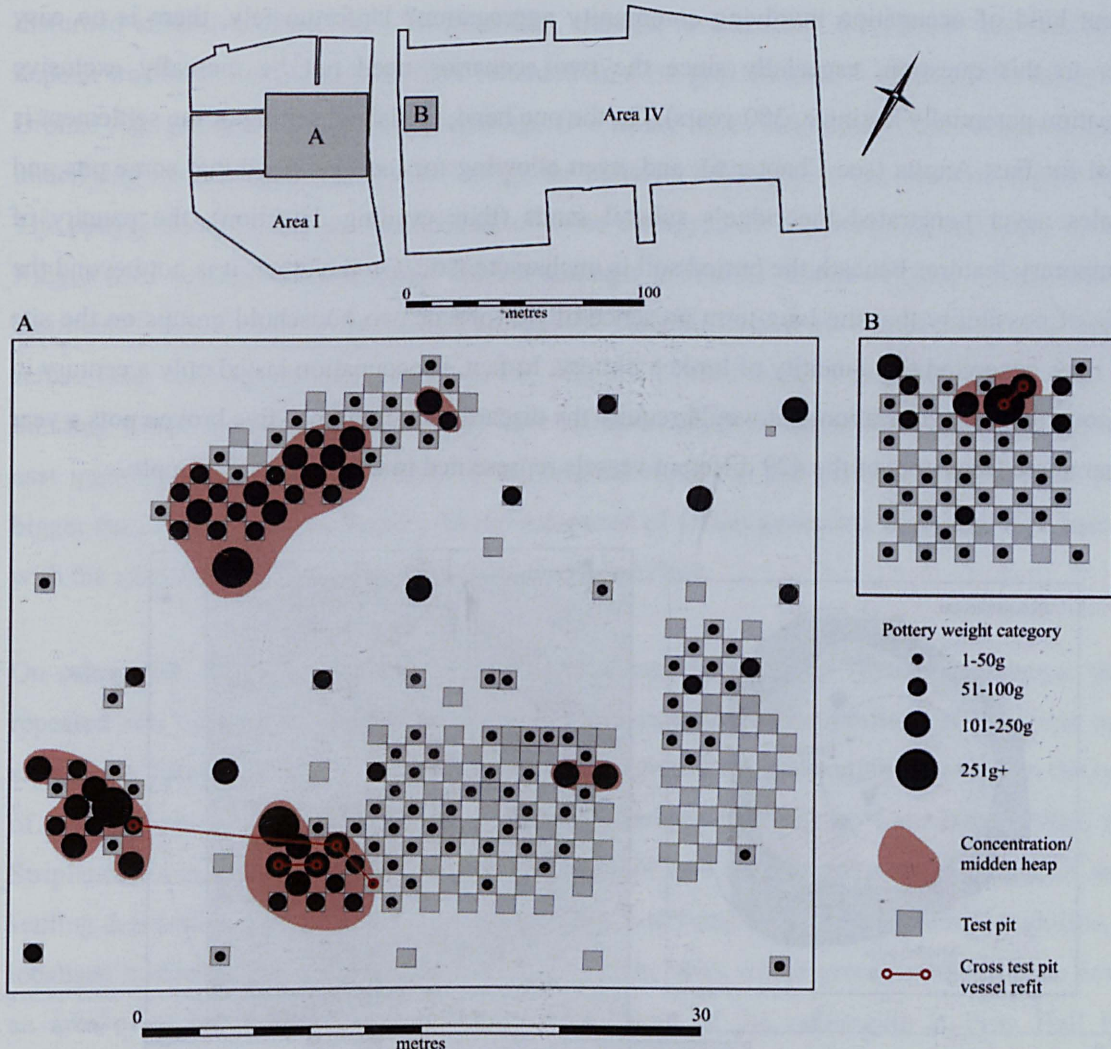


Figure 8.15. Density distributions within the chequerboard-style test-pit grids across buried soil in Areas I and IV. Plots reveal the location of possible middens. Note the vessel refit between the two concentrations in the bottom left hand corner of box A (a distance of 12m).

assemblages when laying out the material. The key difference, however, was in the overall scale of these assemblages, with the surface deposits yielding between seven and eight times as much pottery as the underlying features; whether figures are calculated by sherd count, weight or vessel count (feature totals being 806 sherds, 4623g). Put another way, over 80% of the pottery recovered from the site was locked within the buried soil, giving some indication of the scale of material loss under normal circumstances.

As with all instances of exceptional preservation, questions surface about how representative these patterns are of other plough-truncated sites. Are we really glimpsing 'normal' levels of farmstead-related refuse at Godwin Ridge, or were these surface deposits generated in the context of a different kind of occupation involving community aggregation? Unfortunately, there is no easy answer to this question, especially since the two scenarios need not be mutually exclusive (occupation potentially lasting c. 300 years). On the one hand, the island setting of the settlement is unusual for East Anglia (see Chapter 6), and, even allowing for the likelihood that some pits and postholes never penetrated the ridge's subsoil sands (thus evading detection), the paucity of contemporary features beneath the buried soil is uncharacteristic. On the other, it is not beyond the bounds of possibility that the long-term presence of just one or two household groups on the site could have generated this quantity of broken pottery. In fact, if occupation lasted only a century in total (roughly three generations), it would require the discard of only four to five broken pots a year to accumulate fragments of the 429 different vessels represented in the buried soil sample.

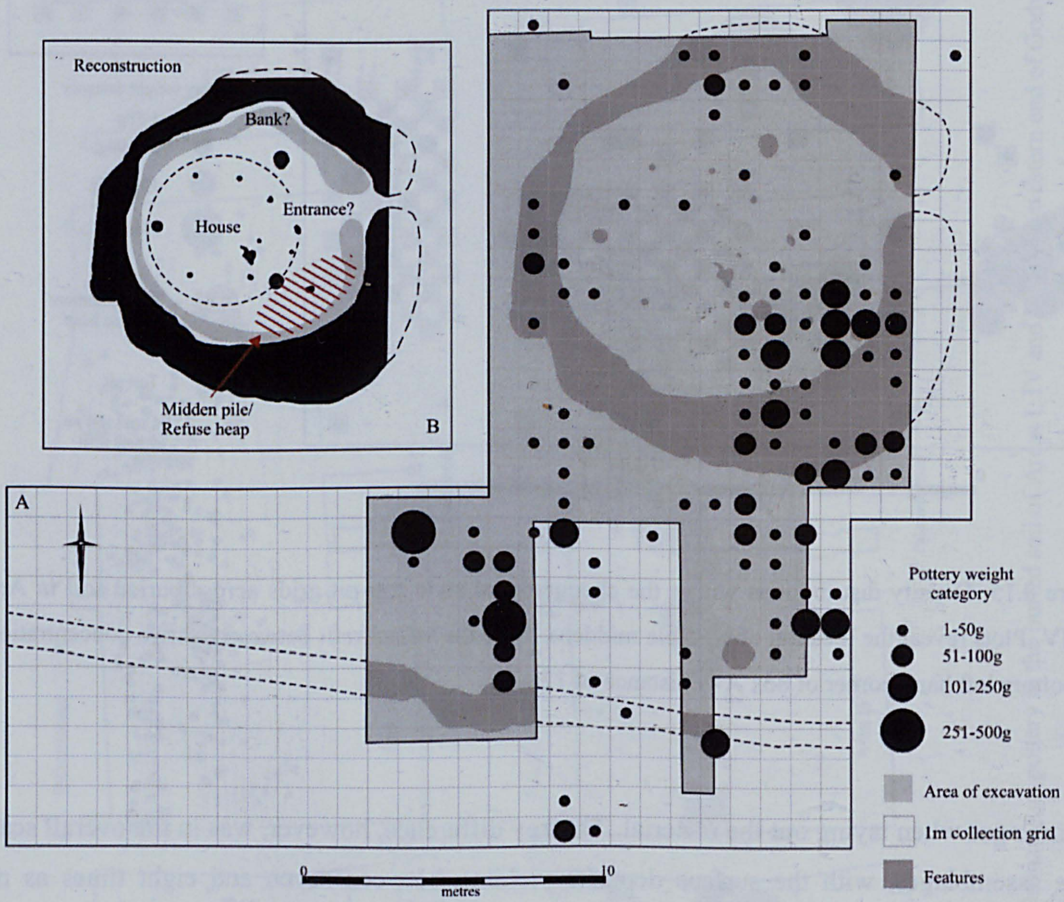


Figure 8.16. Density distribution of Late Bronze Age pottery within the former land surface at Frog Hall Farm. A: Pottery distribution plot. B: Schematic reconstruction of the enclosure interior showing the probable location of a midden pile/refuse heap.

Perhaps more importantly, similar patterns can be traced on other sites in East Anglia, albeit on a smaller-scale. At Frog Hall Farm, Essex, for instance (Figure 8.16), pottery survived in a ploughdisturbed subsoil horizon (0.25-0.45m thick), thought to constitute the former land surface. The deposit was hand-excavated with finds recorded on a 1m grid. In total, it yielded 981 sherds of Late Bronze Age pottery (5176g); an assemblage five to six times larger than that recovered from the underlying features (just 162 sherds (889g); the majority belonging to two semi-complete vessels). The pottery density plots are reminiscent of those displayed by the chequerboard grids at Godwin Ridge, with marked concentrations visible amongst a broader scatter (Figure 8.16A). Here, the main concentration lies on the eastern side of the site, and represents the remnants of a dispersed refuse heap abutting the inner edge of the ring-ditch. This dump was probably external to the building within the compound, but may have accumulated between its outer wall line and the up-cast internal bank[32] (Figure 8.16B). In its original state, the pile probably occupied an area no bigger than c. $3m^2$, and was mostly likely composed of refuse generated from activities associated with the single-phase (and potentially short-lived) structure.

On other sites, formally established refuse heaps may have grown significantly larger through repeated acts of discard. Though none reached the monumental proportions of the great midden sites in the Thames Valley or Wessex, some were nevertheless substantial, even within the context of 'normal' forms of open settlement. A good example is from the Late Bronze Age site at Striplands Farm, Cambridgeshire, where the bases of two midden piles were caught in shallow settling depressions at the tops of silted waterholes. Surviving below the modern plough-line, these localised middens were clearly once larger than the hollows which protected them; each covering an area of at least c. $8m^2$ (i.e. four times the extent of the refuse-pile at Frog Hall Farm). Combined, their recovered assemblages include 3436 sherds (32577g), representing fragments of a minimum of 262 vessels. A programme of refitting within each midden has served to demonstrate that sherds from individual vessels were dispersed throughout the deposits, suggesting the refuse on these piles had been turned, mixed and reworked at various points (Figure 8.17).

As at Godwin Ridge and Frog Hall Farm, there were no significant differences in the condition of the pottery from the midden contexts and that derived from the site's other earth-fast features. Nor were there contrasts in their compositional signature - both essentially being Type A *coarseware jar dominated* groups (see Chapter 7). In short, the two assemblages are broadly representative of one another, meaning surface deposits normally eradicated on plough-damaged settlements *do not* offer a radically different picture of the ceramic repertoire to that from features. This adds weight to the argument that most feature deposits were drawn from midden sources in the first place. The one characteristic which still sets the middens apart though is the relative quantity of pottery they contain. At Striplands, the two partially intact midden deposits yielded four to five times as much

[32] The evidence for a bank is not conclusive, but is suggested by the silting of some ditch sections showing lenses of washed sands and gravels derived from the interior (Brooks 2001).

pottery as that collectively recovered from the rest of the site's features (whether figures are calculated by sherd count, weight or vessel count; ratios broadly comparable to those from Frog Hall Farm and Godwin Ridge). This is further indication of just how much pottery was discarded and allowed to accumulate within the confines of 'normal' farmstead-type settlements. More appropriately, it is a stark reminder of just how little pottery ended up in the kinds of earth-fast features which normally survive.

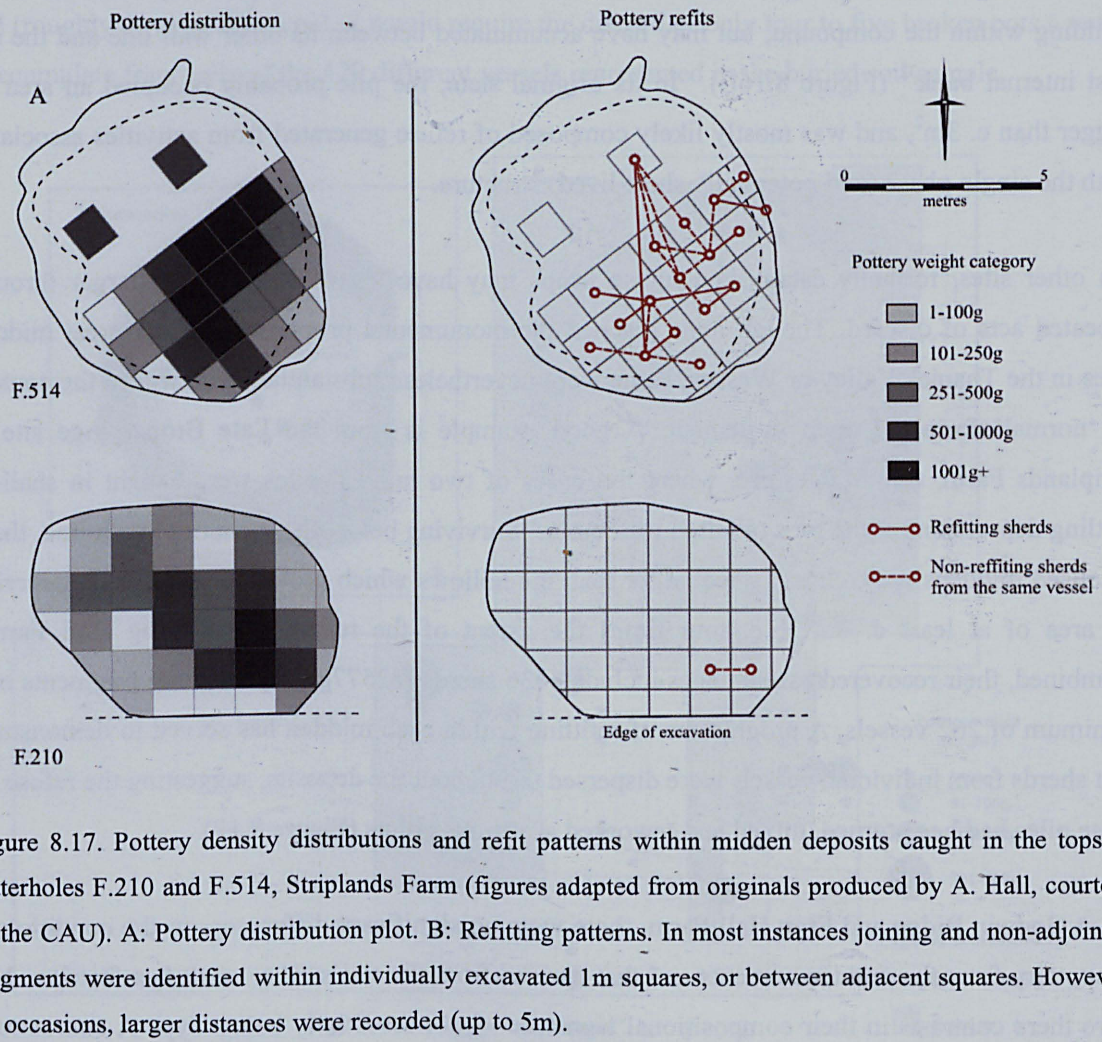


Figure 8.17. Pottery density distributions and refit patterns within midden deposits caught in the tops of waterholes F.210 and F.514, Striplands Farm (figures adapted from originals produced by A. Hall, courtesy of the CAU). A: Pottery distribution plot. B: Refitting patterns. In most instances joining and non-adjoining fragments were identified within individually excavated 1m squares, or between adjacent squares. However, on occasions, larger distances were recorded (up to 5m).

8.4.2 Implications for pottery deposition

Leaving aside specific questions about how representative the above sites are of wider regional patterns, the collective evidence points to pottery becoming ingrained within the surface fabric of settlement in later prehistory, with localised middens and dumps of ceramics forming against a more extensive, but dense background scatter of sherds. The inference is that most pottery ended up in surface deposits as opposed to cut features, with the vast majority discarded on formally established middens[33]. The impression then is that the occupants of these and other sites in East Anglia were living amongst the fragments of broken and accumulated things. Refuse was not simply being moved off-site, but was accrued, stored, and managed within the confines of settlement itself. This is telling of a particular attitude towards rubbish in this period, suggesting groups 'tolerated' what we would now see as exceptionally high levels of refuse in the immediate domestic sphere.

Dwelling alongside durable forms of refuse ensured that the broken pots and other materials were rarely stationary in surface deposits, but continued to be dispersed, mixed, and fragmented over the years. Reworking occurred as a result of the daily trampling and churning of pottery scatters formed around yards surfaces, working floors and thoroughfares. It also occurred at times when larger formal middens were levelled or moved to make way for new structures, pits, or other fixtures needed as the settlement evolved. More importantly, all these practices were a consequence of groups maintaining a more sustained relationship to place in the Late Bronze Age and Early Iron Age. Instead of abandoning sites on a generational basis (in effect, moving away from refuse), the archaeological traces of settlement suggest occupation was more persistent and reiterative in character, with groups making and unmaking a sequence of architectures in broadly the same spot (Figure 8.18; also see Chapter 3). Crucially, it was in the act of attending to the maintenance, repair and replacement of these fixtures that most mixed assemblages of pottery - derived from surface deposits - were interred within cut features.

The details of how this actually worked in practice probably varied. Given the evident density of surface pottery scatters, it is likely that small groups of sherds were inadvertently caught in the base of feature fills each time pits, ditches or other cuttings were sunk though these artefact-rich soils. Over time, this material could also have eroded into those fixtures that were open and active for longer periods – particularly ditches and wells (see discussions in section 8.3). However, most pottery was probably interred in the context of maintaining or reorganising settlement space itself, such as at times when new buildings were erected, or areas were cleared to make room for working floors, yard surfaces, animal pens, or simply new paths though the site. It was in this process of 'making good' the ground for construction that middens and other refuse scatters were drawn upon to fill redundant features in these spaces (Figure 8.18). In some instances this may have required the simple act of tidying areas, with refuse being gathered from the surrounding surface and dumped into isolated pits, shallow hollows or short lengths of gully. In others circumstances the

[33] Based on the figures gleaned from Godwin Ridge, Striplands Farm and Frog Hall Farm, it is estimated that surface assemblages will hold between four and eight times as much pottery as that in earth-fast subsoil features.

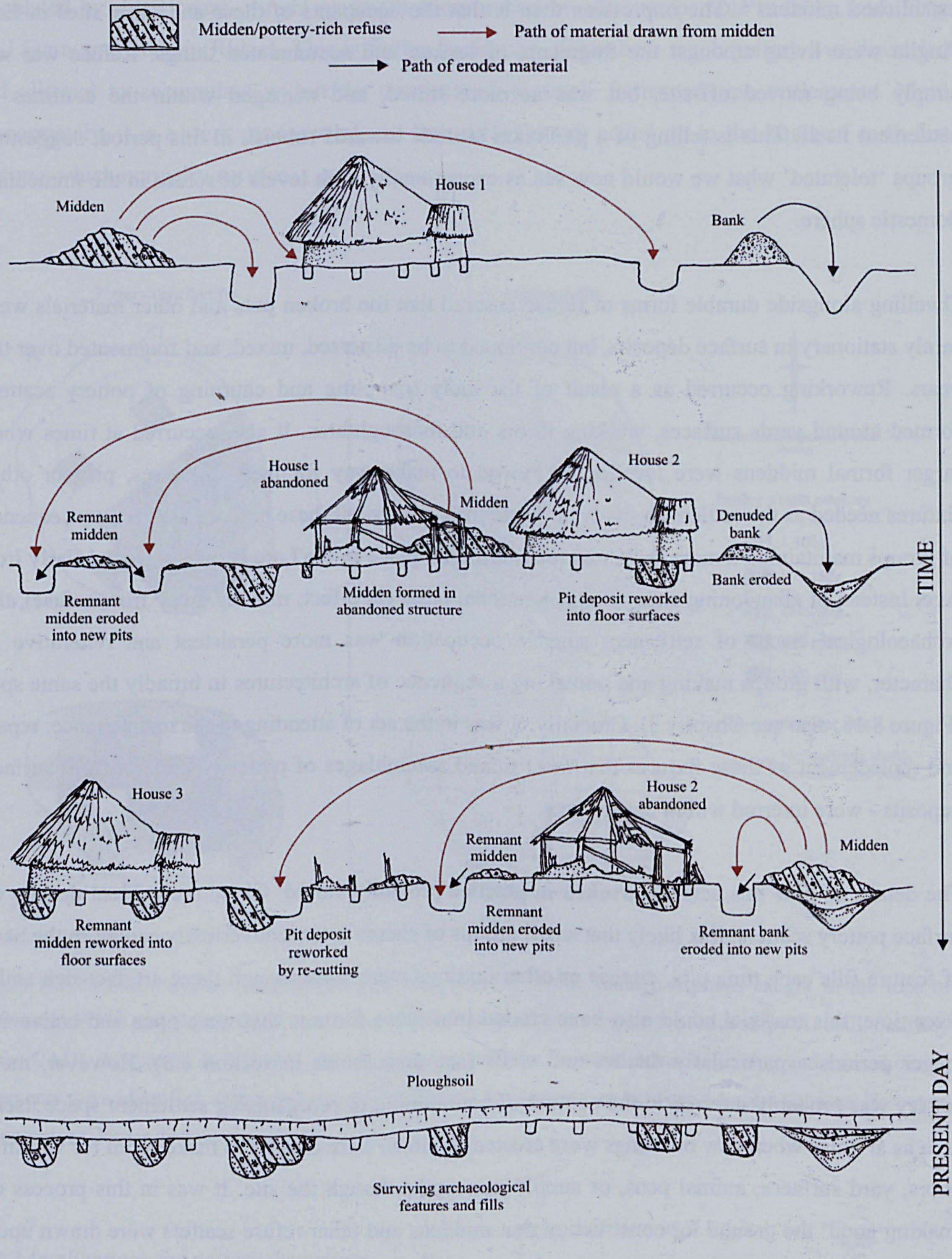


Figure 8.18. Schematic model of a settlement sequence showing how midden material might have been moved, deposited and reworked throughout the course of occupation. It was in the process of making and unmaking settlement architectures - rebuilding structures, filling pits, re-cutting ditches etc. - that the pottery which accumulated on middens probably entered the ground.

task may have demanded more effort, with large quantities of refuse having to be shifted from formal middens to fill substantial pits or other features simultaneously. Archaeologically, the pottery from these contexts may stand out by merit of assemblage size. However, their burial would have occurred under similar circumstances to many smaller deposits, and fundamentally, would have been guided by same logic.

The key point is that most pottery was entering the ground as a function of these activities; none of which were intended to make overtly symbolic statements. Rather these acts were more prosaic and practical in character, implicating groups of pottery that were compiled and interred with no greater sense of outward purpose other than simply filling redundant features and renewing the surface of settlement. Similarly, the fragments of pots caught within these deposits carried no great significance as individual objects. Freshly broken vessels may well have been carefully sorted and selectively discarded on refuse-heaps, but by the time these reworked piles were drawn upon for depositional events, any sense of a direct association between specific sherds and specific pots, people or events was largely lost to memory. These were not things afforded any special attention. Most were simply part of a matrix of materials drawn from middens and dumped *en masse* in redundant features.

This is not to argue that refuse accumulations were of no symbolic significance. On the contrary, as several authors have highlighted (e.g. Brück 2001, 154; Needham and Spence 1997, 85; Parker-Pearson 1996, 125-127), middens may have connotations of fertility, regeneration or even affluence in some contexts, whilst in others they potentially served as symbols of a community's link with a place. Certainly, as middens incorporate the residues of previous actions and activities, they attest to a history of occupation, and a connection to a group's immediate past. Selecting this material to fill features undoubtedly involved a subtle acknowledgement of these quantities on some level. But importantly, these concerns were not explicitly articulated through the manner in which most mixed midden-derived pottery groups entered the ground (there was clearly no discrimination in where this material was used, since most features across all types of site received similar midden-derived dumps of material). Whilst it might be a little misleading to state that these acts were wholly 'unconsidered', unlike some other depositional practices, they were not conducted with an eye to making grand material statements. This is not grounds to overlook their significance though, since these less-structured forms of deposit give valuable insight into the material conditions of occupation on later prehistoric settlements. Above all, they are revealing of the conduct of life in these contexts, particularly with regard to how groups attended to the architectural fabric of settlement in a period where more persistent forms of occupation emerged.

8.5 Depositional Pathway 2 - *Instances where the context of deposition is selected as a consequence of explicit, formal consideration, but the sherd material implicated does not appear to have been assembled as a result of careful selection.*

If depositional practices are perceived as ranging along a spectrum of formality, then acts appropriate to Pathway 2 - where the context of burial was selected as a consequence of explicit, formal consideration, but the sherd material itself was not carefully configured or arranged within the ground - rest somewhere in the middle of this scale. These acts were deliberately intended to mark-out and draw attention to the significance of specific contexts/locations within settlements, and/or particular points within their history. The concerns articulated through these practices, and the circumstances which led to the interment of pottery, were therefore quite different in character to those associated with Depositional Pathway 1.

Archaeologically, however, these deposits may have very similar material signatures since both implicated eclectic assortments of pottery, whose components were neither selectively assembled, nor placed in the ground in a clearly considered manner. In practice, determining which pathway the material took is problematic. Unless there are clear, consistent patterns in the way that particular contexts or places were singled out for deposition *in this form*, establishing the degree of structure/formality can be extremely difficult. Clues may be found in the spatial distribution of pottery deposits around a settlement, or evidence for the repetition of interments in the same location. But in most contexts this kind of 'pristine' spatial patterning is simply not observable, as sites have been reworked and reorganised over time. Likewise, few settlements have features with both the capacity and the temporal longevity to receive a series of pottery deposits (i.e. wells/waterholes, substantial pits and ditches).

Nevertheless, there are contexts in East Anglia where these patterns can be distinguished. Given the character of their architecture, it is not surprising that these are manifest most clearly around the ditch circuits of the region's enclosures - particularly the ringworks sites, whose boundaries have been extensively sampled. Some of the clearest patterns are observed at Mucking North Ring, where groups of pottery with mixed characteristics were sequentially dumped around the eastern entrance of the re-cut enclosure. The nature and scale of the deposits made changed throughout the history of the boundary, but the largest groups were repeatedly interred around the entrance zone, particularly in the area of the northern terminal (Figure 8.19).

In the lower fills of the re-cut ditch, a relatively small quantity of pottery was deposited, totalling 291 sherds (5316g; 6% of the ditch assemblage by weight). Around the northern terminal, this comprised a mixed lot of large, mainly un-abraded fragments of pot, displaying high MSWs in excess of 20g. The deposit consisted of an assortment of freshly broken pottery, gathered together and dumped at this location – possibly the residues of a single act of commensality. This same zone continued to receive dumps of pottery during the silting of the ditch, both between and after punctuated episodes of slumping from the internal bank. Most of the material that accrued within these secondary fills (2008 sherds, 24861g; 28% of the ditch assemblage), was probably derived from interior middens. The assemblages were still of mixed character, but the pottery was more fragmented, with lower MSWs potentially indicative of longer periods of delay between vessel breakage and final deposition. However, deposit sizes were significantly larger, with the most substantial assemblages again associated with the northern terminal. These patterns continued throughout the final silting of the boundary, when truly vast quantities of pottery were now dumped around the circuit (5108 sherds, 58517g, 66% of the ditch assemblage). Once again, the major concentrations formed around the entrance and northern terminal, emphasising the longstanding significance of this location.

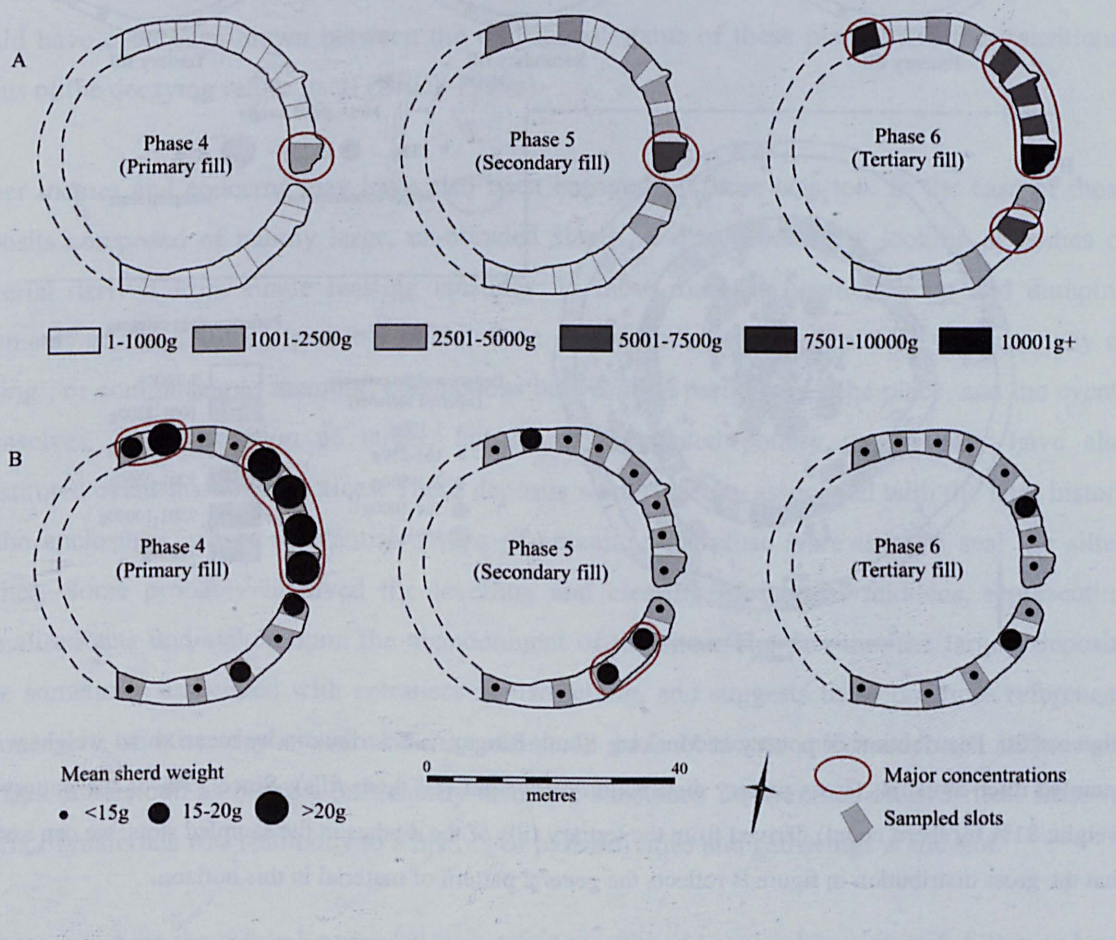


Figure 8.19. Distribution of pottery around the Period II ditch circuit, Mucking North Ring. Phasing based on the original publication (Barrett and Bond 1988, 35). A: Distribution by weight category. B: Distribution by mean sherd weight.

Comparable patterns of deposition are identified at Mucking South Rings. Here, two principal forms of ceramic deposit were associated with the ditch circuits. The first comprised small to medium-sized dumps of mixed, but mainly un-abraded sherds displaying high MSWs in excess of 20g - deposits very similar in character to those made in the lower fills of the northern terminal at Mucking North Ring. As at the above site, these dumps were associated with the ringwork entrances, and were repeatedly interred in these locations throughout the history of the boundary (Figure 8.20).

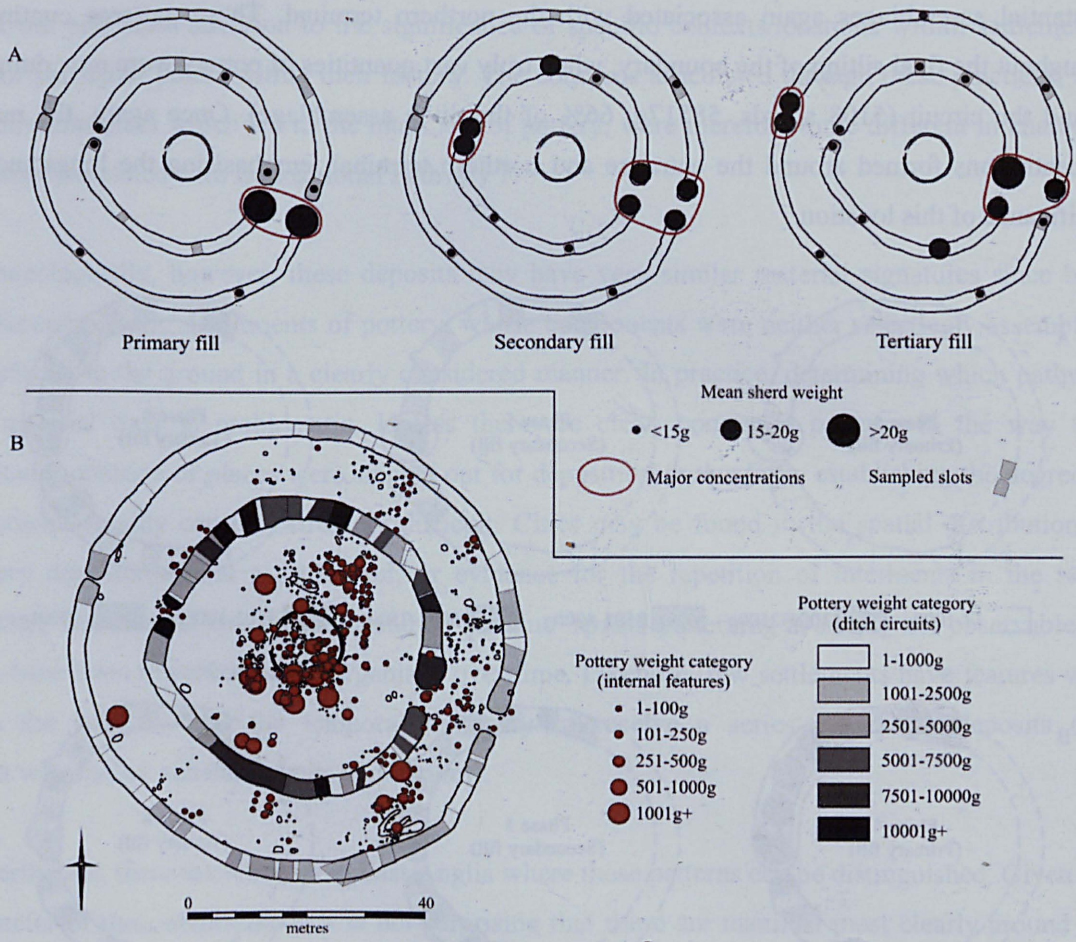


Figure 8.20. Distribution of pottery at Mucking South Rings. A: Distribution by mean sherd weight within sampled ditch slots. B: Gross pottery distribution by weight (all ditch fills). Since 77% of the pottery (by weight; 81% by sherd count) derived from the tertiary fills of the ditches in the sampled slots, we can assume that the gross distribution in figure B reflects the general pattern of material in this horizon.

The second category of deposit was defined by substantial dumps of ceramics refuse (>5kg) comprising a more fragmented assortment of sherds from a large number of different vessels. As with the North Ring, these generalised (and probably midden-derived) deposits began to be interred during the secondary silting of the ditch, escalating in scale and possibly frequency as the boundary continued to fill. Here, however, the bulk of deposits were concentrated around the inner ring, with the largest dumps repeatedly occurring around the central area of the northern ditch arc.

Details aside, there are unmistakable parallels in the way in which pottery was deposited around the circuits of these ringworks, and at other enclosures in East Anglia - Springfield Lyons, Broomfield and Lofts Farm (Brown 1988b; Atkinson 1995; Brown and Buckley forthcoming). As well as similarities in the characteristics of the groups interred, there is consistency in the spatial referencing of deposits, with acts repeatedly focussing on terminals and entrance ways. Even following the degradation of the earthworks on these sites, there remained a concern with marking or commemorating these 'auspicious' locations, by continuing to deposit groups of pottery and other refuse in the tops of the silted ditches. As several authors have highlighted (e.g. Brück 1999a, 153; Hill 1995, 92-83), these acts may have served to make statements about the significance of entrances as liminal zones, or points of transition in social and symbolic space. Conceptual links could have even been drawn between the transitional status of these places, and the transitional status of the decaying refuse itself (Brück 1999a).

Other themes and concerns may have also been engaged by these acts too. In the case of those deposits composed of mainly large, un-abraded sherds, we are potentially looking at bodies of material derived from single feasting episodes. In these moments, gathering up and dumping fragments of the detritus - possibly at the close of proceedings - may have served as a way of 'fixing', or committing to memory, connections between the participants, the place, and the events themselves. The deposition of larger, but more fragmented pottery groups may have also constituted event-marking practices. These deposits were typically associated with the later history of the enclosures, where substantial dumps of ceramic-rich refuse were used to seal the silted ditches. Some probably involved the levelling and clearing of internal middens, representing formalised acts undertaken upon the abandonment of the sites. The fact that the largest deposits were sometimes associated with entrances is also telling, and suggests these practices referenced the memory of other deposits at these locations. In such contexts, midden-derived refuse was perhaps understood as being a particularly effective substance for commemorative rites, since its matrix of materials was testimony to a history of past activities and gatherings at the site.

In these instances the symbolic properties ascribed to refuse (discussed in section 8.4.2) may have been brought to the fore and manipulated more explicitly than in those practices appropriate to Depositional Pathway 1. Indeed, a similar measure of formality may have been associated with the deposition of other large piles of ceramic-rich refuse in the tops of redundant waterholes, pits and ditches. Some no doubt marked the formal decommissioning of structures, large cut features, or even whole phases of occupation (e.g. Brown 1995c, 14; Brück 1999a, 154-155; Cooke *et al.* 2008, 49-52; Webley 2007a).

However, caution is needed in interpretation, since it has been shown that other less-overtly considered practices may generate deposits with similar characteristics (see section 8.4). In most examples there is ambiguity; even though this is rarely acknowledged in the literature. That said, the one other context where there is clear evidence for formal closure deposits is in the region's roundhouses. Here, at the opposite end of the material scale, we find that small groups of sherds were occasionally pushed into post-sockets and dug-out postholes during the dismantling or abandonment of structures. Consistency in the spatial distribution of pottery and manner of interment denies the possibility that these patterns were simply the product of 'casual' deposition or incidental inclusion (Webley 2007a, 134-135). Instead, locations such as porch structures and areas around the doorway were repeatedly singled out for these acts (Figure 8.21).

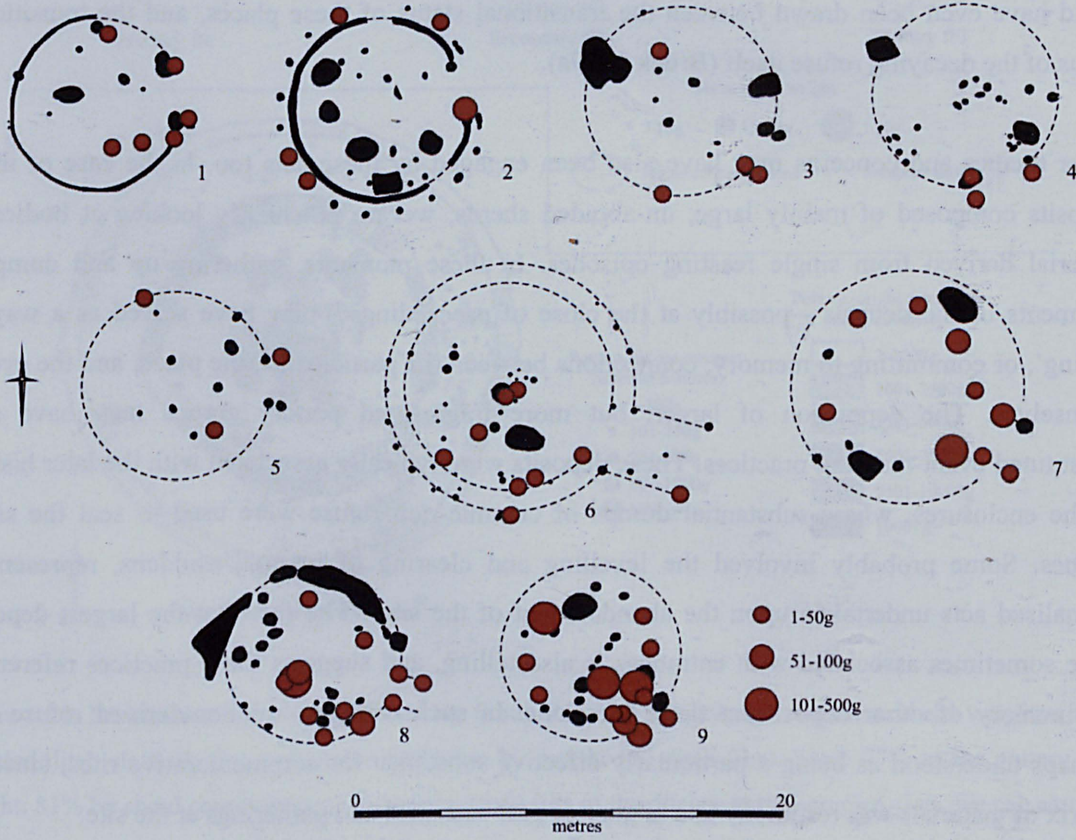


Figure 8.21. Distribution of pottery around nine of the region's roundhouses. 1-6. Early Iron Age structures, Bradley Fen (figures adapted from originals by J. Matthews, courtesy of the CAU); 7. Late Bronze Age structure, Harford Farm (after Ashwin and Bates 2000, 137, Fig. 111); 8. Late Bronze Age structure, Broomfield (after Atkinson 1995, 7, Fig. 5); 9. Late Bronze Age structure, Mucking North Ring (after Bond 1988, 12, Fig. 8).

Although the nature of the patterning is slightly different from one building to the next (suggesting that the 'rules' which structured these deposits where subject to differing local and contextual interpretations), all have deposits of pottery around the entranceways. In most instances, the sherds included in these deposits appear to have been assembled without any specific criteria, resulting in the interment of mixed and abraded vessel fragments with varying post-breakage histories. Most were probably drawn from nearby refuse heaps. Alternatively, they could have been amassed by gathering up the scraps of pot embedded in house floors or scattered around the interior. A final act of tidying may indeed account for the fact that house floors rarely yield much debris, even in instances where surfaces are preserved (e.g. Allen and Robinson 1993, 90; Hingley and Miles 1984, 63; though see Evans and Hodder 2006b).

8.5.1 Summary

Pottery groups deposited in a manner characteristic of Depositional Pathway 2 can be difficult to positively identify in the archaeological record. As these acts drew upon the same types of mixed midden-derived pottery assemblages as those under Pathway 1, their material signatures are often indistinguishable. Though we can appreciate contrasts in the degree of structure and intentionality behind these two depositional pathways, their differing qualities are not always materialised in a manner that is straightforward to interpret. Nonetheless, we might still infer a measure of formality in instances there where these mixed pottery groups show clear spatial patterning - both in terms of the distribution of deposits around sites, and evidence for repeated performances of discard in the same context/location (on the same sites, and/or across multiple sites).

In East Anglia, these patterns are most transparent in the context of enclosures and roundhouses. In both cases we can show some consistency in the way that generalised bodies of ceramic refuse - often mixed amongst other debris - were deposited within entranceways and thresholds. These places clearly carried a significance which demanded their marking at certain points; particularly at times of abandonment. In these moments, midden-derived material served as an appropriate substance for commemorative deposits, possibly because it embodied the residues of past activities directly associated with these places and the people who occupied them. Unfortunately, similar forms of intentional spatial referencing are much harder to demonstrate for other contexts in this period. Parts of roundhouses and enclosures may well have been a focus for these practices (reflecting on some level the importance of both places), but they were unlikely to have been the only contexts whose significance was marked in this way.

8.6 Depositional Pathway 3 - *Instances where the pottery and context of deposition are selected as a consequence of explicit, formal consideration*

So far we have traced forms of depositional practice in which little direct consideration was given to the sherds components caught within the matrix of materials interred. For the most part discussion has detailed practices where the units of selection in deposition were artefact-rich soils, extracted from either surface refuse scatters, or more commonly, formal midden piles. In each case the character of their pottery component was determined by the range and rhythm of practices responsible for the creation (and dispersal) of surface refuse deposits, whilst the size of the pottery assemblages themselves was relative to the quantity of material drawn from these sources. In neither Depositional Pathway were the individual fragments of pot in these deposits of any great significance. They were not hand-picked for deposition, nor afforded any special treatment because of attributes specific to the pots they once belonged to. In most instances, they were simply parts of a generalised body of material refuse, which was perhaps only recognised to differ in terms of its relative 'freshness'.

Pots mattered in a much more direct way at the formal end of the our deposition continuum (Depositional Pathways 1), where we see clear evidence for pottery being selectively assembled and buried in a careful and considered manner. Deposits with these characteristics take a number of forms, though all share the attribute of having material which entered the ground intact or rapidly after breakage. As a consequence, the assemblages we recover are normally dominated by large slabs of one or more partially intact pots, and/or numerous refitting sherds belong to the same vessel/set of vessels. The way these fragments are configured is more variable. In some instances, pots were interred as partially intact profile slabs, compressed and fragmented by the infilling of the feature. One such example was excavated from a pit at Cromer, Norfolk in 1956. This contained substantial fragments of four Early Iron Age pots, crushed on top of one another (Figure 8.22). The nest of vessels included the complete profile of an elaborately decorated fineware bowl and slashed-ornamented coarseware jar. These were accompanied by adjoining rim and shoulder sherds of a large thin-walled cordoned fineware jar, and fragments of a second coarseware vessel.

Other related deposits may be revealed as clustered jumbles of different sized-sherds; few or none of which appear to be joining in the ground. Often, it is only when this material is lifted and refitted in post-excavation that that we recognise that the bulk of the pottery belongs to one or more semi-complete vessel profiles. In these circumstances, an assorted but substantial sample of sherd material from *specific* pots has been gathered up and dumped. An extraordinary example of one such deposit was recovered from a small Early Iron Age pit at Eye Quarry, Cambridgeshire (Patten 2008). The excavated assemblage included 100 sherds, incorporating mixed fragments of at least five different vessels. However, nearly half refitted to form the complete profile of a single decorated fineware bowl, whose adjoining sherds had been differentially transformed by heat (Figure 8.23). The discolouration and blistering of the fragments resulted from the post-breakage burning of its sherds, meaning parts of the bowl had been scattered onto fires. This in itself is not unusual - burnt sherds are relatively common in PDR assemblages. What is striking about this particular sequence is that nearly all the differentially transformed parts of the bowl were subsequently reassembled, and then deposited together *en masse*.

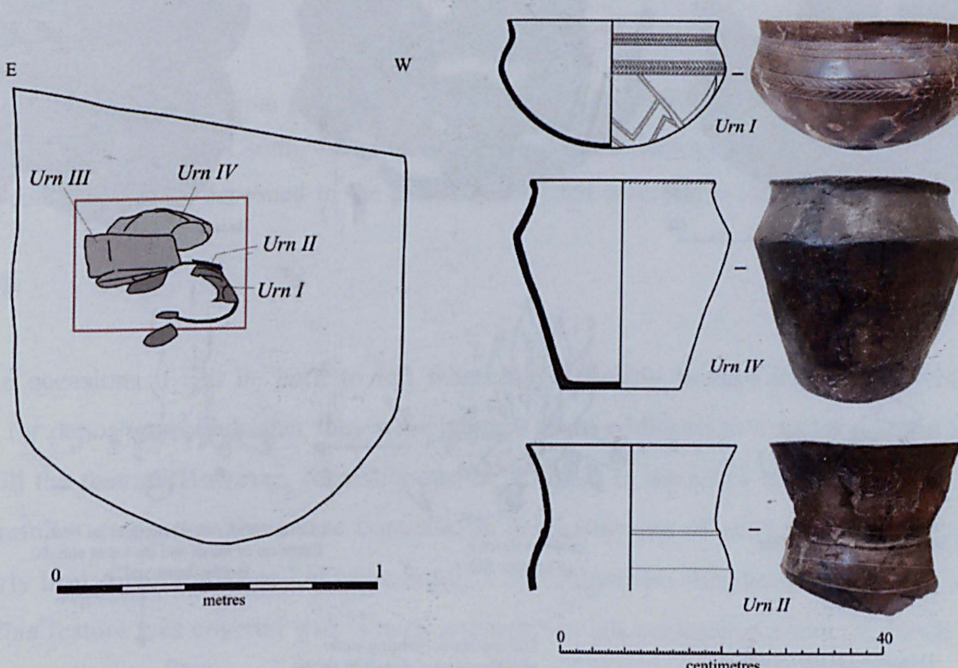


Figure 8.22. The Cromer pit assemblage. Judging by the sketch-section in the archive (redrawn above), the U-shaped pit was around 1.2m wide, and survived to a depth of 1.45m below the topsoil. The nest of pots was located around the centre of the feature, with *Urn I* apparently at the base of the group in front of *Urn II*. The latter is noted as being below *Urns III & IV*, both described as badly crushed. The recovered assemblage includes a total of 189 sherds (4789g). Two of the vessels are now heavily reconstructed, though it is clear that more than half of both pots were originally deposited in the pit.

It seems to have been important that the fragments of this specific bowl were buried together in this feature. Even though the sherds were not arranged in the ground, there was clear intent in the act of identifying and gathering back together the fragments of this distinctive vessel. In other contexts, by contrast, care was expended on the arrangement and placing of sherds. At Whitehouse Road, Suffolk, for example, the edge of an Early Iron Age pit was found to be lined with fragments of several different broken vessels, with other sherds distributed in dumps throughout its fills (J. Caruth *pers comm.*). A careful programme of refitting revealed that most of the jumbled and arranged sherds belonged to three substantially complete jars, with refitting fragments of a further four vessels identified (Figure 8.24). Other formal deposits may include a similar combination of placed and dumped ceramics, though not all the constituent sherds were necessarily selected with the same degree of consideration. In fact, it is quite common to encounter deposits where large parts of one or more pots were interred in the ground alongside a more generalised mix of midden-derived sherd material.

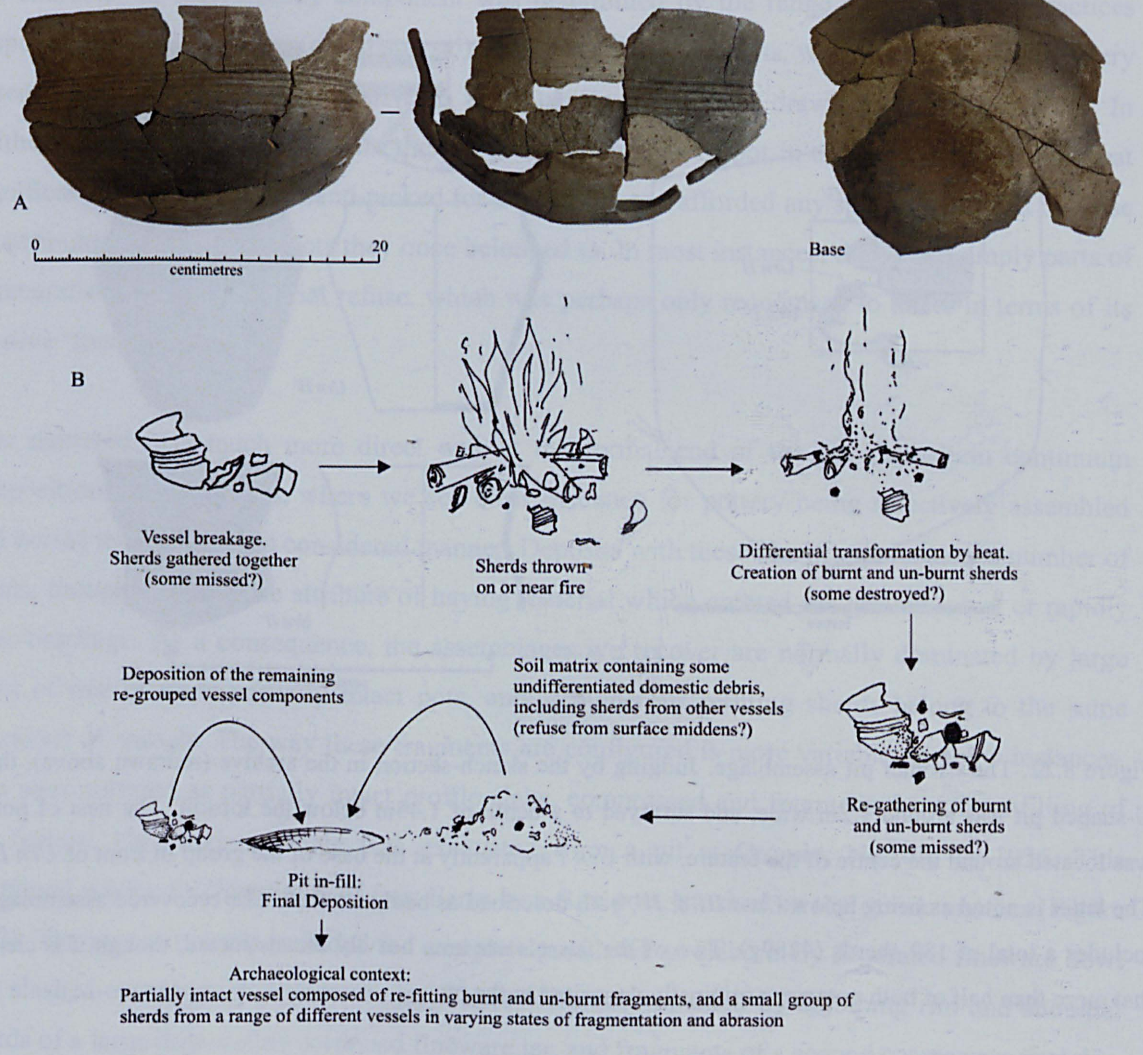


Figure 8.23. Pottery deposit from pit F.2667, Eye Quarry, Cambridgeshire. A: Refitting burnt and un-burnt sherds belonging to the fineware decorated bowl. Note the discolouration of the fragments and the spalling on sherds surfaces. Originally the pot was dark grey in colour. B: Schematic diagram of the post-breakage history of the bowl and the formation of the pottery deposit. The assemblage was recovered from a small circular pit with bowl-shaped profile measuring 0.60m in diameter and 0.30m in depth.

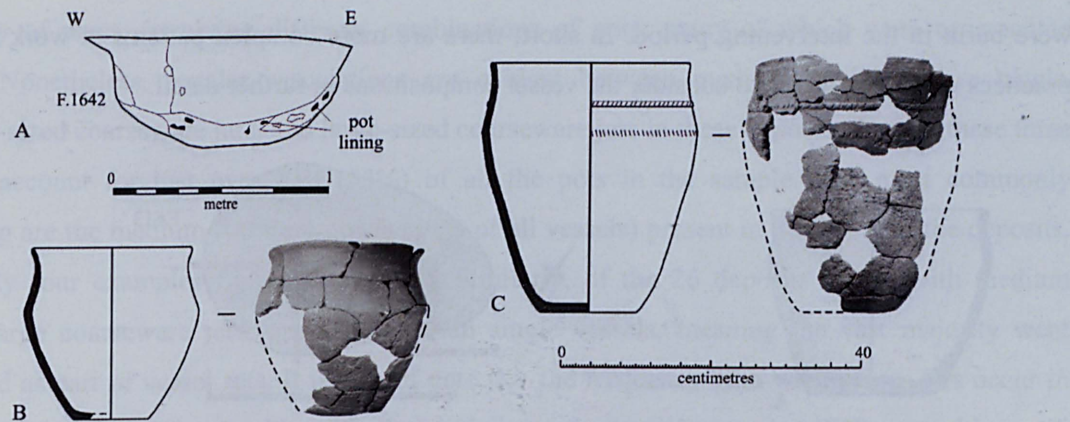


Figure 8.24. Pottery deposit from pit F.1642, Whitehouse Road, Suffolk. A: Section showing part of the pottery lining (courtesy of J. Caruth, Suffolk County Council Archaeology Service). B-C: Profile of two of the semi-complete vessels deposited in the pit. The recovered assemblage included a total of 665 sherds (9304g).

On some occasions it can be hard to tell whether the freshly broken fragments were specially selected for deposition or whether they were just the latest additions to a surface refuse heap, used to backfill the feature. However, formality can be inferred in instances where the large fragments were carefully arranged within these contexts. A good example of such a deposit comes from a large Early Iron Age pit at Rhee Lakeside South, Cambridgeshire (Brudenell and Evans 2006). The base of this feature was covered with a dark artefact-rich silt containing a mix of sherds dispersed throughout its matrix. At the southern side of the pit, this midden-derived material had been packed around a small, pristine coarseware jar, placed upside down on the floor of the feature (Figure 8.25). The midden-material had clearly been heaped so as not to break or dislodge the inverted jar. The same care was not extended to a second semi-complete vessel which lay crushed on its side further to the north.

Collectively, these examples serve to demonstrate the range of different ways that formal pottery deposits were configured. We might therefore argue that overtly structured acts of pottery deposition were not governed by prescriptive rules determining the precise state and manner in which vessels were buried, but were rather guided by a more general understanding of what constituted appropriate forms of treatment for select fragments of freshly broken pot. However, this in itself seems insufficient to explain why certain types and combinations of vessel repeatedly occur in these deposits. It is not without interest that the examples offered above mainly involve finewares, decorated vessels, and/or large coarseware jars. Likewise, despite the fact that all these pots were broken and deposited in relatively quick succession, it is noteworthy that some fragments were burnt in the intervening period. In short, there are more complex patterns at work in these practices which require us to consider the vessel compositions in further detail.

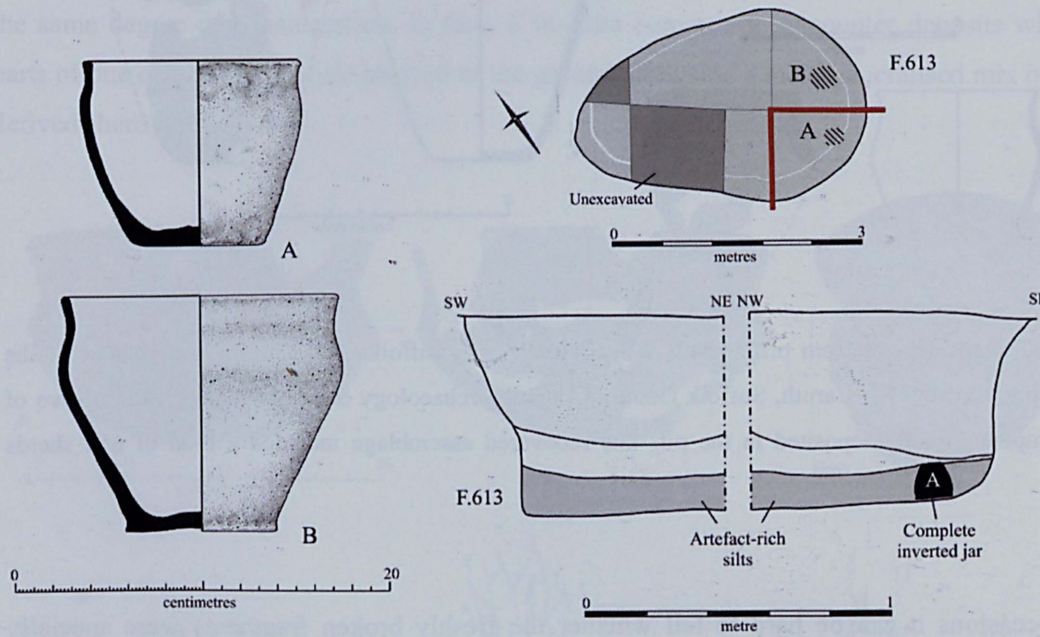


Figure 8.25. Plan, section, and pot drawing from pit F.613, Rhee Lakeside South, Cambridgeshire. A: Small intact jar found inverted at the base of the pit. B: Crushed jar located to its north (pottery illustrations by V. Herring, courtesy of the CAU). The recovered assemblage included a total of 145 sherds (2224g).

8.6.1 Patterns in composition

To explore the issue of compositional patterning, a sample of 50 pits containing formal pottery deposits was examined: 44 from the primary data sites; six from other published examples in East Anglia (37 dating to the Early Iron Age, 13 to the Late Bronze Age). The deposits contained a total of 136 vessels thought to have been specially selected for interment. Of these, 33 (66%) contained more than one pot, constituting a *vessel set* (52% contained 2-4 pots, 14% contained five or more vessels). In this analysis, each pot was categorised by class and size (rim diameter), with associations between pots noted within vessels sets (along with the presence of decoration). The results are plotted on the wheel chart in Figure 8.26, with lines of different thickness used to represent the number of recorded associations. Bar graphs are also plotted around the circumference of the wheel to indicate the number of vessels in each class/size category.

Combining the results in this manner reveals a number of trends. The most striking is the complex web of associations between pots, suggesting vessel sets selected for deposition were configured in a variety of ways, involving different combinations of pots; many of which were ornamented (37%). Nonetheless, regular associations are evident between medium-sized fineware bowls, medium-sized coarseware jars, and large-sized coarseware jars in these deposits. In fact, these three vessels account for just over half (53%) of all the pots in the sample. The most commonly occurring are the medium fineware bowls (24% of all vessels) present in 21 (42%) of the deposits, with only four examples found in isolation. Similarly, of the 26 deposits (52%) with medium and/or large coarseware jars, only two contain single vessels, meaning the vast majority were deposited as part of vessel sets. It is also of note that the frequency with which large jars occur in these formal deposits is at odds with their relative representation across PDR assemblages in general (Figure 8.27). On average, only a quarter of jars fall within the large-very large-size category in the region's PDR assemblages, whereas in formal deposits, the relatively frequency is closer to a half (43%).

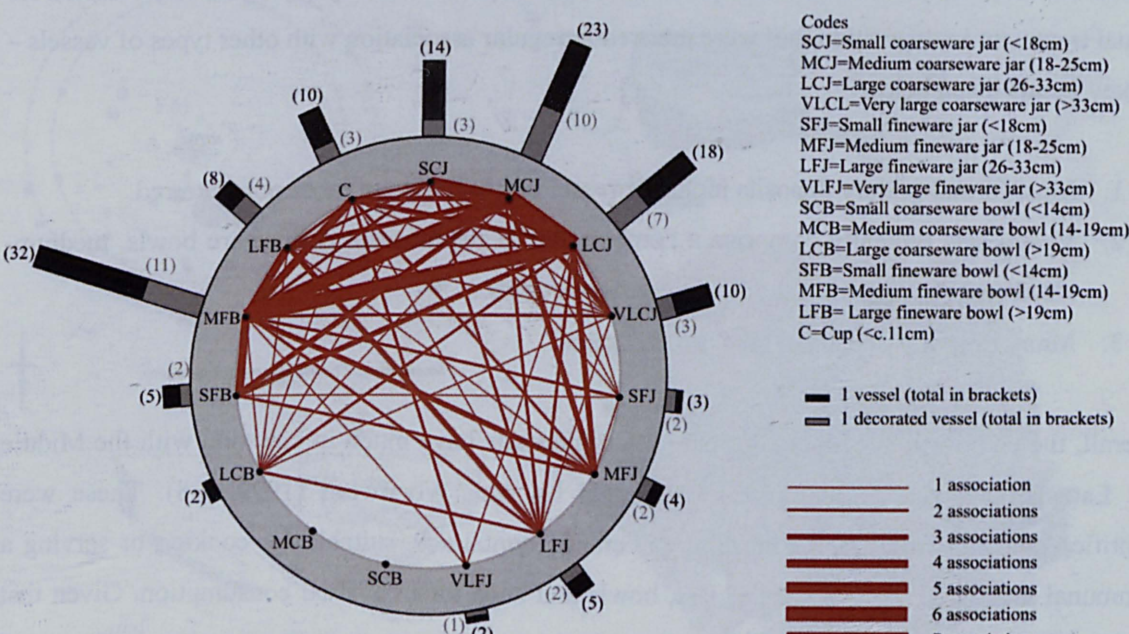


Figure 8.26. Wheel chart showing the number and association of different vessels from 50 separate formal pottery deposits (all from pit contexts). Pre-War Gravel pits Fengate, pits C, F, G, K, L, M, Q, R, S, O, U, Y; Cromer; Tower Works, F.20; Whitehouse Road, F.1462, F.1635; Eye Quarry, F.2667 (Patten 2008); Alysham Bypass, F.37; Bradley Fen/Kings Dyke, F.61, F.66, F.495/6, F.480; F.945; County Farm, F.171, F.348; Fordham Bypass, F.134; North Shoebury, M351, M1002, M126, F.1412A; Rhee Lakeside South, F.613; Slough House Farm, F.403; Trumpington Park & Ride, F.337, F.901, F.932, F.999, F.2009, F.2138; Wandlebury, F.126; Frog Hall Farm, F.4; F.13; Striplands Farm, F.63; Stonea, F.920; Burwell, F.26; Broomfield, F.2061; Game Farm F.1519 (Gibson 2004); Little Bealings, F.8 (Martin 1993); Great Holts Farm, F.413, F.28, F.435 (Germany 2003).

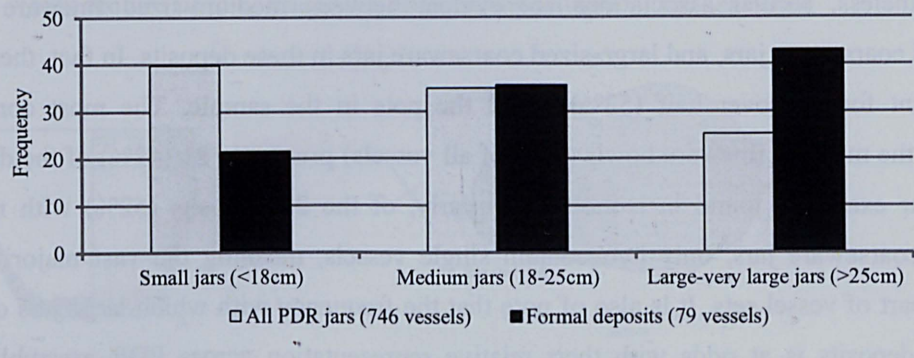


Figure 8.27. Comparison of relative jar frequencies in formal deposits and those from all PDR assemblages in general (from the primary data sites).

Amidst the variability we can see that particular kinds of pots were not only repeatedly selected for formal treatment in deposition, but were interred in regular association with other types of vessels – the key trends listed below:

1. Most formal pottery deposits included vessel sets with two of more pots interred.
2. Vessel sets typically comprise a combination of medium-sized fineware bowls, medium-sized coarseware jars and/or large coarseware jars.
3. Many formally deposited pots are decorated.

Overall, the composition of these formal pottery deposits have much in common with the Middle and Late Bronze Age 'feasting sets' discussed by Ann Woodward (1999, 6-8). These were identified as comprising one or more large ceramic containers, suitable for cooking or serving a communal meal, and various smaller jars, bowls and cups for individual consumption. Given that many of the formal pottery deposits considered in this study incorporate fineware bowls, decorated ceramics, and/or large jars - groups with an emphasis on display and the provision of containers with a large holding capacity - this patterning invites a similar interpretation. Certainly, repertoires with these characteristics are quite unlike the broader ceramic profile of most site assemblages, particularly the Type A coarseware jar dominated groups common to open settlements in this period (Chapter 7). If anything, their collective composition resembles a microcosm of the pottery repertoires derived from the region's ringworks: assemblages also weighted in favour of bowl-rich fineware dining services, profusely decorated coarsewares, and/or large to very large-sized jars (i.e. the ceramic paraphernalia of feasting).

The interpretation that some pots and vessel sets were reserved for use in feasting parties or other contexts for formal dining, may go some way to explaining their selective treatment in deposition. As potentially 'special purpose' ceramics, the values attached to some of these vessels could have conditioned the kinds of responses given to them at the point of burial. It may even be the case that the breakage and deposition of some pots was an integral part of performances at the close of feasts; some acts serving to commemorate these events, and/or the settings in which fragments were placed. At Bradley Fen/Kings Dyke, for example, one such deposit included parts of an elaborately decorated fineware bowl placed on top of a pile of sheep bones. These materials were deposited on the un-weathered base of a pit, positioned at the very centre of the site's largest roundhouse (Figure 8.28). Stratigraphic associations imply that the pit was dug and immediately backfilled at an early stage within the life-history of the structure, suggesting it formed a foundation deposit.

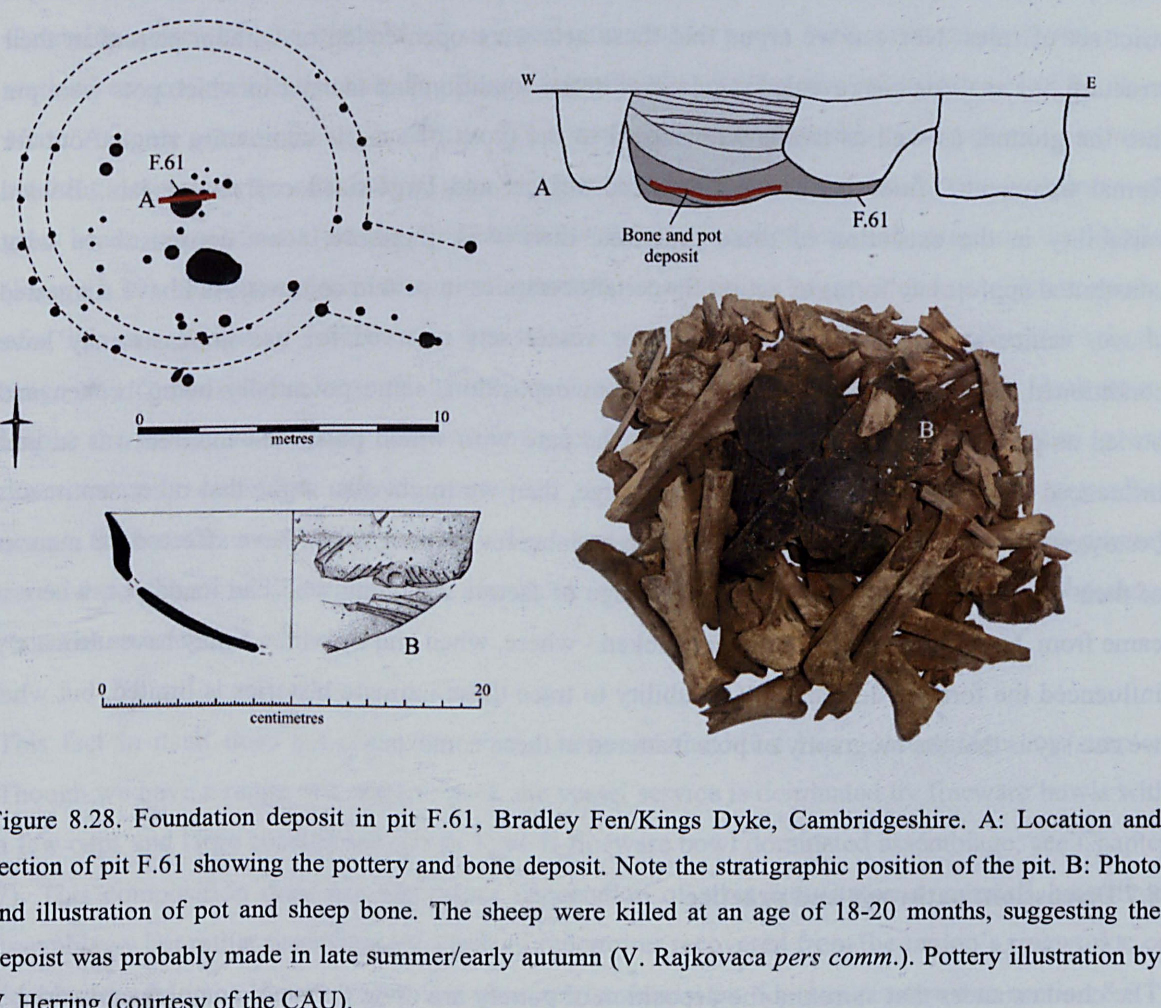


Figure 8.28. Foundation deposit in pit F.61, Bradley Fen/Kings Dyke, Cambridgeshire. A: Location and section of pit F.61 showing the pottery and bone deposit. Note the stratigraphic position of the pit. B: Photo and illustration of pot and sheep bone. The sheep were killed at an age of 18-20 months, suggesting the depoist was probably made in late summer/early autumn (V. Rajkovaca *pers comm.*). Pottery illustration by V. Herring (courtesy of the CAU).

In this instance, the erection of the building - which probably required labour and resources from beyond the household - could have provided the context for a small-scale feasting party, ultimately resulting in the burial of select items and materials from this event. This deposit may therefore have served to both mark and make a combination of material statements about the 'birth' of the house, the symbolic significance of the centre of the structure, as well as commemorating the involvement of the broader community in its construction. Indeed, the meanings presenced in these and other acts of formal deposition were no doubt understood in different ways by different participants.

8.6.2 Summary

Formal acts of pottery deposition, in which careful consideration was given to the selection of sherds and the context of burial, are a regular component of the later prehistoric settlement record of East Anglia. Undertaken in a range of sites and settings, and configured in a variety of different ways, practices associated with the formal deposition of pots were not necessarily orchestrated by a strict set of rules. Nor can we argue that these acts were open-ended or without pattern in their structure, for analysis has revealed regularities in the condition and manner in which pots were put into the ground, as well as trends with regard to the types of vessels commonly singled out for formal treatment - fineware bowls, decorated vessels and large-sized coarseware jars. Behind variability in the execution of these practices, there was, therefore, some consensus on what constituted appropriate forms of action for certain ceramics in certain contexts. As I have suggested above, values attached to individual pots or vessel sets reserved for use in feasts may have conditioned the treatments afforded to them in deposition; some potentially being broken and buried as part of these events. Moreover, if the care with which pots were interred was in part influenced by the roles they played pre-breakage, then we might also argue that other sentiments bestowed on vessels, or qualities perceived to be inherent to them, might have affected the manner of their post-breakage treatment. Indeed a range of factors including who had made pot, where it came from, how it was used, how it was broken - where, when and by whom - may have ultimately influenced the form of deposition. Our ability to trace these intimate histories is limited, but what we can say is that the biography of pots mattered in these contexts.

8.7 Discussion: pathways and practice

The circumstances that surround the deposition of pottery are often far more complex and variable than our accounts give credit. In an effort to temper the recent (over)emphasis on highly formalised acts of ceramic deposition, this chapter has sought to develop a more balanced understanding of the different ways that pots entered the ground on later prehistoric sites in East Anglia. Combining a detailed analysis of the content, character and condition of feature assemblages, it has addressed how practices of deposition range across a spectrum of intentionality, from carefully considered acts involving the selection and formal placement of specific fragments, through to instances were neither the sherd material nor the context of internment were afforded much forethought. However, it is fair to say that many assemblages were configured in such a way that it is difficult to make unambiguous interpretations about which of the three depositional pathways was in effect. There is certainly no relationship between the depositional pathway and site-type or feature type in this region (despite the focus on pit deposits in section 8.6). Indeed, examples of all three pathways can be documented on a single site, and in some instances the practices which lead to the inclusion of pottery within a single feature may be varied. At other times, circumstances may be so extraordinary that none of the pathways outlined in the chapter really capture the right sense of the practices in play.

A case in point is the remarkable Late Bronze Age assemblage from the Must Farm platform site, Cambridgeshire (Knight 2009). This crannog-type structure was built over standing water in a wetland environment in the Flag Fen Basin, immediately adjacent to a palaeochannel of the River Nene. At some point in the ninth century BC, a conflagration brought this platform and its contents crashing down into the silts below, preserving an astonishing array of artefacts - complete pots, glass beads, items of metalworking and charred textiles – all embedded in the positions they landed (Figure 8.29). This unparalleled 'Pompeian-moment' in prehistory has provided us with a snap-shot of a 'life assemblage' of Late Bronze Age pottery; a repertoire believed to reflect very closely the range and composition of vessels in use on the platform immediately prior to its destruction. Unlike the pottery we normall excavate from cut features, this material was never broken in use; never formally discarded, re-used, re-worked, or deposited according to culturally prescribed norms. Rather, the unique events at Must Farm moved the pots from the context of their primary use to the archaeological record in one action; an event which bypassed the complex post-breakage stages of an artefact's life cycle.

This fact in itself does not make the interpretation of the Must Farm assemblage any simpler. Though we have a range of complete pots, the vessel service is dominated by fineware bowls with a few cups and large coarseware jars (a Type B fineware bowl dominated assemblage; see Chapter 7). This composition does not match our expectation of what constitutes a 'normal' household assemblage, but rather resembles the kinds of repertoires recovered from the region's ringworks; or on a larger scale, the 'feasting sets' that characterise formal pit deposits discussed in section 8.6.1. Given the unusual setting of the site, and the presence of metalwork and glass beads, it is tempting to see this whole collection of artefacts as a group specially assembled on the platform for some specific purpose - perhaps feasting and/or exchange. The question which then follows is whether this structure was deliberately burnt down. Are we observing an accident in prehistory, or was this an act of intentional destruction, designed as a dramatic display of wealth consumption? Alternatively, should we see this as an extension of formal depositional practices in which the context selected for interment became the whole site?

Figure 8.29. Photographs of the conflagration horizon and a range of complete vessels from the Must Farm platform site, Cambridgeshire (photos courtesy of M. Knight, CAU). A: Detail of series of fineware bowls and other artefact lying within the silts. B. Two large coarseware jars. C-D: Cups, including an unusual 'poppy-head' cup with pedestal foot (D). E: Complete coarseware jar. The recovered assemblage comprised 950 sherds (27855g), including a total 29 complete vessels.

Though the Must Farm platform is extraordinary for number of reasons, it is a fitting example of how the circumstances behind ceramic deposition can sometimes be exceptional, and challenging to interpret; something which has tended to get lost in recent discussions on the topic. Whilst this chapter has touched upon aspects of the more deliberate, overtly structured practices of pottery burial in East Anglia (and attempted to examine their character in some detail), the most significant findings arguably derive from discussions surrounding the less-considered performances of deposition. In particular, it has been argued that a significant proportion of the pottery in our assemblages may have entered features as a consequence of practices conducted without much fuss or reverence; particularly with regard to the material interred. Certainly, most pottery deposits – which generally consist of small mixed groups of worn and weathered sherds - were neither configured nor buried in a manner suggesting the intention was to make explicit, outwardly symbolic statements. Without question, these deposits have structure on some level, in so far as they reflect cultural responses to refuse, but in most instances the nature of interment does not imply that deposition was motivated by any greater purpose beyond the need to sometimes fill a redundant feature, or remove spent materials from areas of occupation.

Though I would distance myself from simple 'common-sense' understandings of deposition, we do need to think more carefully about the material conditions on settlements in the Late Bronze Age and Early Iron Age. By characterising and contrasting the scale, composition and condition of surface assemblages (where surviving) and those from cut features, I have attempted to show how pottery was ingrained within the fabric of settlement, with localised dumps of sherds and other detritus forming against a more extensive background scatter of fragments. I have likewise argued that the constant reworking of these deposits in the process of occupation resulted in sherds becoming dispersed, mixed and caught up (as opposed to specially selected) in a range of contexts and deposits, potentially without much thought being given to their presence. If we envisage a world in which people were quite literally living amongst the fragments of broken things, then it is easier to appreciate how incidental forms of pottery deposition may have come about. It is also easier to understand how sherds and fragments of other artefacts were not always made to matter in these actions.

On the other end of the spectrum we have moments of deposition where the significance of pottery came into sharper focus. In these formal deposits – where particular pots or pot fragments were selected for burial and/or arranged within the ground with some care – the vessels were quite clearly vehicles for articulating certain statements and concerns. We may never fully comprehend what values were expressed or negotiated in these actions. But the fact that we can observe certain regularities in the kinds of pots singled out for these practices implies that the meanings ascribed to them (meanings generated though contexts of production, use and association) were important in some way. In particular, patterning suggests that pots employed in communal feasting contexts may have been perceived as objects especially effective in making symbolic statements though deposition. Here, their role in consumption activities which brought together members of the community for celebrations, alliances, exchanges and/or rites of passage, may have afforded them a potency that demanded certain responses to how they were deposited, and by whom.

In other contexts and circumstances, there may have been different reasons why certain pots were selected. Objects have complex relationships with people, and we should not assume that pots used in feasts were the *only* vessels to be singled out in this way. More importantly, whatever cultural logics guided the formal treatment of pots in deposition, it is clear that households and communities throughout East Anglia (and beyond) recognised the need to sometimes bury fragments in a considered manner. On the one hand we can discern general trends and common structuring principles at work in these practices, whilst on the other there are subtle differences in the configuration of deposits and the performance of these acts on a site by site basis. All, however, may be considered as variations on the same 'depositional tradition' which, as Hill notes (1995, 116), involves the articulation of '*the same basic repertoire of cultural symbols, but to meet a possible wide range of different circumstances and events*'. What we therefore begin to grasp is a sense of how broader traditions were maintained and made sense of within local contexts, whilst simultaneously gaining a perspective on how these traditions were carried forward across large geographic areas – regions far larger than East Anglia itself. This brings us back to the theme of scale, which is addressed more directly in the final chapter of this thesis.

Chapter 9

Conclusions: pots, practice and society

This thesis began with a series of critical observations regarding both the marginal role of pottery in later prehistory studies, and the loss of scale in our current approaches to the social. As demonstrated in Chapter 2, artefacts have gradually fallen from favour in research over the last three decades, and have generally been accorded less significance when compared to the evidence of landscapes, monuments and settlement. These imbalances have been shown to be a direct consequence of historical shifts in the nature of archaeological enquiry, resulting in a waning confidence in pottery as a material which can be used to make substantive statements about the past. Through a combination of factors - including a dearth of formal training in prehistoric ceramics, and a lack of institutions (commercial and academic) supporting full-time specialists - we have come to foster a very low expectation of what pottery studies are capable of delivering.

In truth, our demands of this material rarely go beyond dating (Morris 2002, 54). This is a far cry from the situation in the middle decades of the twentieth century, where pots were the basis upon which many understandings of British prehistory were founded. Ceramic studies were once fundamental to tracking the origins, history and extent of cultural traditions. Whilst we might now query some of the ways in which equations between pots and people were drawn in this period, we have arguably lost sight of how to harness this material to other forms of social narrative. With few exceptions we have reverted to asking a restricted range of questions of the pottery, and as a result, have yielded answers which rarely chime with the interests of those beyond the specialist community.

One of the central aims of this thesis was to bring pottery back into focus as a material that allows us to address broader issues in later prehistoric research. Specifically, I identified how recent approaches to the social have been rooted in fine-grained contextual studies, with focus concentrating on the close analysis of individual sites and landscapes. In particular, attention has been directed towards understanding how practices which attended to the architecture of settlement (such as acts of deposition, or the construction, arrangement and maintenance of boundaries and buildings) served as a medium though which individuals and close-knit resident groups forged an attachment to place; a sense of home, family and belonging. These studies are crucial, but in most instances an emphasis on the localised construction of identity has occurred at the expense of our thinking about the character of the wider social geography.

It is no great revelation that people were enmeshed within broader social worlds that stretched beyond the boundaries of their farmsteads and immediate 'neighbourhood groups' (Fleming 1985; 132; 1988, 120-122). For the period in question, we are most likely dealing with a complex social mosaic, consisting of a diverse range of identity groups and communities, resolved at an equally diverse set of scales. Yet with our current close focus, it is very hard to trace how different facets of social life were articulated within these wider worlds. One of the central challenges in later prehistoric research is how we can connect our atomised studies, and begin to flesh out the details of the ways broader communities were constituted.

This thesis was written as a response to these observations. It has demonstrated that pottery studies *can* contribute to wider debates in later prehistory, and *can* offer a means of solving some of the problems arising from our common close-grained analytical focus. In tackling these issues, my approach has been to trace the changing character and significance of PDR pottery in East Anglia, exploring how the relationship between ceramic tradition and social identity was articulated. Recognising that social life was both extensive and resolved at a variety of cross-cutting scales, I have pitched my analyses in a multi-scalar fashion, in order to capture a flavour of this complexity (Chapter 4).

Methodologically, I have employed a regional-scale analysis as a frame within which to situate a series of local and contextually specific studies of the pottery. This synthetic, comparative approach has moved from an analysis of broader regional patterning in ceramic styles, and an exploration of assemblage variability, to the detailed consideration of depositional practice. Working at these different analytical levels has opened up the possibility of tracking the ways in which pottery was implicated in the construction of identity at varying scales of social, spatial and temporal resolution. By detailing the ways in which pots were deployed within different spheres of practice, this thesis has begun to build a more textured understanding of how broader social relations were reproduced in East Anglia. The resulting picture is by no means complete. Yet, it does afford a glimpse into a world beyond the household and farmstead, offering important insights into the constitution of the social, and the role ceramic traditions played in this process.

Getting to the point where I have been able to discuss these wider themes has not been straightforward. At every turn, this research has had to confront a series of methodological issues which come from working at scale, and working though the detail of artefact patterning in context: issues of sampling, coverage, bias and analytical balance. Some readers may feel that my detailed treatment of the material distracts from the broader themes I set out to address. However, I would counter such claims by arguing that we need to come to terms with how the *evidence* is constituted. We likewise require a synthesis of the ceramic material currently at our disposal, which has meant grappling with a truly vast body of quantified data.

This thesis has met these challenges head on. As well as attempting to comprehend the nature of past societies in a particular region at a particular time, it has sought to understand the nature of the present material record on which these interpretations are based. In this final chapter I want to reflect on both these wider themes, starting with a consideration of what this thesis has revealed about the constitution of the material record in East Anglia.

9.1 Questions of context and representation: the constitution of the evidence

Given the wealth of evidence for later prehistoric settlement and land division in East Anglia, it seems almost absurd to think that most sites documented in this thesis were unknown of, and completely unanticipated less than twenty-five years ago. As documented in Chapter 3, the picture of the settlement record has been utterly transformed by the introduction of a development-led archaeology. For a region characterised as a '*blank area*' as recently as 1991 (Cunliffe 1991, 89), this sea-change in the practice of archaeology has had a profound impact on the opportunities for excavation and ceramic recovery. Above all it has brought an almost overwhelming abundance of new sites and large pottery assemblages, allowing for the first time a discussion of the relationship between certain types of ceramic assemblage and certain forms of settlement (Chapter 7).

As shown in Chapter 3, we now have the evidence to track some quite distinct contrasts in the nature of occupation and patterning in landscape sequences in East Anglia. In particular, I have drawn attention to differences in the relationship between fieldsystems and visible forms of settlement in the northern and southern halves of the region. I have also identified different traditions of enclosure and settlement aggregation, and have traced how these changed in relation to one another. This variability is not superficial, and would have structured different kinds of interaction and identification - themes that I shall return to in section 9.3. However, our understanding of settlement and landscape variability is far from complete. Whilst commercial archaeology has provided us with a better grasp of this patterning, we do not yet have a balanced picture across the region as a whole.

Development has undoubtedly taken fieldwork into areas previously unexplored, and in some instances, areas once thought to be devoid of settlement altogether; putting more dots on our distributions maps than ever before (Chapter 6). However, critical insight into the nature of later prehistoric occupation has been shaped more by the *character* of certain developer-funded excavations in East Anglia than by the gross *frequency* of interventions *per se*. The significance of this point is often overlooked (e.g. Yates 2007, 19). But as Chapter 3 has demonstrated, most of the detail has been won from the *landscape scale* fieldwork projects afforded by mineral extraction and housing schemes in this region. In particular, it has been the vast open area excavations that have allowed us to comprehend and contextualise the period's remains in new ways. However, these and other types of intervention have not been uniform across the landscape, and have instead concentrated on urban suburbs and the gravel quarries dotted along the regions' major river valleys.

Understanding these patterns of archaeological work has been more than just a matter of background in this thesis. A critical awareness of these trends is fundamental to any study which deals explicitly with material patterning on a regional scale. Above all, biases in fieldwork and artefact recovery have far-reaching implications for our ability to interpret distributions, and ultimately, our capacity to track variations in the way that pots were made, used and deposited. As a consequence, I have made explicit an effort to highlight how our opportunities to observe and recover the remains of the past are shaped by the character and geography of development (linked in various ways to the region's geomorphology and patterns of land use).

I have also drawn attention to the fact that differences in the form, scale and intensity of fieldwork have impacted on the way that the material record has been described within the county HERs. As detailed in Chapter 4, there are considerable difficulties associated with searching and collating the data from these sources. Records are organised slightly differently from one HER to the next, and the resolution and terminology used in the periodisation of sites and ceramics is highly variable. Problems of compatibility stem from regional biases in fieldwork. For example, the large-scale excavations that have taken place in Essex and Cambridgeshire have left a legacy of large ceramic assemblages, a sequence of radiocarbon determinations, and an extensive portfolio of published site plans for both of these counties. This, in turn, has facilitated a more nuanced understanding of the settlement record in these areas, instilling a certain confidence in the dating of later prehistoric sites and their pottery assemblages. The same cannot be said in Norfolk and Suffolk. Here, many of the recorded sites/findspots relate to surface pottery scatters (lacking contextual integrity), or seemingly isolated feature groups uncovered in limited programmes of excavation (see Chapter 6). Until relatively recently, there had been few opportunities to investigate sites on a scale comparable to the other counties. As a consequence, the settlement record in these areas is scarcely understood. Furthermore, with fewer large assemblages having been recovered, radiocarbon dated or fully published, the dating of some sites and ceramics is still frustratingly vague (Chapter 5).

Such discrepancies inevitably make the process of constructing a chronologically comparable dataset from the region's HERs extremely problematic. They also make it difficult to trace certain patterns across administrative boundaries. This situation is not ideal, but is nonetheless a parameter set by biases in fieldwork practice, and the different curatorial traditions which have developed as a consequence. In essence, it is a reality of working with data and material generated in the context of development-led archaeology - material which has formed the foundation of this study.

Working within these parameters has also entailed working in relation to professional conventions surrounding the way that pottery itself is recorded. Since the early 1990s, most ceramicists in East Anglia have followed the guidelines issued by the PCRG, ensuring that similar kinds of attribute data have been generated to broadly similar standards. Though there are issues concerning how one makes all of this data compatible (as discussed in Chapter 4), I wanted to be able to draw upon and integrate my own original analyses with the work of others. For this reason I adopted a fairly conventional approach to attribute analysis. There are certainly other ways of recording pottery, or other analytical techniques that could be used to address the questions raised in this thesis - a topic I shall return to at the end of this chapter. However, the wider objective was to maximise the potential of material *already* recorded, allowing me to build up a strong comparative basis on which to examine assemblage variability. One of the strengths of this study is that it has synthesised an extremely large body of regional data; both on PDR pots themselves, and on the contexts from which they derive. In total, it has dealt with over 90,000 sherds of pottery, recovered from more than 1500 features across 40 different settlements. It has also mapped and analysed the landscape setting of just over 1200 sites/pottery find-spots.

These numbers matter, lending a certain weight to the patterns identified. That being said, the interpretation has not lost sight of the conditions which mould the visibility of the ceramic evidence, no matter the size of the samples employed. On this theme, I have not only considered how contemporary biases in fieldwork shape what we recover, but have examined how the ceramic record is constituted by the circumstances which led to pottery being deposited in the ground in the first place. These circumstances are much more complex than our recent discussions of ceramic deposition have given credit; discussions which have tended to focus on overtly formal acts of interment. As a consequence, we have frequently overlooked the fact that pottery got into the ground in a variety of different ways in the past, and for a variety of different reasons. In Chapter 8, I explore a continuum of depositional practices which grade in respect to the level of consideration given to the ceramic components and their context of burial: a continuum analysed in relation to three Depositional Pathways (Figure 9.1).

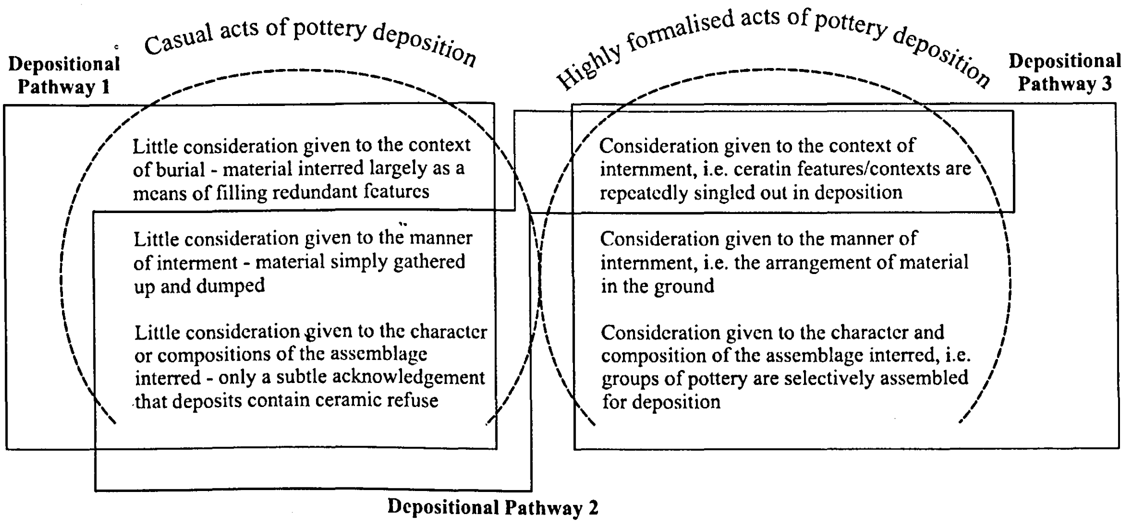


Figure 9.1.Model of Depositional Pathways.

Here, it was argued that most pottery entered features as a consequence of practices conducted without much fuss or reverence; particularly with regard to the way that material was interred. Indeed, a detailed analysis of the wider content and character of pottery groups in East Anglia has suggested that most feature assemblages were neither configured nor buried in a highly formalised manner. These deposits - appropriate to Depositional Pathway 1 - typically comprised small mixed groups of sherds derived from different vessels in varying states of fragmentation and abrasion. They are structured in as far as they reflect cultural responses to refuse on a tacit level, but the nature of their interment implies that depositional acts were largely practical and prosaic in character; most likely motivated by the simple need to sometimes fill a redundant feature, or remove detritus from areas of occupation.

Such deposits are revealing of important aspects of routine practice. Above all, they speak of the material conditions of settlement, informing upon the way that groups attended to the architectural fabric of occupation. First and foremost, the evidence indicates that the vast majority of ceramic refuse was never destined for deposition in cut features, but was discarded on middens or scattered across other surface contexts within settlements. Patterning on sites such as Godwin Ridge and Frog Hall Farm suggests that ceramic refuse was ingrained within the surface fabric of settlement, with localised pottery-rich refuse piles forming against a more extensive, but relatively dense, background scatter of sherds. These surface deposits were the source for most of the pottery that ended up in cut features. As discussed in Chapter 8, most entered the ground as a consequence of other kinds of activities bound up with the maintenance, replacement and reorganisation of settlement architectures over time. Primarily, it was in the process of making and unmaking these fixtures that surface ceramic refuse was moved, reworked, and occasionally deposited. In fact, most pottery was probably interred in instances when areas were cleared to make way for new buildings or working floors; moments in which middens were used to fill redundant features in these spaces. At these times, refuse was deposited with a degree of expediency and pragmatism, with little thought given to the sherd components or their compositional structure. Such practices were not conducted with an eye to making grand, outwardly explicit material statements - even if there was still some tacit acknowledgment of their symbolic properties. Crucially, they were not acts in which the pots themselves mattered to any great extent (a characteristic shared by deposits appropriate to Depositional Pathway 2).

At the opposite end of the depositional continuum, we can recognise moments where the significance of pottery came into sharper focus. Highly formal acts of pottery deposition, in which careful consideration was given to the selection of sherds and the context of burial (Depositional Pathway 3), are not hard to identify in the settlement record. These deposits may be configured in a variety of different ways, but tend to stand out for yielding mainly large un-abraded fragments of one or more semi-complete pots. In fact, analysis has revealed clear regularities in the kinds of vessel selected for interment, with many deposits including sets of fineware bowls, decorated pots, and/or large-sized jars - pots which were visually distinctive, and probably required a high degree of technical accomplishment/labour investment to form, finish and fire (see Chapter 7). Some were potentially 'special purpose' ceramics, reserved for use in communal feasting or other acts of formal dining. Indeed, I have suggested their role in these contexts may have conditioned the manner of their treatment in deposition; some potentially being broken and buried as part of these events.

Certainly, the values and sentiments ascribed to pots, or the properties perceived to be inherent to them, would, at times, have determined the character of their post-breakage treatment. Meanings generated though the social context of making and using certain pots may have been particularly important in shaping people's responses to their fragments. Factors including who made the vessel, how it was acquired, how it was used, or how it was broken and so forth, could all have influenced the nature of burial. We should therefore anticipate a degree of variation depending upon the specific biography of individual pots. On the other hand, it is apparent that particular types of vessel were more commonly implicated in formal deposition than others.

Thus whatever logics ultimately guided these practices in each individual context, there was some wider consensus on what constituted appropriate forms of treatment for certain pots in certain settings.

The practices surrounding the discard and deposition of pottery in the past have had a determining role in the constitution of the present ceramic record. Though our picture is filtered by the variable survival of deposits and biases in fieldwork practice, the size, condition and composition of our assemblages is in no small part a consequence of attitudes and actions in prehistory. This has crucial implications for how we construct ceramic sequences. Without considering the circumstances in which ceramics found their way into the ground, there remains a real danger that exceptional deposits - which are patterned in very particular ways - are taken to reflect the 'normal' picture of the ceramic repertoire. Unfortunately, traditions of deposition have generally been overlooked, which is one of a number of reasons why typo-chronological trends have been hard to identify with any precision in East Anglia.

9.2 Questions of time and sequence: the character and chronology of the PDR ceramic tradition

Given our tendency to study pottery primarily as a chronological marker, it is somewhat ironic that we still have only an outline understanding of sequences of ceramic change in the Late Bronze Age and Early Iron Age in East Anglia. This is partly a function of there being few sites with deeply-stratified sequences of ceramic deposits, and a general region-wide scarcity of pottery-metalwork associations. Efforts to refine ceramic chronologies have also been impeded by problems with the radiocarbon curve discussed in Chapter 5, as well as a failure to respond to the calls for further dating of key ceramic groups (see section 9.4).

Yet with more assemblages now at our disposal, it is apparent that the uncertainties surrounding the classification and dating of PDR ceramics stem not from a lack of material, but rather problems with the models that frame our understanding of ceramic succession. These models, as we have seen in Chapter 5, were founded on material and sites from southern and not eastern England - regional sequences constructed with reference to a small body of un-quantified type-assemblages available prior to the late 1970s. In effect, ceramicists have worked with a typo-chronological framework adopted from southern England for more than three decades - a scheme which is now cracking under the weight of regional data. In fact, existing ceramic chronologies for Wessex and the Thames Valley themselves may not be as secure as some authors lead us to believe, and should certainly not be imposed upon other areas without critical evaluation. Although the picture remains patchy for East Anglia, Chapter 5 has shown that we can begin to detail the content, currency and *regional development* of the PDR ceramic tradition much more closely, linking sequences to a coherent and independent chronological framework.

The framework that I have proposed for East Anglia retains the concepts and terminology of a succession from Plain to Decorated wares, as originally outlined by John Barrett (1980a). However, these have each been sub-divided into *Early* and *Mature* stages (Figure 9.2). They are also defined and dated more closely, drawing on a synthesis of relevant radiocarbon determinations. Within my new sequence, I have quantified temporal changes in forms, fabrics, vessel sizes and styles of surface treatment, creating a series of benchmark patterns which can be used and built upon by other ceramicists. This has not previously been attempted on a regional scale, and whilst some of the resulting trends are more marked than others, each is carefully detailed and compared over time. Analyses have also identified points where our dating resolution and lack of evidence makes certain changes difficult to observe. For instance, the early history of the PDR tradition (c. 1150-1000 BC) remains very hard to document in East Anglia. On typological grounds, Early Plainware groups appear to be scarce, and there are few reliable dates which definitely push assemblages back into the late second millennium BC.

Points where there may be intra-regional differences in the ceramic sequence have also been highlighted. These are most apparent in the Earliest and Early Iron Age (c. 800-350 BC), when Decorated wares were in vogue. The divergences identified have little to do with the currency of specific vessel types or their differing 'style-zone' distributions (aspects of variability detailed in Chapter 6). Instead, they relate to a more general observation that the transition from Early to Mature Decorated wares was not entirely synchronised on a regional level. The patterns are still vague, and will only be resolved with further radiocarbon dating. However, it would appear that Early Decorated wares have a slightly longer currency in the northern half of East Anglia. Whereas new ceramic forms of the Mature phase were taking hold in Essex, south Suffolk and parts of southern Cambridgeshire from around 600 BC, traditional potting practices may have continued to the north of these areas for at least another century or so.

The chronology of other changes may also have varied across the region; particularly the transition from Plain to Decorated wares. This occurred over a period between c. 850-750 BC. However, there are hints (on the grounds of typology and radiocarbon dating) that the 'earliest' Early Decorated ware assemblages derive from the ringworks in Essex (see Chapters 5). As these sites emerged as arenas for large-scale feasting (as discussed in Chapter 7), it is possible that the new emphasis on display and consumption in these contexts fuelled the production of more visually elaborate vessels, generating the first Early Decorated ware groups. Elsewhere, similar patterns may be identified at Runnymede Bridge (Longley 1980; Needham 1991; Needham and Spence 1996) or Petters Sports Field (O'Connell 1986), where the appearance of Decorated wares is also comparatively early. Their materialization on these sites might therefore predate a more widespread adoption in other (domestic) contexts, potentially by as much as 50-100 years. If this sequence is correct, then it implies that certain ceramic changes were not just imperfectly synchronised between different areas of the study zone, but also between different sites and/or individual communities *within* these respective areas.

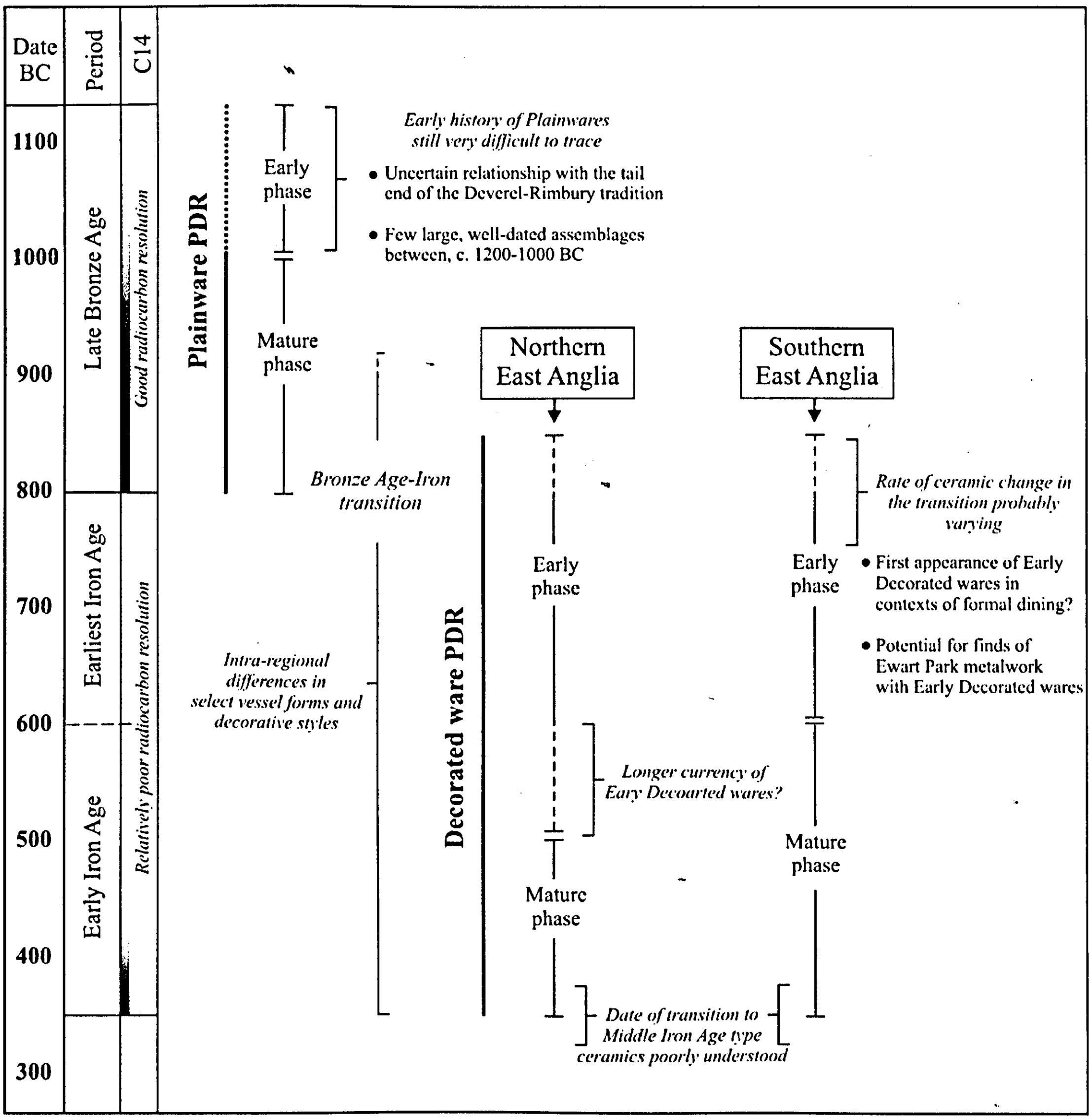


Figure 9.2. Model of ceramic succession in East Anglia.

This kind of variability can be hard to accommodate within models of ceramic sequence, partly because of the conventional practice of neatly compartmentalising pottery traditions. Though it would be helpful if there was a simple synchronised progression from one ceramic phase to next across East Anglia, we cannot continue to assume that changes were always this uniform. Nor should we expect them to mirror sequences identified elsewhere, or indeed, sequences established for other types of material culture - namely Bronze Age metalworking phases. True, some of the broader developments in the PDR tradition parallel patterns in Wessex and the Thames Valley. This is widely recognised. But it does not automatically follow that *all* aspects of this tradition emerged and declined throughout southern Britain at precisely the same times, or in precisely the same ways (Raymond 1994, 69). This thesis has shown that we are no longer justified in homogenising sequences. Regionality must be recognised within broader ceramic traditions, just as it is now recognised for traditions of enclosure, settlement architecture or burial practice in this period.

9.3 Questions of identity and scale: communities, contexts and ceramic traditions

In the not so distant past, discussions of identity in later prehistory were primarily centred upon the role of chiefs or warrior elites within hierarchically organised social systems. In these often very static models identity was a quality related to the rank or social-economic status of groups positioned along a rigid, vertical axis of power and political authority - chiefs occupying the top of the social ladder, and 'peasant' farmers at the base. Today, such generalising societal models are widely recognised as both simplistic and limiting. A measure of social hierarchy is clearly apparent in this period, and against that evidence, it is probably justified to acknowledge the existence of social formations that would fall somewhere along a continuum between Big Man Systems and Chiefdoms. But problems arise when we take these categories as given, singular and stable. When this happens, we miss just how varied, volatile and unstable such societies can be, particularly when viewed in historical perspective. Not only that, in focussing on the overall 'shape' of political structures, we concentrate on only one facet of social identity, ignoring other 'horizontal' social relations in prehistoric societies; such as those between age and gender groups, kin, neighbours, affiliates, and wider communities (Edmonds 1997, 100).

What has emerged from these critiques is a more sophisticated *relational* approach to social identity, which acknowledges the role of practice (e.g. Díaz-Andreu *et al.* 2005; Jones 1996; 1997). This approach recognises that different aspects of a person's identity are brought into focus in different ways at different times and settings, in practical engagements between people, objects and places (e.g. Giles 2007; 2008; Ingold 2000, 145, 318; Insoll 2007, 6). It also emphasises how identity is something that is worked upon at different and often overlapping social scales. It should by now be clear that such approaches to identity have major implications for our understanding of later prehistory. In the Later Bronze Age and Iron Age, we are dealing with worlds in which people recognised themselves within a wide and overlapping range of identity groups; from local solidarities formed around ideas of family through to various larger communities. That process of recognition was carried forward in many different aspects of material life, and I have argued here that these practical engagements included the technological traditions bound up in making, using and depositing ceramics.

It is, of course, one thing to make such an assertion and quite another to demonstrate how this process 'worked' in a given historical context. We can probably take it as axiomatic that people's social worlds were always extensive and complex in the past. But it can still be difficult to move forward from these abstract statements and pinpoint how different kinds of group identity were articulated with one another in specific settings. The problem that we face is not in recognising that wider communities existed, but rather in detailing the levels at which they resided, or specifying what practices brought them into focus. In this study I have endeavoured to trace some of the contours of these complex social worlds by considering the evidence of pottery, *and* the contexts in which those pots turn up. Throughout, pottery has been studied *contextually*; whether from the perspective of its geographic distribution in the landscape, its relationship to different forms of settlement, or to different events in which it was used and consumed. Significantly, the detail of these contexts tells us a great deal about the engagement of people in 'place making' and other kinds of activity that were themselves central to the construction of identity.

In Chapter 6 I demonstrated that East Anglia was densely settled throughout the whole of the late second and early first millennia BC. Though there is evidence for settlement across much of the region, sites were particularly prolific on the lighter soils and low-lying river valleys. In these landscapes, groups were living in close proximity to one another. Neighbouring sites were potentially intervisible, and the distances between settlements are likely to have been less than 1km - ground easily traversed within a few minutes' walk. The form that these settlements took varied. However, the evidence suggests that most people resided within small unenclosed farmsteads, whose archaeological imprint comprises swathes of pits, postholes, and other structural remains (Chapter 3). The general consensus is that these settings were farmsteads, home to a relatively small and probably tight-knit constellation of occupants, potentially organised around extended families or other close-kin relationships.

Whilst the size and composition of these groupings fluctuated as households grew and declined on a largely generational cycle (Brück 1999a), the extent and character of the remains on most sites imply that settlement was often reworked over slightly longer timescales. In most instances, feature scatters on open sites reflect a palimpsest of successive and partially overlapping phases of occupation which gradually shifted through time. This reiterative quality to settlement often blurs any sense of spatial order in these contexts, particularly since the practice was to re-build near, but rarely directly on top of, previously abandoned architectures. Nonetheless, this tendency resulted in settlement remaining focussed on the same locales, suggesting long-term attachment to particular places (especially when compared to patterns in the Middle Bronze Age). Such expressions of continuity may have been important for framing specific ideas of descent and inheritance; potentially powerful concerns in landscapes that were densely occupied - contexts where rights of land use or ownership may have been fiercely contested.

The labour required to create and maintain the architecture of these settlements was probably met by the household itself. As a productive unit, this would have shared/organised many of the day-to-day activities needed to sustain the group in terms of sustenance and basic social needs (care, protection, tutelage etc.). Although there was probably a measure of self-sufficiency in these contexts, it would take special pleading to assert that any one of these groups could have existed in isolation. Certainly, in the river valleys in East Anglia, face-to-face interaction with people outside of the household would have been an inevitable part of everyday life. Given the proximity of settlements, basic daily duties such as fetching water, collecting firewood, or tending livestock, would have resulted in a constant stream of casual encounters. Most were probably structured along the same age and gender lines as the activities themselves, serving to shape common experience and shared identity amongst these parties.

On a broader level, this kind of familiarity between neighbours may have fostered a fairly organic sense of community. This dynamic may have been more sharply focussed during specific points in the agricultural calendar, when tasks such as harvesting or herding required a work force greater than any single household (Figure 9.3). Still, the scales of cooperative labour demanded by cultivation and stock management were probably met at a fairly local level. Whether or not shared locality or kinship formed the organisational basis of this work is difficult to determine. Of course, the two need not be mutually exclusive, since it is likely that settlements across a wide area would have been linked by a web of kinship relations, including neighbours and other local groups dotted along the river valleys. Such ties may have also been recognised in the to and fro of animals; the constitution of flocks and herds shifting perhaps from one season to another, and sometimes actively reworked through selective breeding (Cooper and Edmonds 2007, 185).

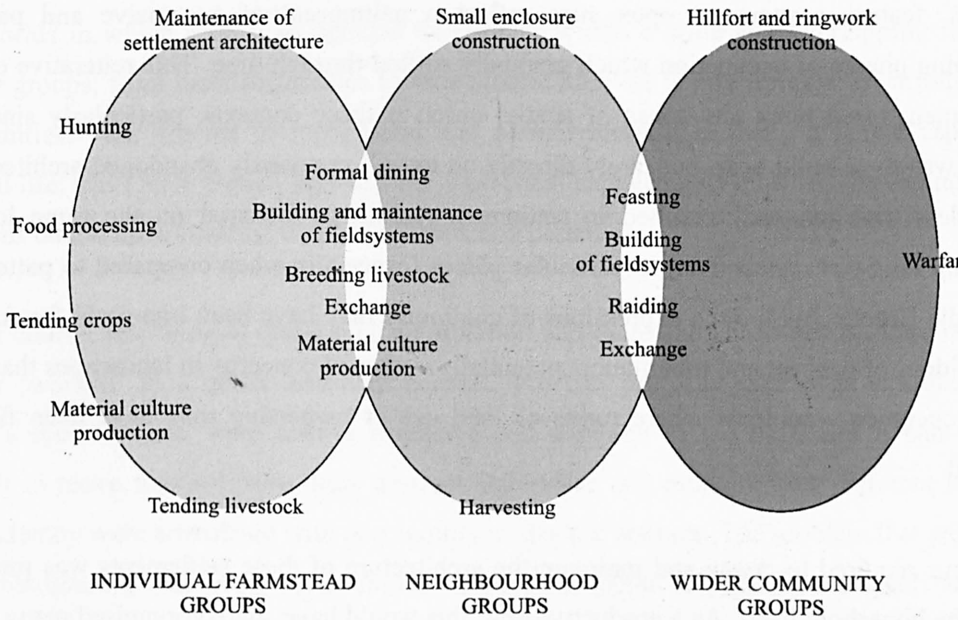


Figure 9.3. Schematic model of the organisation of different activities (based on model by Davis 2008, 39, Fig. 4.6).

These networks would have structured a series of rights, allegiances, and reciprocal arrangements between households; bonds on which groups would have depended for material and social support. In conditions that probably always held a measure of unpredictability, these formed a lifeline in times of unexpected crises (Gosden 1989, 364). Towards the close of the Early Iron Age we even see some households drawing together and forming larger aggregated settlements in which labour and resources were possibly pooled communally (particularly grain, since pit-silos dominate their architecture). The strength and stability of these moral economies, and the capacity of households/other collectives to maintain or manipulate them, will have varied. However, we might anticipate that ties within the local vicinity were oiled more regularly through contact and exchange, especially between neighbourhood groups who worked the same land.

Some of the more tangible traces of this community endeavour are preserved in the form of fieldsystem ditches and settlement enclosures. Though most of these field boundaries were laid out in the Middle Bronze Age, some continued to be built and/or maintained in Essex throughout the Late Bronze Age, and possibly into the Early Iron Age (see Chapter 3). Certain field blocks and paddocks may have been constructed in a single episode, whilst others were probably worked on periodically over a number of years or even decades. The 'grid' was certainly not uniform, and differences in the morphology of these boundaries hint at contrasts in the scale and duration of the labour involved in their creation. Whether or not these boundaries provided a framework for land ownership and agriculture intensification is more debatable (Yates 2007). What we can say is that fieldsystem construction/maintenance was as much a basis for social interaction and identification, as it was a means for increasing productivity (Barrett 1994; Cooper and Edmonds 2007, 136; Evans and Knight 2001, 95).

As with fieldsystem ditches, different scales of communal labour were required to create the various forms of settlements enclosure built and occupied during the Late Bronze Age and Early Iron Age. These sites are not particularly common, but vary in magnitude. The smallest enclosures bounded single farmstead-type settlements like Lofts Farm (Brown 1988b) and Broomfield (Atkins 1995). These may have been constructed with a relatively small labour force, perhaps drawn from adjacent settlements. Their architecture suggests a concern with the definition of the household; a commitment to particular places in the landscape, and potentially, a desire by the occupants to distinguish themselves from neighbouring groups (Thomas 1997). Certainly, these boundaries may have served as a sign of the inhabitant's capacity to muster an external work force for their own needs- a demonstration of their connections in the local community, and their ability to call in debts and obligations.

A far greater labour commitment was required for the construction of the region's scattered ringworks and handful of hillforts. These large-scale projects necessitated the mobilisation of a substantial work force from the wider community, potentially throwing together groups that at other times had little direct contact. Yet, it was not only labour that was consumed in the excavation and erection of these earthworks. There were also raw materials such as the wood required for the ramparts, palisades and elaborate gateway structures that accompany such monuments. At Springfield Lyons, for example, the original bank revetment would have included nearly 150 upright posts alone (Brown and Buckley forthcoming); roughly the same amount needed to build 10-15 roundhouses. The felling of these trees, and the dressing and moving of timber would have been a time consuming, labour-intensive process; just one of many tasks involved in construction.

Age, gender, kinship and experience are all likely to have played a part in shaping the organisation of this labour. Certain undertakings will have required the breaking down of family or other kin-based units, and the formation of larger corporate work gangs (Sharples 2010, 296). This reshuffling of familiar labour arrangements was central to the structuring and enactment of broader social relations. It was not just ditches and banks that were crafted though these activities, but a *community of builders* (Evans and Knight 2001) - bonds forged between participants who toiled shoulder-to-shoulder, day-after-day. These projects were a medium through which larger social collectives made and defined themselves. In short, they provided a mechanism for social integration, in which '*the very act of building allowed the construction of identity*' (Brück 2007, 31).

Still requiring resolution is the issue of how these larger-scales of communal labour were formally coordinated, and under whose authority. Given the unlikely scenario that groups spontaneously arranged and undertook these projects, should we envisage coordination though an elected leader, or more removed chieftain-like modes of authority? Ringworks are often taken as evidence for a measure of local hierarchisation in the Late Bronze Age, but as I stressed in Chapter 3, the roles of these monuments may have changed dramatically throughout their life history. Likewise, we still know little about the region's hillforts, or the manner of their occupation. What evidence we have suggests there was no single construction horizon in East Anglia, or any obvious patterning to their development or use.

It would therefore seem unwise to assume that all hillforts reflect the imposition of some over-arching political will, or that they were all established and inhabited in much the same way. In a region renowned for its scarcity of hillforts, it seems likely that the conditions which encouraged their construction varied. Local leaders' adept at orchestrating people, things and large-scale building projects no doubt emerged at times during this period. It is also likely that coercion played a role in construction, and that warfare of one kind or another was probably endemic (Sharples 2010). However, the fact that we struggle to identify these 'leaders' in the material record, suggests that political authority was as unstable, or un-enduring, as the conditions which led to the creation of some of the larger enclosed sites in East Anglia.

One of the dangers of moving from descriptions which lay out a sketch of the landscape from house to hillfort (as I have just done) is that they can conjure up a relatively simple and essentially stable model of social geography, and by extension, a social hierarchy. These were precisely the kinds of social models developed in the 1970s and early 1980s, particularly by Barry Cunliffe for the Iron Age in Wessex (Cunliffe 1984b). As noted above, these have significant limitations. The social world was by no means as stable as Cunliffe and others imply, and in that world, people were never just chiefs or subordinates. The argument I have developed in this thesis is that the more complex and fluid conditions of the Later Bronze Age and Early Iron Age can be traced, to some extent at least, in the evidence of ceramics. Perhaps the clearest illustration of complexity comes from the regional scale analyses reported in Chapter 6, where I examined the distribution of distinctive pottery types across East Anglia. For almost forty years, this topic has been addressed in reference to a set of ceramic style-zones defined by Cunliffe, traditionally interpreted as delineating territories of discrete ethno-tribal entities (e.g. Cunliffe 2005, 591). Although this model has provided an enduring framework for organising the material, both the validity and utility of these groupings are now highly questionable - as is his direct reading of the relationship between ceramic traditions and social groups. My own analysis of the ceramics has revealed a more complex series of distributions. Some of these patterns are resolved over large areas extending beyond the boundaries of the study zone, whilst others coalesce around specific river valley systems. Though there is a tendency for distributions to centre upon either the northern or southern halves of the East Anglia, there exist cross-cutting patterns that skirt along the coastal fringes in the east of the region, and the fen-basin in the west.

The plots themselves include a similar range of bowl forms and decorated finewares to those which Cunliffe mapped. However, I have identified additional patterning in distinctive jars types, base forms and ornamented coarsewares. Moreover, I have been able to show that this intra-regional variability did not just emerge in the period after c. 800 BC, as is often supposed, but can be traced back into the Late Bronze Age. This has implications for the way we think about change across the Bronze-Age Iron Age transition. Though Needham (2007) had recently reasserted some of the fundamental differences between the final Bronze Age and Earliest Iron Age, the evidence still points to significant continuities between these two periods, especially in the character of the settlement record (e.g. Haselgrove and Pope 2007, 6-7; Brück 2007, 25).

These points aside, what the broader spatial patterning of ceramics tells us is that pottery traditions varied in East Anglia in ways which were far more complicated - both geographically and temporally - than has previously been assumed. In short, patterns are not reducible to the kind of static distributions that Cunliffe and others have used to define distinct tribal territories (e.g. Blackmore *et al.* 1979). The picture is blurred, resolving itself in different ways depending upon the scale(s) at which we look at the evidence. The question, of course, is where does this leave us? Can we say anything meaningful about such tangled patterns and how they arose? Can we outline the mechanisms by which potting traditions were reproduced in East Anglia? And ultimately, can we use these discussions as means of exploring the character of people's involvements in broader social worlds?

Aspects of these questions have been addressed in the course of Chapters 6 and 7, where I considered the social contexts in which pots may have been made and used in East Anglia. Overall, what those analyses tell us is that the 'blurring' of patterns is actually what is of interest. *The patterning we can see is complex and tangled because it is a consequence of relations which were themselves fluid and dynamic, particularly over time.* That being said, when we take a wider perspective on the material, we can also observe aspects of a shared potting tradition at a regional scale. In fact, there is no denying that most vessel forms in the PDR repertoire appear broadly similar from one part of East Anglia to the next. Much as we can pinpoint intra-regional differences in the distribution of certain distinctive pots, or track chronological changes in the ceramic record, there is nonetheless a 'sameness' to the material in each period. If we accept that *most* pots were made locally and not the subject of circulation as either goods or gifts, then how do we explain these similarities? How do potting traditions 'work' at this scale?

The basic implication to be drawn from this patterning is that there must have been some widespread acknowledgment of what was appropriate with regards to material practice. This collective sense that there were right ways of doing things, not only extended to how pots were formed and fashioned, but also to how they were used. The fact that we can identify regularities in the composition of assemblages from different forms of settlement in East Anglia, suggests that there were strongly held ideas about what kinds of vessel service were appropriate for dining in different settings. For example, in the Late Bronze Age, the residents of most farmsteads would have sat down to daily meals that were cooked and served with a simple and largely unembellished repertoire of mainly coarse, locally made jars (Chapter 7). Through the structure of the vessel service changed in the Early Iron Age, a similar series of patterns and practices can be also identified in these contexts.

On the one hand, these activities can be understood as attending to the needs, relationships and solidarities that existed within groups at this close scale of social resolution. But on the other, they were conducted with a repertoire of materials which were made and used in ways that were much more widely acknowledged. At a fairly tacit level, this was an expression of common connections and cultural similarities; practices that would have been recognised and replicated across farmsteads throughout the region. In essence, what we are observing are activities conducted in relation to a broader set of understandings and etiquettes that were widely shared. And what makes this all the more remarkable, and worthy of our attention, is that these similarities arose from local traditions of production.

At present, we can only speculate about the mechanisms by which these collective understandings of how to make and use pots were maintained over large areas. However, we can identify some practices that might have allowed these traditions to be transmitted and reproduced at broader scales. The first is through the context of learning potting practices. As discussed in Chapter 6, techniques involved in ceramic production were likely to have been learnt by direct engagement. In the absence of evidence for specialised ceramic production, that engagement may have come from family members or relatives experienced in potting. Though most skills were no doubt acquired through close quarter observation and instruction within individual farmsteads, knowledge of some stages of production may have been learnt and transmitted through group participation. In particular, clay procurement, clay processing and firing were likely to have been organised between groups from different households, or even different neighbouring communities. Though several ethnographic studies suggest that 'household scale' ceramic production was typically in the hands of women (Arnold 1985; Skibo and Schiffer 1995; Rice 2005, 184), we should be wary of these generalisations, and their applicability to the context in question (Hill 2002a, 83). What we can say is that these activities would have served to embody a shared set of skills amongst local potters, together with shared knowledge of how, where and when to obtain and work the raw materials needed in the potting process. Such moments would have also offered a context for individuals to observe, assess and discuss each other's products. These, in turn, would have helped to mould a collective perception of what constituted an acceptable range of variation in the form and decorative finish of pots.

Other technical and aesthetic tendencies were also structured and reproduced through wider networks of inter-household interaction. Certainly, ideas about how pots were used to process, present and serve food were not just engendered though mealtime activities within the farmstead, but also at times when people dined in the company of neighbours, friends, and others outside of this context. As Chapter 7 demonstrated, where we glimpse these episodes of inter-household dining, the basic structure of the pottery assemblage often shifts. In particular, we encounter repertoires dominated by finewares and other vessels distinguished by their degree of decoration, or their capacity to hold large quantities of food or drink. These were specialised dining services geared toward the display and provisioning of foodstuffs for episodes of communal consumption: the pots brought out for high days and holidays.

Such events were pitched at different orders of magnitude in different contexts. On most 'normal' open settlements, deposits of fineware vessels imply that specialised moments of consumption were relatively small-scale in nature, perhaps involving members of two or more household groups. On enclosure sites such as the ringworks, however, the scale of the associated assemblages suggest community-wide gatherings and large-scale feasting activities. These were contexts where the broader community came into direct focus; events where foodstuffs were provided, and pots were caught up in the gift giving of food and drink. Here, consumption served to establish and affirm connections between groups, fostering a wider sense of corporate identity and belonging. It also shaped common understandings of etiquette in formal dining, instilling a shared sense of which vessels were appropriate to deploy.

These rules of etiquette not only governed the choice of pottery service, but the manner in which the residues of these events were treated in deposition. Importantly, where we find fineware dominated assemblages and evidence of communal consumption, we also encounter more structured forms of depositional practice. Formal dining and formal deposition appear to go hand in hand in East Anglia. Whereas most pottery slipped away unacknowledged in day to day refuse practices (Depositional Pathway 1), in moments where detritus was generated in the context of communal dining, the material often appears to have been gathered up and buried in a more considered manner (Depositional Pathways 2 and 3). The details of how these deposits were assembled tend to vary. However, whether we talk of vessel sets placed in pits on farmsteads, or massive dumps of pottery in the terminals of ringworks, there is the sense that these acts served as a way of concluding, 'fixing', or committing to memory, connections between the participants, the place, and the events themselves.

The larger community-wide gathering at ringworks or hillforts also provided novel opportunities for interaction, especially between non-neighbouring groups who may have had little contact at other times of the year. These encounters were important for the wider transmission of potting traditions, both through the sharing of technological knowledge (by discussion and observation), and the exchange of vessel themselves. Though it is difficult to identify non-local ceramics with any confidence at present, fineware pots probably moved between people in these settings. It certainly seems likely that finewares (and their contents) were brought to ringworks and other sites by groups participating in feasting activities. Indeed, it is notable that many of the distributions in Chapter 6 feature fineware decorated vessels, suggesting patterns of inter-community exchange may account for some of the wider stylistic affinities mapped across East Anglia. Given the levels of accomplishment needed to produce these vessels, coupled with their role in formal dining contexts (all finewares in the Late Bronze Age, and decorated finewares in the Early Iron Age), these pots were potentially an attractive medium for gift exchange.

However, it was not just technological knowledge, concepts of etiquette, or fineware pots which passed along these broader community networks; people were probably moving too. Even within a constellation of neighbouring farmsteads, it is hard to imagine small-scale groups conforming to strict rules of endogamy. Rather, it seems more likely that wider communities were interdigitated by kin relations forged by individuals marrying and moving outside of the immediate local group. Assuming that potting was a gendered activity, exogamy may have been one of the principal means by which technical traditions and etiquettes were inculcated at broader scales - traditions that became tacit expressions of wider community identity. Fleshing out the details of these practices is difficult, not least because we cannot be sure of who was making pottery in prehistory, or who moved between communities in marriage. We certainly cannot assume that it was always women who relocated, or that technological knowledge was necessarily passed along the matriarchal line. Nevertheless, we can at least outline a suite of social mechanisms which were likely to have bound local groups into wider communities, and at the same time bound local understandings of material practice into broader traditions (Figure 9.4). These were articulated though regular contact between households and neighbouring farmsteads. They were also structured by kinship and labour arrangements, which situated groups within broader networks of exchange, affiliation and obligation; networks which transcended the purely local. The widespread and long-term reproduction of pottery traditions were therefore keyed into these different spheres of sociality - patterns of life that were complex, changeable, and at times, geographically extensive.

9.4 Questions?

This thesis has tracked some of the ways in which ceramic traditions were entwined with the social in the late second and early first millennium BC. It has examined pattern and variability in the PDR tradition in East Anglia, and explored how identity was articulated through material practice in different ways in different settings. This captures a flavour of the varying scales at which communities were resolved in later prehistory. It has also provided us with a sense of how these groups were constituted through different activities, many of which involved pottery. The emerging picture of the social geography is therefore complex and dynamic. However, it is perhaps fair to say that some of these arguments have been taken as far as they can with the dataset engaged in this thesis.

Further insight would no doubt be gained by broadening the study-zone, particularly since many of the distributions documented in Chapter 6 extended beyond the region's borders. Even with an area the size of East Anglia, we cannot yet trace just how extensive certain patterns are across the landscape. For example, there were probably a number of traditions shared upstream along the major river valleys which exit East Anglia, including the Nene, Ouse, Cam and Thames. There are also hints of connections around the western side of the Fen basin, extending into Lincolnshire. It would, therefore, be useful to conduct similar studies in neighbouring regions in order to trace these broader worlds, and contrast patterns and trajectories that exist in other areas. Over and above these issues, there are also many questions that still remain

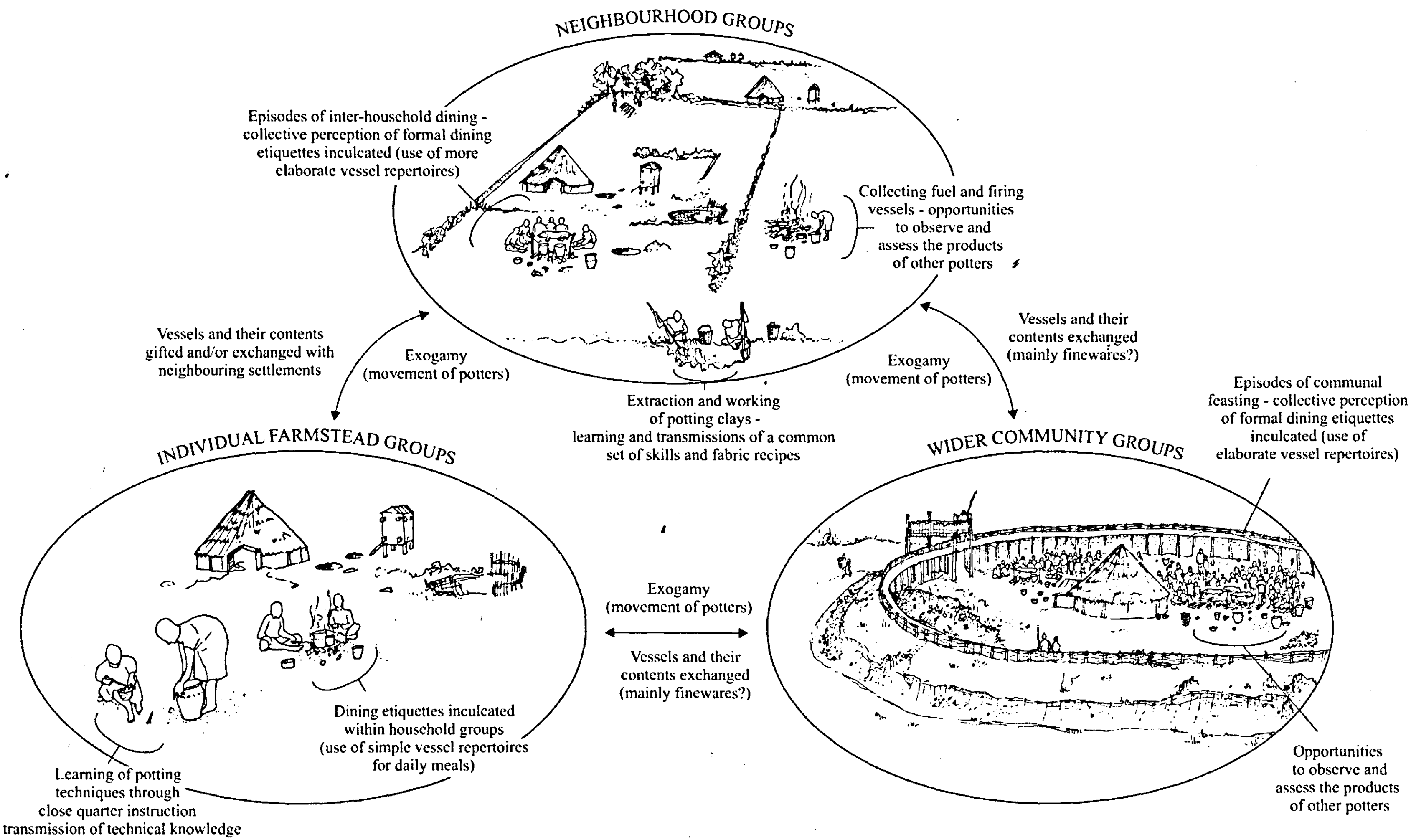


Figure 9.4. Schematic model of how potting traditions were reproduced in East Anglia.

regarding the precise social mechanisms by which ceramic traditions were realised and reproduced across East Anglia itself. Whilst I have been able to outline some these in relatively broad terms, further resolution could be gained by exploring other dimensions of material variability, especially with regards to the production, use and dating of ceramics in the PDR tradition. In response, the following questions may be highlighted:

- What were the contexts and circumstances of ceramic production in East Anglia?
- Can we detail the technical sequences of production for different forms and styles of PDR pot, and track the extent to which these vary in time and space?
- Was there small-scale specialist production of certain fineware ceramics (i.e. burnished bowls in the Late Bronze Age and fineware decorated vessels in the Early Iron Age), and if so, how were these traditions reproduced alongside the 'household scale' production of coarsewares?
- How were different types of PDR pot used in culinary activities, and can we track variability in the ways in which vessels of similar form, size and style were deployed on farmsteads throughout East Anglia?
- Can we refine the dating of our ceramic sequences, and establish further intra-regional patterning in the chronology of ceramic change?

Although this thesis has touched upon some of these topics (particularly with regard to chronology), there are other analytical approaches we might use to explore these themes and questions in much greater detail.

9.4.1 Technology: material traditions and sociality

In the first instance, there is a pressing need for technological studies of PDR pottery in East Anglia, since we know few of the details of how pots were actually put together in this period. One approach might involve examining the sequence of techniques in ceramic production, including the decisions and unconscious motor actions involved in different stages of the PDR potting process - the *châine opératoire*. This has proved an effective way of exploring how social relations, norms and values were articulated though material technologies in prehistory (particularly with stone tools - e.g. Edmonds 1990), but has not been systematically used in examining Late Bronze Age and Iron Age pottery. Indeed, it is fair to say that studies explicitly targeting technical traditions are altogether very rare in British ceramic studies. One exception is Francis Raymond's work on the pottery from the Wessex Linear Ditches Project (Bradley *at al.*

1994). Here, despite similarities in the outward appearance of pot, analysis identified subtle distinctions in technological traditions congruent with the community/territorial units defined by different 'compartments' of the linear ditch system (Raymond 1994, 77).

Similar studies are needed in East Anglia. In particular, it would be valuable to know whether variability existed within production sequences of visually similar PDR pot types, and if so, the scale at which this variability was resolved. Ethno-archaeological studies suggest that the motor-habits of primary fashioning techniques often constitute very stable elements of pottery traditions, reflecting some of the most rooted and enduring facets of social identity (Gosselain 2000, 193). If this was the case in prehistory, then technological analyses could shed light on ways that the broader traditions identified in this thesis were realised and reproduced within local communities. At the very least, the detailed characterisation of the nature, extent and duration of technical traditions would provide another dimension of variability to set against the evidence of form, use and depositional context. The Cam Valley, Cambridgeshire would be an excellent context in which to conduct such a study, as there are a number of large Early Iron Age assemblages from this region, all of which share stylistic affinities. Here, there is real potential of tracking fine-gained differences in ceramic production, operating within and between communities in this valley system.

9.4.2 Characterisation

Understandings of pottery production and exchange would also be enhanced by petrological studies. Ceramic petrology has never been extensively employed on PDR pottery in East Anglia, largely because flint is the dominant temper in this tradition, and is widely available from the region's landscape. Without being able to closely source this ingredient or other components in the clay matrix, it can be difficult to ascertain how much pottery was produced locally, and how much was acquired from elsewhere. These constraints have not encouraged much enthusiasm for petrological studies of the region's PDR pots. However, rather than abandoning this technique, we need to change our expectation of what petrology can deliver in this context, and more importantly, change the kinds of questions we ask from it.

First and foremost, the role of petrology should be to characterise fabric recipes, and explore the extent to which there is variability within particular wares and assemblages that are *not* identifiable macroscopically. We may never be able to pinpoint the exact origin of potting ingredients, but petrological analysis can still answer the question of how likely it is that pots in a particularly category of wares were made from materials derived from the same broad source or from a variety of different sources. Used appropriately, petrology can be a valuable tool for discussing the movement of raw materials, pots and people. An obvious place to start would be with a study of the region's finewares. For example, we could apply petrological analysis to examine variability in the recipes of finewares from an open settlement like Striplands Farm, and then compare the results with similar material from a ringwork such as Mucking North Ring. Given the suggestion that the latter were a focus for communal gatherings - to which pots as well as people may have travelled - we *should* perhaps expect there to be greater variability in the composition of these fineware assemblages. Where we have models or questions to test, petrology can be a useful technique. However, these have to be pitched appropriately, meaning we have to be more creative in thinking about applications.

9.4.3 Residues and use histories

Other analytical approaches are needed to answer some of the more basic question about PDR pottery in East Anglia, particularly concerning how pots were used in culinary practice. At present, we work with the general *assumption* that coarsewares (mainly jars) functioned as cooking and storage utensils, whilst finewares (mainly bowls and cups) were reserved for serving (Barrett 1980a). To some extent, this is supported by my analysis of visible residues in Chapter 5, but the data is very partial and heavily dependent on the way material is cleaned in the post-excavation process (see Chapter 4). These points aside, my basic survey has shown that the patterning of these traces is complex, shifting in relation to vessel-size, date, and context of use (see Chapter 7). However, we still do not know what was being cooked or stored in these vessels, or for that matter whether finewares were *only* used as serving receptacles. Targeted programmes of residue analysis using gas chromatography would help to address these issues, and should be used to test the kinds of patterns identified in this thesis. In particular, we would benefit from knowing whether there are contrasts in the lipid or other signatures of different classes and size-ranges of vessel. In the first instance, studies could focus on single assemblages, before branching out to explore patterning in these categories across different site-types, and different contexts of consumption.

9.4.4 Chronology

A more immediate research priority concerns the dating of pottery. It is clear from Chapter 5 that if the project of tying-down regional ceramic sequences is to be taken seriously, then we must adopt a more robust strategy for radiocarbon dating pottery groups. Though the number of relevant determinations has slowly increased in the last decade, the approach to dating is still pedestrian and piecemeal. This is wholly inadequate considering our reliance on pottery for phasing. The problem is particularly acute in Norfolk and Suffolk, which share only a handful of useful determinations. This is especially frustrating when we consider that a) large closed assemblages of PDR pottery are no longer in short supply in East Anglia, and b) radiocarbon dating is now a relatively inexpensive procedure.

If it were mandatory to obtain at *least* one AMS date for every site/feature assemblage with over 5kg of PDR pottery (where datable samples could be identified), then with the current rate of development-led fieldwork in this region, problems associated with a dearth of determinations would easily be resolved within a matter of years. This might be wishful thinking, but some kind of minimum requirement is necessary to push forward this agenda in the short term.

On another front, retrospective dating programmes for previously published assemblages are also needed, specifically for the region's type-site assemblages (e.g. Darmsden, Linton, Wandlebury, Lofts Farm[34]). Given the likelihood that these will continue to shape our typological schemes (through quite unjustifiably in some cases), it is imperative that they are anchored to a secure framework of absolute dates. One priority is the re-dating of pottery sequences from the Mucking Ringworks, since both sites have yielded substantial stratified assemblages which straddle the Bronze-Age Iron Age transition. The character of ceramic change in this brief period is poorly understood both regionally and nationally, and the current dates for these sites are too few and too imprecise to allow reliable sequences to be established. In this context, new dates and Bayesian modelling would be extremely beneficial, and could resolve the issue of when these monuments were finally abandoned.

9.4.5 Responsibilities and expectations in routine fieldwork practice

On a broader note, techniques like radiocarbon dating, petrology and perhaps even residue analysis, should no longer be seen as publication luxuries in the commercial sector, but standard procedures implemented at assessment level. Ceramicists have a responsibility to make sure that these techniques are recommended, so that we can address basic outstanding issues to do with

[34] Carbonised residues survive on select sherds in all these assemblages, and it would be easy to sample for radiocarbon dating. This has been trialled with a single date for the West Harling type-assemblage (courtesy of the CAU). Though more dates for this material are required, early indications are that the assemblage might be several centuries later than is often assumed (see Chapter 5).

ceramic chronology and vessel function. There is also an obligation for monitoring authorities in archaeology to *insist* that these recommendations are properly implemented; preferably at an early stage in the post-excavation process. Whilst the results of these procedures will always be welcomed, it would be far more useful to have them during analysis, so that they can be properly integrated in reports. I would also argue that commercial units have a duty to fund targeted, but long-term programmes of petrology or residues analysis, even if at first the findings for each assemblage are less than spectacular. With both applications, meaningful results will only emerge from comparative studies, once a body of data has been generated.

In general, however, data shortage is not an issue for later prehistoric pottery studies in southern Britain. As result of over two decades of development-led archaeology, we now have an extraordinary quantity of high-calibre pottery data. This is not always organised in a user-friendly format, but the real problem resides in the fact that we have not found ways of drawing on this resource to routinely address broader themes in prehistory. This thesis is an exception. Yet in routine fieldwork practice, pottery still tends to be dealt with on a site-by-site basis. This limits the scope for synthetic studies or broader comparative analyses. In most standard post-excavation projects, the only requirement placed on ceramicists is to classify, date and report on the material before them (see critique by Blinkhorn 1997, 114). Rarely is there funding or time set aside to identify connections and relationships between patterns at a broader scale. These are restrictions that compound our existing interpretative tendency towards the close grained and the local. They are also restrictions which have a detrimental effect on our expectations of what pottery studies can deliver. In short, we should be demanding more from the study of pottery, but we have to create the conditions which will enable ceramicists the opportunity to tackle broader themes and questions. If we want to see pottery playing a more central role in narrative accounts of later prehistory, then it is imperative that we stress the wider potential of artefact studies in our research and excavation designs. Having been out of the spotlight for nearly half a century, pots are perhaps deserving of a little more of our time and attention. Ultimately, what this thesis has shown, is that when we do study this material at appropriate scales, pots can make a substantive contribution to our understanding of social life.

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