Analecta Praehistorica Leidensia 40 / Between foraging and farming : an extended broad spectrum of papers presented to Leendert Louwe Kooijmans

Fokkens, Harry; Coles, Bryony; Gijn, Annelou van; Kleijne, Jos; Ponjee, Hedwig; Slappendel, Corijanne et al.; Fokkens, Harry; Coles, Bryony; Gijn, Annelou van; Kleijne, Jos; Ponjee, Hedwig; Slappendel, Corijanne

ANALECTA
PRAEHISTORICA
LEIDENSIA 40

This article appeared in:

PUBLICATION OF THE FACULTY OF ARCHAEOLOGY
LEIDEN UNIVERSITY

BETWEEN FORAGING AND FARMING

AN EXTENDED BROAD SPECTRUM OF PAPERS
PRESENTED TO LEENDERT LOUWE KOOIJMANS

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LEIDEN UNIVERSITY 2008

Series editors: Corrie Bakels / Hans Kamermans

Copy editors of this volume: Harry Fokkkens, Bryony Coles, Annelou van Gijn,
Jos Kleijne, Hedwig Ponjee and Corijanne Slappendel

Editors of illustrations: Harry Fokkkens, Medy Oberendorff and Karsten Wentink

ISSN 0169-7447
ISBN 978-90-73368-23-1

Subscriptions to the series *Analecta Praehistorica Leidensia*
and single volumes can be ordered exclusively at:

Faculty of Archaeology
P.O. Box 9515
NL-2300 RA Leiden
The Netherlands

4 The end of the beginning: changing configurations in the British and Irish Neolithic

Richard Bradley

4.1 Introduction: from iconoclasm to orthodoxy

It seems as if England has changed its position on the conceptual map of Neolithic Europe; that may not be so true of Scotland, Wales and Ireland. From forming an extension of Germany, France, Belgium and the Netherlands, England has shifted to the north, so that the first farming communities seem to be closer to those in Scandinavia. How did this change come about? And what are its implications? The new framework raises important questions of interpretation, but it also depends on a specific reading of Neolithic chronology. Those two aspects will be the subject of this paper. The relationship between them has been a concern of Leendert Louwe Kooijmans throughout his career in archaeology and is therefore a fitting subject for this contribution to his festschrift.

My starting point is Julian Thomas's *Rethinking the Neolithic* (Thomas 1991). This was an important book for it set out with exceptional clarity the ways in which the English Neolithic seemed to depart from views of the period that had been formed in the preceding decades. It developed out of a journal article 'Neolithic explanations revisited' which questioned Humphrey Case's account of the first farmers in Britain and Ireland (Thomas 1988; Case 1969). Eight years later Thomas's argument was amplified in a second edition, *Understanding the Neolithic* (Thomas 1999). The change of title was significant, suggesting that what had begun as a work of iconoclasm was becoming an orthodoxy. It also suggested that the English Neolithic typified wider developments in Britain.

Thomas emphasised a number of anomalies in the archaeology of the Early Neolithic period. Contrary to expectations, there was little evidence for the growing of crops on a significant scale, and wild plants made a major contribution to the food supply. There was evidence for the raising of domestic livestock, but there were few traces of houses. The excavated evidence suggested a mobile pattern of settlement. Most occupation sites were characterised by pits and small scatters of artefacts, and finds of carbonised plants were dominated by wild species. The implication was clear; the British Early Neolithic shared certain features in common with the Late Mesolithic period and there may have been some continuity in the pattern of movement about the landscape.

Thomas's 1988 paper carried the subtitle 'the Mesolithic-Neolithic transition in Britain and South Scandinavia' and compared the archaeological sequence in Britain with that in Northern Europe where, he suggested, a new way of life and a new system of belief were introduced across the agricultural frontier through archaeologically documented contacts between hunter gatherers and farmers. Thomas proposed that Britain may have 'become Neolithic' through a similar process of acculturation. During the early part of this period the settlement pattern was based on mobility and perhaps on the herding of domesticated animals. Cereals were of limited importance, and settlements were usually short-lived. At the same time, rituals of Continental inspiration assumed a growing significance, and changing beliefs were documented by the construction and use of monuments (Bradley 1998). It was an influential model, although it was not accepted by everyone (Monk 2000; Rowley-Conwy 2004).

These ideas were consistent with the results of fieldwork in southern England, for example in the Thames Valley (Hey/Barclay 2007), but the model put forward by Thomas was soon extended to other parts of Britain and even to Ireland. This interpretation provoked a critical reaction. One factor was the emphasis that has always been placed on the archaeology of Wessex. It is true that the latter area contains some exceptionally large monuments such as Avebury and Stonehenge, but it has also had a long history of investigation that began two hundred years ago. A large proportion of the results have been published. The process continued into the twentieth century as Wessex became the focus for a series of research excavations, like those at Windmill Hill and Durrington Walls. This is why so many British type sites are located in the south, but there is no reason to suppose that they epitomise developments in other parts of the country.

English archaeologists were careless in supposing that whatever happened in the rich and complex archaeology of Wessex must have typified the pattern of development throughout Britain and Ireland: the view taken by Richmond (1999), Pollard (1999) and Waddington (2000), among others. That interpretation is being questioned at a time when Scotland and Wales enjoy a measure of political autonomy. In particular, Scottish prehistorians have objected to the way

in which a model developed in Wessex reflect a conception of the north as a peripheral area cut off from significant trends in society (Barclay 2001). Irish archaeologists have expressed the same reservations, for this notion reproduces, however unconsciously, the idea that Ireland has always been a dependency of Britain (Cooney 2000, chapter 1).

The reservations have been supported by newly-discovered archaeological evidence. Although few Neolithic houses had been found in Ireland when Thomas was writing in 1991, the situation soon changed, and as the number of developer-funded excavations increased, many more Neolithic buildings were found there (Grogan 2004). Similarly, a new generation of fieldwork in Scotland, particularly in lowland areas, led to the discovery of massive wooden structures ('halls') dating from the Neolithic period (Barclay *et al*. 2002). This new fieldwork also identified a number of timber and earthwork monuments that had not been recognised before. In the same way, houses of Irish type are now being found in the west of Wales. Yet few timber buildings have been discovered in southern England despite the expansion of commercial archaeology. It seems as if the archaeology of Wessex may have been exceptional.

4.2 Dating the Neolithic

Although Thomas had compared the British Neolithic sequence with that in Northern Europe, he did not discuss an important contrast between the archaeologies of those regions. Studies of pottery and axes in South Scandinavia have established a detailed chronological sequence (Malmer 2002), but this has yet to be achieved in Ireland and Britain. Either material culture changed at a slower pace in these islands or the most important sources of variation have still to be identified. At the same time, there are few deep stratigraphic sequences covering the Neolithic period to be compared with those that Leendert and his colleagues have studied in the Netherlands. The pioneering work of Grahame Clark at sites like Shippea Hill provides a model that has rarely been followed in England (Clark *et al*. 1935). Thus the two traditional mainstays of chronology – typology and stratigraphy – were deficient for the British Neolithic.

On the other hand, two important initiatives have improved our understanding of the Neolithic sequence in Britain and Ireland. The first is the use of single entity dating. Rather than amalgamating material of different species or ages, archaeologists have submitted individual seeds or bones to radiocarbon laboratories. Now it is possible to select small samples such as twigs where no allowance needs to be made for the presence of old material (Ashmore 1999). In addition, many more radiocarbon dates have been obtained from individual contexts where single determinations would have sufficed a generation ago. The use of AMS dating is becoming standard practice in commercial archaeology and has been encouraged by research projects in Scotland and Ireland. In England, the new approach has been extended by the use of Bayesian statistics which allow stratigraphic observations made in the field to influence the probability distributions of radiocarbon dates (Bayliss *et al*. 2007; see also Bayliss *et al*. this volume). In each case the result has been a significant improvement in chronological precision. This work has also influenced artefact studies so that certain styles of pottery are more exactly dated than had been the case ten years ago. The advance in dating has had two implications for understanding the Early Neolithic. Some of the features discussed in *Rethinking the Neolithic* have proved to be rather later in date than could have been imagined when the book was written. While other elements do belong to the first few centuries of the Neolithic period, they predate nearly all the material considered in Thomas's account.

4.3 Changing configurations

When Thomas was writing in the 1990s the clearest distinction in English archaeology was between an *Earlier Neolithic* and a *Later Neolithic*, although a threefold division could be observed in the development of ceramic styles (Gibson 2002). It meant that it was not really possible to distinguish between the chronologies of different forms of monuments or to relate them to the development of settlements or the natural environment. It seemed likely that the Neolithic period started around 4000 BC and that most long mounds, long cairns, causewayed enclosures and flint mines could be assigned to the period between the early fourth millennium and about 3300 BC (Malone 2001). What were lacking were more exact distinctions, and even today detailed regional sequences have been postulated for only two areas: the chalk downs around Avebury (Whittle 1993), and the Upper Thames valley (A. Barclay in Benson/Whittle eds 2007, 331-44). For the most part the anomalous features that Thomas had identified in the Earlier Neolithic period – in particular the evidence for mobility and the importance of monument building – seemed to characterise this phase.

Radiocarbon dating has shed new light on his scheme (Whittle *et al*. 2008; see also Bayliss *et al*. this volume). Somewhat unexpectedly, it suggests that in many parts of Britain and Ireland the beginning of the Neolithic did represent a radical break with the Mesolithic period. It had features in common with developments in Continental Europe and was characterised by a sudden change of diet, the adoption of domesticated resources, the construction of substantial houses and by the use of quarries and flint mines. This initial phase lasted approximately three hundred years (Sheridan 2007; Bradley 2007, chapter 2), and it is not clear how many monuments were constructed during that time. By contrast, most of the features that Thomas and other writers had attributed to the beginning of the Neolithic period

actually developed *after 3700 BC*. They were not confined to the south of England and take a similar form in most parts of Britain and Ireland. All the elements discussed in Case's account of the agricultural colonisation of Britain and Ireland seem to be present in the earliest phase. Paradoxically, those features that Thomas had linked with a mobile economy are apparent several centuries later.

4.4 Rethinking the Neolithic sequence

The main characteristics of the earliest Neolithic period are the construction of substantial timber buildings (Darvill/Thomas 1996), the growing of crops (Bogaard/Jones 2007), the accumulation of substantial middens (Allen *et al*. 2004), forest clearance (O'Connell/Molloy 2001), and the large scale production of axes (Barber *et al*. 1999). In coastal areas there is also evidence for a reduction in fishing and for greater use of terrestrial resources (Richards 2004). There is nothing to indicate a gradual process of colonisation, as the earliest dates for Neolithic material culture come from most parts of these islands. Indeed, there is little evidence for the use of local styles of pottery during this initial phase (Sheridan 2007).

Some features are found very widely. There is evidence for forest clearance on a larger scale than had happened during the Mesolithic period. This may have been responsible for the rapid spread of disease. The Elm Decline, which is thought to result from that process, has a mean date of 3940 BC (Parker *et al*. 2002). It was around the same time that the cyclical burning of vegetation ceased, perhaps because land remained open for longer periods (Edwards 1998). Cereals are common within this early phase, and the oldest samples documented directly by radiocarbon date from about 4000 BC (Brown 2007).

Of course certain features occur over a smaller area than others. Substantial timber buildings are found mainly in Ireland and Scotland, although they differ in construction (Grogan 2004; Barclay 1996). The Irish houses share features with a small number of examples in Wales and England. Indeed, the rarity of well preserved houses in the latter area may be another regional pattern, for there are hints that domestic buildings did not employ earth-fast posts; the positions of these features are indicated by gaps in the distribution of excavated pits (Bradley 2007, 44); a good example is at Kilverstone (Garrow *et al*. 2005). Other patterns are still more local. Substantial middens associated with cereals and the bones of domesticated animals are recorded from the Thames valley and its hinterland (Allen *et al*. 2004). The only Neolithic field system so far identified is in the west of Ireland and may also date from this time (Molloy/O'Connell 1995). Similarly, those flint mines that have been assigned to the beginning of the Neolithic period were all on the Sussex downs, although it is possible that axes were made at highland quarries during the same phase (Barber *et al*. 1999).

4.5 Subsequent developments

Thirty years ago I suggested that some of the clearings created at the beginning of the Neolithic period reverted to woodland after several centuries (Bradley 1978, 105-6). The same idea was proposed, quite independently, by Alasdair Whittle (1978), but both our studies were criticised by Kevin Edwards because they lacked chronological precision (Edwards 1979). Edwards's comments were justified, but it is interesting that substantially the same idea has been advanced by pollen analysts working in Ireland (O'Connell/Molloy 2001). Their argument is more sophisticated, but its conclusions are similar and are based on a radiocarbon chronology. Throughout the island an early peak of land clearance provides evidence for cereal cultivation, but the same areas eventually reverted to woodland or were used less intensively. Once that had happened there is less evidence for the growing of crops in Ireland, and more indications of pasture. The pollen evidence from Britain needs to be studied in the same way, but it is already clear that finds of carbonised cereals become less common during the course of the Neolithic sequence (Brown 2007).

Archaeologists working in Ireland and Scotland have emphasised the discovery of timber houses and other buildings which are commonly associated with finds of grain (Barclay 1996; Monk 2004). So many examples have been found in Ireland that it is difficult to postulate a mobile pattern of settlement (Cooney 2000). The Scottish 'halls' pose other problems, for some of them, like the well excavated example at Claish (Barclay *et al*. 2002), share structural elements in common with the earliest monuments in the north (Thomas 2006). Again this evidence is confined to the beginning of the Neolithic period. After that time there are not many regions in which well preserved houses or settlements have been found.

Most of the occupation sites discussed by Julian Thomas seem to be later in date than the timber buildings excavated in recent years. In fact they date from a period from about 3700 BC onwards when settlement evidence is sparse. Thomas emphasises the special role played by pits which often contain formal arrangements of artefacts and animal bones, but even here there is a problem for it seems as if the earliest deposits of this kind were placed in the hollows left by fallen trees. At Eton in the Middle Thames Valley they are contemporary with the creation of large middens. There the digging of pits happened during a later phase (Allen *et al*. 2004; see also Evans *et al*. 1999). By that time few domestic buildings left obvious traces behind. The excavation of the pits has provided evidence for the collection of wild plants (Robinson 2000).

Thomas's radical view of the English Neolithic also emphasised the role of stone and earthwork monuments, many of which had parallels in Continental Europe. For that reason it was entirely logical to suppose that their construction began during the period of close contacts with the mainland at the end of the fifth millennium BC or the beginning of the fourth. That is probably true of the earliest megalithic monuments around the Irish Sea (Sheridan 2003; Bradley 2007, 49-50), but it no longer seems as if the structures discussed in *Rethinking the Neolithic* date from this early phase. A detailed study of the chronology of southern English long barrows concluded that the earliest examples were built during the 37th century BC, even though they were constructed in areas with evidence of earlier occupation (Whittle *et al*. 2007). Most of the earthwork enclosures were built a century or more afterwards (Whittle *et al*. 2008; see also Bayliss *et al*. this volume). Cursus monuments, which were an entirely insular phenomenon, most probably developed in Scotland in parallel with both these traditions (Thomas 2006). The examples that have so far been excavated in England are later in date than causewayed enclosures and sometimes cut across them, as they do at Etton and Fornham All Saints (Bradley 2007, 76-7).

The effect of these changes is not to weaken the patterns identified in *Rethinking the Neolithic*, but to suggest a different chronology for these developments. Many monuments were constructed at a time when settlement sites left little trace and domestic buildings were surprisingly insubstantial. Some areas may indeed have been characterised by a mobile pattern of settlement, and stock raising could have provided much of the food supply. There is no evidence of field systems, and fewer finds of cereals than might have been expected. Rituals involving the deposition of selected artefacts in pits do seem to have been important and are evidenced on a more public scale at causewayed enclosures like Windmill Hill (Whittle *et al*. 1999). The past was important too, and the countryside was increasingly dominated by conspicuous monuments to the dead. It seems quite reasonable to suggest that they were among the fixed points in a landscape where communities were often on the move (Edmonds 1999).

These features no longer seem to characterise the beginning of the Neolithic period. In terms of ceramic chronology they are a feature of the *Middle Neolithic*. The *Early Neolithic*, on the other hand, has assumed a distinctive character of its own, for this was when cereal farming was introduced to Britain and Ireland. Its adoption was more rapid than many scholars had supposed and is reflected by important changes in the pollen record. Moreover, the significance of the new economy is clearly illustrated by recent discoveries in Ireland where substantial houses were built for the first time (Grogan 2004). Here recent work in County Mayo has identified what must be the oldest system of field walls anywhere in Europe (Molloy/O'Connell 1995). These discoveries are consistent with what had been expected since the writings of Piggott (1954) and Case (1969). What was not envisaged was that after a few generations these developments appear to have faltered. The anomalies that Julian Thomas recognised in the insular record were a secondary development.

4.6 Conclusion: from orthodoxy to uncertainty

If the new dates have the implications suggested in this paper, the British and Irish Neolithic is more conventional, and the same time more anomalous, than had originally been supposed. It is more conventional because it began in the way that had always been suggested, with a period of sustained forest clearance, cereal cultivation and sedentary settlement. In that respect it is no longer appropriate to draw close comparisons with South Scandinavia, for the evidence for long term contacts between hunter gatherers and farmers is actually very slight. There is little to suggest a prolonged period of acculturation of the native population (Rowley-Conwy 2004).

On the other hand, the comparisons with Northern Europe would never have been made if such developments had continued without interruption. There would be no need to look for a Mesolithic background to the insular Neolithic if the new economy had maintained its initial impetus. But that did not happen, and the expansion of settlement that started around 4000 BC seems to have been curtailed after approximately three hundred years. There is less to indicate a sedentary pattern of occupation, the role of cereals may have diminished, and, instead of substantial houses and related structures, more specialised monuments were built. These are the features that gave the British and Irish Neolithic such a distinctive character. They pose an entirely new problem – why did this change occur?

It seems unlikely that there was a single cause. As long ago as 1971 Don Brothwell expressed doubts whether the expansion of farming communities would have continued for very long before their progress was checked by the spread of disease, soil erosion and the exhaustion of the land (Brothwell 1971). Other possibilities include climatic change, for the colonisation of these islands may have taken place in a period of warmer conditions. Bonsall and his colleagues argue that it encouraged the expansion of farming into new areas (Bonsall *et al*. 2002). If so, it is possible that this process was checked as conditions deteriorated during the 37th and 36th centuries B.C. (Macklin *et al*. 2005; Whittle *et al*. 2007, 135).

Other problems may have affected the earliest farmers in Britain and Ireland. Petra Dark and Henry Gent (2001) have

made the interesting suggestion that the first cereals were exceptionally productive because they were protected from crop pests. Local predators would have taken some time to adapt to the new species, and there was an interval before others could extend their distribution from the Continent to these islands. This argument not only implies that the first crops were less prone to disease; it also suggests that they would have become more vulnerable over time.

Social factors may have been equally significant. If the earliest Neolithic period was a time of rapid expansion, that process could have led to conflicts over territory and other resources. Tensions could have developed between new settlers and the indigenous population, and there may have been other conflicts over rights to productive farmland. It has long been suggested that this is one reason why collective tombs were built: perhaps they emphasised claims to critical resources (Chapman 1981). Some of the bones found at these monuments show signs of injuries caused by arrows and clubs (Schulting/Wysocki 2005). There are also indications that a small number of enclosures were attacked and destroyed, including Carn Brea and Hambledon Hill (Mercer 1999). At present it is difficult to decide whether violence was common at this time or whether its occurrence was limited to particular areas. At all events it is obvious that during the Middle Neolithic period Britain and Ireland lost much of their original cohesion. Artefact styles, particularly those of decorated pottery, assumed an increasingly regional character, and the same is true of the monuments (Malone 2001).

This paper has traced the interplay between chronological studies and interpretations of the process by which farming communities were established in Britain and Ireland at the start of the fourth millennium BC. It has contrasted two very different models, each of which possesses a certain coherence. But only one of them can be right. The decisive evidence is provided by radiocarbon dating, a technique which has been employed with increasing sophistication during recent years. As Leendert's research has shown, the progress of prehistoric archaeology depends on establishing a reliable chronology, for it is through a detailed understanding of sequence that interpretations of the past will succeed or fail. If iconoclastic arguments eventually change into orthodoxies, the collapse of those orthodoxies often leaves a void. That is the point at which studies of Neolithic Britain and Ireland are now, and it is why they must be taken much further in the future.

Acknowledgments

I am grateful to Bryony Coles for suggesting improvements to the text.

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