

One World Archaeology

Daniela Hofmann
Jessica Smyth *Editors*

Tracking the Neolithic House in Europe

Sedentism, Architecture, and Practice

 Springer

One World Archaeology

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Chapter 1

Introduction: Dwelling, Materials, Cosmology— Transforming Houses in the Neolithic

Daniela Hofmann and Jessica Smyth

This volume is the result of a session organised at the World Archaeological Congress in Dublin in 2008. The inspiration was the editors' common interest in the house as a key element of what is traditionally defined as a Neolithic lifestyle. One of us is particularly focused on the geographical and chronological end points of the European sequence, where houses are plentiful and distinctive but short-lived. The other was working in the Early Neolithic of central Europe, where monumental longhouses form an almost iconic style of building. In both areas, the house was a key element of the new lifestyle, but the ways in which it gained its social and cosmological relevance appeared to differ quite starkly. Our initial question therefore was about the transformation of one type of building and dwelling into another. How were ideas and practices associated with architecture transmitted at each step as the Neolithic spread north and west?

Rather than offer a general overview of the many roles and social implications of houses (along the lines of the landmark volumes by, amongst others, Parker Pearson and Richards 1994 or Samson 1990), we wanted to home in on the intricacies of a particular sequence. This clearly required expert help. Across Europe, the pace of new discoveries has been accelerating, making it difficult for one scholar to produce an overview at a continental scale, in addition to obvious language barriers. Our plan therefore was to persuade a colleague from each geographical area of Europe that was linked in the continental strand of Neolithisation, from the Near East to Ireland, to check for similarities and differences at each stage of the transition. This was simple in theory—following essentially in the steps of Hodder's oft-quoted 1990 study—but much more complicated in practice. Traditions of research and classification have resulted in a mosaic landscape of scholarship, in which it is hard

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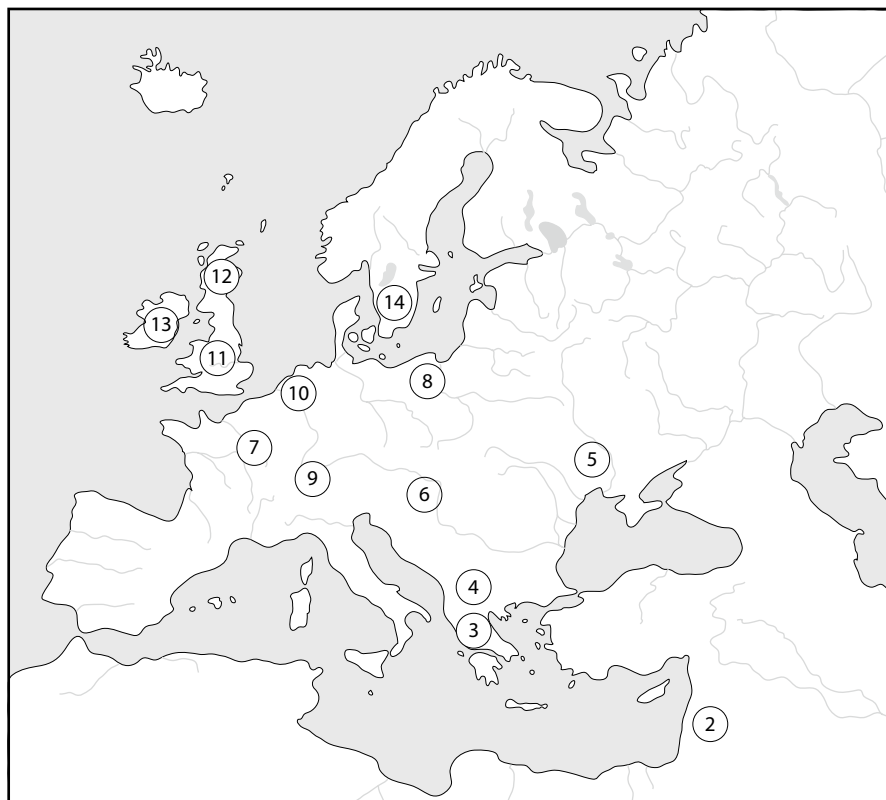


Fig. 1.1 Map of areas covered by the chapters in this volume

if not impossible to keep track of what is going on in all regions and therefore to address change and continuity from a shared perspective.

The WAC session itself confirmed our suspicions. Papers were very diverse in their approach and outlook and in the kinds of evidence the authors felt were important. Nevertheless, exchanging ideas in this way challenged many of our ‘regional’ assumptions about the process of Neolithisation. There is still a real need to reinvigorate comparative exercises of this kind, which have been somewhat neglected in our efforts to keep up with floods of regional data, and perhaps partly also because of a theoretical focus privileging the local and contingent.

We therefore decided to publish the volume, commissioned additional papers to fill in geographical blanks and invited three discussants to draw out wider strands. The papers in this volume are organised geographically (and by extension broadly chronologically), beginning with the Near East and working their way north-west (Fig. 1.1), so that similarities and differences between adjacent regions are easier to draw out. Nigel Goring-Morris and Anna Belfer-Cohen (Chap. 2) provide a detailed introduction to the Near Eastern evidence, challenging especially the idea of an easy progression from ‘simple’ to ‘complex’ architecture. The diversity and

complexity they reveal serves as a useful backdrop to the further sequence, showing that the house was a dynamic social arena from the beginning. Moving to the European continent, Stella Souvatzi (Chap. 3) characterises the house in Neolithic Greece as an ‘active social framework for life’. She then tackles the complex and diverse social relations that could be played out through such structures and the varying groups they harboured. Goce Naumov (Chap. 4) is particularly interested in the way the house and the human body can be seen as symbolically connected in the Neolithic of Macedonia. His contribution draws on the rich evidence of anthropomorphic house models and settlement burials to interpret architectural changes more generally.

The following two contributions take us from the south-east European heartland into the vast loess areas of central Europe. Natalia Burdo, Mikhail Videiko, John Chapman and Bissierka Gaydarska (Chap. 5) discuss the Cucuteni and Tripillian houses of eastern continental Europe and track their development from domestic dwellings into structures with a range of more specialized functions. They argue that this sequence can only be understood with reference to the wider worldviews and aesthetic universe of their inhabitants. In Chap. 6, Eszter Bánffy is more explicitly concerned with how the transition between south-east European and central European styles of Neolithic life took place. For her, the key transformations happened in western Hungary, and with the active involvement of both local foragers and (incoming) agriculturalists. This brought into being the iconic longhouses of the *Linearbandkeramik* culture (LBK). Penny Bickle (Chap. 7) and Joanna Pyzel (Chap. 8) then follow the further transformations of these imposing structures into the more diverse dwellings of the LBK’s various regional successors. Bickle introduces the evidence from the Paris Basin, arguing that the performance of community was central to reframing the wider role of the house. In Pyzel’s narrative of the Polish lowlands, the main distinction between LBK and Brześć Kujawski culture (BKC) houses is their relationship to older buildings, pointing to wider changes in how the past and the passage of time were experienced through architectural choices. In a last central European chapter (Chap. 9), Daniela Hofmann describes the impermanence and fluidity of houses in the Alpine foreland. Here, it is the daily routines and practices of maintenance, rather than the stability of a particular structure, that carry community life forward.

Moving to north-west Europe, similar points are also made by Luc Amkreutz (Chap. 10) for the Lower Rhine Area. He argues that the creation of persistent, remembered places was not achieved through house structures as such, which remain fleeting and adaptable in the manner of a ‘vernacular architecture’, but through practices of inhabitation. In Chap. 11, Jonathan Last examines the long shadow that the architectural sequence of central Europe has cast on the interpretation of houses in Britain. Yet, rather than dismissing the relevance of continental trajectories, he points to new avenues of commonality in how houses were integrated into a wider universe which now increasingly incorporated other kinds of architecture, such as longbarrows. Continental parallels also play a large role in Alison Sheridan’s overview of the first British and Irish houses (Chap. 12), although she makes the case that we must pay closer attention to the dynamics of Neolithisation and the subse-

quent period of settling in if we want to contextualise the changing characteristics of buildings. Focusing on the Irish evidence, Jessica Smyth (Chap. 13) examines the very visible and numerous early houses alongside the poorly understood, and often ignored, domestic architecture from later stages of the Neolithic. Again, to interpret the varying level of visibility of houses through the period we must refer to much wider social transformations, in particular how society develops *after* the successful establishment of farming. Finally, Lars Larsson and Kristian Brink summarise the plentiful new evidence for Neolithic houses in southern Scandinavia. Here, it is the interplay between domestic buildings, funerary structures and the way social networks were organised across the wider landscape that eventually leads to some buildings becoming large and long-lived places of renown, whose name would have been known far beyond their immediate surroundings.

In the last section of the volume, these regional overviews are passed through successive filters provided by three discussants. Ian Hodder (Chap. 15) suggests broad sequences which are repeated—largely independently—in the different regions and may point to shared trends inherent in the dynamics of Neolithic lives. His explicitly comparative chapter focuses on the way houses entangle their occupants in certain ways and facilitate specific kinds of developmental trajectories from smaller to larger buildings, until finally the importance of the house as a social arena declines. Lesley McFadyen (Chap. 16) compares the contributors' theoretical approaches and reveals a tension between scholars treating the house as an object and those looking at the dynamics of the building itself and its physical context as part of a wider social engagement. She points to the importance of drawing in other materials, landscapes and time as factors crucial to understanding how architecture was lived through and changed. Finally, Roxana Waterson (Chap. 17) addresses how houses and buildings have been approached by archaeologists and anthropologists. Reassuringly, she sees much common ground, but this is also a call for greater inter-disciplinary and thematic engagement as part of re-establishing the validity of a rigorous and systematic comparative agenda.

In sum, this volume is an extended exploration of the transmission of domestic architecture—at the same time an idea, a practice and a material object. In a first attempt to identify potential axes for broader comparisons, we would also like to briefly address—among a much wider choice of topics actually tackled in the regional chapters and in the discussions—four core themes that have emerged in several of the contributions collected here. In particular, these are the materials from which houses were built, the daily practices in which they were implicated, their wider cosmological significance, and finally the mechanisms by which they were transformed and changed.

Materials

Many contributors begin with describing what the houses in their regions actually looked like, how they were laid out and which materials were chosen. Regardless of whether this was a matter of simple availability and relative convenience, for

instance in the use of wood rather than clay in the rainier climes of central and western Europe, the result were buildings with a wholly different potential for the entanglement of their occupants (Hodder 2011). Houses made of different materials require different routines of maintenance, have different use-lives and encourage different rhythms of (im)permanence. Across Neolithic Greece, as Souvatzi notes, the frequent rebuilding of structural features, replastering of walls and the well-kept house floors show that a considerable amount of time and energy was invested in house maintenance. At Dikili Tash, for example, the fallen superstructure inside one house included a large roof fragment bearing at least 14 thin layers of plaster, often from carefully selected sources. For both Amkreutz and Hofmann, the material properties of the buildings they study, in the Lower Rhine area and in the Alpine foreland respectively, are directly connected to a perceived fluidity in household and community composition. In both areas, there is a constant need to repair and rebuild, allowing an opportunity to reaffirm or in turn reject membership to a particular grouping.

The sometimes very varied length of house and settlement biographies contained in these chapters also tease out the differences between the *durable* and *enduring* qualities of materials, that is, the difference between the potential of certain materials to last a long time—seasoned oak or fired clay—and their potential to be carriers or signifiers of lasting meaning. Both depended on how materials were differently enmeshed (e.g. Ingold 2007) across Neolithic Europe. There is for example a particular type of maintenance, a ‘maintained neglect’ perhaps, practiced by the LBK longhouse communities of lowland Poland as documented by Pyzel. Here the massive timber structural posts do not seem to have been dug up following abandonment of the houses but remained visible on the surface for a long time, up to several centuries, and could even be a factor in the siting of much later constructions. Similar practices are reported by Bickle for the communities of the Paris Basin, where it seems most likely that longhouses were left to decay in situ, continuing to be marked in some way after the house was abandoned.

These different site trajectories tie in with much recent writing on ontology, in which the traditional Western human-centred cultural logic is critiqued and reworked by several researchers who have reached comparable conclusions from very different starting points (e.g. Latour 2005; Ingold 2007, 2011; Gosden 2008; Hodder 2012; Olsen 2007; Webmoor and Whitmore 2008; Barrett 2011). All have spoken out against models which prioritise human agency and directed thought as a prime mover. Social life is increasingly seen as an achievement of people *and* things, a profoundly interactive process in which human life unfolds through equal input from materials and people, bringing out the characteristics of each other in different contexts (Gosden 2008). Objects are so central to orienting, framing, and carrying forward people’s actions, and as a consequence in demanding certain forms of maintenance and interaction, that social life would not exist without them, a process Hodder (2011, p. 162) describes as ‘entrapment’.

Taking this as a starting point, we can readily appreciate that houses are much more than extra-somatic memory storage systems (see Cosmology section). There has been a tendency to treat architecture as ‘reflecting’ ideology, status, or a myriad other abstract concepts archaeologists have long been interested in. Instead, it is

more fruitful to focus on how houses, as material realities, guide the engagement of their inhabitants with the world around them (Barrett 2006; Barrett and Ko 2009). The house is a vantage point to enter the world, not a repository of static meanings and abstract concepts. In Ingold's (2000, pp. 172–188) terms, a house is much less about a process of planned building, and more about dwelling, about a certain style of finding one's way through the affordances of the material world, itself in constant transformation. This is why it may make sense to think of houses at the same time as explorations of the human body, as argued here for example by Naumov, and it is probably no accident that the inherently malleable and transformative material of clay was thought appropriate in this context.¹

However, as explicit reactions against an over-privileging of human agency in processes of social life and social change, there is a danger in some of the wider theoretical formulations to instead grant too much ontological priority to the materials themselves. The case studies in this volume show that very different sets of materials could lead to broadly comparable outcomes in the way they framed and guided the character and rhythms of social existence. The clay walls and installations of houses from the Near East to Ukraine were constantly replastered, but the slight wooden components of dwellings in the Rhineland and the Alpine foreland also needed regular replacement. In both cases, our authors have argued for fluidity in social relations at various scales, but clearly this was achieved in very different material universes or, in Barrett's (2011) phrase, ecologies. Also, in spite of the different material properties of clay and wood, long-term notions of descent could still be comparable, as the general trend towards changes in layout or relocations of buildings in successive phases goes hand-in-hand with a longer-term rootedness to house plots, and perhaps fields. Similarly, durable materials need not result in durable buildings. For Ireland, Smyth notes that Early Neolithic settlements with houses constructed of oak planks and posts do not endure more than three generations or so, and these timescales may be even shorter for the oak-built LBK houses of central Europe and their successors, discussed by Bickle, Pyzel and Last. On the other hand, Souvatzi shows how at Nea Makri, the pit buildings comprising 12 successive habitation layers could span a period of 2,000 years, and were just as long-lived as houses built of more durable materials.

Are we therefore right to reconstruct similar social entanglements in all these cases, in spite of the very different materials that are being used, or do we need to work harder at drawing out the convergences and mismatches between the potential affordances of materials and their actual use? It is here that studies broadly framed in terminologies of networks or meshworks must take care to give due place to histories of descent and transformation. The previous involvements of materials and objects also have permeated them, making them historically situated in specific ways (see Gosden 2005). In terms of a comparative history of Neolithic buildings, these longer-term trajectories cannot be pushed to the margins, and they could shed new light on how social performances and material qualities are enmeshed in each

¹ For an exploration of the role of building materials, in this case mud brick, in perpetuating household identity at Çatalhöyük, see Love (2012).

case. There is certainly a fine line to tread between over-emphasising the ‘agency’ of people on the one hand or their ‘entrapment’ by materials on the other.

Practice and Dwelling

The importance of various rhythms of change and history also resonates with our second theme, the routine practices of dwelling and inhabitation that centred on the house. Our contributors are less concerned with discussing the sensory experiences of specific styles of building in any great detail. Instead, several papers try to address the issue of who would have inhabited these structures, how co-residence was organised and whether it would also have resulted in a recognisable social unit, the household, a topic which has already seen much attention in archaeology and anthropology (e.g. Allison 1999; Carsten and Hugh-Jones 1995; Souvatzi 2008).

Without doubt, the vagaries of preservation often make it difficult to identify gendered spaces or specialised activity zones. The assemblages associated with the houses of the Near East and south-east Europe are perhaps the exception. Here, the hearth is the focus of activities, consistently surrounded by cooking pots and storage vessels, querns, stone and bone tools, weaving paraphernalia and charred food remains, and may also be symbolically charged (see the following section). Interestingly, despite this abundance of (often in situ) material culture and the variability in house dimensions across sites in both Greece and Macedonia, Souvatzi and Naumov note that houses in their respective regions often contain standardised domestic inventories or materials that encompass a number of spheres of practice, with little evidence of specialisation within individual buildings. Different types of activity such as pottery firing, stoneworking and *Spondylus* manufacture seem instead to be identified with certain *areas* of the settlement or are located in the vicinity of more than one house. This echoes the distribution of productive activities across several households identified in the Alpine foreland, but perhaps contrasts with the situation described by Burdo et al. where houses of very similar sizes and probably external appearance take on specialised functions over time.

In this context, it is regrettable that the floor surfaces of LBK and related long-houses in central and western Europe rarely survive intact, as Bickle and Pyzel note. The contents of the infilled *Längsgruben* or loam pits that run along the sides of many such houses must instead serve as a kind of proxy for domestic inventories, with spatial, quantitative and qualitative analyses providing insight into intra- and inter-house activities and social relations. Here again, the activities associated with a single building can only be made sense of with reference to the wider settlement community. Bickle details the patterning identified in the loam pits on sites across the Paris Basin: at Cuiry-lès-Chaudardes, for example, longer houses were associated with more domesticated animals, while shorter houses had higher rates of wild animals in their associated loam pits. There are also hints of a favoured side of the house for deposition, resulting in part at least from people working preferentially on

one side of the house, behaviour possibly influenced by the nature of relations with nearby houses/households.

This tension between inside and outside space provides another important point of comparison between different regions. For example, in the BKC houses of lowland Poland, both Pyzel and Last note the shifting of the weight of the roof from internal posts to the side walls, creating relatively large internal spaces and removing the need for the ‘forest’ of posts seen in LBK houses. This opening up of inside space is occurring as conditions outside, in between houses, are becoming more cramped. In Macedonia, Naumov argues that the potential for hoarding created by houses, and the inter-household rivalries that this might generate, is regulated by communal use of open areas that reinforces social relationships. Possible grain storage bins located outside structures may have been used by several families, or indeed the whole settlement, sharing out and/or consuming certain resources publicly. Social relations may also have been regulated through the construction of houses, as in several regions across Europe their erection does seem to have been a communal endeavour. For instance, Sheridan argues that the ‘large houses’ of Scotland and England were used by a number of early farmer households, living together until sufficiently well established to branch out into smaller groups. Elsewhere, we can begin to ask how activities at houses would have related to the kind of social engagement, material effort and emotional investment directed at other locations in the landscape, such as the monumental funerary structures built across southern Scandinavia, Britain and Ireland.

All these questions address the thorny issue of the kind of corporate groupings, if any, that were defined by houses, and how these related to other groups which may cross-cut or encompass the more intimate spheres of daily existence. Many archaeological analyses understandably concentrate on just one scale of analysis, be this broadly individual identities (for example, age, gender or status), the flexibility or perpetuation of households, or larger groups such as ‘burial communities’ encompassing several settlements, clusters of central places and dependent sites, or entire archaeological cultures. Integrating these varying scales is attempted far less often and remains a key challenge (but see Bickle and Whittle, [in press](#), for a recent discussion). The problem, as many of our contributors also note, is that the house can no longer be seen as co-terminous with a specific social group in which natural solidarity and commonality of purpose would prevail, a point that can also be made for settlement communities as a whole (e.g. Whittle 2009). The way in which social units framed by the house were more or less bounded and could link with other potential groupings at other scales is crucial, and has a direct impact on the specific character of dwelling in a particular place at a particular time. It must also be accorded greater significance in our models of the adoption and development of architecture over time. Fluidity and flexibility at one social scale may well be off-set by (perceived) durability at another, for example in the way the extremely impermanent structures of the Alpine foreland may have gone hand in hand with greater continuity in land tenure or in the way communities endured in spite of the suggested flexibility in household composition. These reflections inevitably pull the house and domestic architecture away from a simple replication of routines and

into much wider discourses on notions of corporate solidarity, values and ultimately worldviews.

Cosmology and Worldview

In terms of cosmology and worldview, two different strands of argument have been developed in relation to architecture. On the one hand, there is the search for universal consequences of houses and the act of building for the way people see their place in the world, while on the other hand there have been countless more contextual studies of specific cosmologies embedded within particular architectural sequences.

The first strand is perhaps best exemplified by Hodder's (1990) landmark work on the house as a bulwark of domesticity—*domus*—pitched against the wild outside—*agrius*. More recently, Watkins (2004), drawing on earlier work by Wilson (1988), argues that over the long term, the human mind became increasingly able to cope with systems of symbolic representation, and that extending these meanings to buildings was one important further step. Architecture became a 'means of embodying abstract concepts, beliefs and ideas about [people] and their world in externalised, permanent forms' (Watkins 2004, p. 97). It could store and transmit a community's history and quickly became an arena in which other forms of meaning and symbolism could be more effectively orchestrated and conceptualised. In short, architecture developed as a coping mechanism for life in larger groups, with the upshot that individuals increasingly expressed their ideas in forms which reached a wider audience and did not require co-presence.

In a similar vein, Helms (2004) argues that sedentism is implicated in a wider shift in how people perceive their relations with 'others' beyond the immediate home group, which includes animals, affines and other human strangers, and the dead. While hunter-gatherers are most concerned with regulating relations with animals, in sedentary societies the 'household', i.e. the group of people brought together more durably through a physical structure, increasingly subsumes individuals into new corporate identities. Consequently, the emphasis in relations with 'others' shifts to regulating contacts with other corporate groups and therefore for instance to the control of exotic goods and materials (see also Helms 1988). Agriculture, too, has a role to play, in that it introduces a heightened sense of the importance of time, and by extension history (Helms 2004; see also Bradley 2004). With agro-pastoralists, therefore, the dead become a focus for symbolic elaboration and are granted new roles as 'ancestors' for whom, amongst other possible strategies, mortuary monuments may be built (Helms 2004, p. 124).

These arguments work at a relatively high level of generality, and do not make reference to differences in the elaboration of architecture across time, or between groups with similar economies, to name but two. They can also be criticised for ignoring the embodied experience of their inhabitants. Certainly, in Watkins' (2004, p. 104) approach, we are often confronted with minds communicating their ideas to other minds, rather than with whole organisms alive in a material world, and this sits

uneasily with more recent perspectives that foreground the constantly transforming meshwork of people—who cannot be readily separated into a ‘mind’ and a ‘body’—and the wider world (see the section “Materials”).

In addition, many of the more general arguments are often made with reference to the first emergence of architecture and sedentism among previously mobile groups in the Near East. However, as Bradley (2004) has pointed out, once architecture expands beyond these core regions via a range of possible processes, its roles and meanings are also likely to change substantially. This calls for a more contextual approach, the route also taken by many of our contributors. Perhaps surprisingly, however, this focus on the small scale has not led to as extreme a diversity of interpretations and suggested worldviews as may be expected. Instead, two themes emerge repeatedly: the house as body/organism, and the symbolic elaboration of the flexibility and impermanence of buildings.

The connection between house and body in the Neolithic has been the focus of several recent studies (see e.g. Hofmann 2012; Whittle 2012). In this volume, the point is most explicitly made by Naumov, who uses clay house models with anthropomorphic components to argue for a more general equivalence between house and body. He also draws attention to the association of burials and the domestic arena, with most of the Neolithic interments so far recorded in Macedonia located between or within houses. This juxtaposition of actual human bodies and houses is another recurrent theme from the Near East (see chapter by Goring-Morris and Belfer-Cohen) to the Ukraine (presented by Burdo et al.) and the Paris Basin (discussed by Bickle), but is not universally present.

The link between house and body can also be more subtly made, as in those contributions which see the house more or less explicitly as a biographical project and therefore comparable, or even explicitly linked, to the human life course (as argued by Bickle and Smyth). Such interpretations are based on evidence such as the deliberate decommissioning of houses, which in Ireland is frequently achieved by burning. This also applies to the seemingly purposeful deposition of artefacts in postholes or foundation trenches, particularly prominent in southern Scandinavia and, again, in Ireland (see, respectively, chapters by Larsson and Brink and by Smyth). Just as human bodies are composites of substances and materials, built up over a lifetime through practices of acquisition and consumption, the house draws in people, materials and substances long before and beyond its construction.

These studies partly support Helms’ (2004) point of the house as essentially sheltering a corporate or collective body of some kind, an idea also stressed in the ‘house society’ models addressed by Waterson (but see e.g. also Borić 2008). However, as discussed above, many of our contributors also argue for an important degree of flexibility in household composition. With the practices and routines of day to day life, rather than the physical properties of the structures, binding households together, ‘mundane’ installations can come to be thought about in new ways. For example, in both the Alpine foreland and the Lower Rhine area, the only component of the house to be relatively monumental is the fireplace, the symbolic centre of social life in the building where fragile relations are upheld through, for example, the preparation and consumption of food. This illustrates Bradley’s (2005) point

that it is not only difficult, but also downright unproductive to try and separate routine and more formal or symbolically charged areas of life. Throughout our case studies, specialised ‘cult’ buildings remain rare or non-existent, and instead it is the material nodes important in everyday life—the hearths, storage bins and settlement pits—which also see more ritualised engagement (see also the papers by Naumov, Burdo et al., Souvatzi in this volume). Where specialised funerary architecture exists, most notably in the northern and western parts of Europe, burial around houses also declines, but artefacts are still deposited relatively frequently. Perhaps the shift can be incorporated into Hodder’s argument of the changing role of the house from grounding specific human groups to a much more taken-for-granted place which accommodated more far-flung and varied social relations.

In any case, what is clear is that understanding the symbolic role of buildings and their place in people’s worldview must of necessity go beyond the house itself to investigate the wider narratives in which structures were implicated. Only from this perspective can we reveal, for example, that a certain style of house may chime with a much more general aesthetic sense concerned with geometric order (as in Burdo et al.’s interpretation of Tripillia houses), or that items such as storage installations or grinding implements could change their ‘private’ or ‘public’ character repeatedly throughout a sequence (as here discussed by Goring-Morris and Belfer-Cohen). Where there appears to be a reduced investment in house-building, as for example argued by Last for the Cerny culture of early fourth millennium France and by Smyth for mid-fourth millennium Ireland, wider analyses incorporating related architectural forms such as funerary monuments are essential in highlighting, as Last puts it, alternative strategies for accommodating differences. As our contributors ably show, within the framework of broader shared attitudes the house will be differently experienced, perceived and elaborated depending on the wider contexts and trajectories in which it finds itself. It is here that the roots of change lie.

Tradition and Change

A volume such as this lends itself to themes of transmission—how did the idea of houses spread between adjacent areas, and how can we interpret the further changes and transformations within each sequence? However, in many contributions this theme remains relatively muted. Perhaps this is a sign of a certain ‘transition fatigue’ (Sheridan 2012, p. 391) setting in—after all, the debate of acculturation versus demographic transition between Meso- and Neolithic has been raging on for some time (see Robb and Miracle 2007). On the other hand, narratives of the transition are being reinvigorated by new genetic data, still controversially discussed (see e.g. Haak et al. 2010; Zvelebil and Pettitt 2008), as well as by a more explicit focus on understanding and modeling Neolithic demographic processes (e.g. Vander Linden 2011a, 2011b; Ford et al. 2012; Bocquet-Appel 2009, 2011; Bocquet-Appel et al. 2012; *World Archaeology* special issue 1998(2)). Increasingly, we are experiencing a mismatch between preferred scales of analysis; processes operating at the large

and continental scale are juxtaposed with detailed contextual studies of specific regions or sites. New methods, such as Bayesian approaches to radiocarbon dating, have the potential to change this situation, as they allow the creation of very detailed site narratives which can then be integrated into an almost event-based prehistory at the regional and supra-regional level (Whittle 2011; Whittle et al. 2011). However, so far these studies are geographically limited, and the analytical gap remains hard to bridge for many areas.

As a consequence, sticking exclusively to writing narratives at the smaller social scales bears the danger of letting demographic modelers or geneticists, who often receive much wider cross-disciplinary and public attention, drive the agenda of Neolithic studies at the larger scale. Partly, the reason may also be that proponents of detailed, contextual narratives—often broadly framed in a ‘post-processual’ tradition—have tended to argue in favour of local adoption of Neolithic things and practices by indigenous groups, while downplaying the significance of climate or population pressure as drivers of social change (but see Sheridan, for a counter-example). These are aspects being challenged by new research at the broader geographical scale. The mismatch is thus not only one of analytical starting points, but also of basic outlooks. The challenge for the future will be to harmonise new data, however uncomfortable, with the fine-grained narratives many still want to write, and conversely to show how the latter have an impact on processes at wider chronological and spatial scales.

In this volume, various authors explicitly discuss the Mesolithic–Neolithic transition for their areas, but in line with wider trends this is not the main focus of analysis in most cases. However, two examples deserve to be drawn out here, as they show the range of roles houses may play in the establishment of Neolithic practices. In her chapter, Bánffy characterises western Hungary as a mosaic both in ecological and in cultural terms. While a broadly sedentary, Neolithic lifestyle had existed further south for some time, there was a protracted period of experimentation and mutual adaptation before architecture and a productive economy moved further north and west. Local foragers were key agents in this process and may have contributed the subsequent focus on a northerly orientation of structures. However, it was cultural streams from further south that were responsible for introducing the idea of more substantial architecture and of the appropriate materials to erect such dwellings. The outcome—the massive longhouses of the central European Neolithic—was unlike either Mesolithic or south-east European Neolithic precedents.

Across the islands of Ireland and Britain, genuinely new things and practices also appear, but in contrast to the Carpathian Basin scenario, these seem increasingly unlikely to have arisen out of a mixing of indigenous and incoming traditions. As Sheridan outlines, houses appear rapidly across the landscape, with the earlier ‘large houses’ in Scotland and parts of England serving as the communal residences of pioneering groups of early farmers, providing the shelter and security needed in the first testing decades of life in an unfamiliar terrain. Along with reinforcing community bonds between occupants, these buildings would have projected a powerful image outwards to, we presume, a pre-existing Mesolithic population, a clear statement of presence and intent.

The Mesolithic-Neolithic transition set aside, questions of the relative import of tradition and change, conservatism and innovation are important in understanding the further trajectories of Neolithic architecture in each region and more generally. Here, too, models inspired by genetics have been at the forefront of debate, most notably Shennan's (2002) argument that cultural traits ('memes'), while transmitted in more varied ways, essentially behave like genes and are selected according to their reproductive success, broadly defined. These ideas have been criticised for effectively pushing to the side the messy details of the actual transmission processes (Hodder 2011), which remain isolated in an inaccessible analytical black box (see e.g. Shennan 2002, p. 48). As a result, transmission is limited to passing on neatly bounded blocks of information from one mind to another. Change can only be driven by passive replication errors, or by outside factors such as climate or migration scenarios. This is especially the case for items which require a long apprenticeship to make and/or which are experienced at a young age in a setting where behaviours are learnt from elders (see Shennan 2002, p. 37–46, 79–98)—characteristics which do apply to architecture.

In a recent contribution, Bentley et al. (2011) pay much more explicit attention to transmission processes and explore the role of social learning—involving imitation and copying—in the diffusion of innovations. They note that copying certain items and practices creates a sense of group membership and outline a range of imitation strategies, from simply following the majority to emulating people with authority, individuals defined as successful, or those that have actually come up with an improved alternative (Bentley et al. 2011, p. 21, 31). They also force us to think more clearly about who the agents of change are. Archaeologists have perhaps grown too familiar with models of smooth, bell-shaped curves of changes brought in by a few innovators, followed by more general acceptance and finally gradual fading. However, depending on the social standing of the various people involved and any competing options, this is only one possible trajectory, and fast and unpredictable 'cascades' of change can also occur (Bentley et al. 2011, p. 115–127; see Barrett 2011, p. 85 for the importance of such 'thresholds' for the Mesolithic–Neolithic transition).

Bentley et al.'s sociological approach has much to offer for archaeological case studies,² although the authors perhaps place undue stress on classifying processes of change into categories which in reality may be less easy to disentangle, and on insisting that some choices are truly 'neutral'. It is here that, in turn, detailed and closely argued archaeological case studies can make a wider impact by investigating over the longer term the different circumstances in which rates of change accelerate and decelerate, and the kinds of materials and practices which are implicated. The important point is to see the reproduction of social life as a dynamic process, constantly in tune with wider transformations and therefore essentially a property of emergent networks of people, animals, plants, things and so on (Barrett 2011, p. 84; see also Sherratt 2004).

² In spite of their own insistence (Bentley et al. 2011, p. 64) that 'traditional' societies are aptly named because in their case, drift and crisis do remain the sole possible drivers of change.

In this volume, Burdo et al. argue that the rate of change in their study area is slow because the house was very strongly tied in with wider aesthetic values. In contrast, for Bickle it is changing ideas of how to reproduce community in altering social contexts which eventually causes the realignment of *Linearbandkeramik* longhouses towards the shorter-lived and externally more uniform examples in their Paris Basin successor cultures. Once again, the different ways in which the house formed part of people's broader concerns influenced the kinds of change that could be envisaged (see also Hofmann [in press](#)). Narratives of transmission are only complete if general models are counter-balanced by a focus on the mutual entanglement of people and their—partly constructed—worlds (see e.g. Marchand 2010). It is these micro-histories which will allow us to outline how and why some changes gain pace and can transform into much bigger trends.

In either case, we must become more comfortable and flexible again in the kind of social and chronological scales we are willing to address (a point also eloquently made by Sherratt 1995). In such an endeavour, this book can only form a starting point. The broader geographical distinctions in the character of Neolithic houses, their relative elaboration, aggregation and permanence, have long been clear. By offering our readers an up-to-date compendium, alongside a provocative set of more reflective papers, we hope we can play some small part in helping to put more comparative approaches back on the agenda. This will necessarily involve drawing in much wider themes of contact and demographic growth, population history and worldviews, material culture innovation and burial, and many other topics besides. The house is only the beginning of the story.

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Chapter 2

Houses and Households: a Near Eastern Perspective

A. Nigel Goring-Morris and Anna Belfer-Cohen

Introduction

The Near East is the geographic region where the processes of ‘Neolithisation’ first crystallised (c. 11,500 cal BP onward), prior to its dispersion as a ‘package’ to Europe and other parts of the Old World. We shall provide a brief overview and a discussion of the architectural developments pertaining to Neolithic phenomena in the region (also known as the ‘Fertile Crescent’). In particular, the focus will be on the Levant, i.e. those areas south of the Taurus/Zagros mountains through to the Red Sea in the south, and from the Mediterranean coast eastwards to the Syro-Arabian desert (Fig. 2.1).

The Levant’s geographic orientation is one stretching from north to south, interspersed on its west-east axis by topographic features deriving from the configuration of the Syro-African Rift valley. Four main ecological provinces can be observed—in the south, the ‘Mediterranean province’ (including the Damascus basin), bordered on the south and east by the ‘Arid province’; and, to the north, the ‘Middle Euphrates’ and the ‘Upper Tigris’ provinces. We prefer herewith to grossly subdivide the area into northern and southern cultural provinces, with a line between the Damascus basin and Beirut separating the two (for a detailed discussion, see Belfer-Cohen and Goring-Morris 2011a). Accordingly, the northern Levant extends from this line up to the Taurus/Zagros mountain ranges, while the southern Levant (including the ‘Levantine corridor’ along the Rift Valley) extends to the Sinai peninsula. The mosaic arrangement in the southern Levant displays greater ecological variability (the desert regions included) over smaller distances than in the northern

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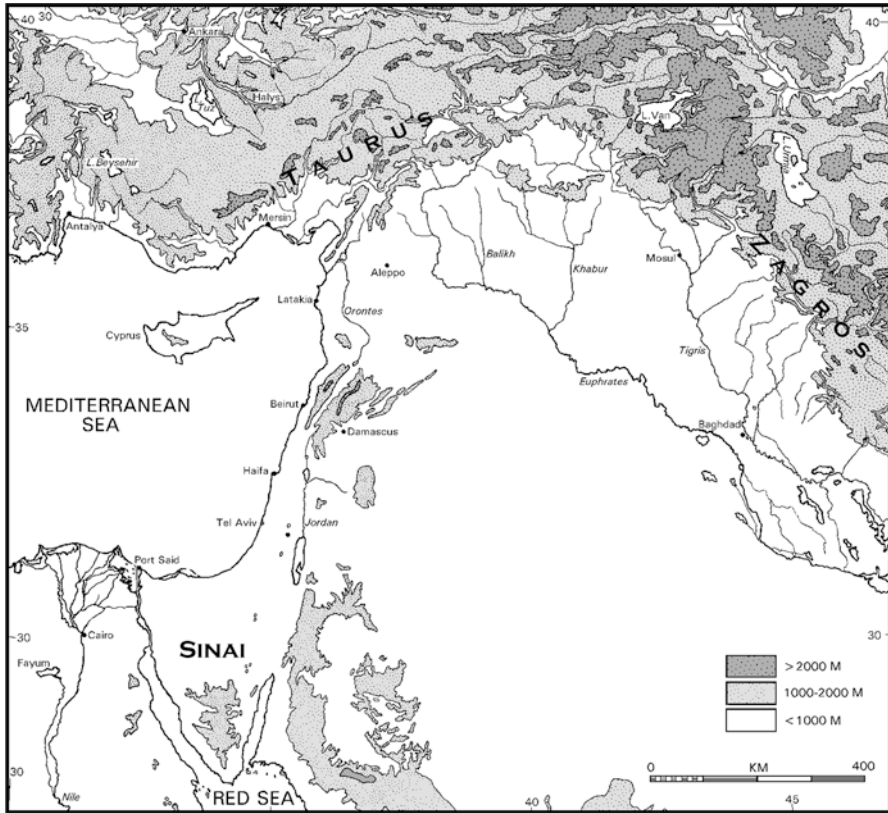


Fig. 2.1 Map of the Near East

Levant. Furthermore, two of the great rivers of the ‘Fertile Crescent’, the Euphrates and Tigris (and to some extent the Orontes), are dominant features of the northern Levant, creating linear corridors that bisect the broader landscape to create a patchwork of homogenous, yet distinct sub-regions. Thus we should note the contrasts between the northern Levant and the southern Levant. Interestingly, recent research demonstrates that the island of Cyprus should be included within the framework of early Levantine ‘Neolithisation’ processes (Guilaine and Le Brun 2003; Peltenberg and Wasse 2004; Vigne 2011; Vigne et al. 2012). However, it is important to stress that central Anatolia represents a quite different trajectory, in that developments there reflect the initial dispersion (as opposed to origins) of the Neolithic ‘package’ westwards (e.g. Özdoğan and Başgelen 1999; Düring 2011).

There is a general consensus that numerous elements incorporated in ‘Neolithisation’ processes in the Near East were present during the late Epipalaeolithic Natufian complex, c. 15,000–11,500 cal BP (Belfer-Cohen and Goring-Morris *in press*). There is initial evidence for durable architectural elements already in semi-sedentary hamlets from the early Natufian, as part of a continuum from the Natu-

fian to the Neolithic. These elements incorporate semi-subterranean round structures of varying sizes, custom-built graves, and an assortment of installations, e.g. stone-lined hearths and pavements (for detailed description, see Goring-Morris and Belfer-Cohen 2003, 2008). Especially notable during the early phase of the Natufian is the presence of large-scale structures, ranging in size from 50–150 m², that were clearly larger than the residential structures of earlier Epipalaeolithic huts, e.g. Ohalo II (Nadel 2006). Given the coeval presence of several such large structures in some sites, we believe that these early Natufian structures were the domiciles of social units larger than the nuclear family. Other structures, of similar shape, were very small in size, e.g. 2–4 m², and their functions clearly focused on different, special activities.

We shall not delve here into the discourse of when a structure becomes a house or, to paraphrase Watkins (1990), when a ‘house’ becomes ‘home’; yet, it is quite clear from the internal spatial patterning of both mundane and symbolic artefact categories within these structures that we are facing an amalgamation of profane and symbolic activities of particular social units, each distinct from its immediate neighbouring structure (e.g. Valla 1989, 2008). Suffice it to say that such issues (‘house’ as ‘home’, public/communal/corporate vs. private domains) merit further in-depth discussion.

In evaluating local developments, it can be stated that Near Eastern ‘Neolithisation’ processes:

1. were of longer duration than formerly assumed;
2. varied significantly throughout the ‘greater’ Levantine region;
3. were more complex in nature than previously supposed; and
4. were un-orchestrated, in the sense of being unintended developments with no ultimate ‘goal’.

The prevailing subdivision of the Near Eastern Neolithic was first proposed by Kenyon (1957) following her investigations at Jericho. Hence the Levantine Neolithic is presented in a four phase terminological framework: Pre-Pottery Neolithic A (PPNA: c. 11,500–10,500 cal BP), Pre-Pottery Neolithic B (PPNB: c. 10,500–8400 cal BP), Pottery Neolithic A (PNA: c. 8400–7500 cal BP), and Pottery Neolithic B (PNB: c. 7500–6500 cal BP). It should be noted that the PPNA shares greater commonalities with the Natufian than with the PPNB, while the PNA (in the south) could be more comfortably accommodated within the PPNB world. We shall only briefly relate to Pottery Neolithic developments in the north, as with time the differences between the north and south grew to incorporate distinctive local characteristics, e.g. the half-circular *tholoi* structures restricted to eastern Syria and northern Iraq (Akkermans and Schwarz 2003; Huot 1994). It seems that certain cultural traits (if not the scale of settlements and specific architectural traditions) of the northern PNA presage the unique developments of the later, Sumerian, city-states. Since many scholars have argued that the PNB corresponds more closely to the chronologically following Chalcolithic period (e.g. Garfinkel 2009), we shall not discuss it here.

Contrary to the Neolithic ‘package’ diffusing later into Europe, pottery as an integral part of the material cultural assemblage appears only with the PNA, some 3000 years after the earliest recognized Neolithic stage, the PPNA (Belfer-Cohen and Goring-Morris 2010); equally, plant and animal domestication was long-term and un-orchestrated (Zeder 2011). Spanning more than 5000 years, the different Neolithic phases display considerable diachronic and synchronic variability throughout the Levant. This reflects diverse starting conditions in the different phyto-geographical regions, palaeoenvironmental changes (e.g. the supposed climatic effects of the Younger Dryas and the ‘8200 year’ event), socio-cultural trajectories and interactions, as well as unforeseen circumstances (for detailed discussion see Belfer-Cohen and Goring-Morris 2011b; Goring-Morris and Belfer-Cohen 2011). Demonstrable domestication of plants and animals is first recognized during the PPNB, though in an uneven manner in time and space (Vigne 2008; Zeder 2009). Accordingly, we find combinations of farmers and herders, farmers and hunters, fishers and farmers, hunter-gatherers and pastoralists, all sharing, to a degree, certain material culture traits—hence the notion of a pan-Levantine PPNB *koine* or ‘interaction sphere’ (Bar-Yosef and Belfer-Cohen 1989). It is of interest to note that the PPNB can be considered as the ‘floruit’ of the Near Eastern Neolithic, since the following Pottery Neolithic displays marked regional variability, smaller settlements, and fewer cross-regional characteristics (Goring-Morris and Belfer-Cohen 2010; *in press*).

It is within this framework that we shall summarise the architectural evidence for ‘house/household’ and ‘home’ during the Pre-Pottery Neolithic in the Levant. We present the data with a running commentary, returning to certain issues in the following discussion.

Architectural Developments during the Neolithic

Pre-Pottery Neolithic A

Settlement patterns during the PPNA in the southern Levant are mostly restricted to the lowlands, whether in the Rift valley (usually at intervals of 20–25km) on alluvial fans or along the western flanks of the central hills. There was almost no occupation of the arid margins in either the east or the south at this time. A hierarchy of site sizes is documented, with the largest reaching up to c. 6 acres (about ten times the size of Natufian hamlets—Goring-Morris et al. 2009).

PPNA domiciles appear to consist of dispersed, short-lived, single storey circular or oval semi-subterranean structures, much in the architectural tradition of the preceding Natufian (Fig. 2.2). Their sizes and accompanying furniture mostly indicate the accommodation of nuclear families (Goring-Morris and Belfer-Cohen 2008; Simmons 2007). Construction was of wattle and daub or, somewhat later, of mud brick on stone foundations with wooden posts and beams to support flat roofing and *pisé* floors, sometimes with interior partitions (Bar-Yosef and Gopher



Fig. 2.2 Top Plan of part of Natufian hamlet at Ain Mallaha (Eynan), Centre Plan of hamlet at PPNA Nahal Oren, Bottom Typical PPNA residential structures (Gilgal, Hatoula, Netiv Hagdud)

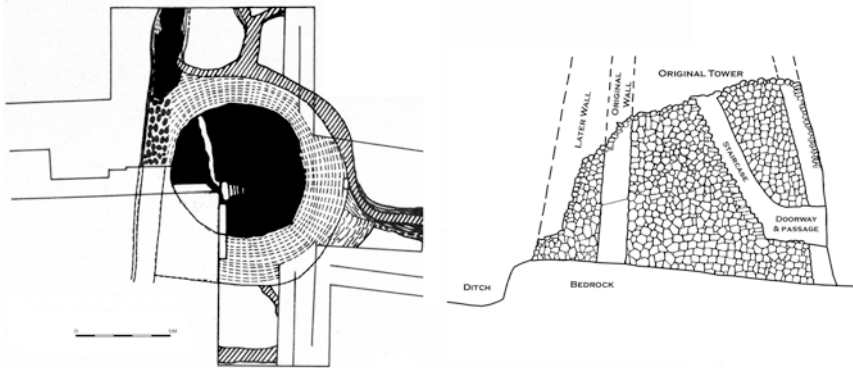


Fig. 2.3 The tower, wall and adjacent silos at PPNA Jericho

1997; Bar-Yosef et al. 2010; Edwards and House 2007; Lechevallier and Ronen 1994; Stekelis and Yisraely 1963). Indoor furniture includes stone-lined hearths and ovens, large cup-marked slabs, bins, etc.; there are also external storage silos, sometimes small and sometimes large, i.e. communal (Bar-Yosef and Gopher 1997; Kuijt and Finlayson 2009).

At the nodal site of Jericho, a tower and wall represent a spectacular and unique communal PPNA endeavour (Kenyon and Holland 1983). The tower is widely accepted today as representing a hallowed locale or shrine (perhaps even with topographic/celestial alignments) and associated (communal) silos (Fig. 2.3). The wall has been interpreted either as a defence against flooding or to delineate a sacred precinct, perhaps incorporating a cemetery (Bar-Yosef 1986; Barkai and Liran 2008; Naveh 2003; Ronen and Adler 2001). Another unique, communal construction is the monumental semi-subterranean sunken structure at Wadi Faynan 16, which recalls the large early Natufian structures (Finlayson et al. 2011). Commonly, burials are found in and under houses, sometimes in abandoned structures, at times including post-mortem skull removal, a Natufian innovation (Belfer-Cohen 1988a, 1988b; Kuijt 1996).

Apart from the Natufian sites of Abu Hureyra and Dederiya, there is little pre-PPNA evidence from the northern Levant (Moore et al. 2000; Nishiaki et al. 2011; Tanno et al. *in press*). In fact, the appearance of new traditions that differ from the south occurs during the PPNA. Most settlements of this period are located along the Euphrates and Tigris rivers and their tributaries, at intervals of some 20–25km. A further contrast to the south is that a smooth PPNA to PPNB transition can be observed at several sites. For example, freestanding circular and D-shaped structures become progressively quadrilateral, and this is only one of the material culture attributes which are being transformed at this time (Cauvin 2000; Stordeur and Abbès 2002; Yartah 2004). Some of the new structures are formally subdivided by activity, e.g. ‘kitchen space’. Dressed chalk masonry is used systematically in some sites (Cauvin and Stordeur 1978) and mud brick superstructures are frequent.

In several villages, deep subterranean communal structures are interspersed amongst the houses. Architecturally, these resemble the kiva of the American Southwest. Several boast formal internal divisions or benches, and unusual contents are sometimes recovered. Examples include Jerf el-Ahmar, Mureybet, and Tel Abr' 3. They clearly held a ritual function of some kind and may have been used by extended families or other social units, such as moieties or demes (Kozłowski 2002; Rosenberg and Redding 2000; Stordeur et al. 2000; Watkins et al. 1995; Yartah 2004, 2005). These architectural features also indicate intra-site social subdivisions.

The spectacular site of Göbekli Tepe, situated on a high hilltop at the headwaters of the Balikh in south-east Turkey, is most obviously a non-domestic site (Belfer-Cohen and Goring-Morris 2005; Peters and Schmidt 2004; Schmidt 2006, 2007), contrary to the views of some scholars (Banning 2011). Notably, the site demonstrates no evidence for domesticates, so that it reflects hunter-gatherer subsistence, although it is 'Neolithic' in terms of chronology. Intriguingly, several other similar sites have been identified within a 70km radius of Göbekli Tepe (Çelik 2000, 2004, 2006). The numbers and scale of the ritual structures (differing in specific motifs of artistic embellishment) and their subsequent intentional in-filling must have involved a large input of manpower from neighbouring communities, perhaps on a competitive basis.

The Pre-Pottery Neolithic B

The Mediterranean zone of the southern Levant saw substantial disruption at the end of the PPNA and the transition to the early PPNB (Edwards et al. 2004; Goring-Morris et al. 2009; Khalaily et al. 2007; Kuijt 2003; Kuijt and Goring-Morris 2002). There is a marked shift in settlement patterns, and the PPNB as well as the early Pottery Neolithic, i.e. the Yarmukian,¹ are characterized by the founding of villages that increase in size through the course of the PPNB. These large-scale villages ('megasites') eventually reach up to 12 ha in extent (e.g. Gebel 2004; Kuijt 1994, 2000; Rollefson 1997, 2001 and references therein).² The gradual introduction of domesticated herd animals (goats and sheep) in various areas and at different times during the course of the PPNB (Zeder 2011) certainly had a profound impact, as animals would have been corralled within the physical confines of communities (Goring-Morris et al. 2009). To date, our idea as to the overall density of residential 'packing', that is to say of the population density within these large settlements, is not very precise. Furthermore, and contrary to commonly held opinions, this by no

¹ It is important to distinguish between the middle, late and final PPNB (the so-called PPNC) in terms of the scale and nature of the settlements. Also, as noted in the introduction, although traditionally defined as 'PNA' we consider the Yarmukian culture as representing the culminating phase of early Neolithic village society and the final stages of the PPNB *koine*.

² There is a common tendency to overestimate site sizes and densities, leading to exaggerated population estimates (Campbell 2010).

means represents the prototype of the later Near Eastern village, which remained so familiar into sub-recent times.³

Unfortunately, there are few data for domestic architecture during the formative early PPNB, with only hints at the site of Motza (Judean hills) for the shift from circular to quadrilateral architecture. This shift is, however, most clearly documented in situ during the Middle PPNB at Beidha and the more or less coeval circular structures at Shaqaret Msiad (Fig. 2.4), both at the edge of the Mediterranean province (Byrd 1994, 2005a, 2005b; Kinzel et al. 2011). Whereas some view the change from round to square structures simply as a diachronic, developmental shift, other explanations seem more pertinent; for example, it could be considered as reflecting increasing permanence (see the following section).

The basic architectural concept of PPNB agricultural villages in the Mediterranean zone of the southern Levant is founded on quadrilateral units, often with multiple cells. There are several basic and recurring PPNB residential plans:

1. The long-axis ‘corridor’ house, pier-house or ‘megaron’, sometimes two-storied. The upper storey had one or two larger rooms in which domestic activities were concentrated. The semi-subterranean basement consisted of multiple cells separated by buttresses and was used for storage and workshops (e.g. Beidha, ‘Ain Ghazal and Yiftahel—see Banning and Byrd 1987; Braun 1997; Byrd 2005a; Rollefson 2001; and see Fig. 2.4).
2. The enclosed ‘courtyard’ house. Again, small cells on the ground floor are entered through raised doors/windows. This formed the base for an upper floor for domestic activities (e.g. Basta and es-Sifiya—see Gebel et al. 2006; Mahasneh 1997; and see Fig. 2.5).
3. Loose ‘pueblo-style’ structures. Sometimes up to two or three storeys high, this agglutinative array of structures is found on steep slopes (e.g. Ba’ja, Ain Jammam and Wadi Ghuwair—Gebel and Hermansen 2004; Simmons and Najjar 2003; Waheeb and Fino 1997; and see Fig. 2.6).
4. Enclosed single storey courtyard residential units. These are a feature of the end of the PPNB/beginning of the Pottery Neolithic, i.e. of the Yarmukian culture (Sha’ar Hagolan—Garfinkel and Ben-Shlomo 2002; and see Fig. 2.7).

The presence of different coeval architectural styles likely reflects a variety of factors, whether specific topographic and ecological settings, changing subsistence modes, social structure or group identities (as in the American Southwest—see Wilshusen and Potter 2010).

In most areas, constructions of mud brick were erected on stone foundations, although dressed stone masonry is a characteristic feature of southern Jordan (see references in previous sections). Stone-built channels can be found under some structures. Apparently, these prevented rising damp and provided drainage, e.g. es-Sifiya and Basta (Gebel et al. 2006; Mahasneh and Bienert 2000). In the Mediter-

³ There is no evidence for continuity from the PPNB megasites through to the early city states of the Early Bronze period in the southern Levant in contrast to the north, where continuity is more marked (see Goring-Morris and Belfer-Cohen 2008).

**SHAQARET MSIAD
MPPNB**

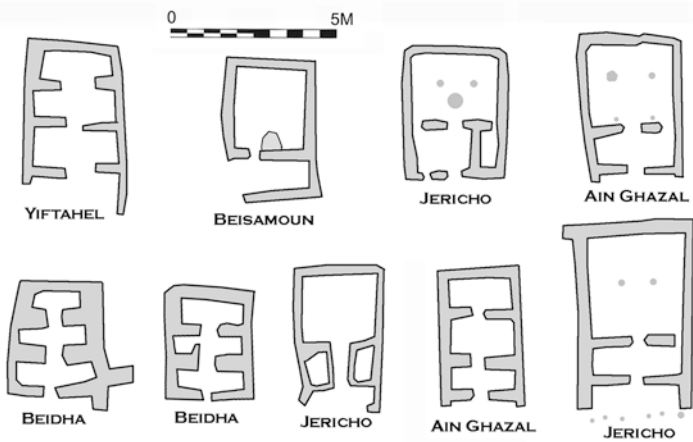
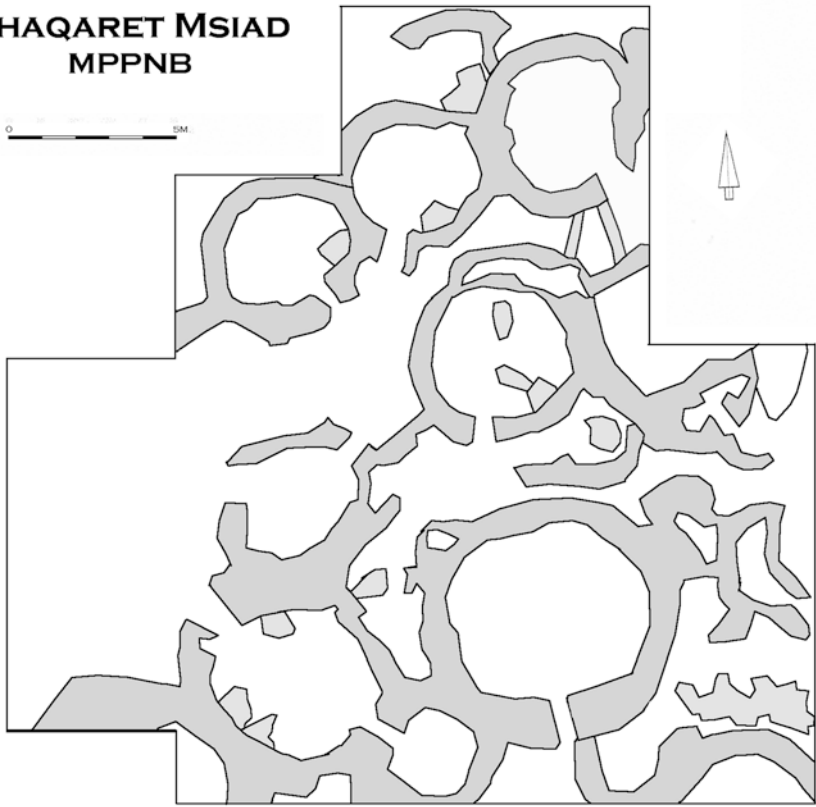


Fig. 2.4 *Top* Plan of middle PPNB Shaqaret Msiad, *Bottom* Typical PPNB corridor/pier houses (note that the buttresses often represent the basements of two-storey structures)

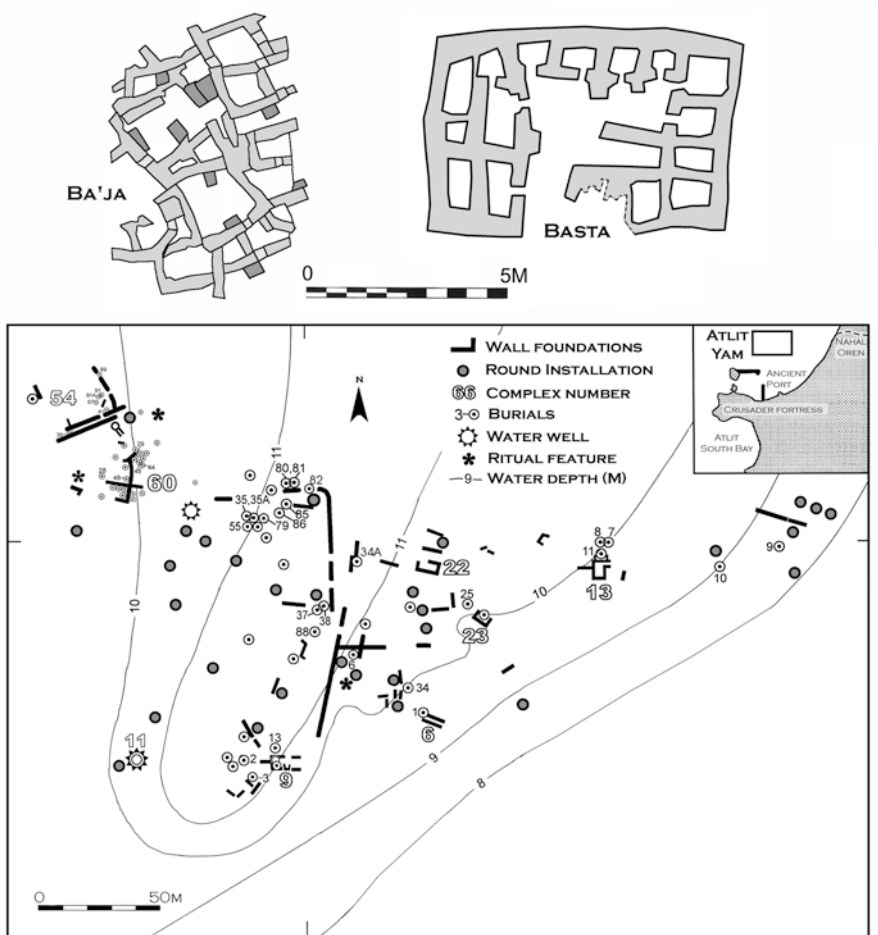


Fig. 2.5 *Top left* Agglutinative or ‘pueblo-style’ construction at late/final PPNB Baja, *Top right* The two-storey enclosed ‘courtyard’ house at late/final PPNB Basta, *Bottom* Plan of settlement at final PPNB Atlit Yam with walls up to 50 m long segmenting the settlement

anean zone of the southern Levant, massive quantities of lime plaster were used for floors and walls in the PPNB (Garfinkel 1988; Goren and Goring-Morris 2008). In addition, large stony surfaces were laid down, perhaps to stabilize muddy open areas for corralled herds. Rubbish was thrown into abandoned structures or open areas between house complexes (the ‘courtyards’), where it could form extensive midden deposits (e.g. Byrd 2005a).

Most likely, residential units were based around the extended family. It is also interesting that some family activities were apparently segregated and concealed from the wider community (see Byrd 1994; Byrd and Banning 1988). For example, a few long walls separate different areas of the site (e.g. Abu Gosh, Atlit Yam—Galili and Rosen 2011; Khalaily and Marder 2003; Lechevallier 1978; and see Fig. 2.5).

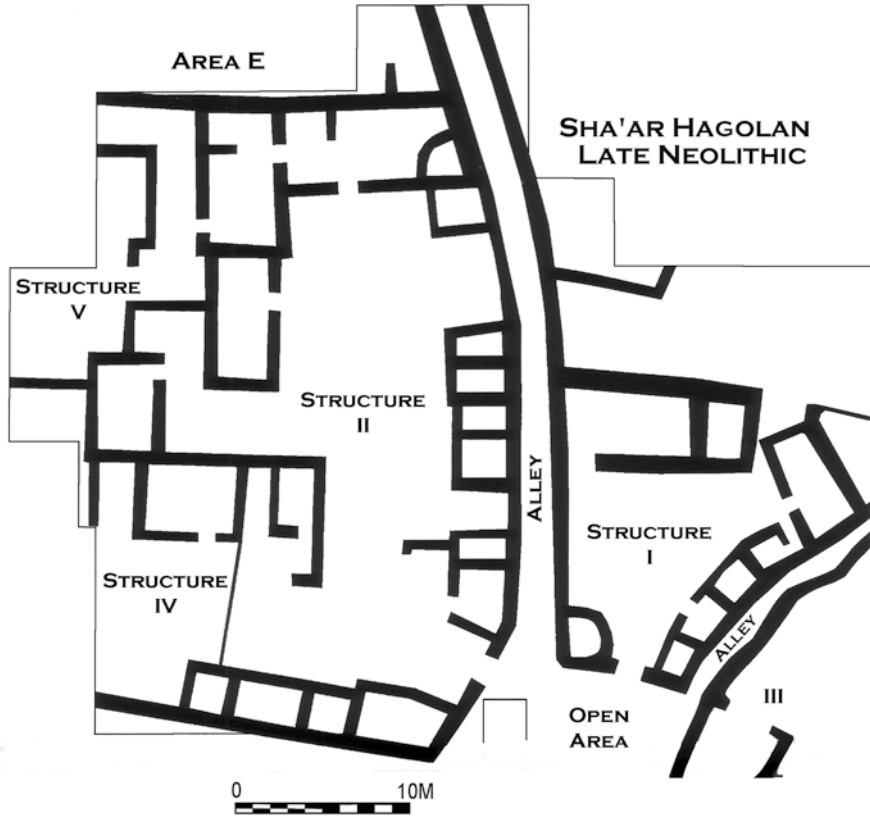


Fig. 2.6 Plan of part of settlement at Late Neolithic Yarmukian Sha'ar Hagolan. Note walled courtyard house (structure I) and large communal complex (structures II, IV, V) on the other side of the alley

There are a few examples of larger buildings interpreted as communal structures (Beidha; Byrd 1994). Other sites (e.g. Beidha, 'Ain Ghazal, Atlit Yam and Jericho—Byrd 2005a; Galili et al. 1994, 2004; Rollefson 2000; Kenyon and Holland 1983) boast what could be considered as sacred precincts with distinctive architecture in one part, generally on one side of the site.⁴ However, these areas do not appear to have been used for burial purposes (except perhaps at Jericho and Atlit Yam—Figs. 2.3 and 2.5).

Burials are found on-site within settlements, sometimes under house floors or within walls as foundation deposits or after house abandonment, as well as in open areas (Kuijt 2001 and references therein). However, scholars have noted the general paucity of burials within settlements (Rollefson 2000). One possible explanation

⁴ Sha'ar Hagolan may also exhibit a similar communal or sacred complex in Structure II, Area E (Garfinkel and Ben-Shlomo 2002; and see Fig. 2.6).

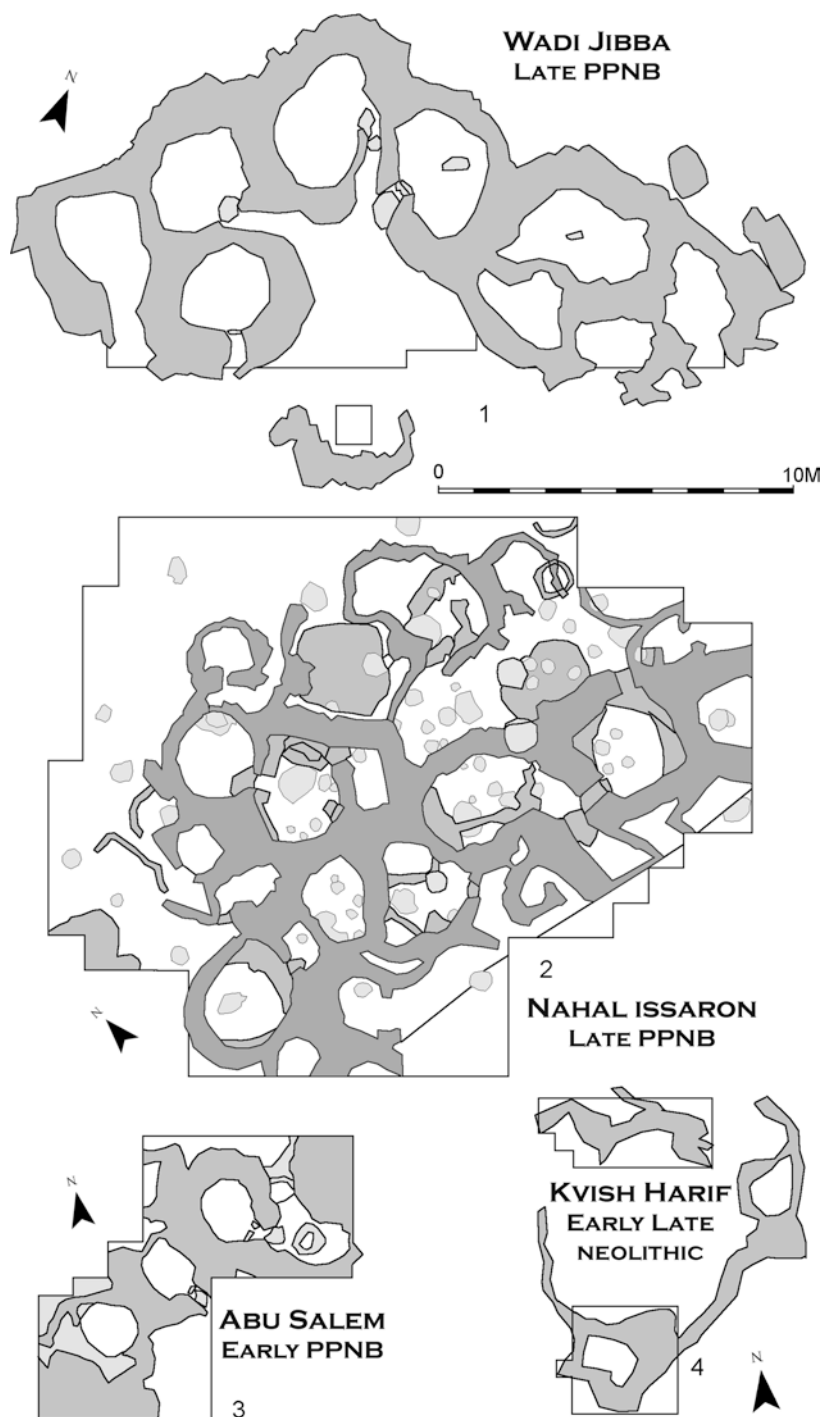


Fig. 2.7 Plans of seasonal camps of mobile PPNB foragers in the desert margins (Wadi Jibba, Nahal Issaron and Abu Salem) and a corral-type structure of early pastoralists at Late Neolithic Kvish Harif

is the presence of separate cemetery sites, following the Natufian tradition (e.g. Kfar HaHoresh—Goring-Morris 2005). The site of Kfar HaHoresh is located in a secluded setting, at some distance from the lowland villages that probably used it. It contains a monumental, walled and plastered podium, as well as later funerary architecture with plastered surfaces and bounding walls, postholes and monoliths, numerous burials, as well as extensive midden deposits deriving from feasting and other ceremonial activities.

Small, mobile foraging bands continued to live in the desert periphery of the southern Levant. They still seasonally occupied sites with waist-high circular stone-built huts and organic superstructures in ‘beehive’ arrangements (Bar-Yosef 1981; Betts 1998; Goring-Morris 1993; Henry 2005; and see Fig. 2.7). The season of use of this kind of building is reflected in the specific location of the sites within the local landscape and the relative thickness of the structure’s walls.

As mentioned above, the northern Levant sees a smooth transition from the PPNA to the PPNB, accompanied by expansion into eastern areas of central Anatolia (Bicakci 2001; Cauvin 2000; Esin and Harmankya 1999; Hauptmann 2002; Özdoğan and Özdoğan 1990). We refer here also to the initial stages of the Pottery Neolithic (Akkermans et al. 1983). Settlements increase in number and size, and overall it seems obvious that sites have a planned layout, as demonstrated by the systematic orientation of houses in some sites.⁵ Residential architecture is based on large quadrilateral structures, which take a range of specific forms. These include, early in the sequence, ‘long houses’ on raised ‘grill’ foundations, e.g. Nevalı Çori and Çayönü (Schmidt 1996; Schirmer 1990; and references above). At Çayönü at least, the sizes of individual structures decrease through the PPNB sequence. This is an interesting observation, as it may reflect a shift back from an extended family domicile to one conceived for a nuclear family. Most domestic structures are built on stone foundations, with raised floors (against rising damp), a mud brick superstructure and flat roofs. Gypsum plaster is commonly used for floors and wall coverings on some sites (Kingery et al. 1988). The intentional burial of structures as closure events should also be noted (Özdoğan 2006; Özdoğan and Özdoğan 1998).

At some sites, large open areas (‘plazas’ or sacred precincts) abut residential quarters, and these can occur together with communal cult buildings, e.g. Çayönü, Nevalı Çori and further east, over the Taurus mountains, at Asikli Hüyük (see references above). Some of these cult structures, sometimes with flagstones, functioned as charnel houses for the disposal of the dead, e.g. at Çayönü (Özdoğan 1999). Similar to the situation in the south, excavated burials are too few to be representative of the actual population, perhaps indicating that ‘normative’ disposal of the dead was conducted off-site. However, there are exceptions. For example, the houses at Tel Hallula systematically yielded burial pits just inside the entrance (Guerrero et al. 2009). At least initially, separate PPNB cult sites continued to be used, although they decline in scale and finally disappear over the course of the period, e.g. Göbekli Tepe (Schmidt 2005).

⁵ Probably to maximize light within the houses, e.g. Bouqras, Çayönü, Tell Abu Hureyra (Akkermans et al. 1983; Moore et al. 2000; Özdoğan 1995).

Sophisticated wells were used to provide clean water. This was already the case in the PPNB of Cyprus at Mylouthkia and Shillourokambos (Guilaine and Briois 2001; Peltenburg et al. 2001), and they are probably just as early on the mainland. However, they are only documented there from the final PPNB, notably at Atlit Yam on the Carmel coast and subsequently at Sha'ar Hagolan (Galili and Nir 1993; Garfinkel et al. 2006).

The PNA

The beginning of the Late or Pottery Neolithic is characterised by the dramatic increase in the quantities of ceramics, which now became the most distinctive element of the material culture (as opposed to their earlier sporadic occurrence). While many material culture elements do display initial continuity from local PPNB traditions, the pan-Levantine PPNB *koine* gradually broke down. Local cultural provinces became more pronounced—the 'Yarmukian' and 'Lodian' (Jericho IX) entities in the south, and 'Byblos', 'Halaf', 'Hassuna' and 'Samara' entities in the northern Levant (Akkermans and Schwartz 2003; Banning 1998; Düring 2011; Garfinkel 2009). While a few sites were massive, such as Sha'ar Hagolan (extending over 50 acres) in the Jordan Valley and Tel el-Kerkh in the northern Rift Valley, there was a general trend towards smaller, more dispersed settlements in both south and north, often interpreted as a shift towards increasing pastoralism and seasonality (Köhler-Rollefson 1988; Rollefson and Köhler-Rollefson 1993). Possible explanations for such changes (beyond the deleterious effects of the '8200 year' cold event) may relate to a variety of causes: the absence of adequate social/political/ritual mechanisms to manage the complexities of living in large permanent communities (e.g. land and property ownership and rights); scalar stress; hygiene hazards, including contagious and/or zoonotic diseases; and the like (Goring-Morris and Belfer-Cohen 2010).

Whether Yarmukian Sha'ar Hagolan really displays 'early signs of urban concepts', i.e. densely built, town-like architectural complexes across the site, with social hierarchy based on differential household sizes, remains moot (Ben-Shlomo and Garfinkel 2009, and see especially their Fig. 2.5; Garfinkel 2006). This assumption is based on the excavators' interpretation of three courtyard complexes; yet systematic surveys of the site's total area indicate uneven, patchy densities across the site (Garfinkel and Miller 2002)—perhaps akin to those observed in the later 'Beersheva' culture Chalcolithic sites (Gilead 2009 and references therein). We believe a more parsimonious interpretation is that the settlement may have comprised spatially discrete, perhaps clan-based clusters of wards. Still, this represents a notable shift from previous PPNB domiciles (Figs. 2.4, 2.5, and 2.6). These compounds were separated by alleys, featured external enclosure walls and central courtyards, and rectangular domestic structures together with ancillary storage and cooking facilities. Such arrangements presumably reflect increasing concerns with privatization (see Byrd 1994) as well as providing penning for herded animals.

Of interest, especially considering Sha'ar Hagolan's proximity to the Yarmuk River, is the presence of an obvious communal endeavour at the site—a well (Garfinkel et al. 2006). Additionally, it is also possible that the largest of the excavated three building complexes (E II) may represent a communal compound rather than a 'big man's' or a 'landlord's' residence (Fig. 2.6); 75% of the clay and stone figurines in this area derive from within this complex, which also differs from the others in the composition of the retrieved faunal remains (Garfinkel and Ben-Shlomo 2009; Marom 2011). Another unique find in this complex is a cluster of three human skulls recovered from the courtyard. In other Yarmukian sites, the presence of apsidal architecture is notable and illustrates the considerable variability in architectural styles within the same cultural entity.

The shift from foraging to pastoralism in the southern deserts remains poorly documented, although it was probably introduced from the north, e.g. el-Kowm Caracol (Stordeur 1989) and eastern Transjordan, sometime during the seventh millennium, and then eventually reached the Nile Delta (Bar-Yosef and Khazanov 1992). The presence of animal corrals may provide evidence for early manifestations of this process (Garrard et al. 1996; Gopher 2010; Goring-Morris 1993).

Discussion

What's there

In evaluating Levantine architectural traditions during the terminal Pleistocene and early Holocene, several broad generalisations are pertinent. Four basic architectural concepts can be identified during this period, from the Epipalaeolithic through to the end of the Neolithic:

- a. Temporary occupations of mobile Palaeolithic hunter-gatherer bands with but flimsy structures;
- b. Initial semi-sedentary communities as personified in the Near East by the complex foragers of the Natufian (and to a large extent the PPNA), whose hamlets were composed of permanent structures, built of stone and organic material and later of stone and mud bricks;
- c. Large PPNB villages ('megasites') with permanent structures of stone and bricks and of variable sizes and planning, for the first time incorporating elements such as windows and doors;
- d. Dispersed hamlets of the Late Neolithic, with housing structures and associated courtyards.

It is important to note that there is significant variability in vernacular architectural traditions between the different areas, both between the southern and northern Levant, as well as within those regions (the arid periphery obviously having a separate trajectory).

What Made it Tick?

The developments influencing architectural configurations obviously originate from multiple causes. These include specific ecological settings, local socio-cultural circumstances, novel and variable subsistence modes, scalar stress and social adaptations to increasing community sizes. All of these complicate the comparability of foraging bands, settled communities and transhumant societies. Furthermore, it is important to stress that the introduction of permanent architecture was not a uni-directional, incremental process, from ‘small’ to ‘large’ and from ‘simple’ to ‘complex’ (contra Garfinkel and Ben-Shlomo 2002, 2009). This is most cogently illustrated from the outset by the semi-sedentary Natufian, when greater scale and complexity are present during the *earlier* phase (c. 15,000–13,000 cal BP), as opposed to the later phases of the Natufian (c. 13,000–9500 cal BP; Belfer-Cohen and Goring-Morris *in press*; Goring-Morris and Belfer-Cohen 2003, 2008). It is additionally important to note that, even in its early stages, supposed ‘vernacular architecture’ also incorporated obviously symbolic elements; this is in addition to the presence of separate ceremonial architectural structures and sites.

From the Outside

Different

What were the functions of these early structures? Obviously people were occupying shelters of one sort or another previously, so it is not that the structures were simply ‘small houses’ to be elaborated upon with time, i.e. on the road to becoming ‘us’ in the modern sense of urban communities. While the large structures (c. 50–150 m²) in early Natufian Wadi Hammeh 27 could indeed be considered as appropriate for ‘dwellings’ (Edwards 1991), the small structures inside Hayonim Cave (c. 1.5–4 m²) clearly served different functions; indeed, to give but one example, one of them (Locus 4) was a lime kiln (Belfer-Cohen 1988a, 1988b; Bar-Yosef 1991).

As an aside, there is the issue of what kind of social unit(s) occupied the obvious ‘dwelling’ structure. In the past, this has been a major issue in local Near Eastern archaeological discourse (Flannery 1972, 2002; Watson 1987), as it was posited that the transition from round to rectangular structures indicated the transition to an agricultural mode of subsistence, as well as a shift in the organisation of kin sharing space. Of course, in addition to the possibilities of nuclear families vs. extended families, there is the prospect of other residential units based on different social frameworks, such as moieties, lodges, wards, etc. These may have been associated with the major transformations (‘Neolithisation’) that were taking place in different places, at varying times, all over the Near East (and see Byrd 1994, 2005a, 2005b; Goring-Morris and Belfer-Cohen 2003, 2008). Just as an illustration, some consider that the basic domestic unit from the Natufian through to the PPNB was that of the

nuclear household (Byrd 2000). Flannery (1972), who set the stage for this ongoing debate in his seminal article, argued that Natufian base camps comprise the dwellings of individuals as opposed to nuclear family houses during the PPNB. It seems to us that the data at hand contrast with both these assertions; yet the question of what constitutes a ‘nuclear family’ or any other basic household unit during various prehistoric times and in various cultures is too complex to be treated here (and see Flannery 2002). We can, however, state that the direct archaeological data are sparse and inferences from extant ethnographic observations are often problematic and open to debate, falling into the trap of the rather simplistic assumption of ‘the present being the key to the past’. We are not advocating that the ethnographic data should be ignored, rather that caution should be exercised in its application (and see further discussion in Belfer-Cohen and Goring-Morris 2009).

Differences between Profane and Ritual

How can we differentiate between the profane and the ritual, most especially prior to the appearance of clear-cut, canonised ‘religious’ architecture, when the only criteria at hand are actually contextual associations? An example from Natufian Ain Mallaha (Eynan) is that of Abri 1 (Fig. 2.2). This structure is unusual compared with other contemporary structures on site, given the presence of monoliths, a plastered bench, limestone slabs, a large constructed hearth, as well as a complex series of burials (Perrot 1966; Perrot and Ladiray 1988). There are indications that initial lime plaster production for architectural uses during the Natufian was symbolically imbued. Its production involved fire and water, initial plasticity and unstable, caustic properties prior to hardening, not to mention its white colour (purity?). Lime plaster subsequently continued to fulfil similar functions, but not exclusively, during the PPNB (Goren and Goring-Morris 2008; Kingery et al. 1988). In consequence, the contrasting concepts of ‘house’ and ‘home’, ‘domestic’ and ‘ritual’ are quite entangled (Watkins 2004), and they are difficult to assess when examining these early innovative developments.

Lifecycle

Another concept to consider is that of continuity, redundancy or ‘extended memory’ in the repetitive spatial arrangements of features and artefacts through different phases within structures, a practice observed since at least the Natufian (e.g. Natufian Eynan, structure 131—Perrot and Ladiray 1988; Valla 1989; late PPNB Çatalhöyük ‘memory houses’—Hodder 2005, 2007; Hodder and Pels 2010). In many respects, this can also be associated with the perception of the individual histories of buildings, from their initial construction through to their abandonment. Construction sometimes involved the insertion of foundation or intramural deposits—human

and animal remains, as well as caches of special ‘goods’ (see Berner and Schultz 2004; Gebel 2002; Hodder and Pels 2010). In addition, the abandonment of structures sometimes involved acts of intentional ‘closure’, usually by burial—whether of supposed ‘residential’ structures at some sites (especially in the northern Levant, e.g. PPNB Çayönü) but also of communal structures, whether at PPNA Jerf el-Ahmar (even perhaps involving human sacrifice) or PPNA/PPNB Göbekli Tepe (Özdoğan and Özdoğan 1998; Schmidt 2006, 2007; Stordeur et al. 2000).

Function—Private and Public

Within permanent structures, we can observe shifts in the placement of site ‘furniture’ between what may be defined as ‘private’ and ‘communal’. From the very first appearance of permanent structures, some installations became part and parcel of the structured, confined space, e.g. fireplaces. During the Natufian hearths located outside structures are the exception rather than the rule. It is only during the course of the PPNA and especially during the PPNB that numerous hearths are documented within external midden (i.e. predominately trash) deposits; by the PPNB a wide range of different hearth types, ovens, fire pits, etc. became common. Still, the functions of the variable fire installations are clearly differentiated between ‘inside’ and ‘outside’ spaces.

Grinding equipment as site furniture presents another trajectory, since at first, during the Natufian, most groundstone tools comprise mortars and pestles. The mortars, usually rather large and heavy, are found outside structures, sometimes even outside the immediate confines of the site, as rock-set installations. Quite obviously, these utensils served the whole community and were public property or at least accessible to all community members—an example is the late Natufian Saflulim-Rosh Horesha site complex (Goring-Morris et al. 1999). During the PPNA, the large mortars were replaced mostly by grinding slabs and shallow cupmarks. These came in several sizes, and the smaller variety became a fixture within dwellings (e.g. Gilgal and Netiv Hagdud—Bar-Yosef et al. 2010; Bar-Yosef and Gopher 1997); they indicate the shift of pounding/grinding tasks away from the public into the private domain (Wright 2005). However, by the PPNB, few querns or grinding slabs are actually found within houses (at least in the Mediterranean zone); this may be a sign of another shift, this time from private to communal (perhaps even hinting at incipient shifts to craft specialization, as reflected in other spheres of material culture).

Undoubtedly, some of the PPNA kiva-like structures in the northern Levant also served for communal storage purposes (Stordeur et al. 2000), while in the south communal (?) silos may have been situated adjacent to the PPNA tower at Jericho or as separate features at Dhra and Netiv Hagdud (Bar-Yosef and Gopher 1997; Kenyon and Holland 1983; Kuijt and Finlayson 2009).

Wrapping it up

Can one talk of ‘home’, in the sense that we understand the term today, emerging during the Near Eastern Neolithic? This is rather a complicated issue, given all the variables enumerated above; thus either a simple “yes” or “no” will be inappropriate as the notion of ‘home’ is currently associated with ‘family dwelling’, ‘permanence’ and productive economic modes (i.e. agriculture). Indeed, since the Natufian, there were times that structures were of a size appropriate for housing a ‘family’ (whether nuclear, extended, or just parts thereof, e.g. a spouse and her children). Interestingly, during the Neolithic we witness for the first time the systematic cleaning of structures—the bane of us archaeologists (as the evidence is literally swept away). This indicates that people wanted (and needed) clean environments in their permanent residences to avoid health issues deriving from prolonged sedentism (Goring-Morris and Belfer-Cohen 2010; Hardy-Smith and Edwards 2004).

However, in closing, it is important to note that, with few exceptions, the relative excavation areas within Natufian but most especially Neolithic sites tend to be extremely limited, so that we have little real understanding of the more general organization of space within sites. This renders our present discourse open to challenges, large and small. A common ending to ‘archaeological’ articles refers to ‘... further excavations should elucidate the points raised here’. For the reconstruction of the nature of architectural aspects during the Near Eastern ‘Neolithisation’, this is more valid than ever.

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Chapter 3

Diversity, Uniformity and the Transformative Properties of the House in Neolithic Greece

Stella Souvatzi

Traditional and general models of the introduction, spread and impact of the Neolithic way of life tend to assume that novel reorientations and developments are something that happens elsewhere to which people merely respond—for example, by adopting agriculture, settling down and creating permanent houses. What predominantly are the historically contingent results of agency are perceived as one de-contextualised entity, habitually in terms of a Neolithic package, while architecture and the creation of the house as a notion and a social unit are taken for granted or are treated as a supra-contextual given. This does not help us to understand any society fully or deeply, let alone the Neolithic societies that were in the unique position of inventing new solutions to new problems and of creating what was ultimately a new way of life based on new social, economic and ideological relationships.

Although during the last two decades, the Neolithic literature has become more contextual, included consideration of the small scale and the conduct of everyday life and gradually illuminated the subtle diversities of Neolithic ways across Europe and the Near East (e.g. Bailey et al. 2005, 2008; Edmonds and Richards 1998; Hodder 2006; Kuijt 2000; Whittle 2003), the way we look for and interpret evidence for the significance of the house is still influenced to a large extent by essentialist arguments and adaptationist thinking. Debate has focussed on the impact of external forces—the mechanisms by which domestication was introduced and the periods of time it took for full agriculture to emerge—and on the ways social units were organised or changed in adaptation to such impact. While we may gain an increasingly detailed understanding of the origins and spread of a farming way of life (e.g. Ammerman and Biagi 2003; Lichter 2000; Price 2000; Whittle and Cummings 2007), we have rarely considered the house as a producer of transformation rather than merely a response to it.

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Fig. 3.1 Map of Neolithic sites from Greece mentioned in the text

This chapter suggests that we need to investigate the deeper structure of these pioneering societies and to reconceptualise the Neolithic house as an active social framework for life, as a context for the transformations that occur. Indeed, it is in the continually shifting relationships within and between social groups that wider developments can be best understood. This view is explored through an examination of the different manifestations of early settlement in Greece, the role and forms of houses, the interplay between the different scales of space and time at which all this happened and the range of relationships that it involved (Fig. 3.1).

Architecture, Sedentism and the Origins of Settled Life in Greece

The perception of the Neolithic as a clear and neat package of discreet and fundamental characteristics, in particular, stability, permanence and subsistence economy, disregards historical context and neglects the modalities of the adoption and meaning of these practices. It brings to the forefront deeply embedded concepts of a uniform, inevitable and mono-directional evolutionary trajectory towards Neolithic ‘achievement’ involving the gradual adoption of typical features, perceived, moreover, as the outcome of efficiency and rational rather than social choices. One consequence of these models is that in many Neolithic studies stability and continuity begin as a foregone conclusion. Images and attitudes similar to that have often resulted in a stylised (and thoroughly static) view of the Neolithic house as firmly rooted in architecture, space and ‘traditional’ rural economy, and have, ultimately, engendered a reluctance to engage in an interpretation independent of the established paradigm of ‘prehistoric social evolution’.

However, in order to reconstruct social trajectories we need to look into the contexts of many practices that take place in a given local, regional, temporal, or cultural setting as well as to recognise and account for cases of discontinuity and devolution. Similarly, an overemphasis on continuity in the creation and significance of Neolithic houses risks disregarding the flexibility of spatial boundaries within all types of societies. Although long-term locality and solid architecture may impose different constraints on house social structures than the mobility in residence patterns of other societies, they should not serve to mask the constant fluctuations, shifts and changes in house spatial and social structure. This is exemplified by numerous ethnographic cases in which there is considerable seasonal mobility of household groupings or mobility of people between dwelling units (e.g. Burton et al. 2002; Carsten 1997; Solien de González 1969). Houses therefore exist within a number of different temporalities and spatialities, which ought to be defined analytically rather than being presupposed.

Neolithic Greece provides a particularly good context for illustrating all of these points—both the influence of stereotypes and the need for challenging them. The strategic location of Greece between three continents, combined with the fact that its Early Neolithic (6800/6500–5800 BC) is the oldest in Europe, raised early questions about cultural origins and identities of a European significance, given also the wider belief in Greece as the cradle of ‘European civilisation’ (see Andreou 2005 for further discussion). For example, the excavation of the famous site of Nea Nikomedeia by Rodden and the British School at Athens in the early 1960s was conceived with a view to defining the nature of the earliest Neolithic settlement in the context of the origins and development of farming in Europe (i.e. indigenous or imported from further east) and its relationship with the Balkans and the Near East (Rodden 1962, p. 269, 1996). The question of the origins of farming and sedentism within Greece itself as indigenous versus exogenous (whether cast in the mould of *ex Oriente lux* diffusionism or core-periphery theory) has also been a central and

recurring theme of research, still vividly debated (e.g. Galanidou and Perlès 2003a; Efstratiou 2005; Kotsakis 2003, 2005; Perlès 2001, 2005). At the same time, the wider focus on the great tradition of Classical Greece, the world described in the Homeric epics and the achievements of the Bronze Age Minoan and Mycenaean cultures have often resulted in the adoption of inappropriate models of interpretation of the Neolithic societies derived from the later and structurally different historical contexts.

All these strands together have formed a perception of Neolithic Greece merely as a gateway, a bridge between the Near East and the Balkans, a peripheral case of the European Neolithic cultures. Moreover, they have delayed the exploration of Greek Neolithic life in its own right and have served to mask its originality (for recent exceptions see Perlès 2001; Souvatzi 2008a). Yet, the Greek Neolithic possesses considerable originality, four major components of which are: (a) regional and temporal diversity; (b) richness of domestic architecture and material culture; (c) early development of craft specialisation and long-distance exchange and (d) continuing significance of the house and the village community.

Cultural originality and ‘idiosyncratic traditions’ (Perlès 2001, p. 35) already began in the Mesolithic (8700–7000 BC), for which the evidence suggests mobile groups settled in diversified environments, able in seafaring and the exploitation of marine resources and with distinctive technical traditions (Perlès 2001, Chap. 2; Galanidou and Perlès 2003a). Overall, the Mesolithic is very poorly known compared with elsewhere in Europe, and debate surrounding the significance of this scarcity (i.e. actual paucity, taphonomic factors or insufficient research) has led to opposing views on the origins of the Neolithic (see Galanidou and Perlès 2003b). For example, Perlès (2001, Chaps. 3–4, 2005) favours a non-autochthonous process of Neolithisation with incoming farmers from different parts of the Levant and Anatolia, bringing with them the full range of plant and animal domesticates and new food producing and building techniques. On the other hand, Kotsakis (2005) argues for the idea of borders as a set of multiple frontiers and conflicting directions in the form of marginal, small and experimental sites outside the mainstream Neolithic landscapes for the mutual exchange of the initial steps.

Most significantly, the proponents of either theory agree on one important point, that is, the model of progressive and regular expansion of agriculture and domestication does not hold in Neolithic Greece (Kotsakis 2005; Perlès 2001, pp. 113–120). No ‘core’ area can be identified, not all regions were inhabited, different regions followed different rates of adoption of agriculture and sedentism, the founding of new villages did not take place regularly over the centuries, and the location, form and density of settlement varied even where agriculture was practised very early.

Is it then possible to enclose all kinds of patterns and changes at different scales and times into a model of one uniform Greek Neolithic process? In what follows, the issue is not the ‘generalities’ of the Neolithic sequence or the cultural origins of people living in Greece from the beginning of the 7th millennium onwards, but their actions and the social processes and mechanisms that were taking place at that time.

Multiple Scales of Diversity and their Meaning

Two important homogeneous features of settled life in Neolithic Greece are the general preference for the creation of sedentary villages and their predominance in the social and physical landscape. More than a thousand habitation sites have been discovered thus far, contrasted with a lack of monumental or ritual architecture outside the settlement and a scarcity of separate cemeteries (less than 15). Settlements are usually situated in lowland regions and densely concentrated on alluvial deposits, and subsistence economy relied on agriculture and animal husbandry. As Perlès (2001, p. 5) argues, with few exceptions (e.g. Franchthi and Alepotrypa), natural habitats such as caves and rock shelters, particularly abundant in Greece, were under-used and the exploitation of wild resources was limited. Beyond that, Greek Neolithic architecture provides a clear picture of diversity of settlement patterns and types, house forms and building techniques and materials, as well as of regional developments and trajectories.

Spatial Scales

In northern Greece (Thrace and Macedonia), settlements tend to be extended, inconspicuous and of relatively short-term occupation with widespread pit buildings and extensive open spaces (e.g. Makriyalos, Stavroupolis and Promachonas-Topolnitsa). Key characteristics are their large size, up to more than 50 ha, resulting from the horizontal replacement of houses and the important hiatuses observed at each site (Andreou et al. 2001; Aslanis 1992; Grammenos 1991). However, they exist alongside a smaller number of earth mounds (e.g. Sitagroi, Dikili Tash and Makri) characterised by several phases of occupation, substantial post-framed, pisé, or mud brick houses with impressive structural details and a rich inventory of features and finds in place (e.g. Efstratiou et al. 1998; Koukouli-Chrysanthaki et al. 1996; Treuil and Tsirtsoni 2000).

Long-term settlements in the form of high earth mounds ('tells') resulting from the vertical superimposition of closely spaced houses, usually built with mud brick on stone foundations (Figs. 3.2 and 3.3), and the accumulation of successive layers of habitation are characteristic of Thessaly and central Greece. Still, a number of settlements show characteristics of both tell sites and flat sites. For example, Galene (Toufexis 2005) and Nea Makri (Pantelidou-Gofa 1991) are flat settlements of an extended and shifting habitation pattern, whereas Sesklo and Makrychori 1 both consist of a tell and a more extended settlement spread below. Palioskala is a lake-side tell (Toufexis 2006), with certain similarities to the lake settlement of Dispilio in Macedonia (Hourmouziadis 2002). Equally striking here is settlement density: more than 300 sites have been located in eastern Thessaly alone, with the mean distance between the neighbouring sites being less than 5km (Gallis 1992; Halstead 1984; Johnson and Perlès 2004; Perlès 2001, pp. 121–151).

In southern mainland Greece and the Aegean islands, villages show a remarkable variety of type, size and duration. Generally, but not always, they tend to be more dispersed, less long-lived and small- to medium-sized (up to 1 ha), with rather small houses, often with mud brick on stone foundations and more rarely post-framed (e.g. Alram-Stern 2005; Cavannagh and Crouwel 2002, pp. 121–158; Davis 2001; Papadopoulos and Malamidou 2002). Finally, western Greece as a whole seems to have been relatively under-populated compared with eastern Greece, at least in terms of density; although Neolithic habitation levels have been revealed all over the region and recent systematic work may change the picture (e.g. Stratouli 2005; Wiseman and Zachos 2003).

All this diversity is further complemented by the presence and variety of all kinds of large-scale architectural works and structural boundaries, which appear together with the first settlements and continue throughout the Neolithic. They range from levelling to elevation of large areas within settlements and the undertaking of new building programmes, from stone enclosures, often multiple and concentric, to perimeter ditches dug into the soil or even into the solid rock and running around or through sites, and from habitation terraces to retaining walls (e.g. Fig. 3.2 background). They create varying degrees of intimacy, visibility and movement and reflect considerable variations in people's connections with other communities, within their own community and with each other (e.g. Souvatzi and Skafida 2003).

Even greater variation is observed at the site level, where the most striking element is the lack of standardisation in the details of the houses and building techniques. In general, the Greek Neolithic buildings tend to be free-standing, rectangular and single-roomed, with a size ranging from 11 to 160 m². Other than that, they show a remarkable variability in interior arrangement (e.g. in number, type and location of structural features, in floor types, in internal divisions, and often in entrance location; e.g. compare shape and interior of houses in Figs. 3.2 and 3.3), in elaboration and generally in investment in architecture, ranging from densely packed and apparently autonomous buildings to structural complexes and pit complexes with their facilities located outdoors. Ground plans may be square, rectangular, or sometimes elliptical or apsidal. Double-roomed, three-roomed or otherwise partitioned examples also exist, as do porches and indications for two storeys, internal lofts and basements. Structural features include a variety of hearths, cooking and storage facilities, benches, shelves, platforms and so on. Foundations may be stone-built or trenches dug into the ground, superstructure techniques include mud brick, wattle and daub and pisé, while floor types vary from simple beaten earth to stone pole frameworks and wooden planks. The gabled type of roof seems to be most common, as inferred from the house models, but double-pitched and flat roofs are also indicated. For example, in the fallen superstructure inside one house at Dikili Tash a large flat block of clay bearing at least 14 thin layers of plaster was identified as a roof fragment and was taken to suggest the existence of a flat, rather than a pitched, roof (Koukouli-Chrysanthaki et al. 1996, p. 691). Windows and roof openings are known from the clay house models (e.g. Toufexis 1996; Toufexis and Skafida 1998).

Interestingly, although this diversity may indicate general local preferences and understandings, it does not seem to correlate strongly with particular regions or temporal phases, not even with environmental conditions or the availability of raw materials. As shown above, different settlement types are developed within the same region, and new surveys have shown that soil formations and geographical areas do not seem to have played a decisive role in settlement location (Gallis 1992; Johnson and Perlès 2004). Different house types, spatial practices and construction techniques are also developed within the same region, and often within the same settlement. The 28 complete and partial Neolithic buildings at Servia were either square or rectangular and had one, two or three rooms. Ground plans measured from 3.5 to 5.5m in width and from 6 to 10m in length. Interior floors were made in three different techniques and there were, in addition, several types of features, storage facilities and cooking structures (Mould and Wardle 2000a). At Dikili Tash (5500–4500 BC), the walls of houses were constructed in two variations of the post-framed technique, and the different clays used for different domestic constructions (walls, roofs, floors, ovens and benches) were obtained from sources as far as 15km away (Koukouli-Chrysanthaki et al. 1996, pp. 686–688). At Sesklo, free-standing houses co-exist with structural complexes of several rooms or houses. All this means, among other things, that various forms of social grouping or household can be identified, often co-existing within the same village community. They range from a social group occupying one building to a group occupying more than two buildings and/or external areas (see Souvatzi 2008a, pp. 96–98, 161–175; 2008b for details and references) and reflect different compositional and organisational ideals and varying degrees of emphasis on self-sufficiency and interdependence.

In conclusion, domestic architecture as a whole reflects choice, intentionality and varying forms and intensities in territorial exploitation, in people's relationship with the physical and social landscape, and in notions of permanence and continuity. House individuality indicates, moreover, the will to assert one's difference and considerable variations in how social groups defined themselves. I return to these points later.

Temporal Scales

Temporal patterns and trends also resist being enclosed within one simple and single model of social processes. The Early Neolithic is long-lasting (6800/6500–5800 BC), sees the expansion of farming and the multiplication of large sedentary villages all over Greece, and sets the stage for an impressive and complex Neolithic. However, in central and eastern Macedonia, and probably also in Thrace, settlements were established only at the end of the Middle Neolithic (around 5500 BC), and this 'Early Neolithic gap' cannot be satisfactorily explained by economic factors or environmental conditions (Andreou et al. 2001, pp. 298–299, 308–309). In addition, unlike Thessaly, a tendency to reduce rather than to expand the settlement area did not occur here any earlier than the Bronze Age (Grammenos 1991).

In Thessaly, a dense network of settlements was established at the beginning of the Neolithic (up to 75% of the Neolithic sites were occupied already in the Early Neolithic) and was deliberately and carefully maintained until its end, through a complex system of widely accepted social constraints on demographic expansion, village territory and site spacing. The number and size of settlements for each phase remained relatively stable, due to a system of abandonment of settlements and establishment of new ones, with populations maintained in the low hundreds and a mean distance between first-order nearest neighbours of 2.2km (Johnson and Perlès 2004). This long and stable history of settlement pattern, which ensured balanced interaction, collapsed in the Final Neolithic, when a dramatic reduction in the number of sites took place and inter-site distances became much larger (Halstead 1984, Fig. 6.22; Johnson and Perlès 2004). Still, these changes did not lead to the beginnings of settlement hierarchy and the development of central places (*contra* Galis 1992, p. 237; Halstead 1984, Sect. 6.4.6). No ‘core’ and ‘satellite’ sites can be identified (Johnson and Perlès 2004, p. 75) and even in later Thessalian prehistory, there are no indications of a centralised socio-political formation comparable with the palatial economies of southern Greece (Peloponnese and Crete; Andreou et al. 2001, p. 281; Demoule and Perlès 1993, pp. 406–407).

The Aegean islands were not systematically inhabited until the later phases of the Neolithic, even though habitation on rocky islets and the circulation of obsidian from Melos began from the Early Neolithic. In southern Greece, the Final Neolithic is a period of territorial expansion, which has been linked to a general shift to Aegean trade and metalworking (Davis 2001, p. 24). This would indicate the breakdown of the relative isolation of these societies and the beginning of more sustained contacts with mainland societies.

The development of house architecture did not follow a typical evolutionary trajectory either. Well-built houses, with impressive structural details, elaborate equipment and abundant symbolic expression appear already in the Early Neolithic. In addition, there is nothing to suggest that houses within a community or a region remained stable from beginning to end. The details of the complex life histories of individual houses reveal constant modifications and alterations over time and changing attitudes to spatial and material arrangements, and to ways of replacement and abandonment. Different architecture and spatial divisions are introduced in different contexts at different times (Fig. 3.2); features keep moving around; entrances are being blocked up and relocated; houses shrink or become larger; others are abandoned and new ones are founded on top of, immediately next to, or away from the earlier ones; and house interiors are modified, altered, or totally rearranged over the different building phases. This implies re-organisation of activities, and thus a reconsideration of the social relations associated with them, and can also betray changing group composition and residence patterns. For example, at Middle Neolithic Sesklo (5800–5300 BC), the constant relocation of entrances suggests changes in the use of external areas and in degrees of sharing and of privacy and relations with other households. Houses at Servia over the seven successive Neolithic phases were either relocated and the old plots were left temporarily vacant, or the old structural debris was levelled and new building programmes on the same plots were



Fig. 3.2 Photograph of House 11–12 (or ‘potter’s house’) at the tell of Sesklo, as preserved today, showing the internal organisation during the final phase of the house, when the internal partition wall was introduced, the entrance to room 11 on the *left* was blocked and the porch or sheltered yard behind it was abandoned. Buttress, recesses and walls of room 12 on the *right* coated with multiple layers of *red* plaster; *lower part* of the wall also lined with upright stone slabs. Large retaining wall of the tell visible in the background. (Photograph by the author)

undertaken (Mould and Wardle 2000b). Nea Makri in central Greece, with its 12 successive habitation layers spanning 2,000 years, illustrates the fact that flat inconspicuous villages of pit buildings can be as long-lived as tells with more durable houses and that people both reused fixed locations and shifted their structures.

In short, houses were not simply a source of stability, continuity and representation of an unchanging past. They were also the vehicles for change and prime sources for the construction of different personal and familial memories and histories and were themselves enmeshed in historical processes.

Unpredictable courses of progression emerge also from the material culture. The most remarkable feature here is the development of craft specialisation in and long-distance exchange of several classes of material culture—for example, pottery, lithics, stone and shell ornaments and stone vases—in the absence of political centralisation and social hierarchy, habitually considered as concomitant with such innovations. They suggest different patterns of production, labour division, distribution and exchange within and between regions. Many of them developed as early as the Early Neolithic and none of them effected any radical or long-lasting changes on the social organisation of Neolithic communities. They are considered in more detail in a separate section below.

Given the relatively small geographical area of Greece, all these phenomena make its Neolithic all the more intriguing. In order to understand them, we ought to look at the actual patterning of the evidence and at socio-culturally specific issues. How important was the house, and in what way? How did houses interact with each other and with the broader society? Also, important questions revolve around the social significance of the architectural patterns with their numerous variations

and exceptions. Given that they contrast with the relative homogeneity in types and styles of material culture, what constituted the link between the two?

The House as a Unifying Way of Life

The most consistent and significant common element that connects all different spatial and temporal patterns is the central and continuing importance of the house. Virtually all of the remarkable variety and quantity of material culture in Neolithic Greece, together with an equally wide variety of animal and plant remains, are associated with domestic architecture of one kind or another. Indeed, it is remarkable how, despite all the differences outlined above, the house is the most shared and key unit in social structuring, creating similar ways of life and common and distinctive contextual associations of people, buildings and material.

Certainly, the diversity described above in house forms, in architectural details, in house replacement or abandonment, specific material concentrations and variation in modes and intensity of particular activities all suggest that the Greek Neolithic households vary considerably in the ways in which they were materially and symbolically structured, organised their daily lives and expressed their identities. For example, diversity in household economic roles and functions is evidenced in all of the sites that have been sufficiently exposed, and is further strengthened by the presence of early craft specialisation and exchange. At Dimini craft specialised activities, attested by a pottery-firing facility and by spatial concentrations of chipped stone and *Spondylus* finished products, manufacture waste and tools, occur mostly in the southwest and northeast parts of the settlement and near or within the spatial configuration of two to four households. At Knossos, analysis of fabric and finishing techniques of pottery suggests a number of different producing groups already from the Early Neolithic (Tomkins 2004, pp. 45–46). At Sitagroi, Miller (2003, p. 380) identifies two different ornament production groups on the basis of the technological choices, skills, and tools required: shell and stone ornaments were most probably produced by the same craft group, whereas clay bead production could have been a supplementary activity of pottery producers. At Dikili Tash I, a potter's firing facility resembling the domed ovens found at the site was recovered in situ, containing burnt pots, charcoal and ashes. The lithic assemblage from Stavroupolis amounts to more than 1,000 products, attests to the processes of production, use, and discard of tools within the site, and reveals interesting variation in raw materials and technical strategies (Skourtoupoulou 2002, 2004). At Makriyalos, two pit complexes with knapped stone tools and production debris from high-quality materials were spatially interrelated with domed ovens and hearths indicating a common space for domestic and technical practices (Skourtoupoulou 2006, p. 66).

At the same time, however, no well-preserved building at any site failed to provide evidence for a wide range of activities, while the broadly uniform intra- and inter-site distribution of all kinds of data suggests multi-functionality and broadly analogous material culture in individual houses, despite the differing degrees in

the kind and intensity of particular activities. The deposition of the entire range of material goods—from subsistence to ritual data—within houses and in their yards, the abundance and variety of facilities including ovens, hearths, benches, platforms, shelves, storage vessels and bins and decorative elements, all suggest that houses were intended to encompass a number of spheres of practice central to the social, economic and ideological reproduction of the wider social entity. They include food preparation, cooking, consumption, storage or redistribution of the vital resources, spinning and weaving and many other everyday practices. The setting of production areas and specialised craft activities within or near houses suggests that the houses were also the major loci of production and the transmission of technological knowledge and further attest to their social and economic significance for the entire community. Practices such as socialising, social display and hospitality are also associated with the houses, given the presence of decorated vessels, the presence of shelves and the generally well-made and well-furnished interiors. Moreover, the frequent rebuilding of structural features, the re-plastering of walls and the well-kept floors suggest that a considerable amount of time and energy was invested in house architecture and maintenance. Overall, day-to-day interaction over substantial spans of time in production, storage and ritual areas would have not only strengthened links within and between houses, but would have actually created such links. Below I focus on some examples of how this might have been realised.

Inside the houses, the focus of activities is the hearth. Around it, several items were consistently clustered: cooking pots, querns and grinding stones, carbonised food remains (faunal and botanical), storage vessels and pots, spindle-whorls and loom-weights, polished and chipped stone tools, bone tools and other equipment such as clay tables. Stone and shell ornaments and clay and stone stamp-seals and figurines also tend to be found near the hearth or in other specific arrangements (e.g. along the long walls or in corners or near fallen shelves). Shared meals and daily practices are very important processes in creating and perpetuating social bonds, both at a domestic and at a wider level, and underline the way in which a house becomes a social space. Not surprisingly, there is also a strong symbolic value ascribed to these processes. For example, at Sesklo, the hearth is always square, occurs consistently in the centre of the house floor and its orientation is always related to the orientation of the house—i.e. both are laid out with their corners facing the cardinal points. In other settlements, hearths are associated with ritual practices probably revolving around the symbolic founding or closure of a house—for instance, with primary or secondary child burials, smashed or whole elaborate pots, and house models, found embedded under or near hearths or deposited on top of them. For example, in a house at Dimini, a child skull and bones found near a hearth were mixed with fallen superstructure material, implying deposition after, rather than during, the use of the house floor (Souvatzi 2008a, pp. 144–145). Similarly, at Platia Magoula Zarkou, a clay model of a house interior with its domestic group was found intact inside a pit under the hearth of a Late Neolithic house (Gallis 1985).

Elaborate painted and incised vessels, sometimes found with their contents (charred cereals, pulses and fruits) still in or around them, were also distributed near cooking and storage facilities, indicating that even the most highly decorated pots

Fig. 3.3 Photograph of ‘House N’ at Dimini, as preserved today, showing the linear arrangement of features on three successive floors. *Top right*: stone built-in facility in which children’s bones and painted pottery were deposited. *Bottom right*: part of the threshold, next to which a complete monochrome bowl and a stone chisel were embedded. (Photograph by the author)



could have had a more daily use than is usually assumed. For example, at Servia, as in many other settlements, decorated vessels are found both inside houses and in their yards, together with food preparation and storage facilities, tools, spindle-whorls, ornaments and grinding stones (Mould and Wardle 2000b). House models and figurines—anthropomorphic and zoomorphic—were also part of a close relationship with people, houses and everyday activities, suggesting a link between human and animal representation and domestic architecture as shared systems of signification. At Dikili Tash I, a bucranium covered with raw clay, apparently originally attached to the interior wall of a single-roomed house, was found fallen upside down on the south part of the floor (Treuil and Darcque 1998; Treuil and Tsirtsoni 2000, pp. 214–215). Around it were preserved intact painted and incised ceramic vessels, cooking and storage vessels, clay domed ovens, platforms, plates and stone tools.

The practice of child burials inside the houses is also very common in Neolithic Greece, similar to many other contemporary cultures. They are primary and secondary, usually single and take place in floors, under hearths, in built-in features (Fig. 3.3), in pots or in pits. Secondary burials may consist of a few bones and a skull and can often be found deposited on the floor, rather than under it, mixed with fallen superstructure material. Child burials around the houses frequently seem to be more visible or distinct than adult burials, through more individualised or more particular treatment. For example, they are found laid on or covered with rocks, stone slabs or pebbles, smashed burnt or unburnt painted pottery, thick layers of ash and in at least one case with animal bones. The connection between houses and children was thus made physical and widespread and may have also been symbolically emphasised through burial during rites of house founding or closure (see Souvatzi 2008a, pp. 186–194 for detailed information and discussion).

Finally, the very architecture of houses provides clear evidence of where social and symbolic value was placed. The co-existence of different and often complicated building techniques, the abundance and variety of structural features and facilities, the decorative elements and the constant improvements and maintenance all attest to the degree to which people invested in the construction of their everyday envi-

ronment. The common orientation of buildings and yards (and boundaries) within a settlement also imply meaning in the organisation of space and articulate links between social order and natural order.

Connections and Uniformities across the Wider Social Landscape

Further unifying practices can be detected in the ways in which people constructed and used the wider landscape, moved across it, projected meanings onto it and ultimately transformed it into a social landscape.

The Socially Constructed Environment

One key to understanding the significance of architecture is a view of it as process rather than merely an expression of the social order. We should also not disregard the fact that completed architectural forms and layouts represent the *gradual* and *collective* result of a number of people over time.

As shown above, all over Greece and throughout the Neolithic people invested considerably in domestic architecture, in large-scale architectural works within a settlement and in the construction of a variety of structural boundaries, which involved, among other things, the intention to engage in labour-intensive works. All this represents a complex web of social relationships, identities, cosmological perceptions and conceptual and physical directions at a settlement, local, regional and inter-regional level.

At the house level, the constructions, re-buildings and replacements of houses, the consequent additions of rooms, and the floor sequences were processes as much of house differentiation and individuality as of integration and the mediation of communally accepted principles of identity and order. The settlements themselves, with their ordered layouts, consistent house orientation, abundance of open, more public space (e.g. courtyards, lanes, 'squares' and work areas) and common construction materials for houses, yards and enclosures represent a socially structured space, where technical skills co-existed with social principles, and individual identities with collective identities (Souvatzi 2011). One basic purpose of the large-scale, time-consuming and undoubtedly collective architectural works could have been to provide a frame within which social units could come together, interact and realign their relationships through exchange of labour and resources and through obligation and debt. That is not least because none of these works constituted a unitary act but a continuous process of building, maintenance and adaptation events. For example, Dimini's six or seven concentric stone enclosures that generally follow the natural contour of the hill were built in three main successive building phases, start-

ing from the inner pair at the top of the mound and expanding outwards, whereas many minor phases of repairs and modifications of the enclosures are observed across the site. At Makriyalos I, the inner and larger one of the two concentric ditches that surrounded the settlement was dug as a chain of large deep pits that had been maintained, renewed and adapted continuously over time. In some places, the original pits had been re-cut, indicating a distinct sub-phase of construction (Pappa and Besios 1999, p. 181). The ditch contained successive layers of refuse from the settlement as well as primary and secondary human burials (Triantaphyllou 1999).

In this way, the practices of construction become crucial as a potent form of social or ritual exchange and architecture becomes a mechanism for enhancing social interaction as well as a material mnemonic of that interaction. In this sense, cultural uniformity was partly maintained through settlement patterns and the shared concern for the creation of a structured landscape. Domestic architecture linked people and objects with the construction of socio-cultural space, and it also linked spatial segregation or differentiation with social integration. A settlement as a whole served as a material manifestation of a community's history and identity, while all settlements together, with their varied forms, locations and distributions, would have created a heavily socialised environment as well as a kind of physical, social and conceptual map.

The Circulation of People, Material, and Ideas

Material culture further linked houses and settlements within and between regions through technological and stylistic interaction, particular specialisations and the formation of economic and symbolic exchange. Mobility, movement and interconnections must have also been produced by the often rapid economic and material development, seen in technological improvements, the proliferation of styles, the distribution of natural resources and the circulation of products. Below I focus on the example of three material classes—pottery, lithics and *Spondylus* shell objects.

Greek Neolithic pottery is distinguished by high proportions of fine, decorated ware and an overall emphasis on skilled manufacturing and elaboration. One characteristic of particular significance here is the co-existence of homogeneous and widespread wares with highly specific and localised ones. Stylistic diversification and distinctiveness increases so strongly over time that by the Late Neolithic it seems that each village within a region produced a distinctive ware (Perlès and Vitelli 1999). I have suggested (Souvatzi 2008a, pp. 207–209) that it is the combination of local resources, settlement patterns and social organisation that can and did cause craft specialisation in pottery. Continuous use of the same local resources permits the development not only of the appropriate skills and techniques, but also of an ideological link between people, space and time. This link extended beyond local boundaries and gave pottery the role of a code of wider social and ideological information. Broad, well-defined wares sharing key elements such as vessel types and the organisation of ceramic decoration indicate stylistic interaction and contrib-

uted to the degree of uniformity of material culture, serving as a symbol of broader cultural identity. At the same time, highly specific styles suggest that in densely packed social environments such as Thessaly for example, pottery also played the role of a symbol of group identity, conveying social and ideological information about the different communities.

Chipped stone tools and *Spondylus* shell ornaments exhibit the co-existence of different modes of raw material exploitation, production and exchange and they were both embedded in extensive patterns and networks of communication. Regarding chipped stone tools, throughout the Neolithic there was a preference for the use of exotic raw materials, especially of obsidian from the island of Melos. This is remarkable, considering not only that locally or regionally available raw materials of comparable quality were available and could have easily been used (Karimali 2005, pp. 187–188), but also that the acquisition of Melian obsidian involved seafaring at a time when the islands were still uninhabited. Perlès (1992, 2001, pp. 207–208) has suggested that the extraction, distribution and working of obsidian were conducted by seasonal or part-time itinerant specialists activated at local, regional and inter-regional scales. In northern Greece, at Makriyalos, the great variability of rock types and techniques suggests communication schemes and diverse cultural routes over wide geographical areas, including central Macedonia, Thessaly and southern Greece (Skourtoupoulou 1998, 2006).

Similarly, the far-flung distribution as far as central Europe and the North Sea of *Spondylus* shell objects originating from the Aegean Sea also strengthens the impression of constant movement and mobility as well as of the ideological and social value of raw materials and goods derived from distant origins (e.g. Chapman et al. 2011; Sfériadiès 2000). Chapman and Gaydarska (2006, pp. 170–171) estimate that for every *Spondylus* shell ring that travelled from northern Greece to the shores of the Black Sea at least three different specialists were required, in addition to a long voyage and absence from home.

Rather than highly regularised or site-controlled, the patterns of production and circulation of material goods correspond to a multi-centric economy, relying on a high degree of co-ordination and co-operation, overlapping exchange systems and diverse cultural routes over wide geographical areas. The motives behind these phenomena may be better accounted for by social and ideological considerations rather than strictly economic or technical ones. Craft specialisation and inter-site exchange of goods could well have developed as the result of primarily social needs for interdependence and the intended use of these goods in extensive networks of communication (Perlès 2001, p. 300; Souvatzi 2008a, pp. 224–227). Although certain sites may have acted as specialised production and/or (re)distribution centres of certain goods, all these networks and spheres of interaction are so extensive that they most probably went well beyond local exchange and site territories. They connected sites within and between regions through particular specialisations and shared systems of signification and were kept in relatively constant exchange—economic and ritual. Thus, although material culture traits show regional and temporal variations, they are still relatively uniform, sharing key elements including vessel types, ceramic decoration, tool technology and the so-called ‘domestic equipment’. The common

structure of ceramic decoration (geometric elements laid out in an ordered fashion), which applies also to figurines, house models, spindle-whorls and other clay artefacts, may be seen as reflecting and reinforcing the connections of the communities using those objects.

Conclusions

If we wish to understand diversity, uniformity and transformation in Neolithic life, we need to move away from a series of assumptions, including the essentialist understanding of the emergence and spread of the Neolithic, the equation of sedentism with continuity and solid architecture and the stereotyped image of a stable and unchanging Neolithic house. We ought, instead, to explore at greater depth the social and cultural conditions of the different Neolithic societies and the mechanisms involved and to view the house as both an agent of and subject to continual change. This view can change our perceptions of the process of 'Neolithisation' that has been traditionally characterised as uni-linear and consistent.

The spread of the Neolithic way of life in Greece is a complex, non-linear phenomenon. Many technological and economic innovations such as craft specialisation, long-distance exchange and settlement agglomeration, considered as the indicators of profound social changes and as marking different or later evolutionary stages, were not exactly new to Greece. The early farming communities settled in dispersed and widely varied environments and explored a whole array of different and transitory socio-economic systems, whose very diversity cannot be obscured by later historical processes of homogenisation and whose meaning and significance cannot be understood in terms of efficiency and rational choices. They created a highly structured socio-cultural landscape and maintained a dense network of movement, mobility and relationships. Long before the emergence of centralised political powers, they developed part-time craft specialisation and long-distance exchange as a basis of socio-economic organisation and as a means for maintaining contact with other communities. They used 'extraordinary' material items as vital components of interpersonal relations and inter-site connections and kept them in constant exchange. Overall, the formation and maintenance of networks of interaction seems to have been a major aim in social organisation. Through all this, Neolithic communities provided a means for the constant definition, reformulation and transformation of cultural and social ideals and identities. The disappearance of many of the earlier communities and the 'devolution' and deterioration of the quality of material culture towards the end of the Neolithic suggest that social values had changed and the mechanisms of social interaction identified above ceased to be in use.

Behind all this, the house was the fundamental organising structure, the dynamic interface between the micro- and macro-level. Houses acted as sites for the construction of socio-cultural affiliations and a wider sense of cultural uniformity, which linked social units within a site and sites within and between regions, through the shared practices of everyday life, through shared systems of signification and

through the transmission of social knowledge. It was the house that was the locus of maintenance and transmission of technical information, the source of the labour force, a locus of ideology and the construction of identity and a major keeper and transmitter of ritual and symbolic knowledge. It was the houses and the settlements that served as crossroads, as meeting places of people coming from different areas and bringing forth a mosaic of socio-cultural relations. Ultimately, it was the house that provided the ideal, fluid framework for the creation and meaning both of diversity and uniformity, tradition and transformation.

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Chapter 4

Embodied Houses: the Social and Symbolic Agency of Neolithic Architecture in the Republic of Macedonia

Goce Naumov

The house is a focal point. It is where the family is generated and concentrated, and where household identity is centred. It is also a concrete space which is enclosed, i.e. walled and covered, thus separating the life of the household from its surroundings. Such practical traditions of building invariably introduce new mechanisms, which enable the development of specific domestic features and their promotion within the broader community. Everyday dwelling activities are intertwined with collective norms, establishing the house as a core where numerous values, tendencies and principles are defined. Therefore, in its interior and surroundings, several social and symbolic processes unfold which turn the house into a complex unit where the essential elements for the existence and affirmation of households are developed and maintained.

In the history of archaeology so far, houses have been treated as static forms mainly investigated for their technical features: position, building materials, interior organization, quantity and state of preservation. Although these characteristics are necessary for elementary observations, they are not sufficient for a proper understanding of house functions and for tracing activities in the household and community. Consequently, in the last few decades it has been suggested that the Neolithic house should be examined as an organic entity unified through various forms of existential and social engagement (Bailey 1990; Tringham 1991). By considering the house as a living, active body, it becomes much easier to understand its functioning, as well as its significance for Neolithic communities. In this way, its economic or social involvement becomes easier to follow, especially through negotiation and production (Nanoglou 2008), or in the course of its symbolic definition as ritual space (Hodder 1990; Bradley 2005).

The FYR Macedonia is the official UN name, but the naming of the ‘former Yugoslav Republic of Macedonia/FYROM’ is still under discussion and the dispute appears to be near resolution. Since more than 130 countries around the world have now officially accepted the name ‘Republic of Macedonia’, this has also been adopted in the current text and is used interchangeably with ‘Macedonia’.

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The idea within archaeological research of the ‘living house’ is close to the house as perceived by Neolithic people. Surely, it is not abstract analysis, but everyday and long-lasting experiences and challenges that induced Neolithic populations to perceive the house through reference to the human body. Both for Neolithic communities, as well as archaeologists interested in how houses functioned as a unit, it is perhaps easier to use the model of one’s own body, than to approach abstract systematizations of entire dwellings, from initial construction until abandonment or destruction. The life courses of houses have been addressed in recent research (Bailey 1996, p. 146), focusing on various aspects of creation (birth), activities (existence) and abandonment (death). During the Neolithic, dwellings and settlements were very likely central to economic, social and ritual processes. Therefore, the anthropomorphic definition of Neolithic houses was a model which coherently explained all spheres of engagement with the house and will be more profoundly elaborated later in the text, throughout a number of social and ritual contexts, as well as with adequate theoretical consideration.

It remains to be examined if this model was applied to all houses or only to specific buildings in the settlement. Similarly, we cannot be sure if it was employed across the European continent or only in certain regions. The anthropomorphisation of houses has been argued for Neolithic communities in the Balkans (Naumov 2010a), but should not be *a priori* rejected for other parts of Europe. This paper introduces the Neolithic houses from the Republic of Macedonia, as well as ceramic house models which further confirm the embodiment of Neolithic architecture. Although insufficiently known and presented in archaeological publications, the Neolithic architectural traditions of this region can contribute to our understanding of particular technological and symbolic concepts which were accepted, developed and transmitted towards other European regions. Therefore, aspects specific for the Neolithic houses of this area are introduced, including materials and building techniques, the social aspect of the house as agent and its involvement in rituals.

Neolithic Architecture in the Republic of Macedonia

In the last sixty years, numerous Neolithic sites in the Republic of Macedonia have been excavated, but unfortunately are not widely published, although there is an abundance of useful material. Consequently, architecture is also rarely studied in depth, and there are only few general reviews of building traditions in this region (Stalio 1968; Zdravkovski 1990; Sanev 1995; Tolevski 2007, 2009; Stojanova Kan-zurova 2008), alongside excavation reports and monographs referring to materials and building techniques of houses within settlements (Grbić et al. 1960; Simoska and Sanev 1975; Gimbutas 1976; Sanev 1988; Kitanoski et al. 1990). Still, all these preliminary or detailed publications enable a broader insight into the architectural features of Neolithic buildings and, due to their surviving domestic inventories, into particular relations between houses and social or symbolic processes. There is not much data on the everyday life of the inhabitants of the houses (on the level of consumption and distribution), although some practices and evidence of production

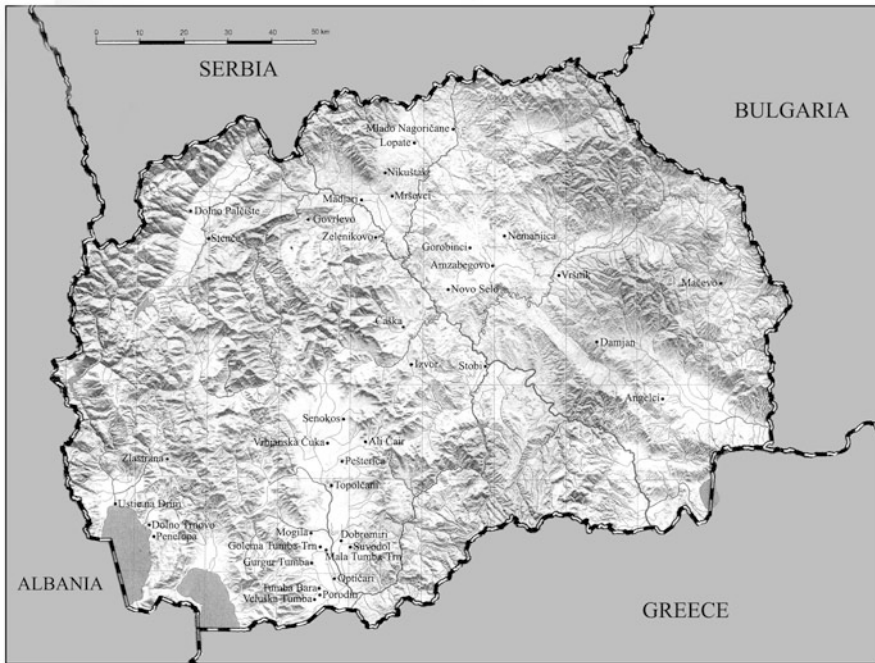


Fig. 4.1 Map of the Republic of Macedonia with the most important Neolithic sites

exist for several dwellings. Fortunately, there is much more information on ritual activities in the settlements (Naumov 2007, 2009a; Sanev 2009), so that symbolic concepts regarding the function and significance of Neolithic houses can be comprehensively assessed.

Regarding the Neolithic settlements in the Republic of Macedonia, there are three regular forms associated with different traditions of house building.¹ The settlements are most frequently located in ravines, along rivers or lakes, and rarely in higher areas (Sanev 1994; Tolevski 2009). Their position, as well as ecological factors, determined the manner in which houses were built and how they were adapted to the natural environment. Most of the settlements were built on flat terraces next to rivers or on tells in marshy areas (Fig. 4.1).² Rather rarer are pile dwellings along lakeshores, where the architecture is not part of standard ‘continental’ traditions, but embedded into the conditions of the environment. Several such sites exist on

¹ According to earlier observations the beginning of Neolithic was dated to around 6100 BC, so that Early Neolithic was defined as 6100–5800 BC, Middle Neolithic 5800–5200 BC and Late Neolithic 5200–4200 BC. However the latest analysis and calibration has indicated much earlier dates for the initial Neolithic phases starting from 6510–6230 cal BC, but also 7050BC – 6200 cal BC (95.4% probability; Thissen 2000; Whittle et al. 2005). The suitability of data and specimens is still debated, as well as the timing and modes of transmission of the Neolithic (Perlès 2001; Naumov 2009b).

² Broadly on the locations of settlements on flat terraces and tells, as well as further literature, see Tolevski 2009.

the shore of Lake Ohrid, where houses are elevated above the water on wooden platforms (Benac 1979; Kuzman 2009).

So far, there are no Neolithic settlement traces from caves, although several show traces of Palaeolithic occupation (Kuzman 1995, 2008; Šalamanov Korobar 2006, 2008). Surveys indicate that Makarovec cave was used in the Neolithic, as there is pottery from this period (Kuzman 2008, p. 14). Further research should confirm if architectural modification of such environments took place in other areas, as the Balkan Peninsula has numerous caves suitable for the creation and maintenance of Neolithic settlements (Mikov and Dzambazov 1960; Milošević 1985; Petruso et al. 1994; Kyparissi Apostolika 2000; Kotsakis 2001).

Houses as Structures

At their most elementary level, houses enclose and segregate a particular space to protect the interior from external influences and to create a safe place where the inhabitants could perform their daily activities. The approach to the organization and arrangement of the interior reflects the desires and interests of the household, but also the ambitions for its social positioning. The collective traditions and tendencies to conceive of dwellings as centres for smaller communities should also not be neglected, as they affect the form, size and disposition of houses. Often these features are due to the climatic factors of a particular environment. However, existential necessities, individual and social interests, as well as geographical characteristics all influence the choice of materials and their organization into houses.

Across almost all of the Republic of Macedonia, houses with unified orientation and building materials were constructed within ravines and valleys. They incorporate well-established building principles, traditions adopted at the arrival of the first Neolithic communities in this region (Naumov 2009b), but also a technological adaptation to the geographically unified Balkan area, with the building material the same as in other regions with settlements on terraces and tells. This indicates that such material fulfilled the architectural requirements of the period, offered protection from climatic influences and provided a suitable interior ambience. As a result, it was used in both types of site, although due to the marshy environment (Kitanoski et al. 1980; Commenge 2007), different building techniques are expected on tells. Nevertheless, beside the pile dwellings, other settlements employ the same building technology, which is partly explained by the economic situation and range of communities dwelling within.

It can be concluded that joists, posts, wattle and daub were the main materials used for building Neolithic houses in the Republic of Macedonia. Their erection and organization might show certain variations, but mainly they fit within established standards typical for Neolithic houses in the Balkans (Whittle 1996; Bailey 2000; Perlès 2001; Borić 2008). Their use in a particular structure depends on the space determined by the small trenches into which the major poles and posts were inserted and which defined house shape (rectangular, square or trapezoidal).

In terms of size, houses vary between 3×4 m and 11×13 m (Tolevski 2009, p. 40; Mitkoski 2005, p. 33). House area is not unified within a settlement nor on a regional level. This indicates that probably social divisions were manifested through houses, especially since some of them were much larger than others in the same settlement. Most houses contained a standard domestic inventory (vessels, tools, animal bones, figurines, models and ovens), and were therefore not distinguishable as workshops, storerooms or sanctuaries by any specific interior arrangements. Although such specialised houses were suggested (Zdravkovski 2008; Sanev 1988; Jovčevska 2006), this remains unlikely mainly due to the similarities of these buildings to other houses and the typological or quantitative uniformity of their ceramic, bone and stone finds.

The floor was constructed in rammed earth, as in the houses in Veluška Tumba and Amzabegovo (Simoska and Sanev 1975, p. 44; Gimbutas 1976, p. 34), with flattened pebbles and slabs—as at Amzabegovo, Senokos and Radin Dol (Gimbutas 1976, p. 34; Temelkoski and Mitkoski 2006, p. 56; Kitanoski et al. 1987, p. 9), or from wood, as in Veluška Tumba and Porodin (Simoska and Sanev 1975, p. 44; Grbić et al. 1960, p. 19). This insulating layer was covered with clay, enabling comfortable movement in the interior. The walls were constructed using large poles and smaller posts, sometimes arranged in two rows (Veluška Tumba and Porodin) and usually connected with wattle (Simoska and Sanev 1975, p. 43; Grbić et al. 1960, p. 19). On some sites planks were used instead of posts, as at Madjari, Veluška Tumba, Vrbjanska Čuka, Zelenikovo and Porodin (Sanev 1988, p. 13; Simoska 1986, p. 48; Mitkoski 2005, p. 33; Garašanin and Bilbija 1988, p. 33; Grbić et al. 1960, p. 19), and occasionally reeds, for instance at Veluška Tumba (Simoska and Sanev 1975, p. 42). The wooden construction was covered with a mixture of mud, clay, chaff or animal excrement (Tolevski 2009, p. 40).

In the Early Neolithic phases of Amzabegovo, mud bricks and stone foundations were used (Gimbutas 1976, p. 34), which indicates traditions adopted during the process of Neolithisation in the eastern part of the Republic of Macedonia.³ Similar building techniques are known from several sites in northern Greece (Pyke 1996, p. 41; Perlès 2001, p. 189), suggesting the possible direction of Balkan Neolithisation through these regions (Naumov 2009b, p. 26). Walls constructed of compacted daub are also present in Amzabegovo, but without supporting posts or wattle (Garašanin 1979, p. 87); this is also typical for certain parts of Greece and Anatolia. The use of these building techniques emphasizes the maintenance of earlier architectural traditions, which were later changed and adapted to the geographical conditions of the region. This asserts continuity as an element specific for house building in the Republic of Macedonia, but also the transformation of patterns by the new generations.

Although these minor architectural changes in Neolithic settlements do not significantly maintain the established traditions, they still presage the confrontation of the new households with the conditions of landscape, climate, demographic

³ Partial usage of mud bricks was confirmed on the Madjari excavations and mentioned in the unpublished reports (Commengé and Zdravkovski 2003; Commengé 2004).

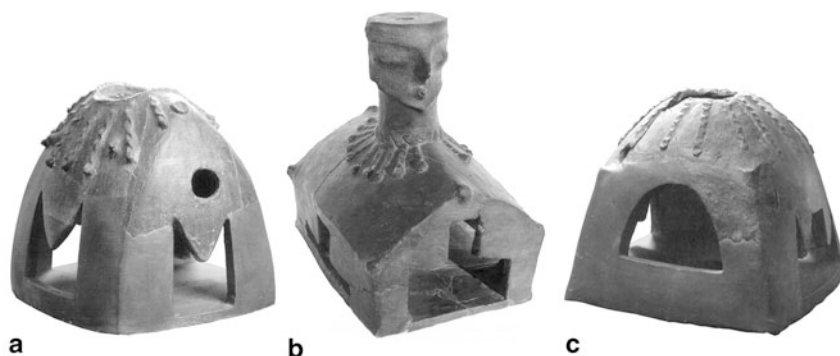


Fig. 4.2 Anthropomorphic house models. **a** Veluška Tumba—no scale (Vasileva 2005, p. 26). **b** Porodin—height 25.5 cm (Kolištrkovska Nasteva 2005, Fig. 43). **c** Dobromiri—no scale (Vasileva 2005, p. 27)

processes and social principles. Such modifications are usually reflected in the floor and wall construction. In Middle Neolithic Amzabegovo, mud bricks were replaced by wattle and daub (Gimbutas 1976, p. 34), in the same period also used in Veluška Tumba instead of the Early Neolithic reeds and double post rows. In the later phases of Veluška Tumba and Porodin, the floor is strengthened by a wooden substructure (Simoska and Sanev 1975, p. 43; Grbić et al. 1960, p. 28). The later use of wood as an insulating floor material resulted in the repeated levelling of the house foundations, with new houses constructed on older architectural remains. This was not achieved in earlier settlement phases due to marshy ground. This confirms that tells in the Republic of Macedonia were developed as intensive settlements, with houses built one above the other. Similar changes also occurred in Vrbjanska Čuka, where in the Middle Neolithic the house was broadened as a result of economic and social dynamism caused by the massive construction in its interior. This construction consisted of several parts and was used for preserving and processing cereals and victuals, but was also decorated with a design specific for miniature ‘altars’ (Kitanoski et al. 1978; Mitkoski 2005).

There are no data so far about roof materials, although their form and arrangement can be assumed from house shape (Tolevski 2009, p. 41). Ceramic anthropomorphic house models can also be used as possible references (Figs. 4.2 and 4.3). Although it remains unclear if their middle represents the lower part of the human body and its dress, or rather the top of a house, the vertical rows around the anthropomorphic cylinder are interpreted as ropes with weights which fixed straw to the wooden roof construction (Zdravkovski 1990, p. 77; Borić 2008, p. 121). The models suggest the existence of several roof types (flat, domed and with two-sided gables). It remains to be confirmed by further excavations whether these roof types were typical of Neolithic dwellings or whether they were limited to other buildings (barns, huts or sanctuaries). The possibility for a second, smaller floor under the

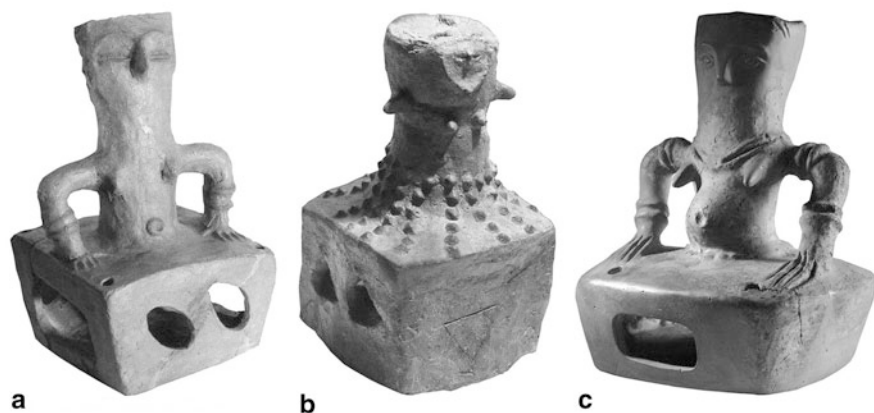


Fig. 4.3 Anthropomorphic house models. **a** Madjari—height 39 cm (Kolištrkova Nasteva 2005, Fig. 42). **b** Suvodol—height 16 cm (Kolištrkova Nasteva 2005, Fig. 45). **c** Govrlevo—height 35 cm (Chausidis 1995, Fig. 6)

roof should not be ignored, as these are known from Neolithic settlements in south-east Europe (Borić 2008, p. 129; Whittle 1996, p. 109; Schier 2006, p. 326; Nikolov 1989; Lazarovici and Lazarovici 2003).

It is also hard to corroborate if there were wall openings allowing air circulation, light and comfortable entry or exit. Such openings could be traced through post arrangement and density, as well as through analysing modelled edges of surviving daub with angled, rounded or flattened elements. Moreover, the house models could be used as reference points, although their openings are numerous and mainly related to the symbolic significance of the models and their possible function as lanterns (Chausidis 2008; Naumov 2009c). Only the Topolčani model has openings suggesting entrances, although their presence on both sides again raises the question of whether models are stylized, symbolic or realistic representations of Neolithic houses.

In terms of visual analogies, it is more suitable to use the regular models depicting houses on four legs (Fig. 4.5). Although they can be considered representations of stylized dwellings, huts or barns with gabled roofs and entrances, they also suggest the existence of raised houses. This type of building is possible for the settlements in Pelagonia (where most of the ceramic models are unearthened), due to the marshy terrain and the continuous fluctuations in water level caused by the amount of snow in the mountains nearby (Kitanoski et al. 1980, p. 17). Considering the later change of floor materials in Pelagonian buildings, these models might be used as mnemonics of the first houses constructed at a higher level above the ground. Such architectural forms are not so far confirmed in this region, which might be the result of insufficiently detailed excavation reports, as well as the tendency to interpret posts as related only to ground-level houses. However, the presence of dwellings on smaller or larger wooden platforms (palafittes) is confirmed in settlements on

the lakeshores, such as Ustie na Drim or Penelopa (Benac 1979; Kuzman 2009). In Macedonia, pit houses also exist, but are not very common. They are confirmed in Pešterica, Mogila and Senokos, but their presence is also supposed in Topolčani (Kitanoski et al. 1978, p. 15; 1980, p. 10; Kepeski 1971, p. 20; Temelkoski and Mitkoski 2006, p. 56).

As summarised above, the Neolithic settlements in Macedonia are composed of architectural forms typical for the Balkans, with the obvious domination of ground-level houses. Such building diversity is caused by the surrounding environment, climate conditions, the architectural knowledge of the communities or the maintenance of building traditions. The domination of ground-level houses enclosed by wattle and daub walls is the result of their qualities in enabling the secure life of the families dwelling within. This was surely reflected in other elements of domestic and social agency, such as production, economy, household identity, or house rituals. All these aspects were much more dynamic in the house interior than could be manifested through the building's exterior. In an attempt to understand these economic, social and symbolic processes, a thorough study of domestic inventories is necessary, mostly of architectural features, but also of other material components of the household.

Dwelling Within: the Inner Body of the House

If Neolithic houses are to be perceived and studied as an organic form, then it is much more appropriate to enter their interior where the mechanisms constructing social vitality are generated. The concentration of activities within the house reveals its essential character and reflects how inhabitants are using it in a series of necessities, tendencies and negotiations. The arrangement of inner structures, artefact position and the distribution of resources enable us to understand how this architectural organism functioned and how it is adapted to community principles.

The interior of Neolithic houses in Macedonia consists of a series of regular built features (ovens, hearths, bins or granaries) providing a steady temperature and facilities for food preparation, storage and processing. These structures are located in the main living area or in rooms separated by thinner wall or partitions. Such partitions are confirmed in Madjari, Porodin, Govrlevo and Veluška Tumba, but there is not much data on their appearance (Sanev 1988, p. 18; Grbić et al. 1960, p. 12; Bilbija 1986, p. 36; Simoska 1986, p. 48). It is supposed that they were formed by a plinth into which wattle is inserted, alongside animal skin or textile (Tolevski 2009, p. 42). The separation of the interior into two rooms reorganized the domestic activities of the family due to the different character of these divided areas. Still, the inside of the largest house in Madjari indicates that the arrangement of the ovens and storage vessels is the same in both rooms, confirming that there is no significant difference in their use (Fig. 4.4b).

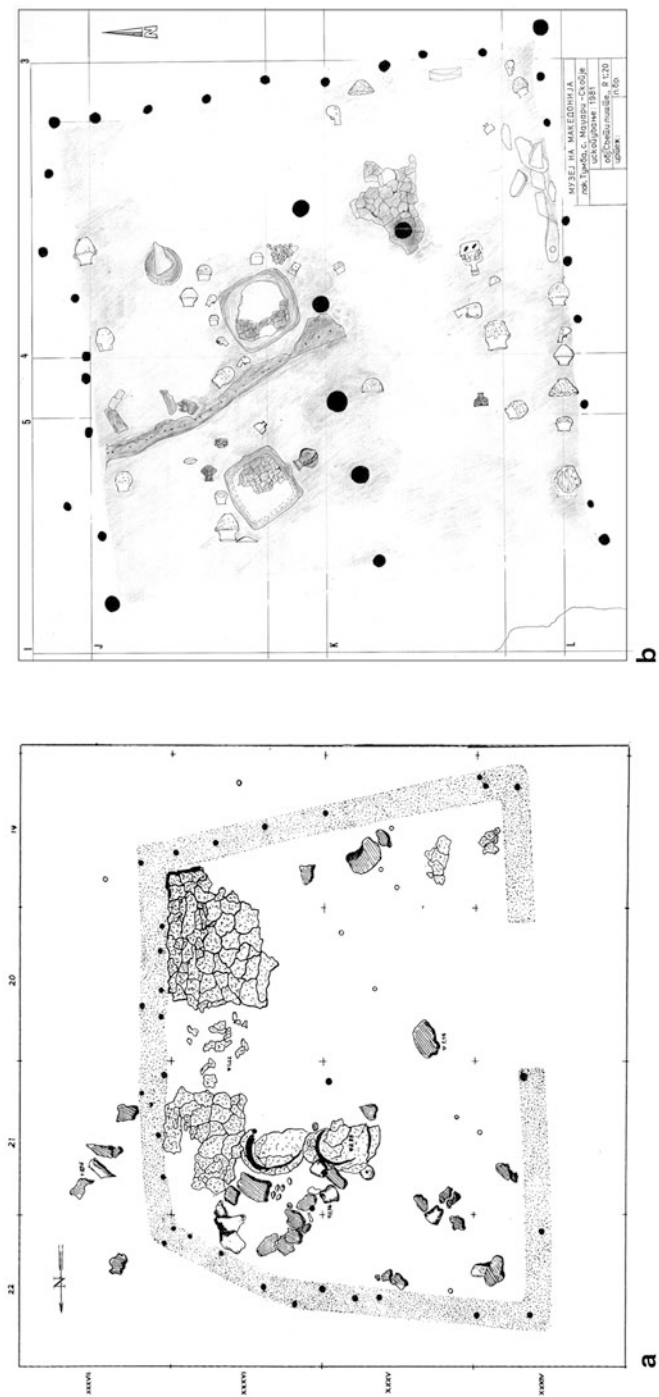


Fig. 4.4 Plans of Neolithic houses. **a** Porodin (Grbić et al. 1960, Pl. IV). **b** Madjari (Sanev 1988, Pl. II)

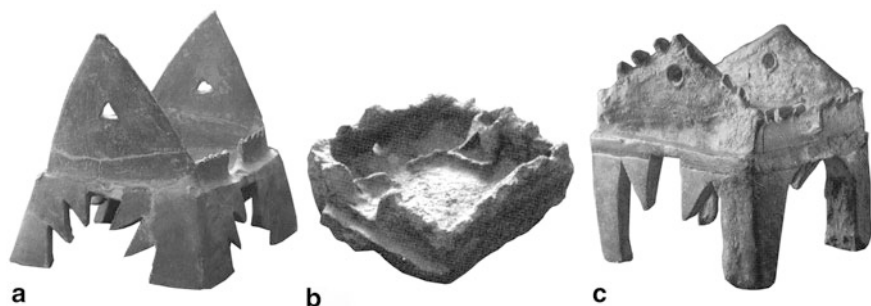


Fig. 4.5 House models. **a** Veluška Tumba—no scale (Vasileva 2005, p. 40). **b** Porodin—no scale (Vasileva 2005, p. 27). **c** Porodin—no scale (Vasileva 2005, p. 40)

Structures

Although hearths are not often documented in houses, several types are known from different regions. Hearths dug into the floor and surrounded with stones are found in Dolno Trnovo, Vrbjanska Čuka and Mrševci (Kuzman et al. 1989, p. 39; Mitkoski 2005, p. 38; Sanev 1989, p. 42). In Mrševci, there are also hearths made of stones and pottery fragments covered with clay. A similar technique is applied in Angelci, where the hearth platform is constructed of pebbles covered with sherds and clay. Above this, a round container was added and restored several times, indicating prolonged use, probably over several generations (Sanev and Stamenova 1989, p. 13). Hearths consisting of a low wall and several sherd layers covered with clay were also excavated in Porodin (Grbić et al. 1960, 16 f). Furthermore, in Pešterica and Porodin there are hearths outside the buildings (Kitanoski et al. 1980, p. 10; Grbić et al. 1960), confirming that they were not only used for heating but also for food preparation.

The rarity of hearths in Neolithic houses might be a result of insufficiently detailed excavations, or may reflect the importance of ovens in many dwellings. Ovens are raised on a platform of stones and fragmented pottery, covered with clay and modelled with arcades on their front, thus suggesting legs. The dome is hemispherical and without any indication of an opening on its top (Tolevski 2009, p. 42), although there are models showing such ovens (Fig. 4.5b). The ovens are usually not close to house walls, enabling the complete heating of the dwelling and comfortable circulation for the inhabitants, or forming an appropriate space for vessels associated with food preparation. This arrangement differs for some settlements in Anatolia, where heating and cooking installations are located next to the house wall or in corners (Düring and Marciniak 2005, p. 173; Fig. 4.5).

The largest house in Madjari has two ovens (Sanev 1988, Plan II), a rare practice in Macedonia. This concentration could be a consequence of the large house area (9×9 m) or its division into several rooms, or alternatively this house was associated with intensive preparation of bread or other products. In the context of specialised building use, we should also mention the house from Porodin where

two ovens (Fig. 4.4a) were excavated next to each other (Grbić et al. 1960, p. 18). It remains open whether these ovens had an identical function. Similar constructions from Govrlevo and Zelenikovo (Fig. 4.6c) in the Skopje region featured an additional platform on their left side, intended for bread preparation (Garašanin and Bilbija 1988, p. 34; Bilbija 1986, p. 36). The Zelenikovo oven was decorated with incised zig-zag lines on its front, emphasizing another element of the symbolic definition of architectural space, which will be elaborated below.

Regarding larger interior features, the structure unearthed in Vrbjanska Čuka stands out (Kitanoski et al. 1990; Kitanoski 1989, Fig. 4.6a). It is composed of several parts, including a monumental storage area (2×2 m) decorated with stair-like applications and four smaller lateral vessels positioned on a lower platform over 2m wide (Mitkoski 2005, p. 35). There are no traces of fire, while numerous vessels, stone and bone tools and a large quantity of shells were recorded around this installation. Although it is often interpreted as an altar, this structure could be a storage area for preserving and processing food. Comparable structures are found in Madjari, Amzabegovo, Uivar, Slatina-Sofia and Çatalhöyük (Schier 2006, p. 327; Nikolov 1989; Bogaard and Charles 2006, p. 76). A utilitarian function is deduced, although the example from Vrbjanska Čuka is symbolically strengthened with surface decoration and the deposition of an ‘altar’ within the large storage area (Nau-mov 2009c, p. 117).

Similar, smaller containers are also found in Vrbjanska Čuka, and inside or outside dwellings in Amzabegovo, Vršnik, Stenče and Madjari (Mitkoski 2005, p. 38; Garašanin 1979, p. 86; Garašanin and Garašanin 1961, p. 14; Zdravkovski 2005, p. 26; Stojanova Kanzurova 2008, p. 69). Those excavated during the last Madjari campaigns are especially notable. Above-ground platforms with containers were found in larger open settlement spaces, in three separate locations close to each other. They are made of daub and organized in groups of nine, four and three shallow and domed bins. One of these groups also comprises an oven.⁴ There are no agreed interpretations for the use of these bins, but considering their context, as well as the Balkan and Anatolian analogies, they could be regarded as objects for processing cereal or other kinds of food. A similar practice of accumulation of raw materials can be suggested for the storage pits found in Porodin (Grbić et al. 1960, p. 28). Such spatial organization around and between houses indicates that particular domestic activities were carried out outside the dwellings, in turn suggesting that social relations and settlements reflected a partly open society.

Household

Households develop their identities through production and consumption activities in and around the house. To understand their workings, it is indispensable to

⁴ This information was kindly provided by the director of the Madjari excavation, Elena Stojanova Kanzurova (Museum of Macedonia).

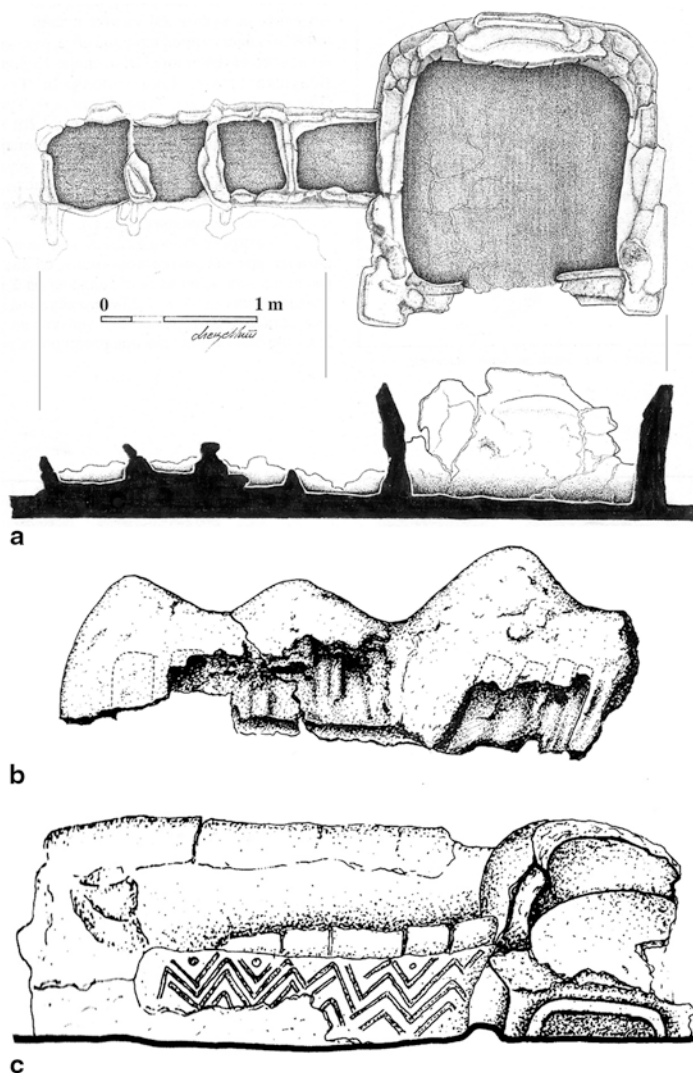


Fig. 4.6 Interior constructions and pieces of wall. **a** Vrbjanska Čuka (Mitkoski 2005, Pl. 1). **b** Porodin (Grbić et al. 1960, Pl. V). **c** Zelenikovo (Garašanin and Bilbija 1988, Pl. II). Not to scale/ no scale available

study domestic social, economic and ritual mechanisms. The household has formed the focus of much recent research which has contributed to our understanding of how Neolithic communities generated kinship and social relations through material culture (Tripković 2007; Souvatzi 2008; Nanoglou 2008; Allison 1999). With the exception of visual culture and rituals (Naumov 2009a), Neolithic households in the Republic of Macedonia have not been studied in detail. However, the available

excavation reports enable us to understand certain domestic activities and to compare them with regional social forms.

Large concentrations of pottery within dwellings and their similarity in terms of fabric and form suggest local production (Fidanovski 2009a; *in press*). The vessels are arranged in certain areas of the house, but their manner of production also shows their possible function during food preparation and storage. The concentration of coarse pottery around ovens and bins in Madjari, Zelenikovo and Vrbjanska Čuka (Sanev 1988; Garašanin and Bilbija 1988; Mitkoski 2005) confirms their use in such processes. Cereals (*triticum*, *hordeum*, *avena*) and bread are some of the most important elements of the diet. The storage of grain in bins, barns and pits is confirmed on several sites (Hopf 1961, p. 41; Renfrew 1976, p. 304), and the concentration of grinding stones, mortars and stamps in their vicinity indicates that all stages of bread preparation, from grinding to final decoration, were carried out (Bilbija 1986; Sanev 1988; Grbić et al. 1960; Naumov 2009c). In Porodin, Govrlevo, Madjari and Vrbjanska Čuka clay models of loaves and cereal grains further assert the significant role of bread in the diet and its symbolic potential (Grbić et al. 1960, p. 18; Sanev 1988, p. 23; Bilbija 2001; Mitkoski 2005, p. 38; Naumov 2009c, p. 42). The available animal bone assemblages show domestic (sheep, goat, cattle and pigs) and wild (aurochs, boar and deer) animals (Bökönyi 1976; Schwartz 1976; Moskalewska and Sanev 1989; Ivkowska 2009).

Workshops for bone and stone tool production are not yet confirmed, although the use of blades, axes and ornaments suggests that some of them were manufactured in or around the dwellings. Excavations generally yield huge amounts of worked stone (Grbić et al. 1960, p. 31; Galović 1964, p. 22; Dimitrovska 2010), especially tool debitage which, with the exception of Amzabegovo (Elster 1976; Smoor 1976), has not been studied in sufficient detail to reveal concentrations in particular house areas. Most of these stone (blades, drills, pestles, adzes and chisels) and bone (awls, needles, labrets, spatulae and burnishers) tools were also used for domestic functions, broadening the spectrum of activities performed within the household. Loom weights, spindle whorls, discoidal plates and bobbins also played a part in domestic craft production. Other bone, stone and clay objects (beads, bracelets, rings and pendants) have no practical purpose and were used for body decoration and for displaying the social position of the inhabitants of the respective house (Fidanovski 2009b). Body decoration was an important element of life, reflecting other, more intangible areas of art. The musical instruments discovered in Amzabegovo and Čaška (Gimbutas 1976, p. 244; Jovčevska 2007) clearly indicate that Neolithic music contributed to the domestic ambience. It is difficult to ascertain if these instruments were for performing ritual music or for entertainment, although experiments have been carried out on the melodies produced by these instruments (Dimitriadis et al. 2009).⁵

⁵ The so-called 'ocarina' from Čaška has been played by Dragan Dautovski (Faculty of Music – University of Skopje), thus revealing possible Neolithic melodic registers and scales.

Rituals

Numerous studies confirm that rituals were performed inside houses, further emphasizing their complexity. Here, I will consider mainly burials, which are documented for Neolithic settlements in Macedonia (Naumov 2007, 2009c). However, the practice of burying deceased individuals within houses was also symbolically transposed onto the deposition of certain objects. In one of the Porodin dwellings, figurines were deposited and several house models were placed below door posts (Grbić et al. 1960, 12 f). Burying particular objects or individuals below house floors intensifies both their symbolic significance and the ritual potential of dwellings.

The Museum of Macedonia holds clay modelled human and ram heads found in Madjari or some nearby site in the Skopje region (Sanev 1999, 2006a). The broken human head (29 cm in height) shows internal grooves consistent with its insertion on the body of a sculpture or some other construction. A huge cylindrical opening in the back of the ram's head (which is 33 cm high) suggests that it was set on a building joist. Similarly large monumental heads are also found in Romania (Rus and Lazarovici 1991), raising the question about the use of these buildings as sanctuaries. Unfortunately, without any clear contextual information the existence of sanctuaries cannot be confirmed, at least for the settlements in Macedonia. Although regular Neolithic houses are often interpreted as ritual constructions or sanctuaries (e.g. Garašanin 1979; Sanev 1988; Mitkoski 2005; Jovčevska 2006), unequivocal traces for ritual activities are absent, with the exception of some specific interior or outside structures. The possible absence of sanctuaries furthermore highlights that the majority of houses within Neolithic settlements were equal, at least on a symbolic level, and could witness burials and deposition rituals.

Houses as Social and Symbolic Units

The house as a space encloses a particular area where individuals of two or three generations carry out different or similar activities. It is defined as a place where collective identities are incorporated and individual or family identities manifested. In this way, the house gains an autonomous cultural identity and becomes recognized within the settlement community. Following Gosden and Marshall's (1999) biographical model, the house can be treated and perceived as a being which is born and dies and plays a dynamic role in the process of maintaining social life. The house can be understood and defined through three existential stages: its creation (building, materials), sustenance (use, traditions and significance) and death (burning).

This simple model could be applied in Neolithic settlements in the Republic of Macedonia on sites where, as a result of detailed excavation, one or up to three houses of a single phase were documented. This moderate quantity enables the

tracing of certain traditions, activities and significances with regards to the social and ritual life of dwellings, thus strengthening collective family identity. This led towards changes in the prehistoric definition of space. Neolithic houses, for the first time in this region, enclosed a particular area which functioned as the centre for a smaller group of people separated from the community. Although such a dwelling functioned in the domain of collective settlement interests, it still enabled its inhabitants to concentrate on personal, i.e. family perspectives. In this way, the house was also used as a space for private food storing, as well as for the accumulation of other resources (animals, vessels, tools) which could be used to further elaborate family identity. This certainly established ownership as a significant psychological and social factor partly generating household competition, but also jealousy and envy (Flannery 1993, p. 111).

Nevertheless, the creation of houses does not always manifest personal desires and ambitions. On the contrary, building a dwelling is based on the collective engagement of several individuals which contribute towards one community's requirements. Considering the dimensions of most Neolithic houses in Macedonia, more community members were necessary for construction than would eventually inhabit the house. Building as an activity required a longer time period, strengthening social relations between different households, emphasising the act of architectural engagement and enabling its remembrance and memory (Nanoglou 2008, p. 145). This demonstrates that these communities also fundamentally contributed towards mutual interests and through house building at least defined a larger area which stimulated a kind of unity. This collective involvement also reflects the concepts on which architectural and social organization are based. In contrast to central Anatolia, where settlements were organized into clustered neighbourhoods (Düring 2005; Düring and Marciniak 2005), in the Balkans they are autonomous and consisted of more independent houses. Although this should further intensify inter-household competition in Balkan communities, the open areas between houses also provided opportunities for reinforcing social relationships between several families.

In this context, the groups of bins in Madjari are notable. The concentration of 16 smaller daub constructions and one oven organized in three sets exceeds the need of one family. Their quantity and location outside dwellings suggests that they were used by several households and probably by the whole settlement. Their function cannot yet be defined, but the presence of an oven and 'tools' for bread preparation and decoration suggest that cereals were processed there. It has been hypothesised that in some settlements, bread was communally produced, and that the stamps were used for marking out the loaves for consumption by specific households (Budja 2003, p. 119). The building of hearths, ovens and barns outside dwellings in Porodin, Angelci and Amzabegovo (Grbić et al. 1960; Sanev 1986, 2009) further confirms the public character of particular domestic activities. Food preparation in open areas stimulates food sharing among neighbours (Halstead 1989, p. 74), which again strengthens the relations between families as a collective.

Nevertheless, this collective aspect was performed in only certain economic activities (building, harvesting, animal husbandry, resource acquisition). These defined the territory belonging to a village community (settlement, pastures and salt or

stone mines) and simultaneously developed mutual relations among nuclear families. Within each household, these activities and their effects had diverse manifestations. The house defines a space apart from the settlement and creates a dichotomy between the interests of the household and those of the community (Hillier and Hanson 1984; Yates 1989; Bogucki 1999). Food and resources are accumulated in it, which immediately accentuates household independence. Partial household autonomy contributes to the development of family identity, which is manifested through production and architecture.

In addition, many objects produced in households were decorated with motifs of symbolical significance, or which visually emphasised household identity (Naumov 2009a, 2010b). The house walls in Veluška Tumba, Amzabegovo, Porodin and Vršnik were decorated or covered with white or red colour (Simoska and Sanev 1975, p. 43; Korošec and Korošec 1973, p. 17; Grbić et al. 1960, p. 28; Garašanin and Garašanin 1959, p. 62), as were the surfaces of installations within houses in Zelenikovo, Čaška and Vrbjanska Čuka (Garašanin and Bilbija 1988, p. 34; Jovčevska 1993, p. 35; Mitkoski 2005, p. 35), especially those intended for bread preparation or cereal storage. These motifs and their similarity with the decoration on other ceramic objects symbolically reinforce this area and contribute to the effective realization of the function of these constructions and artefacts (Naumov 2009a, p. 40, p. 117). For instance, on the wall of a storage area at Vrbjanska Čuka stair-like motifs were applied. They are identical to those of the 'altar' deposited in its interior, but also to a number of others typical for the Pelagonian region (Mitkoski 2005; Naumov 2011). The use of decoration on house installations relates to the symbolic definition of architecture (McGuire and Schiffer 1983, p. 281) and must be seen in the context of the conceptual, structural and symmetrical organization of settlements (Hodder 1990; Moore 1982; Washburn 1983). It could be suggested that visual forms for accentuating household identity were transposed onto the community, and vice versa, what had been defined as a collective principle of visual identification and symbolic communication was incorporated into the household interior.

Regarding the idea of the house as an organic body, the affirmation and strengthening of household identity was realized through the creation (birth) and maintenance (existence) of a dwelling. The earliest phases in Amzabegovo have houses with materials and techniques otherwise unfamiliar from settlements in Macedonia. The use of mud brick, stone foundations and walls of rammed daub (Gimbutas 1976, p. 32; Garašanin 1979, p. 89) are architectural traditions practiced in Anatolia and certain parts of Greece. This illustrates that these households built their identity through relations with the past and possibly with their region of origin. In the Middle Neolithic, the new generations of this settlement were adapted to their surroundings, changed building techniques (using wattle and daub) and repaired the walls and floors after longer periods. That way, they ensured settlement continuity through new practices, although they preserved relations with the past within dwellings. Thus, 37 individuals were buried in this settlement, with specific changes related to demographic composition. In the earliest phases, infants make up the largest number of intramural burials, while in the Middle Neolithic their presence is significantly reduced compared to that of women (Nemeskéri and Lengyel 1976).

This indicates that, depending on the tendencies and requirements of household generations, houses were employed as social and symbolic centres for recognising and manifesting the diverse identities of particular kinship units.

Regarding the social aspects of death, it is necessary to stress that it was also present as a concept in house definition, since the life of a house ended with its abandonment or firing. Numerous examples confirm that houses were deliberately burnt (Stevanović 1997; Chapman 2000; Tringham 2005; Gheorghiu 2007), implying that inhabitants contributed to the ‘killing’ of their houses. Such an act, just as building, probably had some effect on the inhabitants of the settlement (Whittle 1996, p. 107; Borić 2008, p. 130). Therefore, particular memories were related to houses, possibly providing the motivation to rebuild in the same locations. House fires are also recorded from Porodin, Amzabegovo, Madjari, Zelenikovo and Čaška (Grbić et al. 1960, p. 12; Korošec and Korošec 1973, p. 16; Sanev 1988, p. 12; Garašanin and Bilbija 1988, p. 33; Jovčevska 1993, p. 35), although it is not confirmed whether the fire is accidental or intentional. Rebuilding a house over the ruined remnants of a predecessor prompts the possibility for symbolic relationships similar to those connected with architecture on other settlements in Macedonia. Through the implementation or modification of building traditions, the settlement’s residents contributed to the house’s ‘rebirth’, but also created new household identities.

The Domestication of Death

A sociological analysis of architecture and building processes can significantly contribute to our understanding of individual, household and community relationships, as well as the ritual potential of houses. Although there is not much data for clarifying this element of Neolithic life, recent fieldwork and theoretical research has demonstrated that there are several ways for examining dwellings or settlements as ritual space. Even the possibility for a mutual intertwining of everyday functions and ritual is suggested (Bradley 2005; Chausidis 2009).

If we follow Tringham’s and Bailey’s model for studying the house, then it is inevitable that one or several houses within a village or region might possess symbolic aspects. As it is representative of the individuals dwelling inside, the house plays an active role in their activities and ideas, so that its inhabitants acquire a specific subjectivity and view of the world (Barrett 1987). That way, it is affirmed as a microcosm which becomes a reference for structuring space, i.e. the world (Carsten and Hugh-Jones 1995; Joyce and Gillespie 2000; Chausidis 2005). Consequently, the house is developed into an autonomous unit, which projects the household’s tendencies and positions or incorporates collective ideologies. Therefore, rituals performed inside houses or by their inhabitants pertain to how one family positioned itself in relation to the symbolic processes in the community, but also relates to the use of generally accepted principles in domestic rituals.

In the domain of ritual life, burials are probably the most abundant form of evidence, especially those in settlements and inside houses, i.e. below their floors.

Table 4.1 Buried individuals within settlements: Republic of Macedonia

Site	Total	Sex		Age			
		Female	Male	Unidentified	Children/Juveniles	Adults	Unidentified
Amzabegovo	34	20	8	6	21	12	1
Vršnik	1	–	–	1	–	–	1
Grnčarica	1	–	1	–	–	1	–
Novo Selo	2	2	–	–	–	2	–
Govrlevo	2	–	2	–	–	1	1
Madjari	2	1	–	1	1	1	–
Optičari	2	1	–	1	1	1	–
<i>Total</i>	44	24	11	9	23	18	3

These forms of Neolithic burial confirm the links between the Near East and central Europe (Ucko 1969; Triantaphyllou 2001; Bacvarov 2003; Düring 2003; Naumov 2007), so that their effect on the ritual definition of architectural space can be traced. Particularly interesting are regional variations regarding the gender and age of deceased individuals, as well as the selection of locations, features and objects connected to the burial. Neolithic settlements in Macedonia played a significant role in realizing these complex ritual practices and integrating them with local traditions and principles. This reflects how these communities comprehended death and embodied it through the use of material culture and architecture.

There are 44 Neolithic burials recorded from the Republic of Macedonia, mostly located between or within houses (Garašanin and Garašanin 1959; Nemeskéri and Lengyel 1976; Veljanovska 2000, 2006; Naumov 2007; Sanev 2009; Fidanovski and Tomaž 2010).⁶ The contexts in which these individuals were buried, their age and gender vary and especially depend on excavation intensity and methodology. These data provide further insight into traditions and gender concepts at a local or regional level. In Macedonia, the burials of female individuals are more frequent (24 females, 11 males), while regarding age groups, 23 individuals are children and juveniles, compared to 18 adults. For 12 individuals, the age or gender cannot be determined (nine with unknown gender; three with unknown age). Although this regional review does not provide a consistent picture for gender and age tendencies among intramural burials, it still shows a certain favouring of women, girls and children in this ritual act (Table 4.1).

The excavations of Amzabegovo give the most relevant insight into local burial traditions. According to Nemeskéri and Lengyel (1976, p. 410), there are 34 individuals, including 17 children, five juveniles and 12 adults. These comprise 20 female, eight male and six unsexed skeletons (Table 4.2). According to the site phasing, 16 children and 8 juveniles and adults are buried in the Early Neolithic, of

⁶ Data on the skeletal identification from Optičari, Madjari and Grnčarica were obtained from the anthropological reports by Fanica Veljanovska (Museum of Macedonia), while chronological information on the buried individual in Grnčarica was provided by Zoran Čiktušev (Museum of Štip) and the dating report from the University of Glasgow.

Table 4.2 Buried individuals within settlements: Amzabegovo

Amzabegovo	Total	Sex			Age		
		Female	Male	Unidentified	Children/ Juveniles	Adults	Unidentified
I Early Neolithic	25	13	7	5	16	8	1
II-III Middle Neolithic	8	6	1	1	4	4	–
IV Late Neolithic	1	1	–	–	1	–	–
<i>Total</i>	<i>34</i>	<i>20</i>	<i>8</i>	<i>6</i>	<i>21</i>	<i>12</i>	<i>1</i>

which 13 were female and seven male, excluding those unidentified. In the Middle Neolithic, this number drops to six females, one male, and one individual with uncertain sex, or four children and four juveniles/adults. This shows that children, girls and women were the preferred group to be ritually integrated in the settlement after their death. The domination of women and children in intramural burials also applies on sites in Serbia, Bulgaria and Greece, although their relative numbers should be revised as there are recently new inhumations confirmed in these regions (Stanković 1992, p. 58–73; Bailey 2000, p. 123; Borić and Stefanović 2004, p. 532; Bacvarov 2003, p. 23–98; Perlès 2001, p. 274–280; Triantaphyllou 2001).

Due to an increase in burial data, the motivation for this ritual preference is becoming clearer. So far, children have been disregarded in studies on the social and symbolic aspects of Neolithic settlement. Recent research indicates that they were much more significant in the creation of social life (Olsen 1998; Kamp 2001; Moses 2006; Crawford and Shepherd 2007), contributing towards the economic stability of their family, as well as its integration in society. Children were necessary for demographic stability and accumulation of resources (agriculture and animal husbandry), and surely took part in occasions promoting the family (e.g. initiations and weddings). They maintained household continuity and strengthened or modified its identity. Therefore, it was indispensable for communities to engage in acts to stimulate the presence and rebirth of those who died too early. On a symbolic level, keeping deceased children in the settlements confirmed their social status, suggesting that the community considered that they would further contribute to household wellbeing. Their post-mortem integration and burial below house or barn floors might indicate that a concept of symbolic rebirth existed, confirmed for instance by the infant burial next to a house wall in Madjari (Veljanovska 2000, p. 45) and that from below a barn in Amzabegovo (Sanev 2009, p. 43). The infants' presence in these buildings was intended to transfer the effect of their symbolic regeneration to prospective family offspring or to the cereals. To reinforce this symbolic effect, some infants from Neolithic settlements in south-eastern Europe were buried inside and close to ovens, or within vessels which represented the female potential to give birth (Garašanin 1979, p. 160; Gimbutas 1989, p. 148–51; Bacvarov 2003, p. 28, 60, 69, 88, 184; Moses 2006, p. 182). This is also confirmed by an infant burial in Amzabegovo which was placed upside down in a vessel. The bottom and handles were deliberately broken (Garašanin 1971, p. 137) to symbolically equate the vessel with the womb. The burial of an adult woman in such a way that her pelvis came to

rest over this vessel further accentuates this ritual concept and opens the possibility of a kinship link between these individuals (Sanev 2009, p. 64).⁷ The practice of burying children beneath houses, ovens and barns continued in following periods and is widespread worldwide, highlighting its symbolic potential (James 1963, p. 45; Scott 1999; Durman 2004, p. 24, 27; Naumov 2006; Bacvarov 2006, 2008).

Interestingly, the Amzabegovo burial of an adult woman and infant was located next to 'house 2', where three more female individuals from the same Early Neolithic phase were buried (Sanev 2009, p. 62–64). In Macedonia, burials were also placed between dwellings, in contrast to some Neolithic sites in the Near East where burial was only practiced within houses (Guerrero et al. 2009). This does not minimize the significance of these individuals, particularly given that they remained integrated in the settlement after their deaths. In this context, the dominance of women among the Amzabegovo and Novo Selo interments should be stressed (Nemeskéri and Lengyel 1976; Veljanovska 2006). This is perhaps not surprising, since the women in Neolithic villages apparently played a dominant role in the domain of domestic activities and the maintenance of family continuation. Recent research on aspects of gender in prehistoric and tribal societies indicates that women's responsibilities in supplying and processing resources and their contribution in defining family identity was much more significant than previously recognised (Gero and Conkey 1991; Claassen and Joyce 1997). However, this variation in female roles still does not translate into female domination in relation to decision-making processes. Neolithic communities recognized female fertility and female input into providing and increasing the labour force, so that the female body was integrated into the symbolic sphere (rituals and visual culture). All aspects of material culture, particularly pottery and figurines, were employed for signifying women's position within households, but also to emphasize their contribution to kin relations, which was controlled by society (Hodder 1984, p. 62; Naumov 2010a, *in press*). Consequently, their frequent burial in settlements is not surprising, on the one hand affirming their social position, and on the other intensifying the symbolic effect onto the community's wellbeing with their presence after death.

Besides complete inhumations, Neolithic settlements in Macedonia also yield parts of human bodies, probably deliberately dismembered. In front of a Middle Neolithic house in Govrlevo, a vessel containing the mandible of a young male individual was found (Naumov 2007), while in Madjari a mandible belonging to an adult female was recovered close to traces of wattle and daub.⁸ In addition, in Amzabegovo the well-preserved skeleton of a female missing her mandible and foot was unearthed (Sanev 2009, p. 61). These and other cases probably pertain to exhumation. This removal of bones from the skeleton, particularly of complete or partial

⁷ In Optičari, female and infant individuals were also buried, although it is not confirmed whether they were in mutual relation. The information on the sex and age of skeletons is provided in the anthropological report by Fanica Veljanovska (Museum of Macedonia).

⁸ Information on the mandible's context was provided by the director of the Madjari excavation, Elena Stojanova Kanzurova (Museum of Macedonia), while data on the age and sex of the individual were obtained from Fanica Veljanovska (*pers. comm.*).

skulls, accentuates the potent symbolic role of this most significant and representative part of the human body. The burial of skulls and jaws is a common practice in Balkan, Anatolian and Near Eastern settlements (Bačvarov 2003, p. 84; Stanković 1992, p. 60; Talalay 2004; Fletcher et al. 2008), thus additionally confirming the significant role of the head as relic with which the household or village community could identify itself.

The cutting of skeletons during house building is also remarkable, especially considering the importance of the deceased in the settlement. Skeletons in Govrlevo, Vršnik and Amzabegovo (Fidanovski and Tomaž 2010; Garašanin and Garašanin 1959; Sanev 2009) imply that this was not only a practice for cleansing the ground before setting the house foundations. On the contrary, the entire upper body was preserved next to the houses, whereas if the inhabitants had not been familiar with the deceased, or if the skeleton was in the way, they would have completely removed it. This opens the question of whether the vicinity of deceased bodies disturbed inhabitants during biological decomposition in shallow burials. Surely, without counter-measures, the smell of the decomposing body and the concentration of larvae and bacteria would be dangerous for those living inside the house or being active around it. Several hypotheses based on ethnographic data have therefore been offered regarding the possibility of Neolithic mummification (i.e. the extraction of organs and soft tissue) or of covering the deceased with lime (James 1963, p. 125). Traces of lime next to some Amzabegovo skeletons support these observations (Sanev 2009, p. 61). It is also possible that the deceased were placed on platforms outside the settlement for later intramural burial. This would partly explain the incomplete skeletons in settlements and the possible relevance of exhumation as a practice in the Neolithic.

Some of the Amzabegovo individuals were buried on their back, but in a contracted position (Sanev 2009, p. 62, 63), suggesting that they were probably placed in bags, a practice already confirmed elsewhere in the Balkans (Bačvarov 2003, p. 33; Borić and Stefanović 2004, p. 539). To avoid the negative effect of decay, these bags were filled with salt. Several contemporary ethnographic examples from the Balkans, North America, New Zealand and Tahiti confirm this practice (Antonijević 1982, p. 134; James 1963, p. 123–127). This may to some extent explain Neolithic activities related to salt acquisition and distribution (Tasić 2000; Chapman et al. 2003).

In general, burials in Neolithic settlements in Macedonia took different forms: placing the deceased inside or outside houses, deliberate dismemberment and diverse practices of ‘mummification’. This diversity implies that the basic social ideology expressed through the relation of the deceased with house and settlement was a significant element for a designation of space in which the house itself was also constructed as a social and symbolic agent. In particular, this process parallels the proposed social structuring of Neolithic settlements and their surroundings as the dualistic entity of *domus* and *agrius* (Hodder 1990). Although this conceptual division of space concerns architecture, it could also be applied on the level of burials inside and outside the settlement area. The *domus* principle could cover those burials integrated in the settlement, while those in the extramural necropolis/

cemetery align with the idea of the *agrios*. In addition, it is obvious that Neolithic communities exercised selection in the use of this concept, since not all deceased individuals were buried in the settlement. Considering the total village population, only a small group of people was kept inside or next to dwellings after their death, especially women, girls and children. Even here, only particular members of these groups were selected, as their mortality rate was much higher than the numbers of skeletons found in settlements would suggest. These individuals significantly contributed to the symbolic effect of the *domus* principle, since their presence after death contributed to preserving and strengthening the identities related to houses, families and the community.

Conclusion: House Embodiment

There is a potent relationship between individuals, families and the community on the one hand, and houses, dwellings and the settlement on the other. The dwelling space was affirmed as a centre where individual tendencies and collective principles were promoted. Just as the settlement represented a unit where norms were negotiated, the houses manifested the identity of their inhabitants, i.e. the household. In this way, the house is understood as an embodied agent in relation with other houses in the society (Gell 1998). Consequently, in the Neolithic, it was perceived as a living form where social and symbolic processes related to the family and community were realized. Gradually, the house was identified with all or some of its inhabitants and therefore stood in as their representative. As a result, its function was symbolically clarified through the mechanism of the human body and its corporeality, thus emphasizing particular features specific of the actual or mythical individuals the house represents. This is partly confirmed by the numerous anthropomorphic house models from the Republic of Macedonia (Figs. 4.2 and 4.3). They are composed of two parts, a house model in the lower half and above it an anthropomorphic cylinder including arms, stomach, breasts, face and hair. These artefacts have been studied from the point of view of their technical, typological, chronological and regional features, including interpretations of their possible function and meanings (Sanev 1988, 2006b; Naumov 2006, 2007, 2009c, 2011; Chausidis 2005, 2007, 2010). However, so far they are rarely considered in relation to Neolithic architecture and the social processes active inside or between the dwellings of a settlement. In that context, burials are especially important, as they partly relate to the imagery and function of anthropomorphic house models. Since the deceased or ancestors were probably identified with the house, these models may represent individuals buried inside the buildings or in their surroundings (Naumov 2009c, p. 109). For now, house models that could be gendered have female attributes (pubis, breasts, stomach in a state of pregnancy), which parallels the predominance of female burials. However, the possibility for the representation of children or male individuals should not be ignored, as there are no gender features on the majority of models. This addition-

ally broadens interpretative possibilities, especially regarding the openings on their top or ‘roof’ and in walls, which were mainly used for deposition of smaller objects or foodstuffs. The openings and the traces of fire around them suggest these models could be used as lanterns, perhaps related to the memory or adoration of particular actual or mythical individuals (Chausidis 2008; Naumov 2009c).

The identification of the deceased or ancestors with the house could lead to their eventual mythologisation. This could also generate creatures identified with the house or seen as its protectors. Ethnographically, dwelling mythologisation and the anthropomorphisation of houses and settlements are frequent phenomena (Bradley 2005, p. 51; Chausidis 2007, p. 59; Kovač 2007, p. 91–95; Devyatkina 2004, p. 67, 71). The equation of houses with bodies in the Neolithic is a common symbolic process and perhaps to be expected considering the role of anthropomorphism as a visual and ritual concept in other spheres of material culture, most notably house models, but also vessels, stamps, ‘altars’ and oven models (Naumov 2006, 2008, 2009a, 2011). These relations between utilitarian objects and people promoted corporeality as a medium through which these objects and constructions could function symbolically and ritually (Naumov 2010a). Accordingly, house anthropomorphisation followed the same semantic sense: it humanized dwelling space and clarified the essence of the individuals or processes it contained. Anthropomorphic house models likely represented the human identity of the buildings or were ceramic miniature monuments of particular individuals or houses.

Other types of house models depict actual buildings (Fig. 4.5). Considering the unearthened large pieces of daub (Fig. 4.6b), identical to walls of models (Fig. 4.5), it should be stressed that such constructions were built in Pelagonia. There is also the possibility that house models pertain to other types of constructions (e.g. barns, menstrual huts, burial platforms or sanctuaries), especially given the legs on which they are elevated and the abundant incised decoration (Galloway 1997; Chausidis 2009; Bradley 2002, 2005, p. 5, 50; Naumov 2011). Buildings other than dwellings were hence also symbolically incorporated into visual culture, asserting their social and symbolic significance. The huge amount of house models in Macedonia and other regions of the Balkan Peninsula (Gallis 1985; Bailey 1993; Marangou 1996; Mantu Lazarovici 2004; Naumov 2011) emphasize the important role of dwellings, both in the sphere of settlement processes and in terms of miniature material culture. These models furthermore confirm house dynamism and its integration in the rituals which reinforced crucial social and symbolic elements of the buildings. Therefore, an additional detailed study of architecture, household and rituals and their representation by models could significantly contribute towards our understanding of Neolithic communities and their perception and embodiment of houses.

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Chapter 5

Houses in the Archaeology of the Tripillia–Cucuteni Groups

Natalia Burdo, Mikhail Videiko, John Chapman and Bisserka Gaydarska

Introduction

The Tripolye–Cucuteni culture (Ukrainian: ‘Tripillia’; henceforth ‘T-C’) was one of the longest-lasting groupings in east European prehistory. Its overall duration of more than two millennia (5000–2800 cal BC) encompassed an estimated 60–70 human generations; different T-C persons were coeval with the gradual decline of European foraging, the earliest farming in central and north-west Europe and the foundation of Troy, while pre-dating the emergence of the Egyptian, Mesopotamian and Minoan states and the building of Stonehenge phase 1 (Fig. 5.1). It was also one of the largest cultural distributions in what Gimbutas (1982) termed ‘Old Europe’, stretching from the eastern Carpathians in the west to the Dniepr in the east and located in both the forest-steppe to the east and the warm temperate forest zone to the west (Fig. 5.2). The time-space distribution of the T-C group depends upon the shared characteristics of the rich ceramic assemblages, by now excavated from over 100 settlements. The extension of T-C represented the emergence of mixed farming in a large new area.

The settlement domain dominated the landscapes of this huge region, with mortuary remains patchy at best and a very small number of generally small cemeteries. This meant that, as the single most prominent feature in the landscape, large timber-framed houses were, in effect, ‘monumental’ structures making a visual impression

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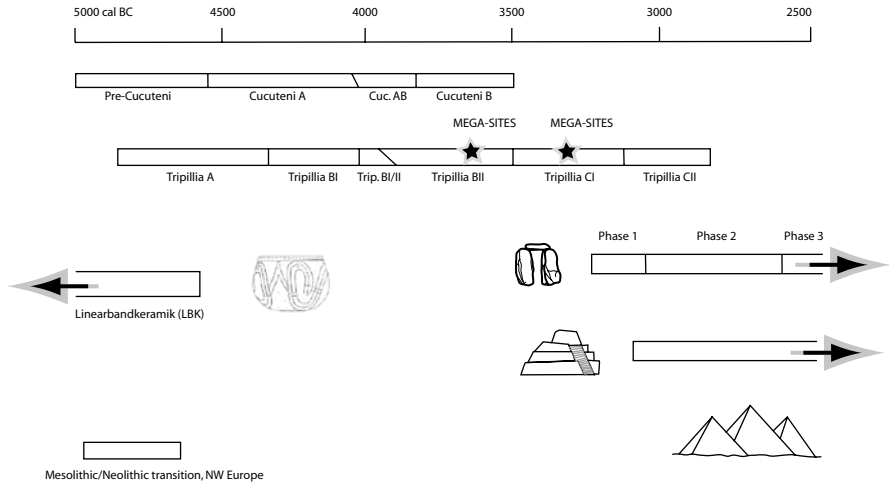


Fig. 5.1 Timeline for Tripillia–Cucuteni development, with key external ‘events’

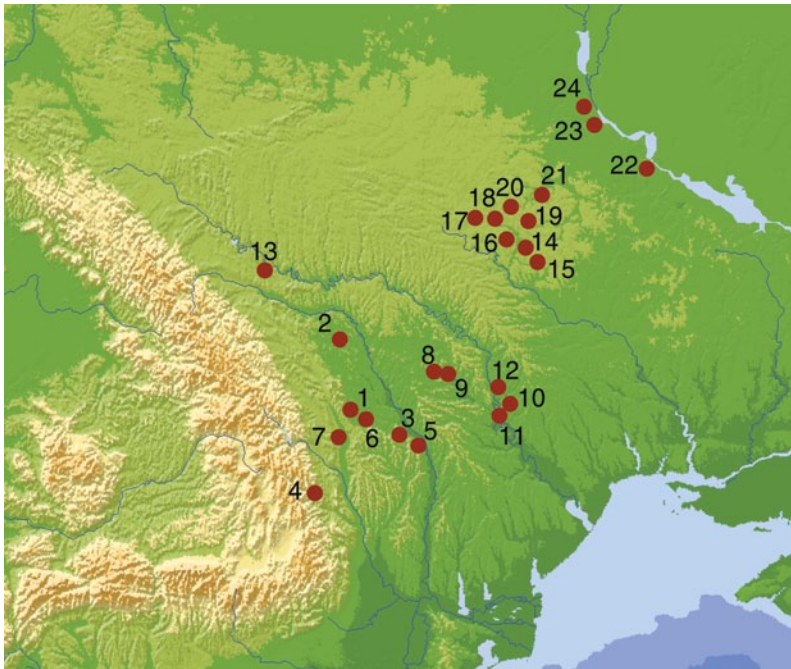


Fig. 5.2 Distribution map of Tripillia–Cucuteni groups, with key sites mentioned in text: 1 Cucuteni; 2 Drăgușeni; 3 Dumești; 4 Poduri-Dealul-Ghindaru; 5 Scânteia; 6 Târgu Frumos; 7 Traian; 8 Varvarovka VIII; 9 Varvarovka XV; 10 Oleksandrivka; 11 Tymkove; 12 Cherkasiv Sad II; 13 Polivanov Yar III; 14 Nebelivka; 15 Volodymyrivka; 16 Sushkivka; 17 Kosenivka; 18 Talianky; 19 Maydanetske; 20 Vesely Kut; 21 Rozsokhuvatka; 22 Pekari II; 23 Kolomyischyna I, II; 24 Trypillia

in their generally rolling terrain. The vast majority of excavated Tripillia settlements reveal a single phase of dwelling, with hardly any house super-imposed on another. In contrast, there is a greater tendency to two- or even three-phase settlements in the Cucuteni group, with the exceptional site of Poduri-Dealul Grindarui forming a tell mound with an occupation of over 400 years (Monah et al. 2003; Mantu 1998). These variations in the temporality of dwelling influenced the Tripillia and Cucuteni social formations, as well as relations between the ancestors and the living.

Throughout this lengthy period and, for the most part over the entire distribution, T-C persons built rectangular timber-framed houses in a single overall tradition of vernacular architecture. However, given the time-place range of the T-C group, it is not surprising that regional traditions developed in architecture. The extent to which they matched the regional ceramic groupings beloved of researchers is an important research question, which we discuss later. However, no matter the size of T-C settlements, people built a broadly similar range of houses for, presumably, a generally common size of family groups. Thus, while the T-C house is fundamental to the T-C phenomenon overall, it is not clear as to what extent the house was central to cultural developments and the apparent evolution towards a form of autonomous, local urbanism.

While the house is one unit of analysis, groups of houses were of critical importance, with combinations of houses into smaller or larger villages and, increasingly in the eastern Tripillia group, massive ‘proto-towns’ with over 2,000 structures. Videiko (2007a) has shown how large settlements of over 50 ha developed even in the Tripillia A phase, peaking in two waves in the Tripillia BII and CI phases in a group of sites in the Uman region of south-west Ukraine. These mega-sites are currently the only exceptions to Fletcher’s (1995) global limits on the size of agropastoral settlements.

Materials

There is a dominant tradition in two millennia of T-C house-building concerning shape and proportionality, as well as size and materials. In the Cucuteni area, the basic form of the house was a rectangle whose length was a little less than twice its width (i.e. a length: width ratio of 10:6; Fig. 5.3). Houses tending to a squarer shape are also found both as very small or very large houses, while there is a tendency for multi-roomed longhouses with lengths up to three and more times their width in the Tripillia C phase (Кричевський 1940, p. 560–561). The vast majority of Cucuteni houses differed from those of the Late Tripillia in having one or two rooms, separated by a partition wall or perhaps screens or hangings that did not leave a mark. A small number of shorter-term, probably seasonal, round huts has been discovered at a handful of sites (Бурдо 2006, p. 56–60; Figs. 12 and 13); the notion of dwelling in pits has been rejected.

House size varied by region, period and site. In the western zone, some Pre-Cucuteni houses (Fig. 5.3a) were smaller than Cucuteni phase A (Figs. 5.3b–d) and

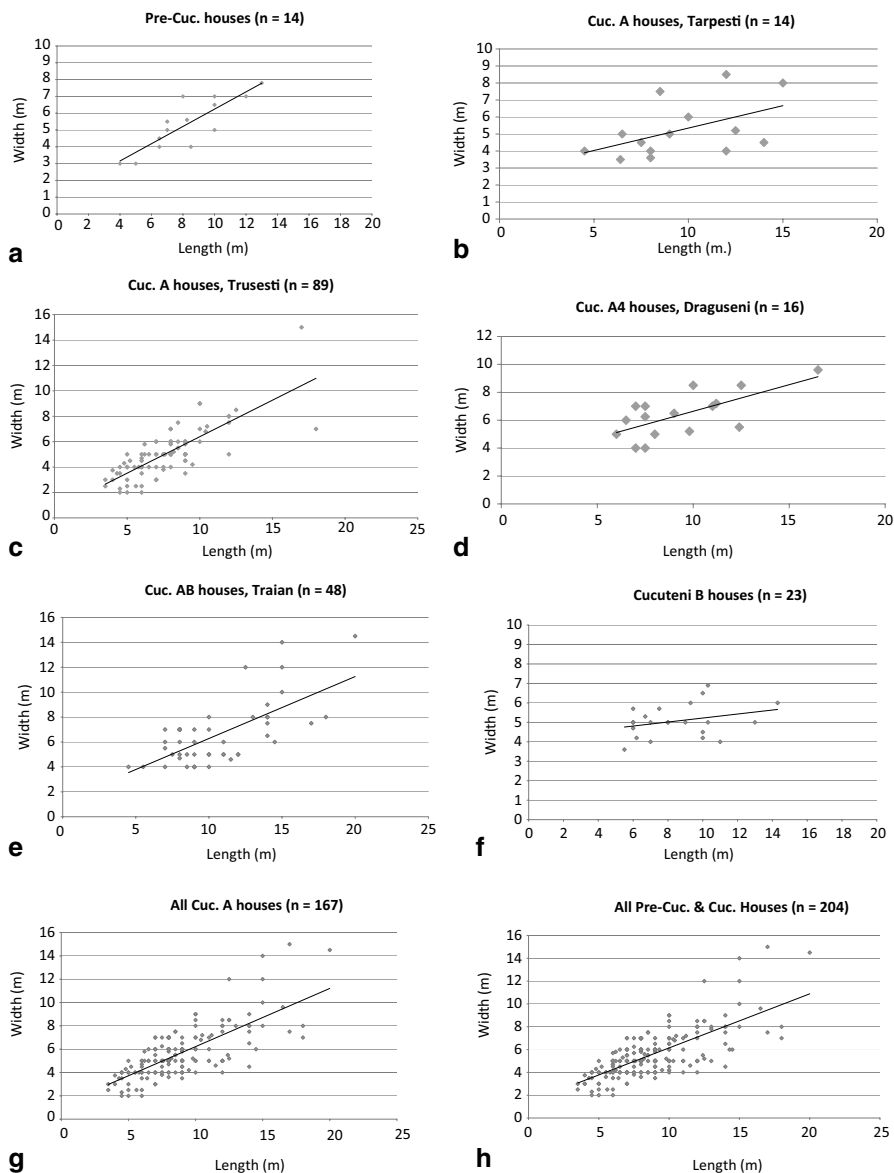


Fig. 5.3 House sizes by region and/or site. **a** all Pre-Cucuteni; **b** Cucuteni A, Târpești; **c** Cucuteni A, Trușești; **d** Cucuteni A4, Drăgușeni; **e** Cucuteni AB, Traian; **f** all Cucuteni AB; **g** all Cucuteni B; **h** all Pre-Cucuteni and Cucuteni

AB houses (Fig. 5.3e), but broadly similar in size to late (Cucuteni B) phase dwellings (Fig. 5.3g). There was an increasingly wide range of variability in house sizes, including some exceptionally large houses, in the sequence Pre-Cucuteni–Cucuteni AB (Fig. 5.3h).

Fig. 5.4 Tripillia phase B-II house model, cf. ‘shrine’, Volodymyrivka



Nonetheless, the peak in house area at 31–40m² remained constant over most of the period from Pre-Cucuteni onwards, until the smaller 21–30m² peak in Cucuteni B. There was rarely more than a handful of exceptional buildings (here classed as over 100m² in floor area) on any Cucuteni site. Interestingly, the five such houses at Traian were not differentiated by specific furnishings, fittings or finds from other, smaller houses at that site (Bem 2007)—they were just larger and more impressive. The same was true for other Cucuteni sites. In the Tripillia zone, we can see houses of different size that in the early (viz., A) period can exceed 100m². Building 2 from the settlement of Alexandrovka (phase Tripillia A III) had two levels, each of which covered over 400m² (Видейко 2005, p. 27–40). Recent geophysical survey at the mega-site of Nebelivka (c. 230ha) has revealed the only Tripillia ‘mega-structure’ so far known (Hale et al. 2010; Chapman and Videiko 2011)—at 60 × 22 m (1,320m²) probably a communal building or chief’s house.

A striking feature of T-C houses is the absence of postholes surrounding the floors. This has led to the reconstruction of houses with sleeper beams supporting vertical trunks (e.g. Marinescu-Bîlcu 2000, Figs. 27 and 28). This technique is believed to have been sufficiently robust to support an important structural and visual feature of a minority of T-C houses from the early phase—the two-storied building. This was first documented in excavations by the late Vl. Markyevich in 1964, although they were discussed by Hvoiko and Kand’ba as early as the 1920–1930s (Markyevich 1981; Маркевич 1990). The evidence was the discovery of ‘double’ floors with the thinner, collapsed upper floor above objects and features such as ovens on the thicker, lower floor. This architectural advance not only effectively doubled the social space available to residents but also increased the monumentality of already impressive buildings in the village landscape. Painted clay representations of two-storied houses are known from the Tripillia zone; a good example derives from the site of Volodimirivka (Fig. 5.4).

The question of interpreting the remains of T-C houses has been discussed for more than 100 years (historiography in Видейко 2005; Бурдо 2006, 2007). A fundamental aspect of these sturdy houses was the construction of the floor in the form of



Fig. 5.5 Excavated Tripillia phase C-I house, Majdanetskoye (Shmaglij—Videiko excavations, 1984–1987)

a ‘platform’, which took the form of either a solid clay floor up to 25cm in thickness or a set of trimmed logs embedded into the underlying soil and covered with a clay flooring. In the western European literature, prehistorians have not always followed Childe (1945) in his use of the Russian term ‘ploschchadki’ for the archaeological remains of a burnt house—often a mass of burnt clay—rather than a specific form of construction. In the Cucuteni zone, solid clay platforms appeared in the earliest, Pre-Cucuteni I phase, either forming the whole of the floor or as a partial platform, often interpreted as a sleeping platform (Marinescu-Bîlcu 1973). However, the idea of increasing frequency of overall house platforms cannot be supported for later Cucuteni phases, in which we find great variations in their constructional frequencies by site and a general decline in platform usage in the Cucuteni B phase. In addition to houses with thick clay floors (e.g. Maidanetskoe; see Fig. 5.5), many Tripillia houses had stamped earth floors overlaid by a thin clay coat and were equipped with ovens, hearths and altars. The platform floor materialises a strong future-orientation in the conception of time, since they are robust, long-lasting constructions which are virtually indestructible. This means that families can forge a close relationship with a particular place and a specific architectural focus over decades rather than years.

Much external and internal house decoration has survived, whether on clay house models or as finds during excavations. House models show that the façades of some special buildings were decorated with monumental stylized depictions of cattle horns made of wood and either painted or carved. There are examples of cornices made of clay mixed with chaff. Their surface is decorated with depressions most probably made by the hands of the builders. The clay wall plaster was covered

with white and/or red painted geometric ornaments consisting of lines and triangles, as seen on house models and pottery (Видейко 2004, p. 326–328). Sometimes the decoration emphasised constructional elements such as roof beams and especially doors and windows, which were encircled by incised or painted lines and images of triangles. There are some fragments of stucco with concave decorations, some of which is filled with cord impressions similar to the impressed decoration on Cucuteni C pottery. As seen from the clay house models, parts of the decorative elements were made of wood. The early existence of well-developed wood-carving is suggested by the incised decoration on vessels from the first and second phase of the Pre-Cucuteni culture, as well as the large number of tools such as polished stone chisels and flint knives with use-wear showing wood-cutting.

In the buildings, and especially in living areas, most of the floors were covered with a thin layer of plaster painted in red. Repeated painted floor plaster layers show that these floors were renovated from time to time. Many T-C houses have preserved internal features and fittings, including ovens, hearths, fireplaces, clay benches, clay ‘altars’ and small grinding areas framed inside clay boxes. Up to 90% of excavated Tripillia dwellings of whatever size had an oven or a hearth. Such features, which are rather large and complex, are known since Precucuteni-Tripillia A. An example derives from dwelling 2 at the Timkovo settlement (Видейко 2005, p. 28–34, Figs. 1.28–1.32). They are made of the same material as the ‘platforms’—viz., a mixture of clay and chaff, stuccoed and probably decorated. Some parts of the hearths and the altars were made of clay with no temper. In later periods, the interior details became more and more complex. Excavation data indicate varying degrees of preservation of the interior features depending on their maintenance. This is best seen in the hearths, ovens and altars, most of which have three to five coats of clay plaster.

There has been an upsurge of experimental house-building for T-C in the last decade, all using traditional materials and copies of Neolithic polished stone axes and adzes (Cucuteni: Cotiuğă and Cotoi 2004; Poduri: Monah et al. 2003). For the one-storey house built at the site of Cucuteni, a total of 500 person-hours was invested in the use of 15t of clay, 4380l of water and 1t of straw, gathered from a cultivated area of 1ha, as well as large quantities of *Phragmites* (reeds) for roofing. The result was a 7×4 m house with a wall height of 1.8m and a wall thickness of 30–35cm. The house was deliberately destroyed in a spectacular conflagration lasting six hours. A similar experiment was conducted at Poduri, where 1.5m³ of timber was found to be insufficient for a full-size house. The result was a 4.5×2.5 m house with a wooden platform covered by 5–6cm of daub, a wall height of 1.20–1.29m and a total height to a pitched roof of 2m.

In the period 2003–2009, several reconstructions of full-size Tripillia buildings were made at Tripolie, Tal’anki and Legedzhine (Fig. 5.6). Wooden materials and modern tools were used during the construction, since the most important task was the successful reconstruction of the dwellings, especially the two-storied ones. Different types of reconstructions were attempted and all of them proved successful and strong enough. In addition, a two-storied building (7×4 m and up to 6m high) was burnt down at Tal’anki in 2003. The ground floor of the building was a timber-

Fig. 5.6 Life-size reconstruction of Tripillia house, Legedzhine village



framed cabin (12m³ of oak), while the upper floor had a wattle and daub framework. The gaps between the logs of the cabin were also plastered with clay. According to V. Chabaniyk, 20m³ of wood, 3m³ of posts, 16t of clay, 1.5t of chaff and straw and 160 bundles of reeds (for the roof) were used. Five people worked on the construction for four weeks (Чабанюк 2008, p. 213–214). The remains of the burnt house were excavated in 2005–2006 revealing that in certain places the clay plaster became exactly as the plaster found during normal excavations. According to V. Chabaniyk, the experiment has confirmed the existence of Tripillian ‘wattle-and-daub structures’ in this area (Чабанюк 2008, p. 211–217; Fig. 1–5).

Practice

Apart from the small number of light, circular huts of a seasonal nature, the T-C house was usually thought of as a permanent structure built for year-round dwelling on a multi-year, if not decadal, basis. One of the few formal demonstrations of year-round, multi-annual occupation concerns the discovery of pips and stones from fruit trees such as the apricot, the peach and the grape on both Cucuteni and Tripillia sites, with the implication of permanent orchards and vineyards (Monah and Monah 1997; Markyevich 1981). The implication for the inhabitants of T-C houses was a number of repetitive practices based upon long-term sedentism, which gave structure to dwelling. We can conceptualise four kinds of occupants in the T-C house: living residents, guests, ritual occupants and the dead/the ancestors. Each of them had varying relations with the house and with each other. There were variations in household composition according to age and gender principles, as well as the possibility of multi-family occupancy (Пасек 1940, p. 28–29; Колесников 1993, p. 57).

The sense of public vs. private imposed by the architecture of the living house (Wilson 1988) was mitigated by the variety of occupants; thus, to some extent, T-C domestic architecture was the materialisation of privacy and private practices. This

may have worked well in the larger houses, but in the smaller one- or two-roomed houses excessive familiarity between all four types of occupant would have been unavoidable (Woolf 1997). However, each occupant referenced other persons and relationships outside the house, breaking down the public–private dichotomy on a fluid, quotidian basis.

For the living, despite the suspected emphasis on gendered roles in maintenance activities, the day-to-day, routine processes of food preparation, the care of the young, the old and the sick, and inter-personal socialisation—all of these were often invisible because they had no obvious ‘product’ (Picazo 1997). Interestingly, the partial platforms in some Cucuteni houses have been interpreted as places for that most invisible and private of practices—sleeping—often together since the platforms were big enough for two. The location of the sleeping places was next to the heating features, i.e. in the warmest places in the house. Since straw was used as bedding, the sleeping places must not have been too close to the fire for safety reasons. The floor of the upper storey was probably warm enough to sleep on. The use of some kind of plank-beds or elevated platforms was also possible.

The most obviously materialised aspect of caring practices concerned food storage, preparation, cooking and consumption—all of which can be routinely documented inside the home and whose presence or absence would have been related to specific rituals of construction (Бурдо 2003; Круц 2003). Many houses had large storage jars near the hearth or oven, with small grinding areas delimited by clay borders. The majority of the one-roomed houses at the Cucuteni A site of Truşeşti had annexes with several storage jars for cereal storage or grinding stones for making flour. Conversely, at Tripillia B sites such as Kolomyishchina II and Vesely Kut, many of the small, separate buildings have been termed ‘granaries’ because of their concentration of large storage jars and little else (Tsvek 2005). However, such an interpretation may not be entirely correct, since the vessels may have been deposited for ritual rather than for storage purposes. In addition, simple estimates suggest that the size of the rooms was not big enough to store all necessary provisions for a whole family.

There was a widespread tendency to cluster activities around the oven, hearth or fireplace in both Cucuteni and Tripillia houses, perhaps a sign of communal food preparation, cooking and eating (Souvatzi 2008). However, in many Cucuteni A and AB houses, for example at Drăguşeni and Traian, two hearths were placed in a single space, with interpretations of impermanent partitions suggesting one hearth per room. The hypothesis for multi-hearthed houses, interpreted as extended or multiple families accommodated in up to four different rooms (Пасчек 1940, p. 28–29) has recently been revisited (Видейко 2005). It was established that almost 90% of the buildings had only one oven/hearth, while the remainder had two heating features in different rooms that were sometimes separated from each other and which had separate entrances. The consumption of firewood was reduced by the attic construction, the remains of which were found in many Tripillia buildings in different areas. The advantages of insulating the house to keep upper floors warm determined the re-arrangement of the whole living space.

The other aspect of household practices concerned production practices not involving food. There is a clear diachronic development in the scale of production from the early period, where household production of flint tools (Târgu Frumos), pottery (Dumești) and antler tools (Drăgușeni) alongside other domestic practices gradually made way for more specialised workshops, or 'house-workshops' to use Tsvek's (2005) term, created for only one activity. Thus, flint mining sites such as Polivanov Yar III and Pekari II included buildings or special outdoor places with masses of lithic débitage, showing specialised production for exchange. Large buildings where vessels were shaped for firing in kilns outside the settlement have been found at Varvarovka VIII and XV, Zhvanets, Petreny, Koshylivtsy and other places. It is important to note that there is little to distinguish these workshop structures from houses in architectural or visual terms. The late T-C house had diversified beyond its original dwelling function.

Wilson (1988) has demonstrated the importance of hospitality as a response to the division of social space by the building of houses and the exclusion of some people from private places. A common feature of T-C houses was the collection of finely decorated cups, bowls and dishes for individual consumption of food and drink. The discovery of what has been claimed as two animal bones from the same red deer carcass in two adjacent houses at Drăgușeni is seen by Popovici (2010) as evidence for food sharing between households. Such a case is also known from the animal bone assemblage from Maidanetskoe. The occupants of neighbouring buildings could have participated in common ceremonies that may have involved the sharing of pottery vessels (e.g. the fragments of the same clay house models 'buried' next to different buildings, see Гусев 1995, p. 221–224). Moreover, fragments of the same figurine were found in pits under the building rubble of two adjacent buildings at Maidanetskoe (Шмаглий and Видейко 2002/2003, p. 75–76). Since neither the house model nor the figurine re-fitted to complete objects, we can assume that they were shared by more than two households.¹

The ritual occupants of T-C houses took many forms, whether anthropomorphic and zoomorphic figurines or anthropomorphic vessels, often making use of house models, model furniture, altars or benches. In some cases, individual figures were attached to the edge of an oven or placed inside a storage jar full of cereal grains. There are cases in Maidanetskoe where complete and fragmented zoomorphic and anthropomorphic figurines, together with sherds and animal bones, were 'buried' in pits throughout the life of the house; the pits were found under the house rubble (Шмаглий and Видейко 2002/2003, p. 66–87). Similar numbers of figurines in pits under many houses on different sites suggest the existence of common ritual activities over a wide cultural area (Бурдо 2008, p. 67–72). Occasionally, figurines were placed together in groups of up to 40 per household, suggesting a figurine store for the entire village (Marangou 1996). Another distinctive, if uncommon, feature concerns the fragments of large clay figurines found in Tripillia settlements. The largest statuettes reached up to 50–70cm in height, while the majority stood up to

¹ It is worth noting that the level of erosion was minimal. Houses were found under 0.6–1.2m of relatively undisturbed loess.

30cm high. Judging by the figurines placed inside house models, such objects were located in the oven area or on a bench. It was also suggested that statuettes that had holes in the shoulders or the head may have been fixed in the houses or shrines by wooden dowelling. Remains of monumental sculpture are known also from the site of Cucuteni, where they were interpreted as deriving from a shrine (Lazarovici and Lazarovici 2007, p. 229, 232, 237, Fig. Vd. 88, 101). An individual person's features were occasionally materialised in fired clay figurines, whether as specific medical conditions or different ages, including the old and the young (Monah 1997, Figs. 12, 17/3, 82/2, 116/1, 118/1, 3, 7–8, 128/3, 162/1, 175/1, 2, 176/1, 3, 196/1, 205/2, 223/4). We discuss the meaning of the ritual occupants below.

The fact that these sacred elements were important is witnessed by the clay models showing houses furnished with benches and altars, as well as individually modeled miniature chairs, armchairs, 'thrones' and three- or four-legged stools. It is believed that all these clay models were used during different rituals (Бурдо 2004, p. 346–347). Some of the life-size furniture may have been decorated by carving or painting, as shown from damaged decoration and traces of paint. They are known from the time of the Precucuteni–Tripillia A till the beginning of Tripillia CII.

The final group of occupants—the dead, the spirits or the ancestors—were not as visible as the ritual occupants but played an important household role in the mortuary practices of regional groups virtually devoid of cemeteries. Not all houses contained fragments of human bodies or even human bone fragments but this was a specific feature of house 9 at the Cucuteni A site of Scânteia, where 111 human bones or teeth, representing a minimum of 33 individuals, had been deposited in a burnt house prior to its firing (Bem 2007). This accumulation of people linked house 9 to a wide range of ancestors and living families in the settlement and perhaps beyond.

The remains of dead persons were scarce in comparison with the remains of dead houses. There has been a long debate over the question of the deliberate or accidental burning of T-C houses. In recent times, experimental work has shown that the amount of timber and clay in a house was insufficient to create firing temperatures recorded from burnt or vitrified daub, meaning the deliberate addition of fuel (as in the Cucuteni house-firing experiment: Cotiugă and Cotoi 2004; see Fig. 5.7). The high proportion of burnt houses in most T-C settlements indicates that house burning was a regular practice for the killing of a house—what Tringham (2004) has evocatively termed 'domisthania'. This practice also raises the vital question of the formation of the artefact assemblages inside the burnt houses: were they the product of a 'living' assemblage or had villagers collected material to create a 'dead-house assemblage', much as with the collection of grave goods for the grave?

We can also suggest the presence of several phases of ancestral occupation in Cucuteni–Tripillia houses. The first was when ancestors lived together with the occupants who participated in certain rituals during the lifetime of the building. Those figurines and fragmented animal bones found within and around the house rubble may be related to this phase. The next phase is linked with the rituals of abandonment when the house was filled with pottery, food and tools arranged in a particular

Fig. 5.7 Burning of a Cucuteni house. (Photo: Neamț County Museums)



order; even in the nineteenth and the start of the twentieth century, these finds made some scholars think of ancestor cults (Хвойка 1901). The most important part of this phase was the burning of the houses, which perhaps aimed at the release of the *genius* of the sacrificed objects and the spirits of the ancestors. The third phase concerns rituals focused on already burnt and abandoned houses. These rituals show up as specific traces within the cultural layer and suggest short-lived activities; an example is found at Bernashevka, where an upper layer consisting of numerous bones of wild and domestic animals was identified, most probably the remains of sacrificial food (Бурдо and Видейко 2004, p. 75–76). The elucidation of several phases of rituals associated with burnt houses is an important conclusion that may have wider significance than in the T-C case.

Meaning

In a landscape virtually devoid of other monumental structures, enclosures or cemeteries, the settlement domain is overwhelmingly dominant and, within the settlement domain, the T-C house appears omnipresent, structuring the whole of community life. Wilson (1988) expresses the means by which the T-C house dominates social space: ‘with long-term sedentism, time becomes anchored in space, whether intended to or not; time becomes repetition and recursiveness; hence, through the seasons and other cycles, continuity becomes an explicit feature of domestic life’ (Wilson 1988). The T-C house is repeated again and again, within narrow parameters, each new building indexing past construction and dwelling practices as well as collective agency. Thus, by the early third millennium BC, new T-C houses were recursively indexing many practices which had been in existence for two millennia, creating an inevitability about the form of the same rectangular buildings known for many generations and with whom so many ancestors were closely associated. But there is tension between such ancestral associations with houses and the almost complete absence of the super-imposition of houses, so typical of Balkan tells (Bai-

ley 1996), as if the T-C household was a bounded entity in some way separate from ancestral space as well as from its neighbours.

The Tripillia–Cucuteni groups constructed a geometric order for their living space on two levels—at the settlement level, where the organising principle of concentric layout of streets reached its apogee in the Tripillia mega-sites (Videiko 2007a), and at the level of the individual house, which formed a visual and material diagram of the occupants (Wilson 1988), representing cultural order as opposed to the unruly natural world. This geometric order was constantly reinforced at a third level—that of the object. The designs of many of the decorated pots and figurines embodied all of Keightley's (1987) four principles of compartmentalisation, standardisation, precision and symmetry; the ubiquity of painted pottery in houses made these richly decorated, brightly coloured and shining vessels a central part of the domestic visual domain (Chapman and Gaydarska 2006).

An important aspect of the meanings of houses is highlighted in the relationship between the house, its fixed furnishings and fittings and the moveable objects we have already termed 'ritual occupants'. The former were built in the process of construction of the house and were an integral part of its interior; thus, they could not be moved without the removal of the main construction. The fact that fragments of such elements are found in the cultural layer, and especially in pits under the buildings or next to the buildings, suggests that such removals were performed from time to time, perhaps at times of renovation (Відейко 2004). The many parallels between the excavated house features and the house-models illustrate the principle that the Tripillian material world was designed to index real houses on two levels: the morphological and the symbolic.

Figurines comprised a significant proportion of the moveable objects found in a burnt house assemblage. There remains great divergence of interpretation in the literature, with traditional views relating figurines to the worship of the 'Great Mother' (Monah 1997; Бурдо 2008) and alternative views specifying individuality, dividuality and personhood (Hamilton 1996; Chapman and Gaydarska 2006; Gaydarska et al. 2007). Bailey (2005) has recently urged us to reject earlier, oversimplified ideas of figurines as portraiture in favour of the notions that figurines provoke us to think again about what it means to be human and that bodies are political, social and cultural objects par excellence. However, Bailey disclaims any sense of the meaning of figurines and refuses to apply the contextual approach. A minimal interpretation that figurines are used in domestic ritual in negotiations involving identity, gender and dividual relationships is hardly controversial, together with the recognition that different communities utilised figurines in different practices. The ubiquity of T-C figurines in houses reminded dwellers of the ways that these miniatures represented reality, using the body as an organising metaphor (Kokkinidou and Nikolaidou 1997).

A significant question of meaning for Tripillian houses concerns the interpretation of some structures as 'temples' or 'shrines'. The data for this question are derived, again, from excavated finds (Мовша 1971; Цвек 1993; Lazarovici and Lazarovici 2007, p. 228–234) and house-models (Бурдо 2005, p. 93–113). For the former, the main argument is the presence of remains of a feature interpreted as an

altar (e.g. at Shkarovka, Scânteia, Verești, etc.). In the case of Izvoare and Ariușd, the case was supported by the details of the modelled clay decoration of the interior and the façade, as well as the presence of a monumental figurine (Lazarovici and Lazarovici 2007, p. 237). For the latter, the main argument for the existence of shrines is the clay models of features that lack interior details ('open' models) providing large open ritual spaces and models with roofs ('closed' models) providing covered ritual spaces. Although not all of the above-mentioned cases should be treated equally, the whole complex of finds (models and building remains) is a clear enough indication, for many scholars, of the existence of special shrines within Tripillia settlements. However, much of this ritual material could be interpreted as signs of domestic ritual organized at the level of the individual house, while embedded in a far wider set of ritual practices. The question of a possible hierarchy of shrines within the mega-sites has also been raised (Шмаглий and Видейко 1987; for the large structure at Nebelivka, see the previous section).

Tradition and Change

The origins of T-C domestic architecture may be related to the questions of cultural origins in general. We can distinguish two processes of change: the origins of the Pre-Cucuteni group in eastern Romania and possibly the Dniestr area, and the spread of Cucuteni–Tripillia to the east, as far as the Dniepr valley. Lenneis (2005) has proposed a link between the longhouses of the Linearbandkeramik (see Bickle (Chap. 7); Pyzel (Chap. 8)) and large T-C houses. There are two specific problems with this link. First, we cannot distinguish clear examples of particularly long houses in the intervening Pre-Cucuteni phase; and second, no LBK longhouses have yet been found in the area settled by Cucuteni groups. Moreover, limited excavations on LBK sites east of the Carpathians make it hard to identify longhouses, although they may be detected by linear pits along the sides of otherwise absent structures. Moreover, the traces of elements found in Boian, Tisza and Vinča artifacts in the Pre-Cucuteni–Tripillia A material culture suggest knowledge of many traditions from the Neolithic of central Europe, not only that of the LBK. However, the idea of a general link between the LBK longhouse and the development of timber-framed architecture in the Pre-Cucuteni–Tripillia A period remains a possibility.

The eastward Tripillia expansion brought mixed farming, sedentary living and large, well-appointed houses to the forest steppe zone for the first time. The T-C phenomenon seems an excellent example of Anick Coudart's (1998) observation that, once adopted, the form of domestic architecture resists change very strongly because it is a value system and worldview shared by all residents. The logic here is that the structure of the house could have been used as a metaphor for the life-cycle of humans and social groups, including households, as well as for the social relations linking persons from the same or from different houses together. Thus, although we can identify ceramic 'provinces' at a general and a regional level—the Cucuteni (painted wares) vs. the western Tripillia (painted wares) vs. the eastern

Tripillia (incised wares)—the houses in these major provinces do not show such great differences from each other as are claimed by Tsvek and Rassamakin (2005). It should be mentioned that, from the beginning of Tripillia BI, Cucuteni and Tripillia are not to be viewed as a monolithic phenomenon but rather as a multi-faceted cultural complex that had various regional manifestations (e.g. more than 40 regional-chronological groups for Tripillia alone: Videiko 2007b, p. 27–32).

At the regional level, several archaeologists make claims that the houses in their area of study are different from the houses of other groups, as is for instance the case with the rarity of surface houses in the Bolgrad variant (Dolukhanov 2001) or the Tripillia B houses of the Middle Dnieper (Shumova 2005). However, the claimed differences are rarely clearly articulated. In the works of Tsvek, for example, the differences appeared on the basis of different interpretations of the house remains. Despite the discoveries of two-storied houses in the eastern Tripillian area, Tsvek does not engage in discussion and continues to hold to the old view of platforms representing single burnt floors. In many cases, the presence of ‘local particularities’ may be related to differences in the scale or intensity of archaeological investigations in the different areas.

Careful analysis of primary excavation data indeed shows several regional differences. Explanations vary from the idea that these were often linked to newcomers bringing different building traditions into a newly settled area, to local practices, such as variations in the degree of sedentism or ritual or the size and number of families in a dwelling. Five examples illustrate these explanations:

1. As an example of incoming group traditions, the technology of coating earthen floors with clay is known mostly from west of the Dniestr, while those rare instances of such a building practice in the area between the southern Bug and Dniepr have been related to settlers coming from the west (e.g. Kosenovka). Similarly, a specific feature of house models in the Dniestr valley is the use of vertical pillars supporting the main walls. It is suggested that this tradition emerged in communities using the Vol’no-Ljyblinkaya style of painted pottery, whose antecedents are known to have built their houses with vertically dug-in scaffolding (Videiko 2001, p. 24–26).
2. Differences in family size or space requirements may be invoked to explain the greater frequency of longhouses (viz. longer than 20 m) along the river Dniepr than in other regions, even if the same wattle and daub construction techniques were used. However, an interesting local particularity is the use of clay with no added plant temper.
3. The most visible differences in architecture emerged in the Tripillia CII period, when the traditional wattle and daub house was no longer ubiquitous. The latter were common in the Brinzenskaya and Gordineshtkaya groups, while they were hardly found in the Sofievskaya group. Again, this difference may relate to the different degree of sedentism of these communities—permanent occupations along the rivers Prut and Dniestr and predominantly temporary sites in the eastern regions. However, one cannot exclude bias in investigations as a result

of the larger number of excavated settlements to the west in comparison to the Podneprovie area.

4. Equally, the different distributions of houses with or without thick clay platform floors (Хвойка 1901; Зиньковский 1976; Круц 2003; Бурдо 2003) raises the alternative that such architectural dissimilarities may be a result of varying ritual practices in different Tripillian groups, given the intense ritual practices in houses with such floors.
5. A final example concerns the presence of interesting interior details, such as massive open hearths on clay platforms, benches and crucible altars, in the region between the rivers Bug and Dniepr. It could be said that they are a particular characteristic of the area, despite occasional such finds west of the southern Bug. However, such differences can be related to knowledge of a wider range of smaller archaeological sites from the region between the rivers Bug and Dniepr in comparison to the more intensive investigations of a few mega-sites such as Tal'anki and Maidanetskoe.

Thus, there are good grounds for inferring regional architectural particularities, but there is an ongoing debate about the causes of these variations. What is clear is that the extent of regional differences in ceramic assemblages is far greater than spatial variations in house architecture.

An important chronological aspect of change in architectural traditions concerns the details of house interiors, which underwent a series of changes over the centuries, including increasing compartmentalization according to the occupants' needs. Both one- and two-storied Tripillia houses usually had several rooms, each with a different function. The lack of hearths on the ground floor suggests that it may have been utilized for household production or storage, while the upper floor was used for living. One way that Cucuteni houses gained additional special space was the addition of so-called annexes to the main house, often for storage or stone working practices.

Discussion and Conclusions

Tripillia–Cucuteni houses materialised an entire worldview for their occupants, creating a warm, safe, comfortable, decorated, ritualised and monumental place which could be endlessly reproduced and indeed was, over an estimated 70 successive generations. First built in the middle of the mature farming period in the Balkans, T-C houses went on being constructed long after almost all other Balkan Climax Copper Age communities had become transformed into smaller, more dispersed settlements with less elaborate domestic buildings. In many ways, the T-C house was the enduring symbol of what Monah and Monah (1997) have termed 'the last great Chalcolithic civilization in Europe'. How, then, did the living T-C house contribute to Tripillia–Cucuteni cultural developments?

The most important conditions for dwelling that the T-C house provided were the warmth, safety and comfort to live in the same place for many decades, if not centuries. Tringham and Krstić (1990) have outlined the importance of fully sedentary lifeways for agro-pastoral communities in terms of the potential for long-term cultural identities, accumulation of household goods and stable subsistence practices. While small-scale communities had put down roots in Neolithic Moldavia and Moldova, sedentary lifeways hardly existed east of the Dniepr prior to the Tripillia period. The early T-C house created the conditions for radically different, less mobile lifeways in large parts of the forest steppe zone of eastern Europe. Those T-C communities who mastered the cultivation of the extensive tracts of chernozem soils of great fertility and resilience were able to settle down permanently. Their domestic cereals and animals in turn domesticated the landscape, with their requirements of cleared spaces, paddocks and pastureland (Clement 1999).

However, whatever soil resources the T-C loesslands provided, most of these areas lacked basic raw materials such as flint, rocks suitable for making axes, salt (important exceptions included the rich zone of high-quality flint in the Prut and Dniestr valleys and the rich salt resources of the Carpathian piedmont), as well as prestigious materials such as copper, gold and silver. Thus, wherever sedentism, houses and soils formed a self-structuring linkage, long-term social reproduction in these agriculturally rich sedentary communities depended upon regional and inter-regional exchange networks of considerable logistical complexity. The distribution of T-C metal and ornament hoards is concentrated in the Cucuteni zone, with copper finds scarce in most Tripillia settlements (but see Karbuna: Dergachev 1998).

The T-C house also symbolised a widespread aesthetic principle found from the Neolithic onwards—the creation of monumental geometric order through the construction of essentially rectangular spaces. The cultural importance of geometric order can be seen in T-C painted pottery as well as in many prestige objects, but the monumental scale of T-C houses projected its visual cultural symbolism onto the rolling loess landscapes. Moreover, the process of house construction relied on the cultural transformation of key natural elements of T-C life—clay, water, timber, thatch and pigments. The dominance of clay evokes Stevanović's (1997) conception of the Neolithic as 'the age of clay', but the quantities of timber required for experimental house-building show the importance of long-term woodland management as a further aspect of landscape domestication.

Another key contribution of the T-C house was its potential for variations on its long-term theme of cultural continuity. The rectangular form allowed for different house sizes, as well as additions and extensions, sub-divisions and spatial re-combinations. Thus, architectural responses to social or family changes could be managed within the vernacular tradition. However, the building of exceptional houses (defined as larger than 100 m²) has so far not yielded different 'dead house assemblages' from those of normal-size houses. The surprising scarcity of exceptional houses on excavated Tripillia mega-sites clearly distinguishes the mega-sites from coeval Near Eastern cities. More frequent is the variation in function in rectangular houses, with various separate workshops as well as craft corners well attested in what otherwise are the dwelling houses. Equally, there are houses with concen-

trations of ritual occupants and ancestors, but the visual symbolism of the house broadly equates to that of other structures.

The second, flexible trait of T-C houses is their almost limitless capacity for combination and re-combination into groups of houses, whether two dozen or two thousand. This flexibility implies the existence of households that are partly individual (relatively ‘independent’ of each other) and partly dividual—inextricably linked to neighbouring houses and street-based groupings. In small settlements, the number of potential interactions between houses was not a serious issue but, as settlement sizes increased to over 1,000 structures in Tripillia BII and CI, what Fletcher (1995) termed the ‘communication limit’ would have been breached in the absence of internal settlement divisions or other symbolic devices. The apparent lack of any architectural materialisation of hierarchy in the mega-sites suggests that there may be local community structures organising the logistical provisioning of these huge sites. It is hard to see how T-C households did not play an important role in these community groupings, at the very least through shared ritual practices and also with household leaders forming local ‘councils’ for the resolution of disputes and decision-making.

The identification of ‘shrines’ in what otherwise looked like dwelling houses suggests that public ritual was one of the practices connecting local households. In addition to this possibility, there is strong evidence for shared practices at the household level, with the entire household—residents, visitors, ritual occupants and ancestors—playing their parts in ceremonies. The wide spatial and temporal distribution of similar domestic ritual practices, often involving figurines and house models, suggests that this action was very important for the social integration of community groups in mega-sites and other large sites. The most dramatic practice was the deliberate burning of the T-C house at the end of its use life, which included as one of a sequence of death-of-house rituals the deposition of a ‘dead house assemblage’ of objects in the house before it was set alight. Extreme caution must have been used to ensure the immolation of only one house in a street densely packed with houses.

On the basis of the above, it can be proposed that the T-C house made a major contribution to both the overall cultural development of T-C communities and also the emergence of mega-sites in the fourth millennium BC. In many ways, the stability of the house created the stability of the settlement and its enduring presence over centuries on the loesslands of south-east and eastern Europe.

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Chapter 6

Tracing the Beginning of Sedentary Life in the Carpathian Basin

The Formation of the LBK House

Eszter Bánffy

Introduction

The first sedentary communities appeared in the early 6th millennium BC, with the arrival of the Körös and Starčevo cultures in the southerly regions of the Carpathian Basin. However, in the northern areas and in central Europe sedentary life can be linked to the central European Linear Pottery culture (LBK), emerging around 5550 cal BC (Bánffy and Oross 2010, pp. 260–268). The LBK longhouse of the Neolithic evolved south of the upper reaches of the Danube and spread to Austria, Moravia, Bohemia, Poland and Germany in its fully developed form with the earliest LBK groups.

It was earlier believed that longhouses had first been built in the western half of central Europe because buildings of this type were scarcely known from the Carpathian Basin (Mithay 1966; Makkay 1970; Vadász 1971). This picture has changed profoundly in the light of recent research. Firstly, the excavation of a settlement in western Transdanubia has produced evidence for sedentary life and the formative period of the earliest central European Neolithic house type (Bánffy 2000, 2004, pp. 35–48), meaning that there we now have reliable data on the earliest LBK houses (Stadler 1995, 1999, 2005; Stadler and Kotova 2010). Secondly, the large-scale salvage excavations in the Balaton region and across Transdanubia have brought to light the remains of several new settlement sites made up of 45–50 LBK houses arranged in regular rows (Bánffy and Oross 2009, 2010; Oross and Bánffy 2009; Oross 2004, 2010). The number of LBK houses in Transdanubia has increased tenfold, with some 300 house plans known from roughly 40 LBK sites. The third advance in this field of study was made in north-eastern Hungary, where similar longhouses of the early Alföld LBK, dating from the Szatmár II phase, have been uncovered at the meeting point of the Hungarian Plain and the mountain region (Domboróczki 1997, 2010b; Domboróczki et al. 2010; Domboróczki and Raczky 2010).

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According to our present knowledge, the LBK longhouse evolved in the Carpathian Basin, specifically in western Hungary. Here, I shall present the new evidence from recently investigated Transdanubian early Neolithic sites on the emergence and spread of LBK longhouses, and a series of arguments as to why I believe that the cultural development of the early Alföld LBK, hallmarked by the Szatmár II culture in the north-easterly areas of the Hungarian Plain, had little direct impact on the spread of the LBK into central Europe. Still, one cannot claim that the late Körös culture in the Hungarian Plain, the late Criş culture in north-eastern Hungary and, evolving from the previous two, the Szatmár II culture in the Upper Tisza region played no role whatsoever in the spread of the LBK into central Europe and the emergence of the LBK longhouse. We cannot reject the possibility that the origins of the longhouse should be sought in a larger region incorporating the greater part of the Carpathian Basin (Kalicz 2010; Whittle 2010b). It is no easy task to review the beginnings of sedentary life at a time when new advances are made in Neolithic studies virtually every day. In this chapter, I shall present the currently available evidence (until late 2010), which strongly points to an origin in Transdanubia.

The archaeological and palaeoenvironmental record, as well as the radiocarbon dates, indicate that similarly to the earliest sedentary civilisation of central Europe, the central European longhouse had its origins in the Carpathian Basin. There is plenty of evidence to support this claim. I have gathered the data substantiating the claim that the birth of the longhouses can be dated to the late Starčevo period and that the first genuine LBK longhouses appeared in southern Transdanubia, in the Drava–Danube–Balaton triangle (Fig. 6.1). In the following, I shall review the different elements that went into the making of the longhouse: the traditions of the Early Neolithic immigrants from the Balkans and the elements possibly adopted from the local forager population, alongside the traits whose origins are unclear at present and, finally, a possible explanation for why this house type evolved in this region before spreading across vast areas of Europe, where it survived in barely changing form over several centuries.

Architecture of the Mid-6th Millennium in the Carpathian Basin

Little can be said about the layout of the earliest LBK settlements. The single settlement known from the formative LBK period, Szentgyörgyvölgy–Pityerdomb, was made up of two houses built 33m apart. Although the small hamlet comprising two farmsteads built at some distance from each other corresponds to the early LBK settlements in Germany (Boelicke et al. 1988, 1997), it is unclear to what extent this settlement on the western fringes of the LBK distribution can be regarded as typical. The Brunn IIa settlement near Vienna, whose date and finds compare well with the assemblage from Szentgyörgyvölgy–Pityerdomb, was made up of rows of closely spaced houses. A similar layout characterised the slightly later, extensive LBK



Fig. 6.1 Main sites in the study area. 1 Regöly; 2 Kaposhomok; 3 Ecsegfalva; 4 Tiszajenő-Szárazérpart; 5 Szajol; 6 Szolnok-Szanda; 7 Szakmár-Kisülés; 8 Fajsz-Garadomb; 9 Alsónyék; 10 Szentgyörgyvölgy-Pityerdomb; 11 Brunn/Gebirge; 12 Füzesabony-Gubakút; 13 Mezőkövesd; 14 Balatonszárszó; 15 Dunakeszi; 16 Győr-Pápai vám; 17 Almásfüzitő-Foktorok; 18 Kóny; 19 Mosonszentmiklós; 20 Érd; 21 Törökbálint; 22 Biatorbágy; 23 Padina; 24 Vlasac; 25 Lepenski Vir; 26 Hajdučka Vodenica; 27 Icoana; 28 Ostrovul Corbului; 29 Ostrovul Banului; 30 Cîrcea; 31 Cleanov-Fiera; 32 Schela Cladovei; 33 Porodin; 34 Smilčić; 35 Divostin; 36 Nosa; 37 Ludas; 38 Obrez; 39 Golokut; 40 Blagotin; 41 Zlatara

settlements in Transdanubia dating from around 5350 cal BC. The thorough spatial analysis of the settlements at Balatonszárszó–Kis erdei dűlő and Tolna–Mözs has shed light on the sequence of house constructions in each row.

LBK houses appear to have been built according to consistent standards from the very beginning, and these traits remained a constant feature of LBK architecture in Europe, with only a few minor regional and diachronic variations.

The canonised traits of the LBK houses distributed from sites like Balatonszárszó to for instance Schwanfeld in Germany already appear in Transdanubia. These were: an alignment to the north (with the occasional minor deviation), a massive timber framework of five rows of upright posts, a wattle-and-daub wall (combining wood and clay), a pitched roof and the long pits (*Längsgruben*) flanking the long walls.

Let us review the archaeological record on the buildings from the central European Mesolithic and the Early Neolithic in the Carpathian Basin in order to understand why LBK houses evolved in this region.

Mesolithic Prelude

The few known sites suggest that the Transdanubian Mesolithic differed little from the cultural traditions elsewhere in central Europe. The period's connections spanned enormous distances, reflected by imports of Transdanubian raw material in Moravia and Germany from a period predating the Neolithic (Mateiciucová 2004, 2008a, 2008b). One important advance in Mesolithic studies was the discovery of a Mesolithic site at Regöly in Transdanubia (Bánffy et al. 2007; Eichmann et al. 2010) where the remains of a circular structure were uncovered.

The Mesolithic of the Carpathian Basin was a rather neglected field of research in the Carpathian Basin, and it was for a long time doubted whether the region had been occupied at all during the Mesolithic. Several clusters of sites have been discovered and investigated more recently, and palaeoenvironmental studies, too, indicate the human manipulation of the environment well before the Neolithic (Gál et al. 2005; Juhász et al. 2007; Bánffy et al. 2007, 2008). The greatest problem bedevilling Mesolithic research is the destruction of former sites owing to water-level fluctuations and the intensive disturbance and intrusions during later periods—most of the period's sites in the Balaton region either lie submerged or have completely perished (Tringham 1973, pp. 551–552; Zvelebil 1986, p. 5; Bánffy 2004, Chap. 9).

One oft-encountered difficulty in central Europe is that Mesolithic sites can easily go undetected owing to their small size and brief occupation. In the Late Mesolithic, smaller settlements of equal rank were supplanted by clusters of smaller seasonal hunting camps around two base camps, probably corresponding to the major winter and summer campsites (Rowley-Conwy and Zvelebil 1989, pp. 48–50). This reflects an incipient sedentary lifestyle and was followed by the emergence of permanent campsites whose occupants conducted forays in different directions. The latter roughly corresponds to Alasdair Whittle's (1996, p. 29, 153, 160) model of radiating mobility from an assumed permanent base camp, which he suggested could describe the Early Neolithic settlement patterns in the Carpathian Basin. Farther to the north, Helmut Luley reported a slightly sunken house built around a light timber framework from Retlager Quellen in Germany (Luley 1992, p. 189). The organic debris at these sites usually lay scattered all-over the surface. Very often, the existence of a former building and its form were only indicated by the concentration of refuse and lithic artefacts on these sites, or the dark soil marks in the sterile sand. Róbert Kertész has correctly noted that the original depth of the sunken houses is uncertain owing to erosion (Kertész 1996, p. 21) and that Luley's (1992, p. 189) drawing suggests a tent reinforced and damp-proofed by an earth packing around it, rather than a genuine sunken structure.

Two conclusions can be drawn. First, there is no evidence whatsoever suggesting the existence of pit houses in the Mesolithic, and neither did the period's mobile lifestyle call for structures of this type (for a different view, cf. Bailey 1999, pp. 156–160). Second, we know that deep pits were principally dug during the construction of more massive houses and that these were subsequently re-used as refuse pits. However, the absence of clay extraction pits can probably be taken to imply

the lack of buildings with vertical daubed walls. It is possible that small, temporary campsites or more permanent base camps will be discovered in the future along the western shoreline of Lake Balaton (perhaps some submerged sites) and among the Zala Hills.

The Mesolithic settlements in the Danube Gorges and the Lower Danube region can be divided into several groups and it has been suggested that some survived to see the arrival of early Vinča groups in the mid-6th millennium BC (Radovanović 1996, p. 39). The assumed three regional groups share a similar architectural tradition: the semi-sedentary communities occupying the settlements at Padina, Vlasac and Lepenski Vir by the upper gorges, the sites at Kula and Ostrovul Mare by the middle gorges, and the settlements at Hajdučka Vodenica, Icoana, Ostrovul Banului, Schela Cladovei and Ostrovul Corbului by the lower gorges all lived in sunken or surface-level oval or trapezoidal houses (Radovanović 1996, p. 41, 1994, pp. 95–97; Jovanović 1987; Boroneanț 1970). It has been suggested that these groups, whose subsistence was principally based on fishing, in part or wholly lived on permanent settlements and pursued a more-or-less sedentary lifestyle. This may have been the first step towards food production and social ranking, as in David Harris' (1977) view—it must be borne in mind, however, that this process was by no means irreversible (Voytek and Tringham 1989, pp. 495–496).

It would appear that the cultural trajectories in the central and northern Balkans differed markedly from development in the eastern Balkans, the Bánság, eastern Hungary and Transylvania, also in respects other than Early Neolithic architecture, and that these differences already appeared in the Late Mesolithic. Janusz K. Kozłowski also argued for diverse paths of development in the western Balkans and the eastern regions when he claimed that only cultural impacts from the south could be identified at the Fiera Cleanov site (Kozłowski 1973, p. 323). For similar reasons, Dragoslav Srejić distinguished two regions in northern Serbia, each following a separate path of development around the close of the Mesolithic (Srejić 1989).

Until fairly recently, the single Mesolithic structure known from Hungary was the camp site with a single tent structure uncovered at Szödliget in northern Hungary, by the Danube (Gábori 1968). The oval tenting place had a burnt, cracked surface, its base was supported with stones, and there was both an intra- and extra-mural hearth. Some two decades ago, evidence for a dense Mesolithic settlement was identified in the Jászság region lying between the Danube and the Tisza. The remains of a structure resembling the one from Szödliget were unearthed at Jásztelek I (Kertész 1996, pp. 5–9). A hearth lay inside the 19m² large structure, which had a storage pit filled with shells by its side. One interesting feature of the building was that its entrance lay in the south, whereas the hearth was located in the northern part.

The closest parallel to the structure at Jásztelek is the oval house excavated at the Mesolithic site of Oerlinghausen in the North Rhine-Westphalia province of Germany (Luley 1992, p. 6, 147). The dark, oval soil mark outlining a 5.8×5 m structure in the sterile sand was traversed by a north-west to south-east row of postholes. Similarly to Jásztelek, the hearth inside the house was also north-south oriented.

The Sarching site in Bavaria, located on a sand dune on a terrace on the right bank of the Danube, lies closer to Transdanubia geographically. The importance of this site lies in the fact that a row of north-to-south postholes was uncovered in the round building excavated here (Luley 1992, p. 6, 150). It is possible, then, that the tradition of aligning houses to cardinal directions, and specifically the north to south orientation, had appeared as early as the local Mesolithic in central Europe.

It would seem that the Late Mesolithic landscape was dotted with logistic hunting camps (Jochim 1998, p. 214) and a most diverse range of settlement types occupied by small communities of around 30 individuals, who established their settlements along the major rivers and lakes (Gronenborn 1999, p. 130). A similar landscape can be conceptualised for Transdanubia, and especially for the Balaton Uplands and the western shoreline of Lake Balaton.

Early Neolithic Antecedents (the Starčevo and Körös Cultures)

It is perhaps not mere chance that a regional divide resembling that of the Mesolithic (Kozłowski 1973; Tringham 1973; Radovanović 1996) can be noted in the architectural traditions of surface-level Neolithic buildings during the first centuries of the 6th millennium BC. The houses in the regions north and north-east of the mouth of the Morava in the Belgrade area differ markedly from the buildings in the central Balkans and to its north-west. Tell settlements are lacking north-east of central Bulgaria, and the houses themselves are small and have a light timber framework (Ovčarovo–Platoto, Ovčarovo–Gorata, Poljanica–Platoto, Koprivets; Todorova and Vajsov 1993, pp. 127–128; Bailey 2000, p. 59). The same tradition can be noted on the early sites on the Romanian side of the Danube and to its north, reflected by small houses, generally no larger than 4×4 m or 5×3 m, found at Ostrovul Golu, Bronești, Cleanov–Fiera and Cîrcea–Viaduct, and at the early Criș settlements in Oltenia and Moldavia (Lazarovici 1979, pp. 25–26; Comșa 1971, pp. 204–205; Nica 1977, p. 14; Thissen 2000a, pp. 278–279, 2000b; Ursulescu 1984, p. 83; Lazarovici and Lazarovici 2006).

Comparable, but larger rectangular post-built houses are known from western Bulgaria. The length of a repeatedly renewed house uncovered at Slatina near Sofia was 13m (V. Nikolov 1989a, p. 2). The deep postholes, often measuring 40cm across, associated with the buildings excavated at Pernik and Galabnik suggest a heavier timber structure, and similar timber-framed houses with wattle-and-daub walls had been constructed on the tell settlement of Čavdar (Georgiev 1961, pp. 65–81). Interestingly, these heavy buildings designed for permanent occupation were sited in areas that were often flooded and were more suited to herding and hunting than to arable farming (Dennell 1978, pp. 80–111). Comparable structures have been reported from three sites near Sofia and from Gradešnica in north-western Bulgaria (B. Nikolov 1974; V. Nikolov 1989a; Lichter 1993).

Vassil Nikolov pointed out that one possible route for the spread of the Neolithic led through the Struma Valley in western Bulgaria (V. Nikolov 1989a), perhaps also marking the direction along which tell settlements and larger houses spread northward. This possibility must by all means be considered even if the record for the region is patchy, the single better known site being Kovačevo (Démoule 1993; Démoule and Lichardus-Itten 1994; Perničeva 1990, 1995).

Another potential route towards the northern Balkans running slightly further west in the Vardar Valley is outlined by the timber-framed buildings uncovered at Kolsh, the 7m long wattle-and-daub houses found at Porodin and the 8–10m long post-houses excavated at Anza. The earliest Neolithic houses at the Veluška Tumba tell settlement were often 11–12m long (Korkuti 1983, 1996, pp. 61–64; Grbić et al. 1960; Gimbutas 1976; Simoska and Sanev 1975). However, the Adriatic coast does not appear to have been part of the Balkan culture province, as shown by the use of Cardial ware and the circular buildings of the type found at Smilčić (Batović 1966, p. 218).

Another boundary marking a divide across architectural traditions and early sedentary farming cultures can be sought in central Serbia, reflected for example by the patterns of house construction in the Körös and Criş cultures. The earliest houses at Divostin were built according to entirely different traditions than the Starčevo houses in the south, with most of the 23 houses excavated at this site being smaller than 10–12m² (even the largest measuring no more than 3.4×2.5 m). These are small huts compared to the buildings in the south (Bogdanović 1998, p. 36).

Tell settlements are not known from either the western (Starčevo) or the eastern (Körös–Criş) region. Surface-level post-built houses with daub walls were uncovered at Nosa and Ludas in Serbia, two sites on the Tisza floodplain near the Hungarian border (Garašanin 1960; Brukner 1974, Fig. 25; Szekeres 1967). Small houses appear to have been the norm on the moderately sized waterfront settlements of the Körös culture in eastern Hungary (Whittle and Bartosiewicz 2007), located along the Tisza and its tributaries, and on the Danubian floodplain, sited on levees rising above the surrounding land and on low terraces (Whittle 2010a, 2010b; Bánffy 2012). The clay model of a house with pitched roof from Rösztke (Trogmayer 1966), and the house plans and the remains of the timber framework brought to light at Tiszajenő, Szolnok and Szajol in the Middle Tisza region (Selmeczi 1969; Kalicz and Raczky 1982; Raczky 1976), confirmed earlier views on Körös houses (Kutzián 1944; Banner 1942, 1943; Trogmayer 1966) according to which they were small, rectangular, surface-level buildings with pitched roofs built around a light timber frame. The orientation of the houses varied: the best-preserved house plan outlined by postholes from Tiszajenő was east-to-west oriented, whereas the short side of the building at Szajol was aligned east-to-west (Raczky 1983, p. 9, Fig. 1). It would appear that some buildings of the early Alföld LBK (Szatmár II) in the Hungarian Plain, such as the one uncovered at Polgár–Király-Érpart (Raczky 2006, p. 383), were similarly aligned east to west, suggesting that the rigorous northward orientation of the houses characterising the LBK in Transdanubia was not strictly observed in the Hungarian Plain. The preliminary report on the houses of the Szolnok–Szanda settlement describes the six buildings as enclosing a small U-shaped area open

towards the river bank. These houses, then, were not aligned in a particular direction but relative to each other, conforming to the general practice in the Balkans (Kalicz and Raczky 1982, p. 14).¹ Nothing is known about the orientation of the few poorly preserved house plans excavated on Körös sites in the Danube–Tisza interfluve (Bognár-Kutzián 1977; Bánffy 2012).

In sum, surface-level, timber-framed, daub-walled, rectangular houses with pitched roof were typical for the primary Neolithic in the northern Balkans—a feature shared by the architecture of all three groups. The Körös and Criş houses were smaller in size, with less wood and more daub used in their construction. Still, the greatest difference compared to the buildings of the north-western Balkan and Transdanubian Starčevo culture and to the early LBK is that the houses were aligned either to a local terrain feature (watercourse, river terrace) or relative to each other, rather than in a particular direction. Consistent orientation was not practiced. This is perhaps the most important counter-argument to claims that a northern orientation was not strictly observed because LBK buildings aligned north–north-west and slightly north-east appeared along the left bank of the Danube a few generations later. It seems to me that the cultural heritage of the Late Mesolithic and of the Starčevo culture is not the northern orientation of the houses (although this was undoubtedly an important part of the heritage), but that the houses were not aligned relative to each other and/or to a local terrain feature, but were consistently arranged in rows and aligned in a direction independent of terrain features.

The buildings of the Early Neolithic Starčevo culture in the Voivodina, the Drava and Sava regions and Transdanubia reflect an architectural tradition differing markedly from that of the Körös–Criş province. The archaeological reports from the Danube–Tisza interfluve mention burnt daub fragments with twig impressions among the house remains from the Srem (Leković and Padrov 1992) and the Voivodina (Obrez–Bastine: Brukner 1960a, 1960b; Golokut–Vizić: Petrović 1985a, 1985b). One exception in this respect is the building found near Blagotin, differing from the other house plans by its small size of 4.7 × 3.4 m and its post-framed structure (Stanković and Greenfield 1992). The Zlatara–Ruma settlement was occupied during the late Starčevo, the Starčevo–Vinča transition and the early Vinča period. Although the report describes the buildings as sunken houses, it also mentions that the 45 Starčevo and three early Vinča houses were closely spaced and arranged into rows. The short sides of the small rectangular Vinča houses were aligned to the north (Leković 1988, p. 109). This is the earliest known instance of a settlement made up of houses oriented to the north and arranged into rows.

¹ The arrangement of the houses around a U-shaped open area has been observed elsewhere, too: the longhouses uncovered by Piroska Csengeri on the early Alföld LBK settlement near Hejőpapi in the Upper Tisza region were arranged in a similar manner, leaving a U-shaped area open toward the waterfront (Pál Raczky, personal communication). Even without forcing the parallel, the question arises whether this represents the survival of an architectural tradition of aligning the houses relative to each other, as observed at Szolnok–Szanda. If this was indeed the case, it highlights yet another difference in the cultural antecedents of the central European and the Alföld LBK longhouses.



Fig. 6.2 Alsónyék-Bátaszék: pit complex of the Starčevo site. (Evaluation: Bánffy, E., Marton, T. and Osztás, A.)

Various structures have been uncovered on eight of the currently known 56 Starčevo settlements in the Srem, most of which are described as pit houses or sunken buildings resembling the ones from Zlatara (Leković and Padrov 1992, p. 49). The same holds true for the Starčevo houses in northern Croatia (Minichreiter 1992). Although the existence of pit houses was never suggested for Transdanubia, neither are there any professionally excavated buildings from this region (Kalicz 1990; Kalicz et al. 2007). It nonetheless seems quite certain that the occupants of the Starčevo settlements here had lived in surface-level timber-framed houses, at least judging from the impressive amount of burnt daub fragments brought to light on these sites. One case in point is the Alsónyék settlement and cemetery, covering several hectares and located on the boundary between the floodplain on the right bank of the Danube and the Transdanubian hilly region (Figs. 6.2, 6.3, 6.4, 6.5 and 6.6). The over 400 features of the Starčevo culture unearthed at this site did not include a single house: the residential structures had probably been erected on the higher alluvial terraces rather than the investigated lowland, where the settlement's economic activity areas and workshops lay. The amount of burnt daub fragments with twig impressions runs into tons (Bánffy et al. 2010).

The lack of surface-level houses in some cases has been interpreted as an indication that the Starčevo communities in the culture's northern distribution had lived in pit houses. It is indeed true that the large pit complexes often contained hearths and that an occasional posthole could also be identified in them. The issue of pit houses must thus be confronted in any discussion concerning the beginnings of sed-

Fig. 6.3 Alsónyék-Bátaszék: piles of burnt daub in secondary positions. (Evaluation: Bánffy, E., Marton, T. and Osztás, A.)



Fig. 6.4 Alsónyék-Bátaszék: oven outside a building, secondarily used for burials. (Evaluation: Bánffy, E., Marton, T. and Osztás, A.)



Fig. 6.5 Alsónyék-Bátaszék: oven outside a building, secondarily used for burials. (Evaluation: Bánffy, E., Marton, T. and Osztás, A.)



entism because their possible existence was a recurring spectre of Neolithic studies in south-east Europe during the twentieth century. The debate on pit houses flared up in the 1950s following the excavations by Vladimir Milojević and Demetrios Theokharis in Thessaly (Milojević 1956; Theokharis 1958); the idea of dwellings of this type is still entertained by a few prehistorians working in Croatia, Romania and Hungary (Minichreiter 1990, Fig. 1b–e, 1992, p. 71, Figs. 5, 6, 9, pp. 12–15; Lazarovici and Maxim 1995; Lichardus-Itten and Lichardus 2004, p. 43, pp. 49–50; Luca et al. 2008, pp. 328–335; Dani et al. 2006; Lazarovici and Lazarovici 2006). As a matter of fact, the existence of short-lived pit houses in the earliest phase of the south-east European Neolithic was initially widely assumed (Tringham 1971,



Fig. 6.6 Alsónyék-Bátaszék: tubular ovens outside buildings. (Evaluation: Bánffy, E., Marton, T. and Osztás, A.)

pp. 84–86; Reingruber 2008, with an excellent overview of previous research). Some scholars regard pit houses as a Mesolithic tradition (Minichreiter 1992, p. 70). János Makkay argued that pit houses, representing ancestral dwellings, were adopted from the regions to the north of the Körös–Starčevo distribution (Makkay 1982). He reconstructed a dwelling of this type at Bicske–Galagonyás, one of the key early LBK sites in Transdanubia. Similar to Kornelija Minichreiter, he too assumed a Mesolithic tradition in the construction of pit houses.

Despite the scanty evidence, it is quite clear that pit houses were alien to the Mesolithic architecture of central Europe and the Carpathian Basin. In contrast, the Early Neolithic Starčevo settlements south of the Drava are characterised by huge, amorphous pits and pit complexes with hearths inside them and, in many cases, with a series of postholes around them. Pit complexes of this type have also been unearthed in Hungary. Can we reasonably assume that the Early Neolithic communities in the southern Balkans lived in surface-level buildings, whereas their contemporaries north and west of the Danube and the Sava rivers huddled in pit dwellings? This could hardly have been the case. It seems to me that the pit complexes in question can be better explained by climatic and geographic factors, rather than cultural traditions.

A more realistic explanation is that in the north-western Balkans, where the climate was harsher, some of the household activities earlier conducted in the open house yards, such as cooking and tool manufacture, and perhaps eating, were performed in more sheltered areas (Özdoğan 1997, p. 10), such as in the pits between the houses. These pits were provided with some sort of protective roofing against the harsher weather. The ‘two-storied pit-dwelling’ with postholes along its northern side uncovered at Pepelane may have been a pit of this type (Minichreiter 2001). It is also quite obvious that on sites where there was no need for such pits, only the remains of open-air hearths are found. This would explain the presence of ‘pit dwellings’, and future archaeological investigations conducted over extensive areas will eventually lead to the discovery of surface-level buildings alongside pit dwellings. The series of postholes and some of the long pits found at Zadubravlje can perhaps be seen as the first indications of the emergence of timber-framed buildings and *Längsgruben* (Minichreiter 1993, p. 98, 2001, p. 203, 206).

The findings of recent large-scale excavations call for a critical reassessment of our earlier views on the Early Neolithic. The earlier record for the Starčevo occupation in Hungary suggested a pattern of sporadic, small, short-lived settlements (Kalicz 1990; Kalicz et al. 2007). A marginal group, differing from the ones in the culture’s heartland, has been recently identified in the Balaton area (Kalicz et al. 1998; Simon 2002; Bánffy 2002, 2004; Regenye 2010). Another advance in research on the Starčevo culture was the discovery and investigation of a Starčevo settlement near the Danube floodplain between 2007 and 2009, which in itself is larger than all the earlier ones together (Bánffy et al. 2010). If the excavation of the assumed row of houses at Alsónyék can be carried out in the next few years, we may discover the missing link to which much of the circumstantial evidence points, but which cannot yet be proven: that the LBK longhouse evolved during the late Starčevo period

(probably with a cultural contribution from the early Vinča culture) around 5550 cal BC, after the separation of the Körös–Starčevo complex in the western Balkans.

The Emergence of the Central European LBK House

As mentioned in the previous section, it was mistakenly believed for a long time that the LBK communities in the western half of the Carpathian Basin did not build longhouses. Another misconception was that the beginning of sedentary life in the northerly region of the Carpathian Basin was marked by the appearance of the Bicske–Biňa phase of the LBK (which was, and still is, often described as the *Ältestbandkeramik*, or ‘earliest LBK’, in German publications, e.g. Lüning 1987, 1988; Stäuble 1990, 1997). This changed when the earliest, formative LBK phase dating to around 5550 cal BC could be identified: this phase reflected intensive cultural influences from the Starčevo culture, especially in pottery (Bánffy 2004, 2009), while at the same time harking back to Mesolithic traditions regarding the lithic tool-kit and settlement patterns (Biró 2001, 2002, 2005; Mateiciucová 2008a, 2008b). Eva Lenneis was the first among those studying the *Ältestbandkeramik* to accept the existence of the formative phase (Lenneis 2001b). The blend of Balkan and local traditions, as well as the settlement patterns and subsistence strategies, seemed to indicate that the eventual outcome of the encounter between the marginal Starčevo groups migrating to the marshland areas by Lake Balaton (Figs. 6.7 and 6.8) and the local forager groups was uncertain: it was by no means a settled issue whether the newcomers would assimilate the locals or whether the first farmers would revert to hunting and fishing, exploiting the diverse food resources offered by the wetland habitats (Oross and Bánffy 2009).

The only Hungarian site of this phase where house plans have been uncovered is Szentgyörgyvölgy–Pityerdomb near Hungary’s western border (Figs. 6.9, 6.10 and 6.11). In view of their size, the long pits flanking them and their northern orientation, both buildings can be regarded as longhouses. Similar to other house plans of the early LBK, the remains of postholes could not be identified; however, both house floors were thickly covered with debris, consisting of burnt daub fragments carefully smoothed on one side and bearing twig impressions on the other (Bánffy 2000, 2004).

Standing quite far apart, with a distance of 33m between them, the two houses and the associated outer hearths, workshops, storage pits and refuse pits were apparently contemporaneous in the light of the archaeological evidence. The timbers used in the roof structure came from oak and beech, reflecting a cool, wet climate. The hearth found inside one house had a strongly burnt baking plate and rim, indicating a longer period of use.

The dimensions of the two buildings, calculated from the area enclosed by the clay extraction pits, were roughly identical: house I measured 8–8.5×13–14 m and house II was 7×14–15 m. The houses can thus be assigned to the smallest category

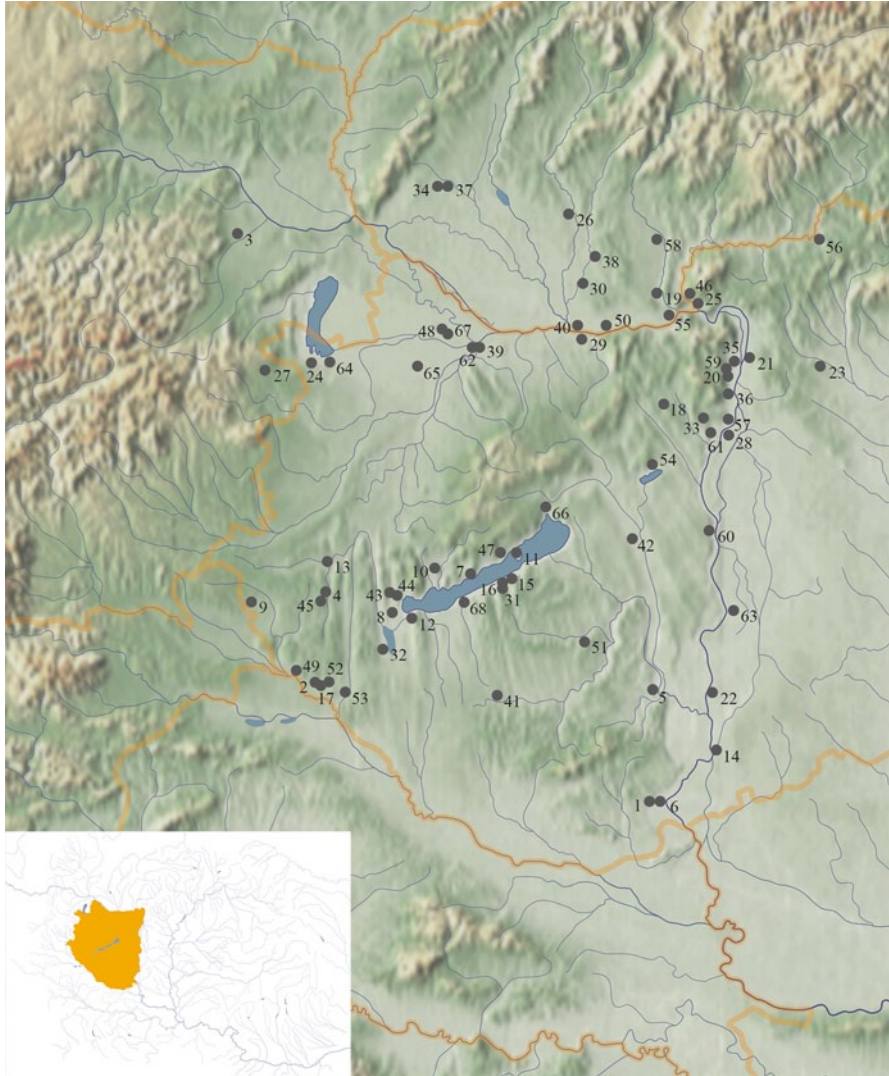


Fig. 6.7 Starčevo and LBK sites in Transdanubia. 1 Babarc; 2 Becsehely-Bükkaljai-dűlő; 3 Brunn am Gebirge; 4 Gellénháza-Városrét; 5 Harc-Nyanyapuszta; 6 Medina; 7 Révfülp; 8 Sármellék; 9 Szentgyörgyvölgy-Pityerdomb; 10 Tapolca-Plébániakert; 11 Tihany-Apáti; 12 Vörs-Máriaasszonysziget; 13 Zalaegerszeg-Andráshida-Gébárti-tó; 14 Baja-Bajaszentistván-Szlatina; 15 Balatonszárszó-Kis-erdei-dűlő; 16 Balatonszemes-Bagódomb; 17 Becsehely-II-Homokos; 18 Bicske-Galagonyás; 19 Bína; 20 Budapest-Aranyhegyi út; 21 Dunakeszi-Székesdűlő; 22 Fajsza-Garadomb; 23 Galgahévíz; 24 Hidegség; 25 Ipolydamásd; 26 Milanovce; 27 Neckenmarkt; 28 Szigetszentmiklós; 29 Almásfüzitő-Foktorok; 30 Bajč; 31 Balatonszemes-Szemesi berek; 32 Balatonmagyaród-Kápolnapuszta; 33 Biatorbágy-Tyúkberek; 34 Blatné; 35 Budapest-Békásmegyér; 36 Budapest-Kőérberek-Tóvároslakópark; 37 Čataj; 38 Dvorý nad Žitavou; 39 Győr-Pápai Vám; 40 Iža-Velký Harčaš; 41 Kaposvár-Téglagyár; 42 Káloz-Nagyhöresök; 43 Keszthely-Dobogó; 44 Keszthely-Zsidi út; 45 Kustánszeg-Lisztessarok; 46 Letkés; 47 Mencshely-Murvagödrök;

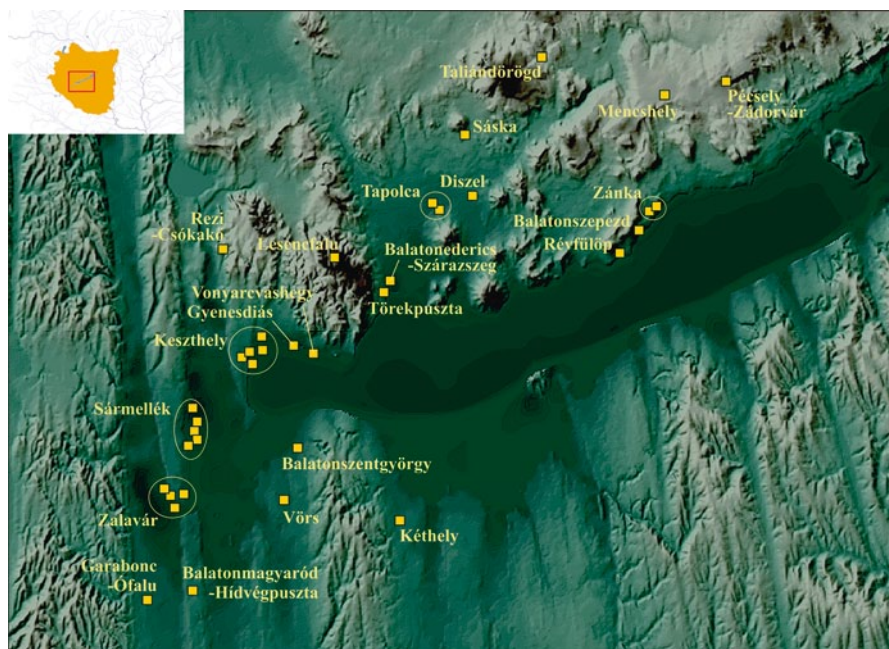


Fig. 6.8 The wetland region around Lake Balaton with sites belonging to the formative LBK phase

in Pieter Modderman's (1972) threefold classification of central European LBK houses, the *Kleinbauten*. This type usually has a single room and often lacks internal rows of posts (Lenneis 1995, pp. 16–17, 1997, p. 147, 2000, p. 386, 2001a, pp. 107–112). The closest parallels to the Pityerdomb houses come from Rosenberg, Strögen and Brunn/Gebirge–Wolfholz II in Austria (Lenneis et al. 1996; Lenneis 1995; Stadler 1999, 2005). Clay extraction pits flanking the houses along their entire length have been reported from Brunn II, and from Schwanfeld, Wang and Bruchenbrücken in Germany (Lenneis 1995; Stadler 1999; Lüning and Modderman 1982; Lüning 1984, 1987; Stäuble 1997, pp. 5–66). In the light of the above, the houses at Pityerdomb can be confidently fitted into the architectural sequence of the earliest LBK horizon in central Europe. A few years ago, several assemblages resembling the finds from the Pityerdomb settlement were identified at various sites in the Balaton region which culturally represent the formative LBK phase, reflecting the blend between local foragers and the first farmers arriving from the Balkans

←
48 Mosonszentmiklós-Egyéni-földek; 49 Muraszemenye-Aligvári mező; 50 Patince; 51 Pári-Altacker; 52 Petrivente-Újkuti-dűlő; 53 Sormás-Török-földek; 54 Sukoró-Tóra-dűlő; 55 Stúrovo; 56 Szécsény-Ültetés; 57 Törökbálint-Dulácska; 58 Želiezovce; 59 Budapest-Óbuda-Nánási út; 60 Dunaújváros; 61 Érd-Hosszú-földek; 62 Győr-Ménfőcsanak-Eperföldek; 63 Harta-Gátörház; 64 Hegykő; 65 Kóny-Barbaccsi-tó; 66 Litér-Papvásárhegy; 67 Mosonszentmiklós-Pál major; 68 Ordacsehi-Bugaszeg

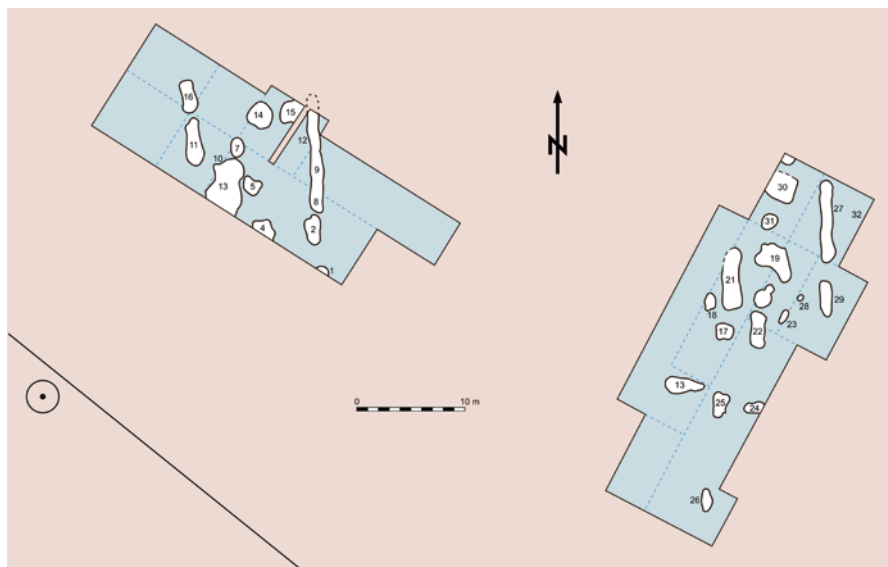


Fig. 6.9 Szentgyörgyvölgy–Pityerdomb: house plans



Fig. 6.10 Szentgyörgyvölgy–Pityerdomb: reconstructed house

(Bánffy 2000, 2004). However, the sites in the Balaton region offer virtually no information on the period's houses: for the time being, Pityerdomb remains the only site offering a glimpse into the houses and settlement layout of the earliest, formative LBK phase.



Fig. 6.11 Szentgyörgyvölgy–Pityerdomb: reconstruction of a formative LBK site

Very few buildings resembling the LBK houses unearthed in Germany, Slovakia and Bohemia were known from Hungary before the 1990s. The salvage excavations preceding motorway and other large-scale construction projects have brought a welcome change. The investigation of extensive areas has brought to light the remains of countless LBK houses together with the *Längsgruben* flanking them, enabling the precise observation and reconstruction of their former timber framework. The first large LBK settlements were uncovered along the motorway between Budapest and Vienna (Mosonszentmiklós, Kóny: Egry 2001, 2003), followed by the Alföld LBK sites along the M3 Motorway in northern Hungary (Füzesabony, Mezőkövesd: Domboróczki 1997, 2001; Kalicz and Koós 1997) and the ring road around Budapest (Érd, Törökbálint, Biatorbágy, Dunakeszi: Ottományi 2005; Endrödi 1994; Endrödi et al. 2005a, 2005b; Horváth 2002a, 2002b; Horváth et al. 2004, p. 34 f, Fig. 11.1).

The greatest breakthrough came with the exceptionally meticulous investigation of the Balatonszárszó–Kis-erdei-dűlő site near the M7 Motorway running along the southern shore of Lake Balaton, where some 50 LBK longhouses were uncovered by Tibor Marton and Krisztián Oross (Figs. 6.12 and 6.13). Established around 5350 cal BC during the Bicske–Bíňa phase, a few generations after the formative LBK phase, the Balatonszárszó settlement attained its greatest extent during the late LBK period. A brief transitional phase could also be distinguished between the early and the late LBK phase (Marton and Oross 2009; Oross 2010). The radiocarbon dates confirm the three occupation periods. The sequence of the households

Fig. 6.12 Balatonszárszó: LBK house Nr. A18. (Courtesy of Marton and Oross)



and their reconstruction based on the pottery analysis also supports this chronology (Marton 2008 and Tibor Marton, research in progress), as does the detailed study of the architectural features (Krisztián Oross, research in progress). The houses of the Balatonszárszó settlement were oriented to the north, with a few exceptions deviating to the north–north-east (Oross 2010, Fig. 7.2). Ranging between 6 and 25m,

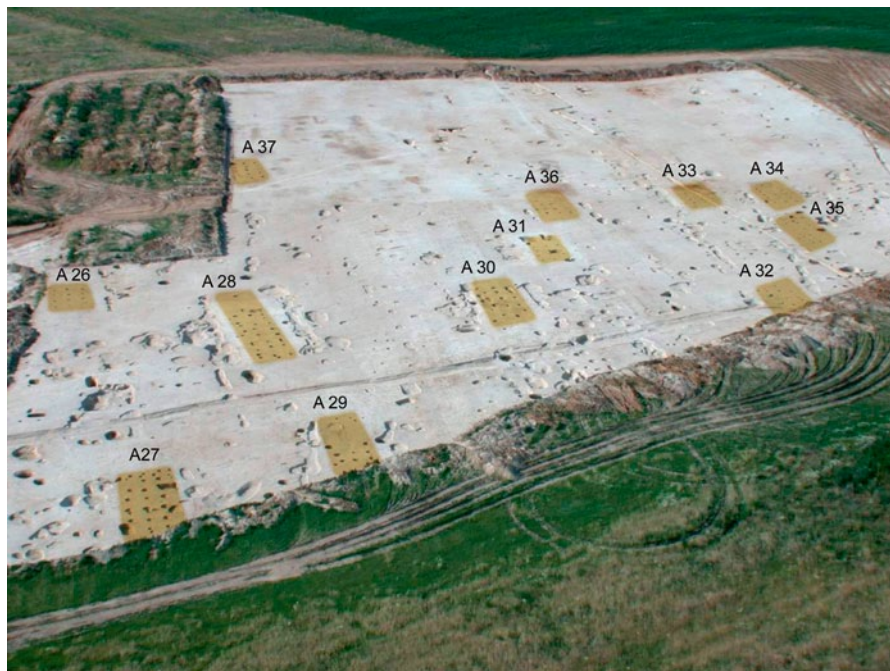


Fig. 6.13 Balatonszárszó, site map with different phases of LBK houses. (After Oross and Bánffy 2009)

their length corresponds to Modderman's (1972) *Kleinbau* and *Bau* types, although without the internal partitioning characterising the latter and without Modderman's *Großbau* type (Oross 2010, p. 70).

The roof was supported by five longitudinal rows of posts inside the houses. This trait must be emphasized because it has been suggested that the roof had initially rested on fewer posts and that the number of longitudinal rows was expanded to five when the houses became wider (Horváth 2002b; Raczy 2006). This view has been convincingly challenged by showing that the system of five post rows had evolved by adding two internal rows of posts, principally designed to ensure a more stable support for the roof structure rather than to create wider houses (Oross 2009). LBK houses have also been uncovered on other sites along the motorway traversing central Transdanubia. Their date can be fitted into the sequence established for the Balatonszárszó settlement (e.g. at Becsehely, Petrivente, Sormás: Barna 2004, 2005; Horváth and Kalicz 2003).

Three phases could be distinguished in the LBK sequence of Transdanubia, spanning roughly 500 years (5500–5000 cal BC; Oross and Bánffy 2009). Compared to the situation a few decades ago, when barely any LBK houses were known, currently there are data on over 300 LBK buildings. It is also clear that the early LBK buildings in Austria and Germany do not represent the culture's formative phase, but are synchronous with the Bicske–Bíňa phase, which corresponds to the earliest occupation at Balatonszárszó. The buildings from Transdanubia also shed light on the emergence of LBK architecture and its spread towards the heartland of central Europe. Research conducted over the past decade has brought to light the remains of extensive settlements resembling the Balatonszárszó site at Alsónyék, Szemely, Tolna–Mözs and Versend in southern Transdanubia, previously a blank spot in LBK studies. Although the evaluation of these sites has barely begun, the preliminary assessment of the house plans and the finds from Tolna–Mözs and Versend brought the surprising conclusion that the intensive early Vinča presence north of the Drava had contributed significantly to LBK architecture (Marton and Oross 2012).

However, these cultural trajectories do not represent the initial period of sedentism in the Carpathian Basin, but the period of developed Neolithic settlement and food production. The cultural differences (including the ones in architectural traditions) between Transdanubia—part of the central European province—and the Hungarian Plain in eastern Hungary—part of the exuberant Neolithic world in the Balkans—survived throughout the 5500 years of the Neolithic.

The LBK longhouse survived in a virtually unchanged form across vast regions of central and western Europe. Smaller changes rooted in internal development can be detected in Germany until the mid-5th millennium, and local influences can be distinguished in the regional variants in Bohemia and Poland. In the Neolithic of the Carpathian Basin, however, at the turn of the 6th–5th millennia BC we witness the same phenomenon as 500 years earlier, at the beginning of sedentism: the cultural influences from the northern Balkans spreading across the Danube in southern Hungary and into western Hungary radically transformed the cultural milieu. Although the Lengyel culture, which evolved on an LBK substratum under Vinča influences, did not expand across an area as large as that of the former LBK distribution, it did

determine Late Neolithic development in the earlier 5th millennium both north-west and north-east of Transdanubia, in Lower Austria, Moravia, eastern Slovakia and Little Poland.

Discussion

Several conclusions concerning the beginning of sedentism can be drawn from the evidence presented above.

Transdanubia: the Cradle of the LBK Longhouse

The Körös culture and the Alföld LBK had little direct impact on the architecture of the central European LBK, principally because the eastern branch of the Körös culture migrated from the mouth of the Morava towards the Maros and Körös rivers, western Transylvania, the Érmellék region and the Upper Tisza region (attracted no doubt by the obsidian deposits in the Tokaj Mountains and the north-eastern Carpathians). The groups advancing northward from the Hungarian Plain and the groups pressing north-westward from western Transylvania and the Partium region both played an important role in the formation of the Alföld LBK (Domboróczki 2010a, 2010b; Domboróczki et al. 2010). Their cultural contacts were oriented to the east, the north-east and the south-east, no doubt with a view to the salt deposits in Transylvania and near the eastern Carpathians (Chapman et al. 2007; Weller and Dumitroaia 2005) and also to the flint raw materials available in Carpatho-Ukraine and the Banat (Mester and Rácz 2010; Biró 1987).

The communities settling in the Hungarian Plain during the later 6th millennium BC maintained physical and cultural contact with Transdanubia and, in a broader sense, with the Neolithic development in central Europe, through two areas. One of these lay in the north, around the bend of the Danube, with the main thoroughfare leading along the Tarna, Zagyva and Galga rivers, through the Ipoly Valley and the Gödöllő Hills. Before the appearance of the Alföld LBK, this area was first occupied by the Transdanubian, central European LBK, whose groups had advanced eastward across the Danube (Torma 1993; Kalicz and Kalicz-Schreiber 2002; Bánffy and Oross 2010). The origins of the longhouses uncovered at Füzesabony–Gubakút (Domboróczki 1996) and Mezőkövesd–Mocsolyás (Kalicz and Koós 1997) can be traced to Transdanubia rather than to the architecture of the Körös culture.

The other potential contact area lay in the southern part of the Danube–Tisza interfluvium, where Körös and Starčevo settlements lay within eyesight of each other on the floodplains extending along the left and right bank of the Danube and in the forested southern Transdanubian hill region to its west (Bánffy et al. 2010; Bánffy

in press). It is not yet fully clear whether the two groups existed synchronously, or whether the absence of similarities in lifestyles and archaeological material is also due to a small time lag. Still, the current record suggests that despite their shared ancestry, the two populations had no contact with each other. In spite of plausible speculations on the common roots of their languages, a long-lasting survival of such frontiers is often a sign of a linguistic boundary (Anthony 2007, p. 104). It can also be surmised that the separation (i.e. no sign of imported wares or similarities in artefact style and lifeways between two groups) was deliberately chosen in order to stress different identities (Hodder 1982, pp. 204–205). However, there is one possible reason supported by the analyses of both the Starčevo and the Körös material along the Sárköz Danube region (Bánffy et al. 2010; Bánffy forthcoming): that the Körös people who settled along the Danube had arrived not from the south, but from the south-east, from the dense Körös settlement area in the Maros–Körös region. For them, the Starčevo groups on the Danube's right bank were unfamiliar strangers (Bánffy 2012, in press).

The apparent lack of interaction between the groups and the different orientation of their cultural contacts precludes the possibility that the Neolithic architecture of eastern Hungary had served as a model for the LBK longhouse (*pace* Meier-Arendt 1989). Even though the longhouse uncovered at Tiszajenő and the remains of a few other buildings from Nosa, Ludas, Szolnok–Szanda and Szajol (Selmeczi 1969; Garašanin 1960; Szekeres 1967; Kalicz and Raczky 1982; Raczky 1976, 1977) were post-framed structures with wattle-and-daub walls, neither their orientation (diverse in almost each case) nor their shapes and dimensions conformed to the typical traits of LBK houses. In contrast to the clear rows of Transdanubian LBK houses, the six house plans excavated at Szolnok–Szanda indicated that the buildings all faced the water and enclosed a U-shaped area.

It would appear that the LBK buildings of the Hungarian Plain in eastern Hungary blended various earlier traditions, some of which may have mutually influenced each other (like Körös, Criș and Szatmár II characteristics in the north-eastern Alföld material). At the same time, the northward and north-eastward orientation of the buildings in the Upper Tisza region cannot be derived from local tradition, but can be seen as evolving mainly under the influence of Transdanubian LBK groups migrating east of the Danube. This seems to have been the case even if at present it is impossible to determine the actual extent of the expansion or the degree to which technologies and customs were adopted through interaction. Be that as it may, the few known Körös house plans suggest that the origins of the construction techniques and mental templates of the LBK house should be sought elsewhere.

The purpose of this brief overview on the beginnings of sedentary life was to clarify the archaeologically documented origins of at least a few elements that make up the architectural canon of the earliest LBK longhouses. Issues that still need to be addressed are, firstly, why the central European longhouse happened to evolve in the western half of the Carpathian Basin during the late Starčevo period, and secondly how the phenomena described above should be interpreted.

Environmental Factors

Environmental factors played a major role in the development outlined above. The climate of the Carpathian Basin was cooler and wetter than in the Balkans, and the region was covered by different vegetation. The model of the Central European-Balkan Agro-Ecological Barrier (CEBAEB), marking a climatic frontier beyond which certain elements of the so-called Neolithic package were no longer viable, and thus causing a halt in the northward advance of the first farming groups from the Balkans, was introduced a decade ago (Kertész and Sümegi 1999; Sümegi and Kertész 2001). The expression ‘barrier’ turned out to be not well chosen and as a consequence gave rise to several misunderstandings. It must be strongly emphasized that the CEBAEB was not a divide, but a zone which called for adaptation in the choice of settlement location, settlement density, subsistence strategies and house construction, amongst others. As a zone for interaction between the immigrant farming communities and the local forager population, it influenced the ensuing development of sedentary, food-producing cultures.

In this sense, the CEBAEB can also be interpreted as a dynamic contact zone (Fig. 6.14; Bánffy and Sümegi 2012). For the first time, the immigrants from the Balkans had the possibility (and were also forced) to establish long-term, intensive contacts with local groups across an extensive area. The location of this contact zone, running south-west to north-east, and the arena of the assumed interaction with local groups, by and large correspond to the areas where the earliest LBK sites and LBK buildings have been discovered and where the possible Mesolithic elements of LBK architecture could have been adopted (such as alignment in a particular direction, most often northward, and the assumed southern entrance). A timber structure more massive than was typical in the south ensured the static stability of house walls because walls constructed from pounded daub would not have been resistant to the heavier precipitation. The use of beech in house construction (e.g. at Szentgyörgyvölgy–Pityerdomb) also indicates a cool and wet climate. Many elements of Neolithic architecture and of the typical features of LBK houses were necessitated by the differing climatic conditions.

Mental Factors

Recourse to the altered climatic conditions and vegetation, however, can hardly be the single explanation for a previously unencountered phenomenon, namely the strict architectural canon of the LBK which, together with other elements of LBK material culture such as pottery, was established in a virtually standardised form across vast territories of Europe and remained unchanged over several generations. This unique phenomenon has been examined from many points of view, with many scholars assuming a shared spiritual legacy behind the exceptional persistence of these traditions (Zvelebil et al. 1992; Hodder 1992, p. 24; Thomas 1996,

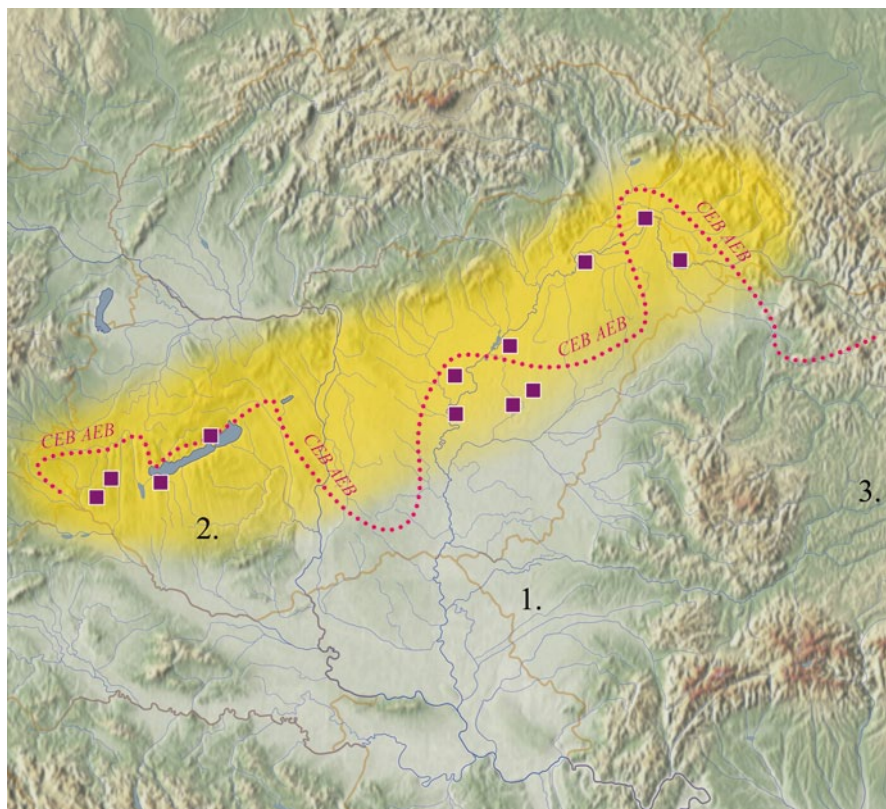


Fig. 6.14 The “Central European-Balkan Agro-Ecological Barrier” seen as an interaction zone. (After Bánffy and Sűmegi 2012)

pp. 102–109, 2008; Whittle 1996, 1997, 2010b). This shared identity would explain why LBK communities strictly and consistently retained the original forms of material culture that had evolved in the Carpathian Basin and Transdanubia.

This assumed phenomenon can be studied from several angles: it can be seen as an experiment in social control over the unknown in the sense suggested by Ian Hodder (1990), which would explain the adherence to the canon. This interpretation implies that in addition to and through the domestication of plants and animals, an ever-changing society was also ‘domesticated’.

Assuming the validity of this interpretation, the adherence to the strict architectural canon of house construction served to reaffirm the community’s sense of identity. This can be conceptualised as a reciprocal process, in which group identity was strengthened and reaffirmed through the very act of constructing a 25–30m longhouse, which called for cooperation between several extended families or the concerted effort of a larger community. Cooperation as a powerful symbolic act perhaps leaves its mark in the erection of a structure more massive than statically necessary. The group’s joint labour reinforced the group’s cohesion and identity.

The evidence from western Hungary indicates that the prestige of belonging to a sedentary, food-producing community living in permanent houses was high among local forager groups (Bánffy 2005). Genuine south-east European clay figurines, typical in the Starčevo culture, were copied by locals in coarser quality. This suggests that integration into a sedentary lifestyle was as much a question of prestige as of practical considerations.

The late Starčevo–formative LBK groups of Transdanubia were the first in the region to begin the transformation of the environment and the creation of a built environment (Darvill 1997, pp. 4–6). One of the most important outcomes of the shift to sedentary life, in which the erection of permanent houses played a key role, was the emergence of new patterns of social thought calling for a reassessment of humanity's place in nature and the forging of a new identity.

Closing Remarks

Finally, it must be emphasized that the emergence of a central European architecture during the formative LBK phase was greatly influenced by late Starčevo–early Vinča traditions. Similarly, the dynamic northward thrust of the Vinča culture along the Danube may have been one of the reasons for the rapid spread and uniformity of farming techniques and other elements of the sedentary lifestyle, including LBK houses, in the Bicske–Bíňa and the contemporaneous Flomborn phase of Germany in the heartland of central Europe. It is not mere chance that the overwhelming majority of Transdanubian LBK houses can be dated to the period when the loess plateaus were colonised, to around 5350 cal BC or later. The LBK population of the Carpathian Basin became committed to full-scale sedentism and the establishment of large, permanent settlements made up of orderly house rows. The world of the Transdanubian LBK was eventually transformed by the northward sweep of a third cultural wave from the Balkans exhibiting traits of the Vinča culture; this new formation is known as the Lengyel culture.

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Chapter 7

Of Time and the House: the Early Neolithic Communities of the Paris Basin and Their Domestic Architecture

Penny Bickle

Introduction

The Linearbandkeramik (LBK) longhouse was built for approximately 600 years (c. 5500–4900 cal BC; Lüning 2005, pp. 68–71) across a vast area of Europe, which stretched from the Paris Basin in the west to Ukraine and Moldavia in the east (Fig. 7.1, Lüning 1988; Modderman 1988; Whittle 1996, 2003, 2009; Jeunesse 1997; Coudart 1998; Gronenborn 1999; Bánffy 2000, 2005; Sommer 2001). This architecture stands out from the domestic buildings of the south-eastern Neolithic, not only because of the substantial length of the buildings (the longest published to date is 46.5m long, though the average is 20.1m; Pechtl 2009, p. 186), but also because of the complex arrangements of internal posts,¹ which have proved a successful basis for the production of typologies and the recognition of chronological variations (Fig. 7.2, Modderman 1988; Coudart 1998). Longhouses are found in settlements of various sizes and durations, from single farmsteads to large multi-phase sites, which saw several centuries of occupation (Modderman 1988; Whittle 1996, 2003; Coudart 1998; Gronenborn 1999). These settlements are found in particu-

The title of this paper is adapted from the title of Terrence Davies' 2008 film *Of time and the city*. This film explored Davies' personal history of Liverpool through a montage of photographs, film, music and Davies' own commentary. The changing architecture of the city plays a large role as the narrative tracks social change over the last five decades. By borrowing from this film title, I want to capture that sense of architecture as a means into exploring a particular community and viewpoint, as a perspective on the world.

¹ The LBK longhouse appears to have more posts than it would have required to be a structurally sound building (Coudart 1998).

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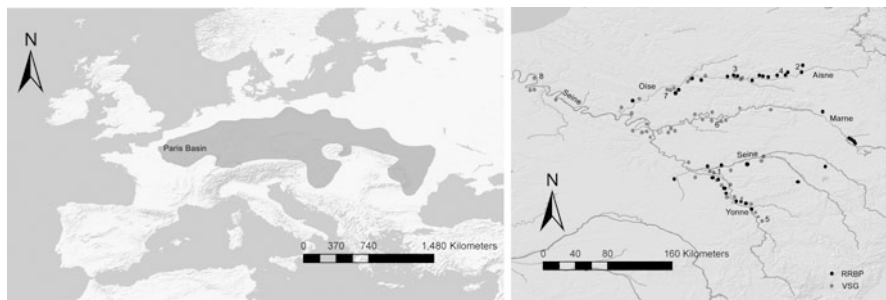


Fig. 7.1 **a** The mid-late distribution of the LBK represented by the *shaded* area. **b** The distribution of RRBP and VSG sites in the Paris Basin. Sites mentioned in the text: 1 Balloy; 2 Berry-au-Bac; 3 Bucy-le-Long; 4 Cuiry-lès-Chaudardes; 5 Gurgy; 6 Jablines; 7 Longueil-Sainte-Marie; 8 Poses. (Map data source: ESRI 2010)

lar clusters set on fertile loess soils, spreading out along secondary water courses across Europe (Lüning 1988; Whittle 1996; Gronenborn 1999; Lenneis 2007; Zimmerman et al. 2009).

Models which saw the longhouse as the footprint left behind by early farming communities as they travelled with the spread of the Neolithic way of life have, over recent decades, given way to more detailed appreciations of its role in the complex social networks of the LBK. The longhouse has been variously considered as a site of domestic activities and reproduction (Boelicke 1982); as the fundamental social unit of the LBK (Lüning 1988, 2005; Modderman 1988; Rück 2007); as representing social hierarchies and ‘big men’ (van de Velde 1990; Louwe Kooijmans et al. 2003); as a means of domestication (Hodder 1990); as connected to totemic identities based on the herding and hunting of different animal species (Hachem 1997, 2000, 2011); as a demonstration of cultural identity and regional affiliations (Coudart 1998, p. 101, *in press*); as integral to origin myths (Bradley 2001); as a means of dwelling and negotiating identity (Whittle 2003; Hofmann 2006); as mediating kinship and a focus for social memory (Borić 2008); and as built in the process of competing for prestige (Pechtl 2009).

However, rather than presenting a general summary of research on the LBK longhouse, this chapter will take one particular perspective: its lifecycle. Considering temporal patterns associated with houses in the past is a productive way of exploring prehistoric architecture (Brück 1999; Gerritsen 1999, 2008; Boivin 2000; Bradley 2001, 2002). The Early Neolithic way of life intersected with patterns of construction, repair and eventual decay that framed a community’s daily life with longhouses, bringing together not only different temporal cycles but also social relationships of varied scales and duration (Whittle 2003, 2009; Borić 2008). Therefore, over its life the materials, practices and meanings associated with the house would have varied and this chapter will use the framework of building, living and dying to examine the rhythmical patterns found in the longhouse life course, drawing on the architectural evidence from the Paris Basin region.

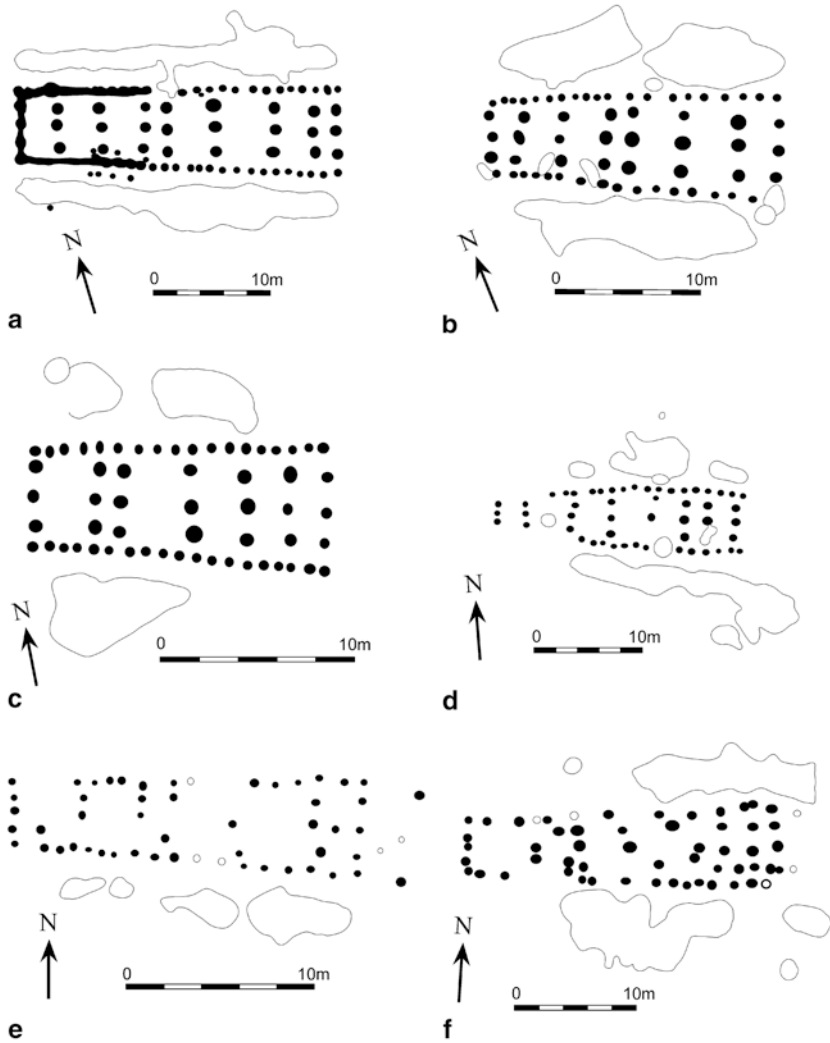


Fig. 7.2 Examples of longhouse plans from the RRBP and VSG in the Paris Basin. RRBP: **a** House 245, Cuiry-lès-Chaudardes (Soudský et al. 1982, Fig. 52). **b** House 200, Berry-au-Bac Chemin de la Pêcherie (Dubouloz et al. 1995, Fig. 7). **c** House 410, Cuiry-lès-Chaudardes (Ilett and Coudart 1982, Fig. 3). VSG: **d** House 580, Berry-au-Bac Le Vieux Tordoir (Allard et al. 1995, Fig. 4). **e** House 1, Villeneuve-la-Guyard Prépoux (Prestreau 1992, Fig. 5). **f** House 50, Pontpoint Le Fond de Rambourg II (Bostyn et al. 1996, Fig. 1)

The longhouse arrives in the Paris Basin late in the LBK sequence and during the Early Neolithic two different ‘longhouse cultures’ are recognised (Whittle 2009, p. 255); the *Rubané* (as the LBK is known in France), specifically in this region the *Rubané Récent du Bassin parisien* (RRBP) and the *Villeneuve-Saint-Germain*

(VSG). The VSG is widely considered to follow the *Rubané*, though this sequence is contested (Dubouloz 2003; cf. Jeunesse 2003; Jadin 2007). The RRBP is thought to last from c. 5100/5050 to 4900 cal BC, with the VSG beginning shortly before and lasting until 4700 cal BC (Dubouloz 2003). Here the current consensus of cultural succession is followed, though this may have to be revised when more rigorous modelling of the radiocarbon dates has been carried out. Although the VSG is therefore thought to be different to the LBK, it shares much in common with the routines of this earlier Neolithic culture, with a continued focus on life in village-like settlements of longhouses, cattle dominating the archaeozoological remains (Bedault and Hachem 2008; Bedault 2012) and similar burial practices (Gombau 1997). As the lifecycle of the house is investigated in the next section, how and whether these changes influenced the temporalities of the longhouse will be explored.

Time and Domestic Architecture

Architecture and Time

The temporal dimension of space has been fertile ground for both anthropologists (Bourdieu 1977, 1990; Gell 1992; Ingold 1993, 2000; Bloch 1998) and archaeologists alike (Gosden 1994; Lucas 2005), particularly those studying domestic architecture (Bailey 1990; Parker Pearson and Richards 1994; Brück 1999; Gerritsen 1999, 2008; Boivin 2000; Bradley 2001, 2002; McFadyen 2007, p. 353). The approach taken in this chapter is influenced by Ingold's (1993, 2000, p. 194) conception of *temporality*: defined here as time as it is experienced and shared in practical tasks, as opposed to an abstract time defined by clocks and calendars (Gell 1992; Ingold 1993, 2000; Gosden 1994; James 2003; Lucas 2005). It is those internalised, experiential rhythms which frame both routine tasks in daily life and the punctuated rituals of the lifecycle (Brück 1999; Gerritsen 1999, 2008). Alongside linear or genealogical senses of time, cyclical understandings based on an annual agricultural cycle, for example, can also be conceived (Gell 1992, p. 38). The challenge is thus to investigate conceptions of time, not as ahistorical and unchanging, but to locate the everyday 'significance in the timing ... of actions' (James and Mills 2005, p. 5). It is the interplay of both cyclical routine and linear narratives that constitutes social experiences of time (James 2003, p. 71).

The lifecycle, however, provides a linear trajectory as well as such recurring rhythms (Brück 1999; Bradley 2001, 2002; Gerritsen 2008) and prehistoric houses potentially had biographies that could have been drawn into a narrative, situating households within their community's history (Borić 2007, p. 98). However, this would have intersected with the cyclical patterns of everyday routine tempered by the seasons, the physical properties of raw materials and the biological rhythms of both plants and animals (Gerritsen 2008, p. 146). The impact of this on the discussion here is that domestic architecture does not restrict or define limited con-

structions of time; rather multi-layered understandings of time will intersect with the longhouse, producing varied experiences and scales of temporal adherence (Gerritsen 2008, p. 146). Multi-scaled experiences, from the repeated routines of the everyday to the maturation of persons and houses, frame the passing of time.

The individual history of each longhouse would have fed into the broader forming and dissolution of community, which built up settlements of varied sizes and durations and therefore different generations would have cross-cut each other, rather than repeating concurrently. Lifetimes and different generations temporally overlap (Boivin 2000; Sayer 2010). Although the ability to recognise successive phases is absolutely essential to defining settlement development, it does tend to present history as isolated phases, rather than, as must have happened, the messy bleeding of one phase into another, forcing the new into juxtaposition with the old, especially if longhouses continued to be used by subsequent generations. Therefore, the life-cycle of the longhouse should not be considered the same for every building as this smoothes over the complex intersection of punctuated everyday routine. In this respect, the house is more usefully regarded as an ongoing process than a unique point in time (Carsten and Hugh-Jones 1995; Boivin 2000; Gerritsen 2008), a site of ongoing debate and contested social reproduction (Souvatzi 2008, p. 45).

The Lifecycle of the Early Neolithic Longhouse

The longhouse is known from its preserved subterranean features: clusters of post-holes and external wall trenches (Figs. 7.2 and 7.3). Due to these features, a successful typology has been created that groups houses into three broad types that can be further divided into different sub-styles (Modderman 1970, 1988; Coudart 1998, pp. 26–33, *in press*; Cladders and Stäuble 2003). Modderman (1970, 1988) defined the *Großbau* (known as type 1), *Bau* (type 2) and *Kleinbau* (type 3), based on a combination of three sections or modules. Within each of these three sections, post rows (formed of three posts) are interspersed creating rooms of different sizes (Modderman 1988, p. 94). In the Paris Basin, the rectangular ground plan is progressively replaced by an increasingly trapezoidal shape (Coudart 1998), focussing attention on what may have been more elaborate entrances emphasised through the addition of possible ‘porches’ at the front of the building (Joly 1970; Bickle 2008, p. 229).

Unfortunately, house floors are rarely preserved (the site of Jablines is the only possible exception in the Paris Basin, though even here the conserved surface is outside the house; Bostyn et al. 1991; Hachem 2000) and much information on the practices associated with the longhouse are gathered from the external loam pits, which flank the long walls of the building. These pits are thought to have been created during construction as a source of clay for the wattle and daub walls (Modderman 1988, p. 92). The remains of the household are then thought to have collected in these pits over the use-life of the house, thereby acting as an uncomplicated record of household activities (e.g. Coudart 1998, p. 73). The animal bone assemblages at



Fig. 7.3 The interior and exterior of a reconstructed LBK longhouse, Straubing, Bavaria. (Photo: author)

Cuiry-lès-Chaudardes (Aisne valley, Paris Basin) suggest that the pits were open for at least a year, because of the mixed slaughter ages represented in the animal bone assemblages and antler finds, but not much longer (Hachem 2011, pp. 181–184). Recent estimates suggest loam pits took three to five years to fill (Bedault 2012, pp. 68–69, 478). While there is occasionally evidence for depositional ‘events’ (e.g. butchery episodes; Hachem and Auxiette 1995; Hachem 2011; Bedault 2012), loam pit fills appear to be highly unstructured and to have come together gradually, rather than in one-off episodes.

The model of the LBK longhouse lifecycle, developed by detailed study of the sites at Elsloo and Stein (Modderman 1970) and on the Aldenhovener Platte (Boelicke 1982; Lüning 1988; Boelicke et al. 1997), came from studies of the material in loam pits, particularly the ceramics. Ceramic seriation provided phasing detail on a house-by-house basis for the settlements (e.g. Kuper et al. 1977; Boelicke et al. 1988). These sequences, in combination with the span for the length of settlement suggested by visual inspection of the available radiocarbon dates, formed the foundation for models of phase duration and, by extension, the length in time a longhouse was occupied (Stehli 1989). On this basis, a longhouse could not have been occupied for more than 20–30 years (Modderman 1970, 1988; Stehli 1989; cf. Rück 2007, 2009).² With each successive phase, the next generation built new longhouses, seemingly close to the one belonging to their kin (Boelicke 1982; Boelicke

² Although this model has recently been questioned by Rück (2009, p. 177), here I follow the consensus view and adopt a model with the shorter time span for the life of a LBK house.

et al. 1988; Lüning 1988; Stehli 1989). Thus, LBK settlements are thought to have been divided into different wards or clans, with the individual longhouse representing a single generation (Boelicke 1982; Stehli 1989; Boelicke et al. 1997).

It is this model which has had the most profound and long-lasting impact on how LBK sociality is thought about, implying the presence of family-like lineages that were independent of each other, but chose nonetheless to share settlement locations with other kin groups (Lüning 1988, 2005). As the central section of the house is considered to be the living space³ (Modderman 1988, p. 94) and phosphate analysis has suggested the presence of only one hearth per structure (Stäuble and Lüning 1999), one kin-group (or family) is, as our best estimate, thought to have shared a longhouse. Therefore, the LBK longhouse would have had fewer inhabitants than the large multi-family (or 'village') buildings found in north-western America, Amazonia and Indonesia (Levi-Strauss 1982; Waterson 1990; Hugh-Jones 1996; Metcalf 2010) and is likely to have housed different social organisations as well as undergoing shorter rhythmical patterns of building, occupation and decay.

However, the 20–30 year duration of the longhouse has recently been challenged by Rück (2007, p. 144, 2009, p. 180; see also Schmidt et al. 2005, pp. 161–162), who argues that as the structure of the house could have lasted for c. 80 years and since there is evidence that longhouses were extended and repaired, a use-life of 75–100 years is more probable. The tripartite nature of LBK longhouses could suggest that houses were extended over time and occasionally there can be slight variations in alignment between the modular sections visible in the house plan, suggesting that they were added at a later date (Rück 2007, pp. 102–111). However, it is not clear why it should be more difficult to ensure a correct alignment after the building has been standing for a few years than at construction (Hofmann, *in prep.*). Additional postholes (outside of the main post-rows) can also be identified, which Rück (2007, p. 103) identifies as structural repairs: extra posts added to support the building's structure as it aged. This can perhaps also be seen in the two short rows of postholes either side of the southern wall of house A in Fig. 7.2, perhaps added to support a failing wall. While there are significant problems with the model of 20–30 years of longhouse occupation, and the length of time loam pits were open is still not adequately resolved, we should be cautious in replacing one universal model with another (Rück 2009, pp. 181–182). In all likelihood house duration varied somewhere between the two models—a blend of what was possible for the durability of the wooden post structure and the stability of the social relationships it housed.

The tendency to favour one unique model of the longhouse lifecycle originates in part from the assumed homogeneity of longhouse ground plans (Modderman 1988; Coudart 1998, pp. 106–107, *in press*). As a result, the building is often portrayed as housing a stable and relatively isolated social institution, which contained the fundamental human relationships of LBK communities (cf. Hofmann 2006; Hofmann and Bickle 2011). Although regional variations are now widely acknowledged (Modderman 1988; Whittle 2003, 2009; Coudart 1998; Hofmann, *in prep.*),

³ This is largely because the central section is the only one of the three modular segments that can be constructed on its own.

the general adherence to wide-spread house styles continues to dominate our understanding of the LBK. As a result, the significance of variation in longhouse style and biography has generally been downplayed.

Subtle and slight variations tend to be more consequential in people's everyday routines and even the smallest difference can be very meaningful (Currie 2004, p. 18). What variety we do see across LBK materials, burials and architecture is therefore most likely to have been meaningful at a settlement level rather than as top-down defined identity classes (Bickle and Hofmann 2007; Robb and Miracle 2007; Hofmann and Bickle 2011; Bickle et al. 2011). At Cuiry-lès-Chaudardes (Aisne), Hachem (1997, 2000, 2011) found that longer houses were associated with more domesticated animals, while shorter houses had higher rates of wild animals in their associated loam pits; van de Velde (1990, p. 27, 36) loosely connected house length with status, but argued that the highest status buildings were based on a particular ground plan (type 1a), which was associated with higher numbers of polished stone tools in the loam pits. Such variability must have mattered to the local community and differences in architecture appear likely to have reflected differences in the experiences of the particular household who had built and lived within its walls, even if the direct relationship between form of architecture and its inhabitants remains unclear (Parker Pearson and Richards 1994; Gerritsen 2008).

The formal norms to which LBK longhouses adhered included the use of three posts to form an internal row and a shared orientation at a settlement. Other aspects of the house, such as its ground plan, had only limited variations and Coudart (1998, p. 27, *in press*) recognises but six possible variations between rectangular, trapezoidal and naviform. Coudart (1998, pp. 100–101, *in press*) creates a hierarchy of differences, in which some physical aspects were not varied at all, some varied but in specific and defined ways, and some appeared to adhere to no rules at all, such as house length and the number of posts. This suggests that LBK longhouses were built from a strict conception of what the appropriate layout should be. However, similar layouts do not preclude other forms of difference and focusing entirely on the house plan may limit our ability to appreciate changes to the house over its life (Boivin 2000; Gerritsen 2008).

Birth:⁴ Looking Forward

The Mesolithic–Neolithic Transition

Pre-Neolithic architecture in the Paris Basin is likely to have comprised small impermanent structures (variously referred to as 'tents' or 'huts') built over hearths, which are found in amongst flint knapping debris (Verjux 2003; Rozoy and Rozoy

⁴ The intention here is to discuss the temporal schemes inherent in building a longhouse, rather than what decisions had to be made, see von Brandt (1988) for a description of this process.

2000, 2001). The evidence from sites such as l'Allée Tortue (Aisne) and Véron (Yonne) suggests that the Mesolithic hunter-gatherers in this region were fairly mobile, with long-lived sites having a number of discontinuous occupations rather than being permanently occupied throughout the year (Carré 1991; Mordant and Mordant 1992; Verjux 2003). Within this region there has also been a rare discovery of a riverside Mesolithic site, Noyen-sur-Seine, which proved to have exceptional preservation, including a dug-out canoe, fish-traps and basketry, which suggest the Mesolithic communities were regularly exploiting the river ecosystem (Mordant and Mordant 1977, 1992, p. 63). The excavators, Daniel and Claude Mordant (1992, pp. 61–63), suggest that the last phases of settlement may have been contemporary with the first *Rubané* communities on the Seine due to the limited presence of domestic pig and cattle bones in Mesolithic layers. Towards the end of the Mesolithic, Noyen is occupied for shorter and shorter periods, probably at the end of summer and beginning of autumn (Mordant and Mordant 1977, 1992, p. 61), suggesting a pattern of tethered mobility.

Therefore, the first LBK-style longhouses to be built in the Paris Basin would have stood in stark contrast to any form of standing architecture constructed during the Mesolithic (Fig. 7.3). While the beginning of the Neolithic in this region continues to be debated (e.g. Allard 2007), colonisation of the region by LBK communities from the east, specifically from the areas around the Moselle River, Lorraine, and from Alsace, remains the favoured explanation (though see Jeunesse 2000). Furthermore, the LBK arrives in the Paris Basin at a time when expansion and regionalisation is recognised across its distribution (Whittle 1996; Gronenborn 1999; Sommer 2001) and the process of moving into new areas may have been an inherent part of LBK sociality—completely separate from any local hunter-gatherer groups. Yet, this does not necessarily mean that indigenous groups were not part of this process and the presence of Limburg pottery (a non-LBK ceramic style) in the Paris Basin suggests that the beginnings of the LBK in this region were far from straightforward (Jeunesse 2003; cf. Allard 2007). In addition, as the first *Rubané* groups in the Paris Basin may well have been contemporary with Final Mesolithic groups, some form of contact is highly probable (Mordant and Mordant 1992, p. 63; Allard 2007, p. 220). However, we are still some distance from satisfactorily understanding how different communities or populations oriented themselves with respect to the spread of the LBK (Robb and Miracle 2007). Whether incoming farmers, local groups adopting a new cultural *milieu* or varied mixtures of different communities brought the LBK world to the Paris Basin, and despite potential hints of earlier farming adoption (Jeunesse 2003, 2009), it was the construction of longhouses that marked the true arrival of the Neolithic.

Building a Longhouse

As these massive structures must have required more people than the immediate household to build (Modderman 1988; Coudart 1998; Whittle 1996, 2003), not only

are people likely to have watched more than one house being constructed, they were probably also involved in the building of houses they did not intend to inhabit. Construction could have therefore been experienced every few years, though the degree to which an individual took part in particular constructions may have varied depending on their relationship with the house's intended inhabitants, whether it was at the settlement where they lived or some distance away, and their own physical capability. The initial construction of a longhouse would also need to be fitted into the daily routine and time would need to be borrowed from other tasks for discussion and preparation. Food resources would need to be secured for the period and other people's assistance sought, as well as the collection of the massive posts which formed the house's structure (Hofmann, *in prep.*). Startin (1978) estimated that it would take 2,200 man hours to build a longhouse, or ten able-bodied individuals working 10 hours a day for 22 days. While this is, of course, subject to a number of assumptions about construction techniques, we can perhaps propose on this basis that construction took about a month. Taking place every few years, building could thus have been an unusual but not unfamiliar time; it could have been at once stressful but exciting, dangerous but familiar, a time of celebration but a serious undertaking.

House building need not have relied only on able-bodied adult men, but a multitude of different jobs would have involved the whole community. Young children and the less able could have helped with gathering materials for the roof and walls, and subsequently assisted in creating wattle and daub. Members of the community not capable of raising heavy beams may have been involved in the planning and offered guidance from the sidelines, while particular responsibilities could have marked certain life-course events (e.g. the first time someone was allowed to fell a tree, or the first time they were allowed to build a house, etc.). Such age- and gender-based differences in task allocation would have played into identity formation (Grinker 1994, pp. 101–102; Dietler and Herblich 1998, p. 259; Boivin 2000, pp. 374–378). Therefore, the construction of a longhouse could well have marked people's experience of their own life course as well as routinely punctuating the history of the settlement. House building could have offered a time for the making and breaking of social connections, cementing relationships through shared practices, making rarely seen people part of everyday life again or stressing some ties at the expense of others (Grinker 1994; Bloch 1998; Strathern and Stewart 2000).

The periodic construction of the house would also have been a time to look forward and anticipate the household's future. It has previously been suggested that the house may have grown over its lifetime, with a central section added to successively as the household grew, or additional posts added in the process of maintaining and repairing the structure of the house (see above; Bradley 2001; Rück 2007, 2009). Construction may therefore have been an ongoing part of daily life. The evidence cited for this is the occasional misalignment of one or more of the modular sections and that only the central part of the three modules (based on Modderman's 1988 tripartite layout) is found isolated (Bradley 2001, p. 51). If this were the case, the longhouse would have begun as a central section, with the south-eastern and north-western parts added at a later date. However, Coudart (1998, *in press*) considers

the tripartite nature of houses to be a principal and unquestioned aspect of LBK longhouse layout⁵ and this appears to be borne out in the evidence as, with only a few exceptions, longhouses in the Paris Basin are tripartite (Bickle 2008).⁶ This suggests that *Rubané* longhouses, in the Paris Basin at least, were conceived from construction in three sections.

The tripartite layout of RRB longhouses went hand in hand with a pattern of three posts forming the internal rows of the longhouses, with about 80% of houses conforming (Bickle 2008, p. 424). However, despite such overwhelming similarity these rules created very different spaces inside the house. As the length of a house did not translate into a particular number of posts (Coudart 1998, p. 82, *in press*), the spaces created inside the house were actually very different (Bickle 2008, p. 154). Therefore, each longhouse provided a unique choreography of movement of different sized spaces or ‘rooms’ (Bickle 2008, p. 155, Fig. 5.8). The ‘tripartite layout’ and ‘three-posts-in-a-row’ rules were a framework which constituted how a house should be (Barrett 2006); they defined the building as much as the presence of walls and roofs. Constructing a house was not an unconscious repetition of societal norms, but involved making decisions about the internal spaces of the house (Bickle 2008, p. 155).

Once this layout was in place, the structure of the longhouse does not appear to have been substantially changed and constructing a house seems thus to have been a commitment into the future, with all the attendant risks, hopes, failures and possible successes. There is only one example of two completely superimposed house plans published to date in the Paris Basin, at Gurgy (Yonne; houses 6 and 7; Fig. 7.4). Delor (1996, p. 300) argues that house 7 replaced house 6, adding a room at the north-western end of the house, enlarging the façade and slightly altering the orientation of the house. Thus, the aggrandisement of house 6 required a complete rebuild, rather than the subsequent addition of more rooms to the north-western end of the house. This rebuilding appears to be the result of events unanticipated at the building of the first house. Otherwise, during their occupation longhouses were subjected to only minor alternations.⁷

Many decisions taken during building may have therefore been with a view not only to the present household, but also what was anticipated for its future, with the events leading to the rebuilding of house 6 at Gurgy highly unusual. In Husserl’s (1991, p. 89, 99) terms, such future anticipation is a ‘protention’, in which future intentions are regarded not as future per se (as at some distant point in the future)

⁵ Coudart’s (1998) model for tripartite houses is a refinement of Modderman’s (1970, 1988) and this model is more inclusive, with the presence of a ‘corridor’ denoting the presence of a front or south-eastern section.

⁶ Ninety-two percent of houses are tripartite (based on information from Bickle 2008, Appendix 2).

⁷ There are, however, hints that some instances of less significant rebuilding took place during the lifetime of the house. Extra posts, not required in other instances, appear to be added frequently to walls and corridors, possibly to support walls and the roof (Hofmann 2006, *in prep.* for examples in the Paris Basin see Bickle 2008, Appendix 2.2). An example of this may be visible in Fig. 7.2a.

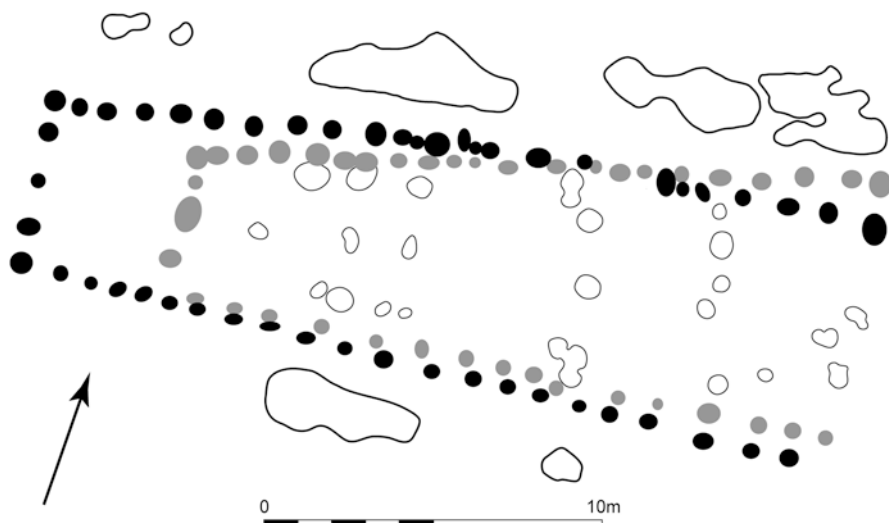


Fig. 7.4 House 6 and 7 from Gurgy (after Delor 1996). House 6 is represented in *grey*, house 7 in *black*

but as a possible present or ‘now’—a material commitment to the relationships within the household and settlement over a generational time span (Bickle 2008, p. 249). By building a longhouse, people projected social relations into the future—if the longhouse was occupied for 20–30 years, this was on the scale of the human lifetime, while a longer duration would have taken the use of the house past the lifetimes of the individuals who supervised its construction, perhaps anticipating future descendants. However, these imagined futures were not always achieved and had the potential to fail and, occasionally, to be changed.

Villeneuve-Saint-Germain (VSG) Longhouses

During the VSG, the regularity of post layouts appears to be progressively lost, from the appearance of an isolated central post (Fig. 7.2d and e), opening up space in the middle of the house during the early VSG (Dubouloz et al. 2000; Jeunesse 2009, p. 157), to far more additional posts that were often out of the ‘three-post’ alignments (Fig. 7.2e and f; Bickle 2008, p. 152, 245). VSG longhouses thus appear to follow less prescriptive rules about how the interior spaces within the building were formed (Bickle 2008). Following Rück (2007, 2009), this could suggest that more repairs were made to the buildings as extra posts were added to support the structure, resulting in progressively greater variation in the space between posts over the life of the longhouse. This greater variation is set against a greater regularity in house length at VSG settlements than is seen at *Rubané* sites (Coudart

1998; Bickle 2008). During the VSG, houses are on average longer but the range of lengths decreases, clustering more tightly around an average length of 24 m (Bickle 2008, p. 296). The breakdown of internal post regularity (i.e. less scope to count ‘rooms’) could have also fed into this decreasing number of spheres associated with the longhouse in which the difference between households could have been demonstrated.

In terms of movement, a VSG longhouse that was not familiar would take longer to get to know than a *Rubané* house, because between houses there would be fewer repeated patterns of movement around and between posts and less chance to translate embodied memories from one house onto another. Therefore, visitors and new household members might have had to work harder to negotiate the internal spaces of a VSG longhouse. In contrast, if the emphasis fell on maintaining greater similarity in length between houses in the VSG, then the process of making decisions about where posts would stand may have been caught up ensuring the correct external appearance for the house, which may also have been played out by greater emphasis on the entrances of the houses (Bickle 2008). The impact of these entrances could have been strengthened further by the linear arrangement of VSG settlements, which meant that the entrances of contemporary houses could be compared directly as they stood next to each other (e.g. Bucy-le-Long; Hachem et al. 1998).

Alongside different internal post arrangements, the posts themselves appear not to be set into the ground as deeply and VSG longhouses give the appearance of having suffered more erosion than *Rubané* ones despite being constructed in similar locations and on the same soils (Michael Ilett, personal communication). This might suggest less structural integrity perhaps leading to more intervention in the fabric of VSG longhouses. Therefore, while for the VSG longhouse the construction of the spaces within the house may have been more varied than in *Rubané* longhouses, this could be because more posts had to be added to maintain the structure of the building. However, while there seems to be more emphasis on the immediate impact of the longhouse at VSG settlements (length of the house and an imposing entrance), the continued maintenance of the buildings would have occurred for as long as the house was projected into the future, continuing practices associated with the *Rubané* longhouse. The difference between *Rubané* and VSG longhouses may therefore be in where the emphasis fell, rather than absolutes; the projected future for *Rubané* longhouses, drawing on norms of practices, and the current social and architectural context for the longhouses built at VSG settlements.

Living: Daily Routine

The Everyday House

On a daily basis, we can envisage variation in how the house was experienced. With longhouses overwhelmingly oriented with their façades to the south-east/east in

the Paris Basin, the morning could have been the brightest time in the longhouse, especially during the winter, when the sun stays low in the sky. If windows and doors were absent from the north-west end of the house, then it would have become darker inside the longhouse before it did outside, changing the possible range of tasks that could have been carried out and the atmosphere within the building (Gregor 1977, pp. 23–24). Such differences in available light, congruent with the smells, sounds and haptic sensations of particular tasks, would have affected how people experienced the passing of time on a daily basis, as people came and went, ate, slept and so on (Gregor 1977; Helliwell 1996; Whittle 2003; Hofmann 2006; Bickle 2008; Souvatzki 2008). Appropriate times to make repairs meant that certain engagements between the human body and wood were framed by how the wood reacted to changes in humidity and temperature; hence, the negotiation of splinters in fingers and perhaps larger problems created by splitting posts or damp and rotten wood produced particular smells or sounds (e.g. the distinctive cracking sound wood makes when cooling) which would have varied over the year and the life of the house, contributing to an embodied sense of the seasons changing and the house aging (Helliwell 1996; Dietler and Herbich 1998).

The Yearly Cycle

Over the year, living with the LBK longhouse was likely to have been heavily influenced by the seasons, which would have been guided by the tasks people engaged in (Bourdieu 1977, 1990; Gell 1992; Harris 1998, 2000; Bender 2002; Evans 2003; James 2003) and intersected with how the house was used and viewed. Bourdieu (1977, 1990, pp. 223–224) argues that the rhythm of time for the Kabyle arises out of the passing of the seasons, not as distinct collections of activities, but as the ‘order of the world’—activities cluster around the two extreme poles of the wet and dry seasons, coloured by the oppositions which structure the Kabyle way of life. Ploughing, sowing and rain-making rites move life towards the wet season, while the increasing separation of grain and earth as cereals grow moves daily life towards the dry season, ultimately culminating in the harvest (Bourdieu 1990, p. 224). Tied into these associations between different activities is the ‘ritual work of moistening the dry’ and ‘the desiccation of the wet’ which are aligned with structural differences between female (wet) and male (dry), producing a logic inherent in all of Kabyle life (Bourdieu 1990, p. 229, 252). While we may have good reason to be cautious when creating such structural and unchanging schemata for past groups, we can hold onto Bourdieu’s (1990) argument that seasonal work and tasks are guided by qualities inherent in the *habitus* and framed by emotional responses.

Subsistence strategies do suggest an annual round took place, with emphasis falling on different activities at particular times of the year. Figure 7.5 is an attempt to envisage how different tasks across the year might have meshed together, though it is, of course, highly subjective. The interplay of the architecture with the seasonal cycles would have meant that over the year, the longhouse would have provided

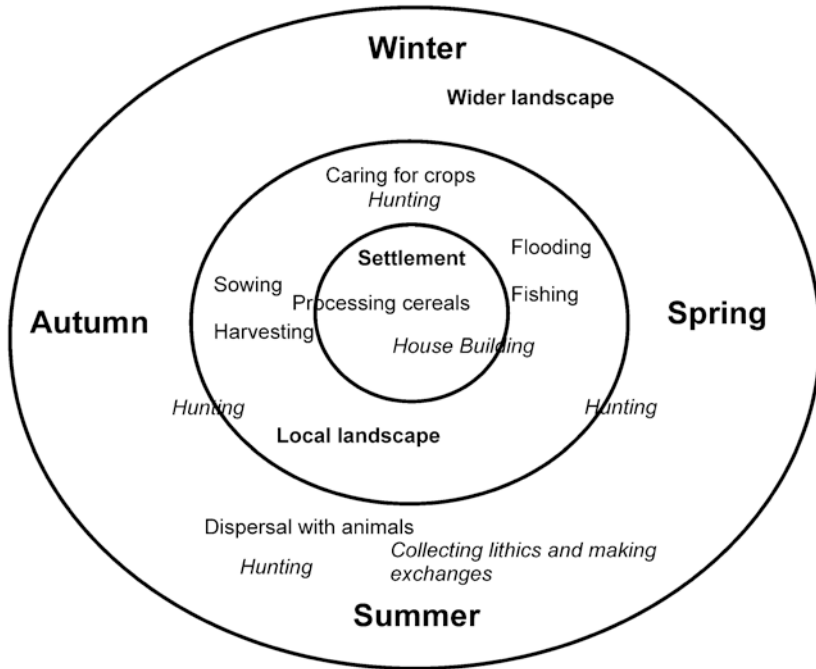


Fig. 7.5 An imagined 'year' for an Early Neolithic community in the Paris Basin. This is subject to a number of assumptions and must only be regarded as a rough guide. Text in italics represents activities for which no seasonal evidence is present

very different experiences. The numbers in a household may have also fluctuated throughout the year. Flooding during the spring may have made travelling along the valley more time-consuming and achieving everyday tasks away from the long-house more difficult (Harris 1998, 2000), thus it could have been a time of restriction and confinement. This probably would have taken place in winter and early spring and then been followed by a time of dispersal with animals in the summer. Recent evidence from a VSG site at Longueil-Sainte-Marie (Oise) suggests that fishing predominantly took place in the early spring, due to the prevalence of pike, which is most likely to be caught then as it is spawning (Maréchal et al. 2007, p. 63). Contrastingly, autumn is the time of year that Bogaard (2004, pp. 112–114) suggests the majority of cereal sowing took place in the later phases of the LBK.⁸ Autumn sowing would have been fairly labour intensive (Bogaard 2004, p. 159, 164), requiring the bringing together of the community, perhaps cross-cutting different

⁸ Bogaard (2004) has not examined cereal remains from the Paris Basin and due care must be taken in extrapolating from one LBK region to another. However, given the overall dominance of autumn sowing in the LBK in other regions it seems reasonable to apply this model to the Paris Basin.

households, and would have therefore been characterised by a period of gathering and intense activity in the fields as planting got underway.

Interestingly, Bogaard's (2004) analysis of the weed spectra from LBK contexts suggests that fields were cultivated for longer than the duration of the house (i.e. for more than 20–30 years). It could be that it was fields, not houses, which were passed on between the generations. This is coupled with recent evidence that different households may have cultivated areas spread out over varied landscapes, with differential access to the best or most productive areas (Bogaard et al. 2011). Therefore, rather than being solely part of a round of different tasks, cereal planting and growing and access to particular fields may have tied people into the specific history of lineages at a settlement (Bogaard et al. 2011).

In addition, animals would have had their own cycles across the different seasons (Evans 2003; Kienlin and Valde-Nowak 2003; Halstead 2005; Gerritsen 2008). The availability of foodstuffs for different species would have fluctuated over the year and communities may have controlled breeding patterns, with birthing of animals a prominent part of a herder's annual round (Bogucki 1988, p. 87; Evans 2003, p. 173; Lorimer 2006; Grasseni 2009). Evidence for herding cattle over considerable distances has been suggested from the isotopic analysis of cattle teeth from the site of Vaihingen in south-west Germany (Bentley and Knipper 2005). The molars from three different cattle were subjected to isotope analysis and each animal appeared to have experienced a different pattern and degree of movement during its life (Bentley and Knipper 2005; Knipper 2009, 2011). In comparison, pigs appeared to have a relatively narrow range and thus stayed within the local area (Bentley and Knipper 2005). Moving with animals would thus have been a seasonal practice, with cattle or possibly sheep/goats generally being pastured on higher ground during the summer months (Evans 2003; Kienlin and Valde-Nowak 2003; Halstead 2005, p. 45).⁹ The kill-off pattern of wild animals, in contrast, suggests that hunting took place across the year (Bedault 2012, p. 497) and short trips away from the settlement may have been made as required.

In Harris' (2000) anthropology of the Amazonian Basin, he illustrates how the seasons can be responded to emotionally. The wet season is thought of as cold, with people not venturing far from their houses, preferring to stay 'warm'; therefore, this season is seen as a 'boring' time and a period of recuperation (Harris 2000, p. 138). These characterisations of the seasons need not have been viewed in a negative way, but actively sought out or desired as a time to catch up on gossip (Overing and Passes 2000; Strathern and Stewart 2000). Similarly, time can speed up or slow down depending on the task (or tasks) the community were engaged in (Bourdieu 1990, p. 221; Gell 1992; Gosden 1994; Lucas 2005). The spaces of the longhouse may have therefore been viewed differently over the year, resulting in experiences provided by the architectural space becoming foregrounded or fading out of people's awareness.

⁹ It has been suggested that such a practice took place throughout the summer months during the later Neolithic in the Black Forest Mountains (Kienlin and Valde-Nowak 2003).

Therefore, if the end of summer and early autumn was a time of coming together, focussed around the settlement, then it may have been characterised by particular emotional responses to the architecture (Harris 2010). Possibly the coming together of the whole household caused celebration, or perhaps rather strained emotions came to the fore, sparking disagreements amongst people living closely together. During winter and spring, the longhouse could have been characterised by increased noise levels and decreased space available for tasks. From the spring people may have begun to disperse, leaving the house comparably quieter. Perhaps the quiet routines of summer were interrupted periodically for house building or visitors from other settlements. Community and its constituent parts were therefore continually being made, broken and remade over the year (Carsten 2000; Amit 2002; van Vleet 2008). The pulsating rhythms of the household, intertwined with seasonally driven activities, meant that over the year the longhouse was constantly changing in atmosphere, providing moments when social relationships were made and challenged, broken and re-made.

Daily Life with Other Houses

Contemporary houses would have also influenced life in the longhouse over the year. Studies of deposition patterns in the loam pits at the site of Cuiry-lès-Chaudardes suggest that relationships varied between different houses or households (Ilett et al. 1986; Constantin 1995, p. 151; Hachem 1997, p. 251; Hachem 2011, p. 220). Figure 7.6 shows that the favoured side of the house for deposition may have been influenced by other houses; the occupants of houses which are opposite each other (along the east–west axis) preferred to deposit material (e.g. animal bones, ceramics and lithics) on opposing sides of the house (Hachem 1997, 2011, p. 220–222). There is evidence from other sites that this ‘sided-ness’ of deposition was a habitual action, passed down to subsequent generations, as all the houses at Berry-au-Bac *Le Chemin de la Pêcherie* (three preserved houses) and Bucy-le-Long *La Fosselle* (ten preserved houses) had higher concentrations of finds on the same side (Ilett et al. 1986; Constantin 1995, p. 151; Boiron 2007, p. 305).¹⁰ This suggests that the everyday with longhouses was associated with bodily remembered routines that varied from site to site.

The fills of loam pits came together through a multitude of different actions, including people working alongside houses (Hachem and Auxiette 1995; Last 1998; Hachem 2011) and the favouring of one side of the house for deposition over the other likely resulted at least in part from people working preferentially on one side of the house. This means that the relationships between houses may have influenced

¹⁰ The ‘sided-ness’ of deposition in loam pits has previously been attributed to the effect of erosion on sloped sites, but given its repeated reappearance in a multitude of different situations, including at VSG sites such as Poses (Bostyn 2003) and Aubevoye (Riché, personal communication), it cannot be easily dismissed as accidental.

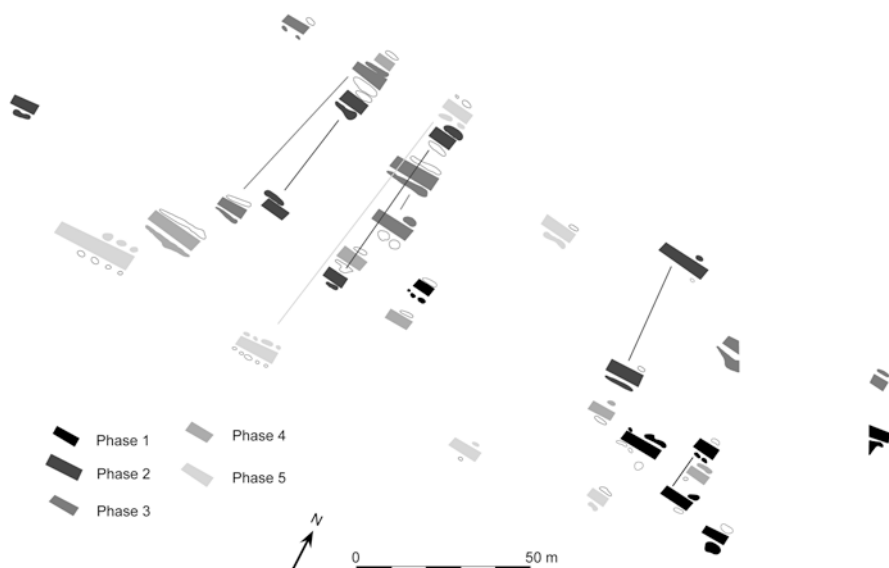


Fig. 7.6 Patterns of deposition at the settlement of Cuiry-lès-Chaudardes, the *lines* represent where houses are 'paired'. (After Hachem 1997)

how people moved around and used the outside spaces on the settlement. Convivial relations might have led to households preferentially sitting on the same external side of the house, while competition (deliberately working where everyone can see what you are doing) might also be an appropriate explanation. Therefore, it is interesting to note that, when households are depositing material on the same sides of their buildings, the houses tend to be closer together (10–30m apart; Fig. 7.6). Where the opposite sides of the houses were favoured perhaps tasks were hidden from the prying eyes and gossip of others or maybe relations between these houses were strained and independence was sought. Whatever the preferred explanation for the patterns found at Cuiry-lès-Chaudardes, they strongly suggest that a network of different relationships operated between households around the settlement. The shared practices which operated around the settlement may have partially influenced how deposition was carried out and whether each house dealt with material remains separately.

Villeneuve-Saint-Germain (VSG) Daily Life

In contrast to Cuiry-lès-Chaudardes, at Bucy-le-Long *La Fosselle* (attributed to the transition from RRBP to VSG) Boivin (2007, p. 306) found that at four of the five houses analysed, lithic debitage was more frequent on the side of the house opposite to that where the bone and ceramic remains were found in the highest frequency.

Boivin (2007, p. 306) suggests that this pattern may be due to the hazardous nature of knapping flint, which led to it preferentially being kept away from other activities. At Bucy-le-Long, the pairing of houses is not visible and this may tie into other changes in settlement which took place during the VSG and decreased the differences between houses such as the progressively more linear arrangement of settlements and the lengthening of houses (Coudart 1998; Bedault and Hachem 2008, p. 234; Bickle 2008).

In contrast to communities sharing depositional patterns, the material remains of the house can seem to emphasise each house as separate. For example, at Cuiry-lès-Chaudardes there are only rare examples of pot sherds from one house being found in the pits of a neighbouring house and when this does occur it is only a single sherd that is found (Ilett et al. 1986, p. 36).¹¹ However, at the VSG site of Jablines on the Marne, where a surface of about 10cm deep was preserved, material remains from the houses are seemingly thoroughly mixed with refitting sherds found throughout the loam pits from different houses (Bostyn et al. 1991; Hachem 2000). In conjunction with the architectural changes in the VSG, this could signal that everyday movements across the settlement, in and between houses, resulted in daily tasks and activities being located and organised differently in relation to the spaces around longhouses. From this it could be suggested that during the VSG, time for the household and time for the community differed to that found during the *Rubané*.

Death: Looking Back

Ending the House

We have no evidence for what the appropriate time to abandon a longhouse was, but it seems likely to have taken place after at least a human generation, but before the structure of the house was compromised and the building became unsafe (Modderman 1988; Bradley 1996, 2001; Whittle 1996, 2003; Gronenborn 1999; Jones 2005, 2007; Rück 2007, 2009). Therefore, abandoning the house seems to have taken place for reasons other than the physical life of the building materials (Borić 2008, p. 127). The disbanding of the household may have come with the death of a household head or as time came for offspring to build their own houses, but such suggestions remain uncertain as any interventions at the end of the LBK longhouse have left few if any archaeological traces (Modderman 1988; Coudart 1998; Bradley 1996, 2001; Whittle 1996, 2003; Gronenborn 1999; Jones 2005, 2007; Hofmann, *in prep*; Rück 2007, 2009). Former members of abandoned longhouses may have thus left over a short period of time, or it could have taken several years as people drifted away to new houses or other settlements along the valley.

¹¹ This does not, however, include houses 420 and 425 at Cuiry-lès-Chaudardes, which appear to share a loam pit (Ilett and Coudart 1982).



Fig. 7.7 Professor Michael Ilett next to the ruins of a reconstructed RRPB longhouse near Cuirylès-Chaudardes. The house was built by Claude Constantin in 1997 and later destroyed by vandals. (Photo: Magdalena S. Midgley, reproduced from Midgley (2005) with kind permission by the author and Tempus Publishing Ltd.)

The state the longhouse was left in is also not clear, as it is usually only the subterranean features which are preserved. The houses do not appear to be burnt as they regularly were in south-east Europe (Tringham 2005, pp. 105–106).¹² Though post-pipes survive (e.g. house 560, Berry-au-Bac *Le Vieux-Tordoir*, Aisne; Allard et al. 1995, p. 60), occasionally there are a few finds recovered from postholes, suggesting that some posts may have been removed (Whittle 1996; Bradley 2001; Hofmann, *in prep.*). This does not, however, preclude the possibility that posts were removed at ground level, or that a mixture of removing and leaving posts took place (Hofmann, *in prep.*). Certainly, in the Paris Basin, it seems most likely that longhouses were left to decay *in situ*, as house plans rarely overlap. At Balloy, Middle Neolithic Passy-style monuments were placed directly over the former longhouse after a hiatus in activity, estimated to be several centuries in duration (Mordant 1991, 1997; Midgley 2005, p. 88), which further suggest that the areas occupied by former houses continued to be in some way marked after the house was abandoned.

A house would thus ‘live on’ beyond the time over which it was occupied, though it would have progressively decayed until only a small mound was left behind (Fig. 7.7; Hodder 1990, 1994; Bradley 1996, 2001; Whittle 1996, 2003; Midgley 2005, Fig. 21). The house and walls were likely the first parts of the house to collapse, leaving the large upright posts standing until they too disintegrated. Slowly

¹² However, there is occasional evidence that LBK longhouses from other regions may have accidentally or deliberately been burnt (Lenneis and Lüning 2001; Pavlů 2000).

plants would have reclaimed the area, first grasses and smaller plants, and then more substantial plants would have taken over. Such occasions could have echoed the process of woodland re-growth for longhouse inhabitants, who must have been familiar with temporal patterns of trees and forests. Woodland regeneration is not clean but involves the twin processes of decay and renewal (Grinker 1994, p. 77; Rival 1998). Just as the floor of a forest can be a tangled mess of fallen branches and rotting leaves, a LBK settlement would have been strewn with the detritus of everyday life: broken pot sherds, animal bones and the remains of meals, flint knapping debris, broken tools and cereal processing remains as well as the remains of activities such as woodworking and weaving, which have not been preserved (Hofmann 2006; Wolfram 2008).

The House in Memory

Therefore, after the initial phase of a site, its inhabitants would live next door to the past, with each former house a physical reminder of a settlement's previous inhabitants (Bradley 1996, p. 248). The decayed longhouses could have stimulated memories and kept stories about the previous inhabitants in circulation long after they had died; a primary site for the locus of social memory (Casey 2000; DeSilvey 2006). The contents of loam pits and other detritus on the surface of the site could have equally demonstrated older styles (e.g. ceramic decoration) which may have been attributable to individual potters or families (Friedrich 1994; Sommer 2001; Pechtl, *in press*). Thus, when new houses that involved cutting into the loam pits of older houses were built, such as house 630 at Berry-au-Bac *Le Vieux Tordoir* (Aisne; Allard et al. 1995) or house 40 at Bucy-le-Long *La Fosselle* (Aisne; Hachem et al. 1998), the construction would have brought people into contact with the remains of earlier houses. Touchable, tangible reminders of the past would have been in full view, sparking stories and the transmission of memories that were specific, local and situated in very particular timescales. Where a house was sited within a settlement also appears to stress relationships with older houses. While there are only five examples of houses constructed partly or completely over earlier houses (Bickle 2008, p. 147), houses are frequently placed next door to an earlier house and its loam pits, or in the case of house 89 at Cuiry-lès-Chaudardes are built in a location almost completely surrounded by older houses (Soudský et al. 1982, p. 110; Hachem 1997; Ilett and Hachem 2001).

Over the life of a settlement, the length it had been occupied would have been demonstrated in the number and decayed state of the mounds of previous houses. The first longhouses to be built at a site could be pointed out to younger members of the community and, perhaps, names and deeds recalled. At the large RRB settlement of Cuiry-lès-Chaudardes (Ilett and Hachem 2001), it is estimated that 150 years of history was built up over five phases (Hachem 1997; Ilett and Hachem 2001; Dubouloz 2003; Hachem 2011). Within this time-scale of a few centuries, it can be convincingly argued that stories would have been remembered, along with

specific houses connected to particular events and people, which were consequently avoided or mourned in turn on the basis of the specific relationships that existed in each community.

Changes between the Rubané and Villeneuve-Saint-Germain (VSG)

Sites of the size and duration of Cuiry-lès-Chaudardes (Ilett and Hachem 2001; Dubouloz 2003) or Bucy-le-Long (Hachem et al. 1998) are not found during the VSG, where settlements appear to have been settled for only a few phases (Bickle 2008, p. 250, 297). Therefore, during the VSG period the immediate community of the site does not develop the same spatial and temporal depth, as settlements are smaller and appear to be abandoned more quickly.¹³ Hence, the layering of different generations together at the settlement decreased, reducing the time depth demonstrated at a site. During the VSG, older houses may have been encountered as people were moving with animals and away from the settlement along the river valleys. Rather than continuous community and a daily encounter with the slow process of decay and disintegration around the settlement, the remains of previous houses were distributed across the landscape (Bickle 2008, p. 298). If these ‘dead’ settlements were encountered in contexts where people were moving, then sites such as these might have been powerful metonyms of the wider-scale social ties which people had, stretched out not just across the landscape but through time as well (Harrison 2004, p. 199, 215).

The idea of the house as a site of social memory is not new (Hodder 1990; Carsten and Hugh-Jones 1995; Bradley 1996; Whittle 1996, 2003; Joyce and Gillespie 2000; Hodder and Cessford 2004; Hofmann 2006; Borić 2007, 2008; Gerritsen 2008), but this is slightly different from the everyday workings of memory—direct recall and known bodily in muscle memory—though they are both implicated within it (Middleton and Edwards 1990). It is a memory of the *past*: a way of looking back. Borić (2007, 2008, p. 100) renders this through the notion of narrative, borrowing from the extended temporal dimension of a house as defined by Lévi-Strauss (1982) in his model of ‘house societies’: a collective history for the house, uniting the disparate actions of household members through a constructed and shared identity, which was passed on and transmitted through the concept of the house. In Husserl’s (1991) terms this is ‘retention’, the present as transmitted directly from the past (as directly bringing about or responsible for the present). We should take from this, therefore that these settlements were constituted out of intimate and specific histories, capable of being drawn into a narrative and offering people a sense of belonging, as particular relationships to former houses were there to be remembered and engaged with emotionally and materially.

¹³ Even the large site of Poses, Normandy, has only ten houses (Bostyn 2003; Bostyn and Lanchon 2007).

Conclusion

Early Neolithic communities in the Paris Basin experienced multi-layered temporal rhythms through the longhouse, nesting remembered pasts and imagined futures into the everyday routines of the passing seasons (Bickle 2008; Borić 2008). Through building, living with and then abandoning domestic buildings, prehistoric communities were enmeshed in a network of different temporal scales (Gerritsen 2008, p. 147). The duration of the house gave a temporal pattern of growth and regeneration to settlements, drawing in intended and worked-for futures as well as recollections and mediations on the past. However, rather than building punctuating routine every generation or so, the imperfect intersection and overlapping of settlement phases must have taken place. The biography and life course of individual households and their members were framed by the lifecycle of the longhouse, tempering the formation of personal identities and achievements. These temporal patterns formed the rhythm of history at a settlement: its successes, failures and eventual abandonment.

However, the house did not end when its occupation had elapsed, but continued as a material presence on the settlement (Bradley 1996). It would have been a powerful reminder of the situated local histories of individual RRBP and VSG settlements and an important locus for the daily, small-scale tellings of tradition and the past community, which informed the transmission of cultural identity. Of course, these broader histories were intersected by the day-to-day routines and annual cycles. Different tasks and activities would have framed the passage of time in the house, with the shifting seasons, agricultural cycle and varied biological rhythms of plants and animals (and humans) changing temporal experience. In the fluctuation over the year, opportunities arose for the making, breaking and re-making of community. The longhouse thus provided a nexus through which different temporal scales were enmeshed. However, rather than statically reflecting one of a possible number of different qualities of the house or household, variability in longhouse architecture was an engagement with the temporal expectations people had of their social relationships. Building a house was therefore a commitment to the social relations of a settlement on the scale of human lifetimes, rather than beyond. It was a substantial obligation of several decades' duration, but this was not passed on to subsequent generations, who appear to have increasingly exploited the capacity and flexibility to move as the RRBP gave way to the VSG.

Even so, the duration of the house appears to have remained the same. This time-scale may, however, have contrasted with the use of fields, which Bogaard (2004) has argued were intensively cultivated over periods of longer duration than houses were occupied. Thus, field agriculture may have played a larger role in the longer term narration of social relationships, while houses mapped out the interplay of marriage and alliance over individuals' life-times. Prehistoric architectures have been thought to have embodied the social relationships and understandings of self and community identity, enmeshing together projections for the future and memories of the past (Brück 1999; Bradley 1996, 2001, 2002; Gerritsen 1999, 2008; Borić 2008;

Souvatzi 2008). However, they did so over very particular time scales, producing the specific micro-histories we find at *Rubané* and VSG settlements.

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Chapter 8

Change and Continuity in the Danubian Longhouses of Lowland Poland

Joanna Pyzel

Introduction

Danubian longhouses from the Polish lowland are interesting not only for local archaeology, but can be relevant even for world prehistory, because they are regarded as the prototype of earthen long barrows of the Funnel Beaker culture (TRB), broadly discussed in archaeology over the past decades (for further references see Hodder 1990, 1994; Bradley 1998; Midgley 2005, 2006). It is worth examining them more closely because these houses are the product of two different archaeological cultures, separated from each other by a period of a few hundred years when there were no longhouses. First of all, there is the Linear Band Pottery culture or Linearbandkeramik (LBK) from the second half of the sixth millennium BC, and secondly the Brześć Kujawski culture (BKC), named after the Kuyavian type-site excavated by Konrad Jażdżewski and which flourished in the second half of the fifth millennium BC.

The issue of the relationship between the LBK and the BKC is very controversial and has been discussed in Polish archaeology over many decades. On the one hand, there is the hypothesis of a chronological and populational discontinuity (most recently Grygiel 2008, p. 1536); while on the other hand, the Stichbandkeramik (STK) has been seen as a transitional period foreshadowing the local development of an independent, lowland post-LBK culture, i.e. of the BKC (most recently Czerniak 2007). I will not be dealing with this topic more thoroughly here, because irrespective of the question of a hiatus or a continuation, there is certainly no direct continuation in the settlement and especially in the architecture of the LBK and the BKC (Hampel 1989, p. 81, Fig. 67). No longhouses are known from the transitional phase of the STK, and this can probably be explained by a different settlement system rather than with the state of research.

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All the houses of the LBK and the BKC have in common is that they both belong to the tradition of Danubian longhouses. This is also why they are frequently treated as one phenomenon in the literature. For the description of BKC houses, it is usual to use models elaborated for the much better researched LBK (to be precise, the LBK in the west, especially in Germany—e.g. Grygiel 1994). This results from a variety of premises. A local researcher and expert on the subject, R. Grygiel, believes the BKC to be the first real local Neolithic culture of the LBK type (based on the idea of a cultural retardation in the Polish lowland—Grygiel 2008, p. 1570). The English-language literature on the genesis of earthen long barrows seems to over-simplify this issue. The question, however, is whether it is justified. The aim of this chapter, then, is to compare these two archaeological cultures and to investigate whether they indeed represent the same longhouse culture.

It seems reasonable to tackle this subject, given the recent increase in fieldwork and publications. This particularly concerns the LBK, for which new sites with longhouses have been discovered, including one in Ludwinowo 7 on the projected A1 motorway, excavated by the Institute of Archaeology and Ethnology, Polish Academy of Sciences and analysed by this author. In the case of the BKC, key books about the Brześć Kujawski and Osłonki region have been published (Grygiel 2008). This chapter will mainly be based on them, although I will also make use of examples from other sites in Kuyavia and other regions of the Polish lowland. The chronological range covers the period of occurrence of the LBK and the flourishing of the BKC (KPCW II-III according to Czerniak 1994), in other words c. 5400–4200 BC.

The House

Linearbandkeramik (LBK)

LBK houses from Kuyavia are typical of the eastern regions of this culture. They are post-built dwellings, where the weight of the roof rests on three rows of posts. The walls are formed by a row of more densely spaced external posts sunk more shallowly. In Kuyavia, there is as yet no record of foundation trenches in LBK buildings.

The number of LBK houses in Kuyavia is small; before the discovery of the settlement in Ludwinowo with a minimum of 13 preserved houses, only six were known (Pyzel 2010, p. 195). However, even now, great caution should be exercised when making any kind of generalisation.

Houses are rectangular structures, with their length varying from c. 12m to more than 40 m. They are usually badly preserved, hence it is difficult to be certain that the posts have been uncovered along the whole length of the building. The width is more standardised, ranging from 5.3 to 7.3m, with the width of the three internal

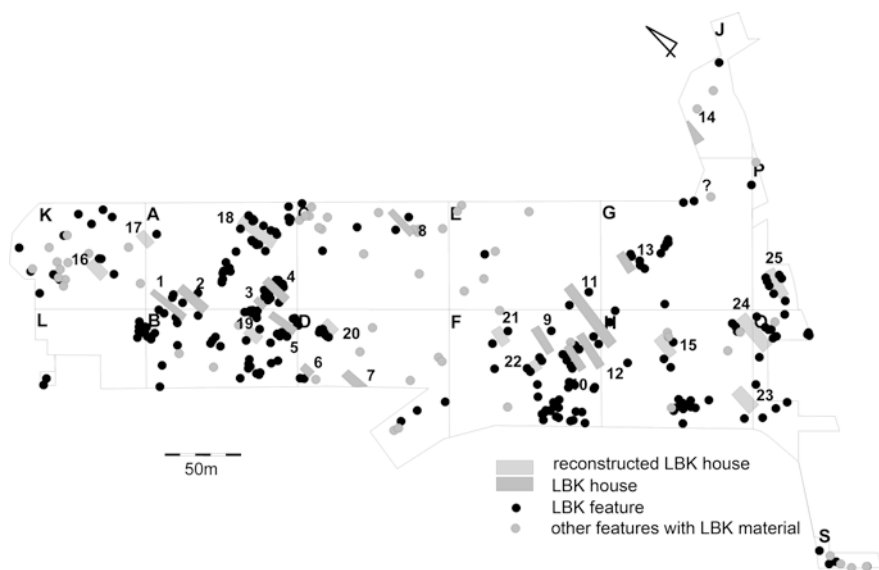


Fig. 8.1 Settlement of the Linearbandkeramik at Ludwinowo 7

post rows being even more standardised, in many cases (in Ludwinowo in more than 50%) measuring 3.6m.

In Ludwinowo, the majority of the houses have a length of a dozen or so metres, with one house standing out at 47m in length. Its floor area measures 336m². For the remaining buildings, this measurement comes to an average of 117m², with half of them falling within the range of 110–125m². In the recently discovered settlement at Kruszyn, ten houses are of a similar size (Płaza and Siciński, in press). In none of the LBK houses are floor levels or the original fittings of the house preserved.

The internal division in Kuyavia is not as distinctly drawn as in the west. We usually record three uninterrupted rows of posts in all parts, with a possible division being indicated by the distance between them or, in the case of three-roomed houses, by the presence of double timber posts in the southern part. In Ludwinowo, one dwelling is a three-roomed house, three are probably two-roomed houses and in the remaining cases it is difficult to mark out the individual parts.

In this area, LBK houses are aligned north to south, with slight deviation to the east or west. The same is true of Ludwinowo (Fig. 8.1), where the difference between the houses with the greatest orientation to the east (16°E) and west (11°W) is 27°. What is interesting is that the houses located near to each other have similar, or even identical, orientations while in general it is possible to distinguish two zones in this settlement—an eastern zone with houses deviating slightly to the east, and a western zone with houses deviating slightly to the west. These zones are separated by a strip of about 100m where there are no traces of LBK features.



Fig. 8.2 Houses and graves of the Brześć Kujawski culture in Brześć Kujawski, site 4. Grey dots: burials. (After Grygiel 2008, Fig. 7)

Brześć Kujawski Culture (BKC)

The construction of BKC houses is completely different. Here, the weight of the roof is borne by the outer walls. They are formed by a palisade of whole or halved timber posts placed in a sometimes very deep foundation trench (preserved often to a depth of 1–1.5m, which contrasts with the shallow depth of the postholes of the LBK houses—on average 10–20cm). The roof structure is supported by a few internal posts, though they are not always recorded. The shape of the houses is a much elongated trapeze.

The size of the houses is discussed using the example of the settlements in Brześć Kujawski, site 4 (21 completely preserved house plans—Fig. 8.2) and in Osłonki, site 1 (14 completely preserved house plans—Fig. 8.3). Several exceptionally large dwellings, with a length of about 40m, were recorded there, while the remainder, with an average length of a dozen metres or so, form a fairly compact group. This is best seen by examining their floor areas—the average size of the dwellings from both sites is 111.46m², although this value is inflated by the dimensions of the aforementioned large houses, which are over 200m². The majority of the buildings, however, fall within the range of 75–100m². In Grygiel's (2008, p. 1908, Fig. 1486) opinion, the size of the house is significant from a chronological point of view. In the first settlement phase, houses had an average floor area of 54.41m², in the middle phase, 108.03m², while in the later phase it was 133.75m². It should be emphasised,



Fig. 8.3 Houses and graves of the Brześć Kujawski culture in Osłonki, site 1. Grey dots: burials. (After Grygiel 2008, Fig. 404)

however, that it is from the assumption of this chronological trend that the interpretation on the dating of houses was sometimes drawn (Grygiel 2008, p. 311).

In the case of BKC houses, the original floor surface of the house invariably does not survive and only the ground plan can give an indication of their internal divisions. Many houses are empty inside, others show traces of division into two or a maximum of three rooms. On the basis of analysis of daub imprints, it is possible to reconstruct partition walls as lighter wattle and daub panels. The entrance to the house was located in the southern part, on the wider of the shorter sides of the trapeze, a position indicated by the shallower postholes at this point.

The long axes of BKC houses are, similar to the LBK, aligned north to south. There are, however, some differences: at first glance it seems that the alignment of the houses within one settlement might be freer than in the LBK (Figs. 8.2 and 8.3). It is true that houses preserved in their entirety from Brześć Kujawski vary by a mere 28° , similar to the situation in Ludwinowo in the LBK. However, if partially preserved buildings are taken into account, this value rises to 44° . It is even more significant that it is often houses placed in close proximity that display different alignments.

All of the houses in Brześć Kujawski deviate slightly to the west (Fig. 8.2). In Osłonki, their alignment is closer to the north-south axis (Fig. 8.3), while in Krusza Zamkowa the axis of all of the buildings deviates by about 35° to the east (Czerniak 1980, p. 111, Fig. 48). It seems that in aligning the houses, their positioning perpendicular to local watercourses was of importance.

In Krusza Zamkowa, we do not find such large differences between the alignments of houses in the settlement. This is similar in Zelgno in Chełmno land (Czerniak 2002, p. 18, Fig. 8), while in Barłożno in Pomerania the difference in the

orientation between the houses reaches 90° (Czerniak 2007, p. 238, Fig. 3). This is similar to the situation in Racot in southern Greater Poland, where one house differs from the standard alignment of a few degrees to the west by deviating as much as 64° to the west (Czerniak 2002, p. 13, Fig. 3).

The House within the Settlement

Linearbandkeramik (LBK)

In Ludwinowo, a minimum of 25 houses stood over an area of 65,000m². Apart from the 14 constructions mentioned in the previous section, the presence of the remaining 11 which were not preserved is indicated by the characteristic elongated clay pits either side of a house. There are no overlapping house plans (Fig. 8.1).

The houses occur in two groups—east and west. This division notwithstanding, we are not dealing with planned building here. The settlement was probably, following the interpretation of this pattern for other regions of the LBK, simply a collection of individual households. In Ludwinowo, it was not possible, however, to attribute pits other than elongated clay pits along a house to specific houses/households. It seems that at least some households were in fact confined merely to those very pits—there are no other LBK features in their vicinity. It is thus difficult to determine the exact spatial extent of one household. Generally, though, irrespective of their dating, there was a great deal of empty space around the houses.

Apart from that, clusters of large, irregular pits were found in the settlement, often used over a long period and placed at some distance from the houses. These probably served the inhabitants of more than one household, perhaps of the whole or part of the settlement. Wells were another similarly communal enterprise.

The spatial organisation of a single household, even if confined to a house and clay pits, differed. This is indicated by the preliminary analysis of the site plan and the distribution of the pottery. Some houses had pits to one side only. In others, there was a concentration of pottery in the southern part of the pits alongside the house. Generally, coarse pottery predominates in many pits connected to a house. There are, however, exceptions to this. There are also differing amounts of pottery in individual households, but there is no correlation between this number and house size. It is difficult to say whether this has anything to do with the number of inhabitants. Generally, for the LBK it is assumed that a house was inhabited by one nuclear family of about six persons (for further references see Zimmermann et al. 2006, p. 165 ff.).

On the basis of correspondence analysis of decoration motifs on the pottery, the houses were categorised into six settlement phases. The overall number of settlement phases must have been even higher—there are also single, earlier and younger pits. Dating of certain houses is of course relative and burdened with possibilities for error; nevertheless, it is possible on that basis alone to roughly estimate the time during which one house was used. Taking into account the duration of the LBK in

Kuyavia (the earliest known house is dated to LBK IIA, c. 5250, the latest to the early LBK III, c. 5000 BC), we obtain a maximum duration of about 42 years (250 years divided by six phases). This result is very approximate and needs to be reanalysed more thoroughly in the future but it demonstrates that in Kuyavia, as in other regions of the LBK, each generation built its own house. It is sometimes difficult to establish the sequence of houses (i.e. to reconstruct a *Hofplatz*, a succession of structures within a circumscribed area of the site), as the relations of houses are yet to be the subject of more precise analyses.

One LBK burial has been recorded in the settlement in Ludwinowo. In Kuyavia, settlement burial is the exception rather than the rule. It is not known what LBK communities did with their deceased, as there are also no separated cemeteries from this period in this region.

Brześć Kujawski Culture (BKC)

In BKC settlements, building was considerably more dense: in Osłonki, for example, about 30 houses were recorded over an area of about 13,500m² (Fig. 8.3). There are often the so-called ‘cellar pits’ in the houses—regular, rectangular pits located mainly along the eastern wall—but there are no longer any clay pits outside, alongside the house. Instead, large irregular clay pits are recorded, probably used by the inhabitants of more than one house. Other communal enterprises include water wells (Grygiel 2002) and an enclosure in Osłonki.

For the settlement in Osłonki, Grygiel (2008, p. 528) suggests two rows of buildings. At the same time, however, he believes that BKC settlements imitated the LBK model and were also only a collection of households (Grygiel 2008). The household model was adopted by Grygiel (1984, 2008) for houses 56 and 56a in Brześć Kujawski, site 4, and houses 41 and 42 in Brześć Kujawski, site 3, located at the periphery of the large settlement in Brześć Kujawski. In the more centrally located parts of the settlement, it is difficult to distinguish such households. Even more difficult is the reconstruction of the activities of the inhabitants of the house, though it seems that the buildings served primarily domestic purposes.

For the settlements of Brześć Kujawski and Osłonki, there is no division into settlement phases akin to the LBK house generations, although Grygiel (2008) often uses the term ‘generation of trapezes’. On the basis of stratigraphy alone, Gabałówna (1966) distinguished seven phases of use of the settlement in Brześć Kujawski. In his latest publication, Grygiel (2008, p. 311) uses a division of only three phases (I, II and III), each lasting 200 years. However, analysis of the settlement plans from Brześć Kujawski and Osłonki indicates that at least in some areas of the site, there was a whole sequence of houses within one phase: sometimes two (houses 22 and 23, 32 and 33 in Osłonki; Fig. 8.3), in extreme cases even five (houses 1, 24, 26, 27 and 19 in Brześć Kujawski; Fig. 8.2). Does this different number show that the time of utilisation of a house in the BKC could vary and was not subject to such strict rules as during the LBK? The dating of houses applied hitherto

within the 200-year phase seems too general to answer this question. The fact is that the number of houses in individual phases was not constant—the greatest number is dated to the middle (II) phase.

The number of inhabitants in one house is estimated by Grygiel (1984, p. 189, 1994, p. 69) at five to seven persons, while Czerniak (1980, p. 146) suggests 12–15. This would, then, also be simply a family, nuclear or extended. In any case, the standard size of houses seems to indicate that they were always inhabited by a similar-sized group.

As already mentioned, the plans of many houses in the BKC overlap, sometimes forming long chronological and stratigraphic sequences. This phenomenon occurs particularly frequently in Brześć Kujawski (Fig. 8.2), and given that this is the best-known site, it is then used as a model for the whole culture. It seems, however, that the overlapping of houses was not the rule. In Krusza Zamkowa, this phenomenon is only found once, as is the case in Zelgno in Chełmno land. The remaining houses here stand very close to each other, without encroaching on each other's plans. There is also no house superposition in the recently excavated settlement of Bodzia in Kuyavia (Czerniak and Sobkowiak-Tabaka, personal communication). It is obviously difficult to interpret this phenomenon in cases where we do not know the chronological relations between these constructions. However, even for the dated (albeit generally) multi-phase settlement in Osłonki we already have a good many single houses and only one case of a full sequence of houses from phase I to III (with three examples, in Brześć Kujawski this number is also not very high).

The rules for the replacement of houses were also varied. For instance, in the case of houses 14, 16 and 17 from Brześć Kujawski, there is a fan-shaped layout, in which the northern part of successive houses shifted to the west (Fig. 8.2). Here only the southern parts of the buildings intersect, and there is no example where the same foundation trenches are used. It is a different matter in the case of houses 46, 4 and 48 in the same settlement. Houses 47 and 48 stand next to each other and are dated to phase II. Their chronological relationship is unknown. House 46 was built around house 47, making partial use of the foundation trench of houses 47 and 48. There is another trench there from phase II, but it is not known what it belongs to. Houses 46 and 47 are identically aligned, while only 4° differentiate them from house 48. In turn, houses 31, 30 and 33 are a classical sequence of houses from three phases and at the same time a classical situation of increasing the house size in a subsequent phase. The oldest house, 31, is the least well preserved. It was surrounded by house 30, probably without disturbing the foundations. House 33 makes considerable use of the foundations of house 31, with only the southern part being extended. The alignment of all of the houses is almost identical. It is not always the case, however, that the rules of succession were the same in every phase. At Osłonki (Fig. 8.3), for example, in phase II house 6 was built next to the two superimposed houses 7 and 8 from phase I; and house 5 was subsequently erected on top of house 6 in phase III.

The secondary use of the houses is sometimes connected with burials. In the case of burials from Brześć Kujawski, mostly excavated before the Second World War, there is often a lack of more accurate anthropological designations, hence my main conclusions are based on data for the Osłonki settlement (Grygiel 2008, p. 1705 ff.).

Here, settlement burials are recorded in the vicinity of houses (often in the form of small clusters—‘cemeteries within settlement zones’—Czerniak 1980, p. 124) as well as occurring directly connected to the houses. I would like to look at the latter case more closely.

In two cases, the burials and houses could be contemporaneous as the deceased were inhumed against the wall without damaging it: in the south-west part of house 9, a man aged 35–45 was buried, while a girl aged 6–9 lay in the south-east corner of the house (Fig. 8.3). In the remaining cases, the graves are later than the houses, usually from another phase. Their location varies: south-west corner (house 26, phase II, a woman aged 20–30), north-east corner (house 24, a man aged 30–40), west wall (house 9, a boy aged 5–7), east wall (house 9, a man aged 20–30; house 1, a man aged 40–50, a boy aged 8–10 and an adult or mature man). It is difficult to perceive any connection between the location of the grave and the sex or age of the deceased. Sometimes these graves are located next to others not dug into the house. Despite this, the connection with the house seems to be deliberate. At times, certain regularities can also be observed—for example, in the case of the group of houses 46, 47 and 48 from Brześć Kujawski, where graves were always dug in the west wall at the same distance along (Fig. 8.2).

Moreover, in BKC settlements burials are sometimes found in houses. For example, in house 13 in Osłonki, in its south-eastern parts (the house was probably made longer when it was extended) the burials of two men, one aged 30–40 and the other over 50, were recorded. They represent the same middle (II) settlement phase in Osłonki as the houses. No more houses were built in a later (III) phase, so perhaps the grave(s) conclude the settlement of this site. Indeed, it is often the case, as in the cases presented above, that the graves are later than all the houses in the immediate vicinity, although this is not the rule. Thus, in phase III, two graves were dug into the phase II house 9: in the west wall a boy aged 5–7 and in the east wall a man aged 20–30. House 12 was built on top of this house in phase III, but with a quite different alignment (Fig. 8.3).

Not every house in Osłonki had graves directly connected with it. Whether some graves in the settlement belong to a particular house or not is ambiguous. There is no visible regularity between the rule of succession of the houses and the location of the graves. It is only worth emphasising here that none of the richest burials with copper grave goods were dug into the wall of a house or placed inside the building.

It is thus possible to state that rules regarding funeral rites in the BKC were diverse and this variation is hard to explain unequivocally. This topic deserves to be researched separately in depth.

Discussion—Comparison of Similarities and Differences

Here, it is worth emphasising the similarities and differences between LBK and BKC houses. There is no doubt that the buildings in both cultures were monumental in character and that their size did not result from economic necessity. They must

have been an unusually important element of the culture. The uniformity of their shape and construction shows that their appearance was subject to strict norms. The difference between LBK and BKC houses, hitherto interpreted only in functional terms, is also worth highlighting here. The change of shape from a rectangle to a trapeze is probably the result of influences from the west, from the slightly earlier Rössen culture of central Germany. It may be a reflection of the desire to continue the tradition of the longhouse, underlining the monumental character of the building, especially when seen from the front, where such a house seems even larger than it is in reality. However, shifting the weight of the roof from the internal posts to the walls meant a completely different appearance of the interior of the house. Instead of a 'forest at home' we are dealing with relatively large spaces in the BKC, even taking into account the not always archaeologically visible internal division. This expansion of the internal floor area of the house is accompanied by simultaneous cramped conditions outside—BKC houses stand considerably closer to each other than in the LBK. The question, then, is whether we can actually demarcate a separate household for each building.

Individual households are probable for the LBK, leaving aside questions of property, inheritance and so on connected with the *Hofplatz*. At this stage of the analysis of data from Kuyavia, it is difficult to discuss them at length. As yet, it is difficult to state whether the observed differences in the organisation of the LBK household reflect significant differences between the inhabitants of individual houses. It seems that the buildings of this culture were inhabited by family groups of comparable size. The majority of the houses had a comparable floor area. One house in Ludwinowo stands out, at a length of 47m. It is the first of a sequence of at least three houses—each subsequent house was erected to the west of the previous one (Fig. 8.1). This is the only layout in Ludwinowo that is this clear. The fact that subsequent generations of inhabitants of this household built smaller houses might indicate the desire for monumentalisation of the founder. It is worth pointing out that this house is not the oldest in the settlement.

The two oldest houses of the sequence discussed here were identically aligned; in the case of the subsequent house, there was a shift of 4° to the east. The first, second and third house in the sequence are all badly preserved, but probably began on almost the same line on the south side, where their entrance was probably located. This example shows that the houses abandoned by their inhabitants were not demolished, but must have been visible on the surface for a long time. It seems that, at least in the case of Kuyavia, there were no exceptions to this rule. The fact that traces of such a building might have been visible for a very long time is supported by the discovery from Bożejewice 22/23 (see, e.g. Czerniak 1998; Midgley 2006), where a BKC house was dug into an LBK house, matching its plan exactly although it was built 1,000 years later.

In the BKC, the size of houses was even more uniform than in the LBK. Here, too, apart from their size the large houses do not differ in any other remarkable way. They are simply one element within the sequence of houses, being preceded and succeeded by smaller structures. This may be an argument against the special function of large houses. House 3 in Osłonki, with a length of 40m and dated to phase

II, is cut by the smaller house 2 from phase III (Fig. 8.3), while in Brześć Kujawski the similarly monumental house 12, also dating to the middle phase (II), was built around a smaller building from phase I (Fig. 8.2). This uniformity of size and shape contrasts greatly with the aforementioned variety of practices connected with house continuation and superposition. Why do only some of the houses intersect? Even the overlapping of houses reflects heterogeneous practices—sometimes the houses just touch each other, sometimes they duplicate their plan, sometimes they even use the same foundation trench.

Despite the physical uniformity in the BKC, which differs from in the LBK, one house was not the exact equal of another. It is difficult to find an explanation for these practices on the basis of available archaeological sources. For example, a house fire did not result in the same behaviour every time. House 56a in Brześć Kujawski stood next to house 56, which had burnt down (Fig. 8.2). In Miechowice 4 in the Osłonki microregion, on the other hand, house 4 was built in phase III on top of the burnt-down house 3 from phase II, using the south and east walls of the old house (Grygiel 2008, Fig. 860). Of course we do not know the causes of these fires (apparently frequent—Grygiel 2008, p. 1888). Maybe the circumstances of the ‘death’ of the house were of significance for its subsequent treatment. The same could be true of the death of its inhabitants.

The question is whether the period of utilisation of the houses was actually different. Erecting a new house in the same place probably means that its duration is prolonged, it is a conscious continuation together with a simultaneous accentuation of the moment of change/rebuilding, always signifying the beginning of a new time (Borić 2003). Does this mean that some houses were rebuilt more often, while others were used unchanged? What were the conditions that allowed some buildings to be different? Perhaps this dissimilarity in the treatment of the house reflects a certain social diversity of its inhabitants. The BKC is usually treated as an entity continuing the Neolithic traditions of the LBK, and thus egalitarianism, too (e.g. Grygiel 2008, p. 1570). It is, however, contemporaneous to Eneolithic cultures, in which we are already dealing with some social ranking. Evidence of contacts with them may be the presence of copper in BKC graves. It is possible that the diversity of the status of the residents of the house, too, was not apparent in house size (which was, as I mentioned, defined by cultural norms), but was reflected in its biography.

Other factors may also have played a role in the differentiation of a continuity of praxis connected with a house. Useful sources for interpretation can be sought in the idea of house societies. This model, which we owe to the anthropology of Lévi-Strauss (1982), is gaining increasing popularity among archaeologists despite numerous problems with its application even in anthropology (for discussion, see Gillespie 2000; Carsten and Hugh-Jones 1995). Lévi-Strauss did not precisely define house societies, placing the main emphasis on kinship organisation. Some attempted to overcome these limitations by defining the exact criteria distinguishing house societies (e.g. González-Ruibal 2006). In this approach, social hierarchy played an important role, hence the conclusion could be that this model can be applicable only from later prehistory onwards. Others treated house societies rather as an inspiration than a detailed, cross-cultural, universal model (Waterson 1995).

House societies can be defined as societies where the house “is a major symbol and organizing principle of social organization” (Hodder and Pels 2010, p. 187) and it has an individual ‘life’, distinct from its inhabitants or even the physical building. This is why its presence is suggested for the (pre-)Neolithic eastern Mediterranean, or even the LBK—in other words for relatively undifferentiated societies (Borić 2007, 2008). Pavlović (2010) postulates a similar model for the Rössen culture, similar to the BKC but a little earlier, but sees this as a contrast to the LBK situation. For Çatalhöyük, Hodder and Pels (2010, p. 183) introduce the term ‘history houses’, which differ from other houses in terms of elaboration, number of burials and evidence of multiple rebuilds in the same location. History houses thus ‘accumulated’ historical memory, possibly related to important events. This hypothesis cannot be applied in full to the BKC, with a particularly significant difference concerning, in my opinion, burials—there is no correlation between their number and location on the one hand and rebuilds of BKC houses on the other.

Ethnographic analogies from south-east Asia may also be inspiring. In Tana Toraja society in Indonesia, houses have their own genealogies (Waterson 1995, 2000, 2003). Alongside ‘origin houses’ exist ‘trunk’ and ‘branch’ houses, less important and less long-lasting houses. It is true that in this case, too, this is reflected in their appearance—‘origin houses’ are very elaborate, which cannot be claimed in the case of the BKC. However, elaboration may also be reflected in many features which have not been preserved in BKC settlements (but are, for example, present in Çatalhöyük—decorations, installations etc.—Hodder and Pels 2010).

Returning to the comments from the introduction to this chapter, could it be that such ‘origin houses’ were the prototype for TRB barrows? What then about the practice of abandonment of a LBK house, whose ruins, in the opinion of many researchers, were the prototype for TRB burial mounds (e.g. Bradley 1998; Midgley 2006)? Were BKC houses decaying in a similar way? Traces of wooden posts in foundation trenches testify to the fact that, apart from cases of obvious rebuilding of a house in the same place, houses were not usually demolished, or at least not to the extent of digging up the posts. However, there are also cases of incompletely preserved trenches, which, bearing in mind their depth, are difficult to explain by erosion. How can we interpret houses from Osłonki cut by a later BKC enclosure (Fig. 8.3)? Are houses 22 and 23 just forgotten ‘origin houses’? But also, in what form was, for example, the burnt-down house 56 visible in later phases? Moreover, how should we imagine a grave dug in the foundation trench of an earlier, but still standing (?) or at least clearly visible house? Perhaps in the BKC we are dealing with some practices of arranging the space left by a house, and perhaps burials are an element of this action. Maybe it was this that was the prototype for TRB barrows. In any case, it is the BKC rather than the LBK communities which existed contemporary with the TRB (recently Pospieszny 2010).

To sum up, the LBK and BKC were both societies with monumental longhouses. However, there are considerable differences in the details. LBK houses seem to be very similar, each connected to an individual household. BKC houses represent much more diversity in this uniformity; they seem to be more closely related to each other.

“The meaning of a house is multi-dimensional and subject to repeated reorientations” (Bailey 1990, p. 26). Thus, houses ‘meant’ something in different ways through time (Hodder 1994, p. 75), even apparently quite similar longhouses through quite uniform Danubian time.

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Chapter 9

Living by the Lake. Domestic Architecture in the Alpine Foreland

Daniela Hofmann

Introduction

The Neolithic lake villages of the circumalpine zone are famous for their excellent preservation of waterlogged wooden dwellings, one- or two-roomed structures either placed directly onto the boggy surface or raised above ground on stilts. They are relatively simple and slight, and on any one site seem quite similar to each other. This has to an extent resulted in a tendency to take these buildings for granted, yet they are a significant departure from earlier central European traditions.

This paper argues that lake village houses represent a re-orientation in the way buildings are connected to the identity of their inhabitants. This is part of a wider shift taking place in Europe around this time. In contrast to the earlier Neolithic longhouses of the *Linearbandkeramik* (LBK) and its successor cultures further to the north (see Chaps. 7, 8 and 10), the Alpine dwellings and their dryland equivalents are not monumental structures, nor are their interiors architecturally complex. Their slight frames decayed quickly in the wet ground and most structures stood for much less than a human generation—these were ‘shorthouses’ (Whittle 2003, p. 143) in terms of both length and use-life. Instead, their construction and maintenance are part of a continuous affirmation of identity and belonging through practice. This now becomes the guiding principle for the organisation of social relations. In this kind of setting, transmission of rights of residence is not tied to the physical permanence of the structures themselves, but relies on the performance of community and belonging, introducing a high degree of fluidity at the level of both the house and the village.

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The lake village phenomenon is geographically and chronologically extensive. Sites are known from Italy, Slovenia, Austria, Switzerland, southern Germany and France and last from roughly 4300 cal BC well into the Bronze Age (e.g. Schlichtherle 1997; papers in Menotti 2004a). They are frequently found in locally conspicuous locations, such as near the confluence of a stream with a lake, on islands, in small bays, or on slightly higher, drier ground within bogs. Individual settlement phases are generally short-lived, particularly earlier in the sequence. On the larger lakes, however, some sites are repeatedly inhabited, leaving thick stratigraphies and a maze of sunken posts (Schlichtherle 1990, p. 230). There are also general gaps in lakeshore occupation, and both the reason for the initial settlement of the lakes and the significance of its occasional interruption remain contested (Menotti 2004b).

For some, lake villages were established in marginal locations for easier defence and remained highly dependent on climatic fluctuations and the resulting food crises (e.g. Pétrequin 1984; Pétrequin and Pétrequin 2008, pp. 148–152; Schibler et al. 1995, 1997; Schibler 2004). For others, settlement gaps are connected to social causes, such as inheritance rules or residence patterns after marriage (Ebersbach 2010a, p. 154; Schlichtherle 1990, p. 213). While people responded to environmental rhythms and changes, they could develop alternative coping strategies, such as dispersal, short- or long-range relocation, or an increase in the use of wild resources. Indeed, some settlement gaps may be illusory: with fluctuations in lake levels, villages could have shifted only a short distance, but to areas where preservation is unfavourable (Dieckmann et al. 2006, p. 244; Hasenfrazz and Gross-Klee 1995). This may not explain all known gaps (Mauvilly and Boisaubert 2007, p. 410), and in spite of the considerable density of settlement especially around the large lakes, dryland sites probably form an important part of the archaeological record even in the Alps, but are far less intensively studied (see e.g. Mauvilly and Boisaubert 2007; Hasenfrazz and Gross-Klee 1995, pp. 195–198, p. 203; Strobel 2000, pp. 275–303; Ebersbach 2012).

The present paper hence concentrates on the lake villages, particularly those from the earlier part of the settlement sequence, from 4,250 BC to roughly 3,000 BC, in south-western Germany, Switzerland and adjacent areas of France (Figs. 9.1 and 9.2). Settlement at this time is characterised by relatively short-term sites, with site relocations often taking place within 15 years or so. From the later Horgen onwards, settlement layouts begin to formalise and villages become increasingly stable (e.g. Schlichtherle 1997, p. 91; Billamboz 2006, p. 335; Strobel 2000, p. 272; Bleicher 2009, pp. 145–149; Ebersbach 2012). Examples from these later phases are only occasionally drawn upon here. After describing the general appearance of houses, I discuss their potential symbolic importance and their context within village communities. This reveals a central role for practice, rather than structural permanence, in the creation of identities. Finally, I briefly turn to some implications for the adoption of sedentism and the nature of cultural contacts in this area.

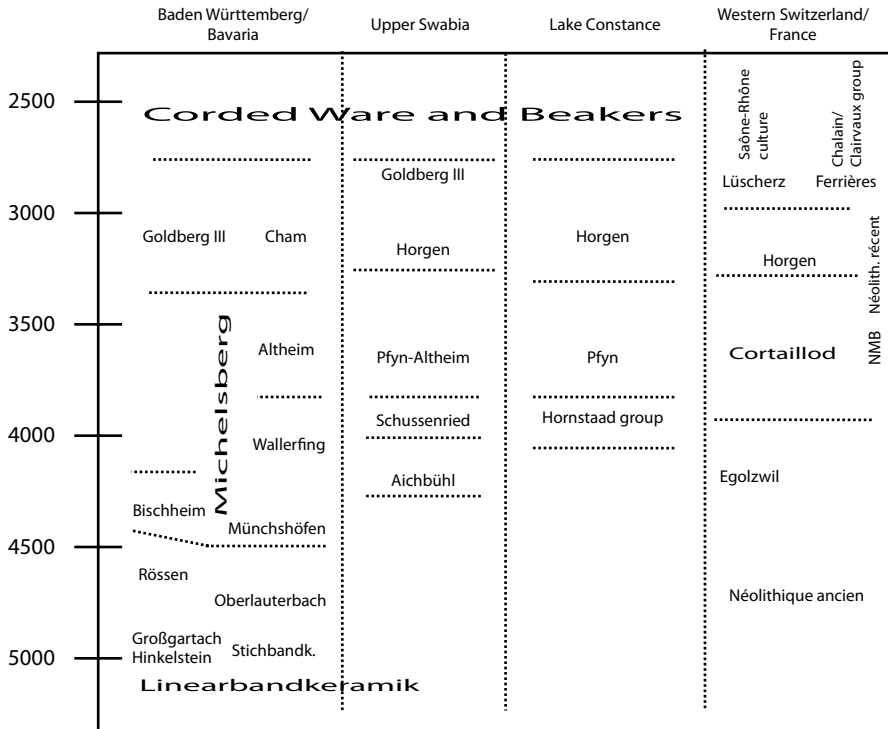


Fig. 9.1 Overview of cultural groupings mentioned in the text. (After Schlichtherle 1997, p. 115 f; Strahm 1997, p. 125)

The Lake Village House

Construction

The basic construction techniques of lake village houses are broadly similar throughout the study area, but there are some regional peculiarities and technological solutions can even differ locally (e.g. Schlichtherle 1997; Hasenfratz and Gross-Klee 1995; Strobel 2000; Dieckmann et al. 2006; Ebersbach 2012). In spite of initial controversies, it is now known that houses could be built directly onto the ground surface with only a thin insulation layer of moss or bark, slightly raised on a lattice of poles, or actually on stilts (Schlichtherle 1997; Strobel 2000; Hasenfratz and Gross-Klee 1995, p. 216 f). Especially in earlier phases, clay or lake sediments were used to cover the floor, but from the Horgen culture, bark strips and moss became more usual. Different rooms within houses could have floors made from different materials (Schönfeld 1997; Dieckmann et al. 2006, pp. 220–223; Wyss 1976, p. 100).

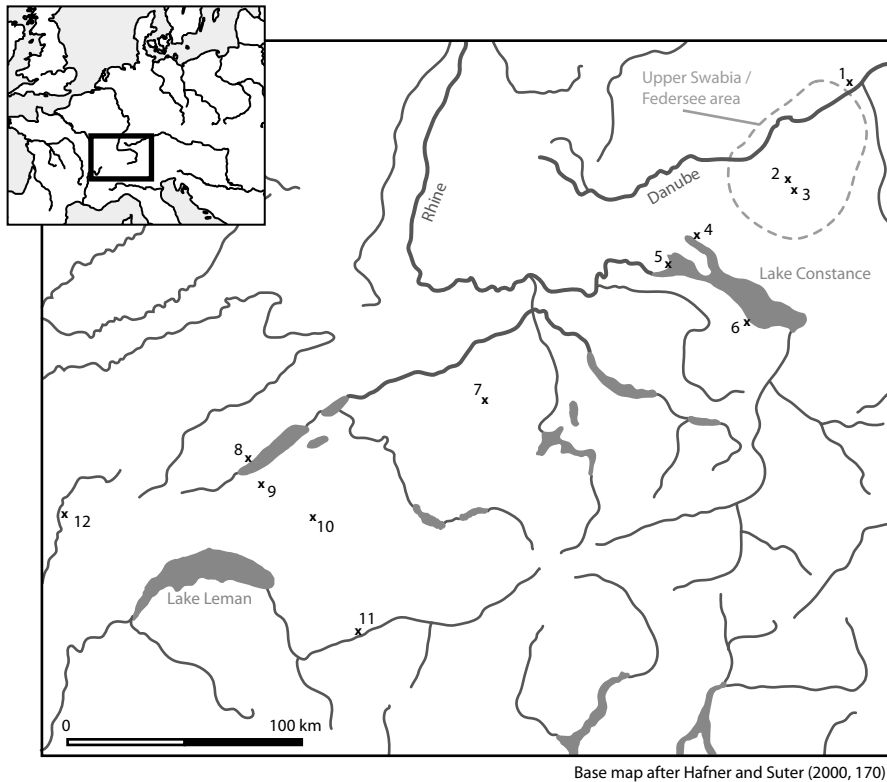


Fig. 9.2 Map showing main sites mentioned in the text. 1 Ehrenstein; 2 Torwiesen; 3 Aichbühl; 4 Ludwigshafen-Seehalde; 5 Hornstaad-Hörnle; 6 Arbon-Bleiche; 7 Egolzwil; 8 Concise; 9 Marin-Les Piécettes; 10 Arconciel/La Souche; 11 Sion-Petit Chasseur; 12 Chalain

Wall construction was similarly diverse and the combination of walls and floors allowed alternative solutions to evenly distribute the weight of the roof, such as horizontal base-plates (Ruoff 2004). External walls and internal partitions could consist of wattle and daub, of planks or posts, cudgels wedged between uprights, or even log-built walls, with some houses combining several options. Again, clay use is mostly an early feature (Hasenfratz and Gross-Klee 1995, pp. 218–220; Schlichtherle 1997; Strobel 2000, p. 297 f). Relatively little is known about roofs, as these were generally the last elements to be waterlogged as the house collapsed. Reed covered roofs are generally postulated (e.g. Wyss 1976, p. 100; Hasenfratz and Gross-Klee 1995, p. 218 f), but on large lakes such as Lake Constance, where reed could be in short supply, other materials may have been used (Schlichtherle 1997, p. 92).

Houses are rectangular and their size can vary both between culture groups and locally. Larger examples reach 15×5 m, most are around 5–8×3–4 m, and the smallest structures, perhaps ancillary buildings, are c. 3×2.5 m (e.g. Schlichtherle 1997; Strobel 2000; Schlichtherle et al. 2010). There is comparable flexibility concerning internal layout. Houses of the Aichbühl culture around Lake Federsee, for instance,



Fig. 9.3 **a** Impressions from the reconstructed Schussenried culture village of Taubried at the Federseemuseum, Bad Buchau. **b** The larger (back) room of one of the Schussenried culture houses. (Photos: author)

are about 8×5 m and have a central longitudinal post row supporting the roof. The most common layout is of two rooms separated by a transverse wall, and most houses have both a domed clay oven and a hearth. At the front of the house, there is a small roofed porch area open to the outside (Schlichtherle 1997, p. 93 f; Strobel 2000, pp. 275–286). In the succeeding Schussenried culture, houses are smaller and can now also be one-roomed; the most common layout is of a narrow front room containing the oven and a back room with a hearth (Fig. 9.3). At Ehrenstein, the largest houses were three-roomed (Schlichtherle 1997, p. 94 f; Strobel 2000, pp. 286–301). Later cultural groupings again repeatedly changed their preferences in terms of number of rooms, presence of a central post and so on (see overviews in Schlichtherle 1997; Hasenfratz and Gross-Klee 1995, pp. 223–228; Strobel 2000, pp. 275–305). Where detailed studies are possible, the house interior seems divided into areas for sleeping and for various manufacturing and food preparation activities (e.g. Arbogast et al. 1997; Tardieu 2002). Generally, it is assumed that lake village houses may have sheltered a nuclear or slightly extended family of five to seven individuals (e.g. Hasenfratz and Gross-Klee 1995, p. 228 f; Schlichtherle 1997, p. 89; Gallay 1995), with perhaps up to 12 people for the largest buildings (Schlichtherle et al. 2010, p. 173).

Broadly, then, lake village houses can be characterised as relatively small and rectangular. Their arrangement in neat rows, connected by wooden walkways and surrounded by palisades, heightens the overall impression of similarity. In spite of differences in detail, layouts and sizes are quite uniform across a site, and this has created the impression of egalitarian and undifferentiated communities (for a critique, see Honegger 2005, p. 185). Yet on the other hand, the location and number of hearths or partitions can vary between houses on the same site, and construction techniques sometimes differ between parts of the same house. The remainder of the

paper focuses on further avenues of distinction, especially through materials and practices. Yet it should not be forgotten that these are often subtly expressed. The interplay between diversity and uniformity remains a key research problem.

Two main points can be taken from this brief description. One is the opportunistic nature of building. There is considerable know-how regarding the constructional challenges of living on the shore, and a wide range of local materials was used: wattle, stakes, poles and planks of different wood types, clay from drier land, lake sediments, mosses, reeds and bark. Occasionally, people also re-used suitable timbers from older constructions (Dieckmann et al. 2006, p. 232 f; Strobel 2000, p. 301). Materials and techniques were adapted to the specific ground conditions, for instance by either raising floors, or by simply replastering them as their weight pushed them into the soft marls (as at Ödenahlen and Egolzwil 5; Wyss 1976, p. 100; Schlichtherle 1995, p. 44; see also Hasenfratz and Gross-Klee 1995, p. 214). At Aichbühl, floors were built as patchworks of different wood types interleaved at various angles, and were similarly renewed in irregular patches as and when needed (Strobel 2000, p. 275).

In this sense, people were attuned to the demands of their environment, as well as of their own buildings. This echoes arguments made by Ingold (2000, pp. 172–188) and Barrett (2006). For them, building a house is not the imposition of an abstract form or ideal on the environment, but the creation of place within it, through the affordances offered. While Barrett concentrates on the way houses orient their inhabitants into the world, Ingold also explicitly deals with the interaction between people and materials. Rather than a relationship of domination by the human builders, he stresses the mutual involvement of both in creating a structure woven from the environment, and thus a part of it. For the lake villages, we can think of people responsive to and intimately familiar with the rhythms of the seasons, their attendant challenges through floods or frost and their opportunities in the form of available materials. While the replication of rectangular structures with a certain number of rooms also shows underlying shared ideas of what made an appropriate dwelling, lake village architecture is ultimately the outcome of this reciprocal and accommodating relationship with its surroundings.

The second point is the general feeling of impermanence. In contrast to the earlier, central European LBK longhouses with their massive posts, the wooden elements of lake village dwellings were slight. Even where oak was used for the load-bearing uprights, such as at Egolzwil 5, the diameter of most posts is only 7–10 cm (Wyss 1976, p. 14). In many cases, a variety of wood types was employed, including alder, ash, poplar, birch, maple, *Pomoideae* and willow, some of which are not very durable in wet conditions (Wyss 1976, Faltplan 1; Billamboz 2006, p. 318 f; Schlichtherle et al. 2010). Use-life estimates for lake village houses are correspondingly low. For Arbon-Bleiche 3, an early Horgen settlement on the Swiss shore of Lake Constance (3384–3370 BC), Ebersbach (2010a, p. 142) has calculated that first repairs were needed within 2 years, and more substantial rebuilds after about six years. She estimates a maximum use-life of 12 years for any one structure. These figures accord well with other sites: 7 years until a first major rebuild at Hornstaad-Hörnle IA (Billamboz 2006, p. 321), five years for Egolzwil 5 or the Schussenried

culture houses of the Federsee (Wyss 1976, p. 35; Strobel 2000, p. 301; see also Schlichtherle 1997; Bleicher 2009, pp. 145–148). Maintaining a house required constant acts of renewal.

The replastering of hearths or floors allows similar conclusions. Up to seven layers of clay are known from Ehrenstein (Strobel 2000, p. 264), and at Alleshausen-Hartöschle, thin strata of occupation detritus were sandwiched between clay surfaces (Dieckmann et al. 2006, p. 222). Floors were hence replaced regularly during the use-life of the house, as were hearths and ovens (Wyss 1976, p. 30; Schönfeld 1997; Schlichtherle 1995, pp. 27–36; Dieckmann et al. 2006, p. 225; Winiger and Hurni 2007, p. 148). On some sites, this may be due to the structural impermanence and slow sinking of the floor itself (see the previous section). At others, such episodes may express the commitment to remain in the house for another period of time. In either case, floor replastering continually re-affirms membership in a community through maintenance and building (Whittle 2003, p. 147), although it remains hard to assess whether such episodes were synchronised across a site.

Continuity and Impermanence

With regular renewal comes the potential for flexibility. During each occasion, a house could be restored as it had been, remain in the same location while changing its layout or orientation, or be rebuilt elsewhere—a different patch in the same village, or a different site altogether (Strobel 2000, p. 270). For example, at the Schusenried village of Ehrenstein, the two-roomed building in location (*Hausplatz*) 1 saw its fireplace and floor renewed once, and the domed oven twice. After its destruction through burning, the house was rebuilt slightly larger. In this phase, the wooden elements of the floor were renewed once, the clay covering up to six times. Again, the building burnt down, but the clay floor survived so well that the third structure on this spot could re-use it. The new house also retained the same location for the fireplace and initially the same house dimensions, but was later widened. After repeated floor renewals, this building was dismantled and covered by a layer of detritus. When a fourth house was eventually built, it had shifted and protruded into the alleyway, suggesting a longer hiatus (Strobel 2000, p. 261), although for an older excavation such as Ehrenstein the lack of absolute dates and problems in synchronising phases across the site complicate the picture and it remains unclear how long this sequence lasted overall (Strobel 2000, pp. 268–74). Other *Hausplatz* biographies here and elsewhere are similarly varied, combining episodes of relative permanence with changes in orientation and internal layout, often within little more than a decade (e.g. Strobel 2000, pp. 263–267; Dieckmann et al. 2006, p. 239; Christien and Bocquet 1993, p. 64; Schlichtherle 1995, pp. 27–36; Tardieu 2002; Ebersbach 2010b, p. 201 f). This also allowed adjustments in response to the changing circumstances of the household, such as extensions (e.g. Wyss 1976, p. 32) or size reductions (e.g. Ebersbach 2010a, p. 142; 2010b, p. 198).

There is debate as to when such rebuilds are part of the ‘normal’ continuous sequence of repair and when they represent phases of longer abandonment and eventual re-settlement of a particular *Hausplatz* (see e.g. the controversy between Strobel 2000 and Dieckmann et al. 2006 and in Billamboz et al. 2006). It is possible that the idea of longer abandonment has been too uncritically applied for each episode of more substantial reconstruction (as argued by Dieckmann et al. 2006, pp. 240–247). Nevertheless, it seems that settlements were established in the full knowledge of their impermanence. Fires were frequent—whether catastrophic ones which destroyed harvests and building inventories, as at Hornstaad-Hörnle IA (Dieckmann et al. 2006), or potentially planned and controlled fires (e.g. Strobel 2000, p. 303)—as were relocations due to more or less rapid flooding (e.g. Pétrequin 1984, p. 192; Tardieu 2002, p. 314; Wyss 1976) or without an apparent cause (e.g. Schlichtherle 1995, p. 45; Schlichtherle et al. 2010, p. 161). In addition, the overall use-life of houses roughly corresponds to the interval between longer lasting lake level fluctuations, when sites had to be abandoned. Undoubtedly, the inhabitants were aware of such rhythms (Hasenfratz and Gross-Klee 1995, p. 204). In general, both at the level of the individual structure and of the site, ‘a sense of dynamism evidently prevailed, which an interpretation based on modern conceptions of order does not do justice to’ (Strobel 2000, p. 262; my translation; see also Ebersbach 2010b).

However, there are also elements of greater continuity. Even after abandonment phases, houses were often quite accurately relocated in the same patch of the village, which may hence have been owned over the longer term (Strobel 2000, p. 261). Such patches could even be ‘reserved’ for later arrivals when the village was initially built (see below). Households may also have owned relatively permanent fields, as suggested by the varying composition of weed spectra (Schlichtherle et al. 2010, p. 166; Maier 1990, p. 118; Jacomet 2009, p. 54). Similarly, areas of forest could be household-owned. At the early Horgen culture site of Torwiesen II, settled from 3283 BC, each house collected its own firewood in patches of forest with different composition (Schlichtherle et al. 2010, p. 170; see also Billamboz 2006, p. 337). At Ehrenstein, houses 7a and 7b, which form two consecutive building episodes in the same location, are almost identical in their wood spectrum, which otherwise varies between buildings (Wyss 1976, 16 f). Access to prime building material such as oak may have been restricted (Schlichtherle et al. 2010), or constant forest use caused depletion, so that houses established later had to make do with inferior timbers and were often less carefully built from the start. Alternatively, their inhabitants already reckoned on the site soon being abandoned (Schlichtherle 1997, p. 92; Strobel 2000, p. 155).

Overall, then, buildings were extremely impermanent. This allowed flexibility, both in terms of layout and size of the house and in terms of allegiance. There was at least the potential to abandon a house quickly, for instance in response to tensions and conflicts in the community. A commitment to place had to be re-enacted through maintenance and could be interrupted any time. However, this is counter-balanced by attachment to land, such as fields and areas of forest (Whittle 2003, p. 147). Villages with longer uninterrupted construction sequences are a feature of

the mid Horgen and later cultures, such as Sipplingen–Osthafen on Lake Constance, continuously settled for over 60 years between 2917–2856 BC (Schlichtherle 1997, p. 102 f). However, from early on, certain areas of the lake shores were re-settled after periods of abandonment. While individual structures could be short-lived, the rights to live with particular communities in a specific place may have been longer-lasting.

The Household

In spite of the detail available on the minutiae of construction, the household itself remains elusive. As most structures are small and often contain a single hearth, we can visualise small numbers of people sharing food, swapping stories and curling up close together next to the glowing embers, and we could speculate that they may be related through kinship bonds. However, kinship, too, can be fluid (see e.g. Carsten 2004), and we should certainly not assume biology as the only possible basis for household units. The lack of human remains from most lake village contexts is frustrating, but some suggestions can be made on the basis of the cist graves of the Chamblandes tradition around Lake Geneva.

Chamblandes-style cist cemeteries may begin sometime before the earliest known lake village sites, perhaps as early as 4,700 cal BC, and isolated additions are reported as late as 3,350 cal BC (Baudais et al. 2007). It now appears that individual interments in cists and the successive burial of small collectivities of people were practised simultaneously (Gatto and Gisclon 2007), and it is sometimes suggested that collective graves could contain ‘families’ (Wyss 1967, p. 27). Some of the sequences are suggestive. Grave 79 at Lausanne-Vidy first received the burials of three infants, aged between six months and 12 years. At a later date, their long bones were stacked on one end of the cist, with skulls and smaller bones piled on top, to make room for a 35-year-old woman. While still in partial anatomical connection, she was also pushed to one side when a 60-year-old male was buried (Moinat and Stöckli 1995, p. 238). This demographic composition could suggest a nuclear family. However, across different cemeteries and even within the same site, cists contain very different amounts of people—grave 13 at Lenzburg for example harboured 17 individuals (Wyss 1967, 1998), implying either a longer-term accumulation or a larger social unit from which burials were drawn. There is also a separate monumental structure subdivided into five small cists with an individual child inhumation in each (Wyss 1967), although this may be later than the main phase of use (de Capitani 2007). In eastern Switzerland, in contrast, double burials are more frequent (Moinat and Stöckli 1995, p. 240).

This variety suggests that burials could be flexibly employed to reference groupings of different size and composition, or perhaps genealogies of varying duration, and this aspect deserves more detailed study in the future. This could also tie in with the observation that the smallest decision-making unit within a site, the ‘household’, was not necessarily limited to one building and its inhabitants (see the sec-

Fig. 9.4 The clay breasts from Ludwigshafen-Seehalde. (Reproduced with kind permission from the Regierungspräsidium Stuttgart, Landesamt für Denkmalpflege (copyright holders))



tion on The Importance of Practice). Yet what is suggestive in the present context is that many of the interments are often very tightly squeezed together with no gap between individual bodies (see e.g. Wyss 1967), perhaps replicating the close intimacy of life in the small lake village dwellings.

In short, there were evidently collectivities of individuals whose connection was close enough to warrant a shared burial space, but whether these map easily onto ‘households’ or even kinship units of some sort is far from clear and awaits more work on tightly dating cist sequences or investigating hereditary relations. For now, we can suggest that a sense of genealogy was important to lake village people, and this echoes the longer-term allegiances to places in the village or in the landscape. Yet this need not necessarily translate into a fixed composition of households over the longer term, and there was ample opportunity for individuals to re-align themselves over a lifetime (see the section on Site Organisation).

The Symbolic House

Genealogies and ties to place may have been important, but these were certainly not reflected in the house itself. Given their structural impermanence, it is difficult to see whether any kind of symbolic associations may have been connected to dwelling at all. The general lack of elaboration suggests that this aspect was relatively understated and implicit. Houses were occasionally decorated with deer and cattle bucrania (Wyss 1976, p. 104; Jacomet et al. 2005), but there is no other ornamentation and hardly any special-purpose, monumentalised structures—two exceptions are discussed below (see also Ebersbach 2010b, p. 196; 2012, p. 289).

The first comes from the early Pfyn sites around Lake Constance, notably Ludwigshafen-Seehalde and Sipplingen. Both are unusually large, comprising 80–100 houses instead of the usual 10–40. Of the many buildings with daubed walls, one at each site yielded painted motifs such as dots and chevrons. At Ludwigshafen, these were supplemented by four pairs of ‘almost life-size’ (Schlichtherle 1992, p. 67; 2010) breasts, also painted with small dots (Fig. 9.4). Similar representations, albeit

outside their original context, have been found on the dryland Michelsberg culture site of Heilbronn-Klingenbergr in northern Baden-Württemberg and at the lake village of Thayngen-Weier, but are not very frequent, suggesting a special structure of some kind (Schlichtherle 1992, 2010). At Sipplingen, the painted daub seems associated with an aurochs horn core (Schlichtherle 2010), while finds from around the Ludwigshafen house include some high-quality textiles and a gynaeomorph vessel. Although the latter recalls central German Baalberge types, Schlichtherle (1992) links the overall theme of the decorations to Çatal Höyük and suggests an ultimate south-eastern origin.

Gynaeomorph pottery and wall decoration are the only known human representations from the early lake village context north of the Alps.¹ Could vessels and the houses themselves have been seen as analogous to the human body? Pétrequin and Pétrequin (2008, p. 147) argue that the roofs at Chalain 19 in the French Jura (intermittently settled from the 32nd to 30th century BC) were similar to the hat styles then in use. Rows of houses would have resembled rows of people facing each other (Pétrequin and Pétrequin 2008, p. 146). More tellingly, burial evidence remains rare across much of the study area. Alongside the Chamblandes cists, there are megalithic sites in the French Jura (from c. 3300 BC) and near Sion Petit-Chasseur (Vallais, Switzerland, from c. 2900 BC; Moinat and Stöckli 1995). There and in northern Italy statue menhirs were carved perhaps as early as the 5th millennium (Robb 2008, p. 334; Wüthrich 2007, p. 297 f). But in south-western Germany or eastern Switzerland, there are only few isolated burials and small groups of graves, and no megaliths (Moinat and Stöckli 1995). Most likely, the majority of people were disposed of in an archaeologically invisible manner.

If there is a link between houses and human bodies, it was one founded on their impermanence and dissolution. In many places, neither was worthy of monumentalisation and permanence. In this, too, the lake villages on the northern fringes of the Alps fit with wider trends across central Europe, where regular burials from contexts such as the Michelsberg or Altheim cultures remain rare. Instead, there is a focus on fragmentation (see Hofmann and Orschiedt 2013) and a lack of human representations (Hansen 2007). From this, one could suggest a shift from the creation of idealised pictures of bodies in the grave or as clay figures to a notion of dissolution and fluidity. What the human body did may have become more important than what it looked like or how it presented itself: the body consumed, contained, produced, moved or dissolved (Hofmann 2012a). This echoes the only items of material culture subtly connected to bodies: houses and pottery. Both are containers, and one at least is highly impermanent. It was only later and mostly further south and west that a new interest in representation emerged, this time taking the form of large-scale sculpture. Yet at the present state of research, this can remain only a suggestion.

¹ Schlichtherle (2010) reconstructs the painted motifs themselves as abstract human forms, but given the small size of the fragments this remains only one possible reading.

The second special purpose building comes from the Cortailod culture site of Marin-Les Piécettes at lake Neuchâtel in Switzerland (3504–3483 BC; Honegger 2005, p. 189). The anomalous building is placed on a rectangular, artificially raised mound 25×15 m in extent and one metre high, made from refuse and parts of dismantled dwellings accumulated in several episodes (Honegger 2007, p. 175, 181). In contrast to all other houses here, access to the building is at the long side, there is no fireplace or associated material culture, and the house is unusually narrow. Initially, the walls consist of a double row of stakes creating an 80 cm thick wall, but this is later replaced by a slighter version with fewer stakes. In the final phase, there are few but substantial posts, massive enough for a raised floor (Honegger 2005, 2007).

So far, this house is unique, although more may be found if more sites were completely excavated (Honegger 2005, p. 187). Since the site at Marin is also unusually large, comprising up to 80 houses (Honegger 2007, p. 182), it is possible that special buildings were a focus beyond the immediate village, and that they are connected to increasing hierarchisation between sites (Honegger 2005, 2007), an observation that may also apply to the Lake Constance evidence. In either case, what is interesting are the concerns reflected by the Marin structure. Its artificially raised position mirrors the location of many lake villages on islands or higher, drier ground. Moreover, the only activity clearly connected to it is its constant reconstruction, and in this it echoes the mutability and short duration of many domestic structures. If anything, it monumentalises impermanence and links its builders mainly through practices of maintenance. Its repair may be a sign of commitment to the village community, extending the ideas relating to individual houses. The interplay between permanence and impermanence thus seems a central principle of lake village life. As such, it also impacted on the organisation and biographies of the villages themselves.

Village Communities?

Site Organisation

The published site plans generally show neat rows of similarly-sized houses, with villages ranging from small hamlets of three to eight dwellings to very large sites of up to sixty houses or more (Schlichtherle 1997, p. 89; Dieckmann et al. 2006, p. 238; Honegger 2007). Houses can form a single row, such as Egolzwil 5 (Wyss 1976) or two rows either side of a path, sometimes a wooden walkway. In this case, all houses generally opened onto the path. Unusually, at the Pfyn/Altheim site of Ruhestetten-Egelsee in Upper Swabia, all houses shared a single orientation, resulting in one row facing away from the street (Schlichtherle 1997, p. 98). Settlements could also comprise several rows of houses, all uniformly oriented with either their short or long sides parallel to the lake (for an overview, see Schlichtherle 1997).

In addition to the probably communally maintained paths, many villages were surrounded by palisades or fences, which could also be renewed (Hasenfratz and

Gross-Klee 1995, pp. 220–222). Sometimes, this process appears very organised. At Chalain 19, a 100 m long causeway flanked by watchtowers connected the settlement to drier land. It was renewed at the same rhythm as the houses, roughly every 10–12 years. However, since its wooden planks tended to rot sooner, plant matter was stuffed into gaps to keep the trackway functional (Pétrequin and Pétrequin 2008, p. 145). Here, then, episodes of repair seem organised in advance at specified intervals, rather than as and when needed.

The general impression is hence of strictly planned layouts, resulting in typologies of village plans. The most widely used distinction is between a south-eastern and a north-western tradition (Pétrequin and Pétrequin 2008, pp. 150–152; see also Pétrequin et al. 1999). The former, comprising essentially the area of the Cortaillod culture, is characterised by a single row of houses, each opening out onto the lake or onto its own separate granary structure. The latter, connected with the Pfyn culture of northern Switzerland and south-west Germany, features several rows of houses with indoor storage (compare e.g. Figs. 9.5 and 9.6). Over time, houses become ever more tightly packed and the rows stricter, until the Horgen culture expands and imposes similar layouts onto the former Cortaillod tradition (Pétrequin and Pétrequin 2008; Hasenfratz and Gross-Klee 1995, pp. 224–226).

Others see this model as too static. Especially early on, a great variety of layouts can coexist within the same culture (Schlichtherle 1997, pp. 88–90; Dieckmann et al. 2006, p. 243). Neat village plans often apply to only a few site phases, as houses were constantly re-modelled and could encroach onto former paths (Strobel 2000, pp. 264–267) or stand at right angles to their neighbours (Dieckmann et al. 2006, pp. 228–238). Some sites, such as the Horgen settlement of Dullenried on the Federsee, are more reminiscent of a cluster than of neat rows (Schlichtherle 1997, p. 89). In addition, some houses were abandoned earlier than others, leaving behind slowly collapsing ruins and heaps of detritus (Ebersbach 2010a, p. 142; Strobel 2000, p. 270). Such areas could attract different types of vegetation, such as water lilies, gypsywort or nettles (Schlichtherle et al. 2010, p. 161; Wyss 1976, p. 100). The prevalence of these areas would be a clear visual sign as to whether a village was more or less successful in keeping its constituent households together.

In this vein, the permanence of a village has been defined as the sum of the commitment of its households, with individual decisions and fluidity of paramount importance (Strobel 2000, p. 274; Bleicher 2009, p. 147). Ebersbach (2010a, pp. 150–154) even denies that any form of village solidarity existed, pointing to the virtual absence of communal buildings or lasting hierarchy, the mobility of social units and the fact that different households entertained different long-distance links or used different pottery styles (see the following section). For her, most social bonds are directed beyond the site, at regional and micro-regional contacts.

While flexibility is clearly important, the community itself did possess some salience. Special-purpose buildings may be rare, but shared fences, palisades and walkways are frequent. In addition, the history of most sites follows a pattern of short bursts of construction and rather rapid abandonment which strongly suggests a shared enterprise (Bleicher 2009, p. 142). Arbon, Lattrigen Riedstation or Taubried were established by two or three ‘pioneer buildings’, others followed later (Hafner

and Suter 2000, p. 57; Jacomet et al. 2005; Strobel 2000, p. 302). Their arrival seems to have been expected. At Egolzwil 5 (Wyss 1976, p. 34), Arbon-Bleiche (Doppler et al. 2010, p. 131; Ebersbach 2010c) and Torwiesen II (Schlichtherle et al. 2010, p. 160), house-shaped gaps were left between some dwellings and only filled in some years later. People evidently did not just turn up *ad hoc*, but had made previous arrangements. Generally, there was a main burst of construction after the pioneer phase, followed by several years during which isolated houses continued to be added. At this time, some of the earlier houses may already have been left to ruin. Soon after, the site as a whole moved elsewhere. This kind of boom and bust cycle suggests that groups of related households chose to join a budding site to which previous connections existed, and that these communities then enjoyed a certain renown which continued to attract settlers for a time.

Hornstaad-Hörnle IA is a case in point. Its initial four buildings date to 3,917 BC, and in the following two years about 14 more houses are added. The main burst of construction occurs in 3911 and 3910 BC, when the number of houses suddenly increases by at least 24. Soon after, the village was devastated by a catastrophic fire which destroyed grain stores and several houses. The site was immediately re-settled, but by fewer buildings, and the neighbouring site of Hornstaad III dates to this time. It is likely that it was established as an offshoot from Hörnle IA by people who had invested in fields or had rights to forest in the vicinity, but had perhaps decided to leave a community evidently not favoured by fate. Hörnle IA was finally abandoned soon after 3902 BC and only re-settled several generations later (Dieckmann et al. 2006, pp. 234–236; Billamboz 2006).

Such cycles of aggregation and dispersal suggest that village life was valued, even if village permanence was not. As sites of less than eight houses are relatively rare, people evidently preferred to live in villages of a certain size, perhaps because of opportunities for sociality or the sharing of daily tasks (Schlichtherle et al. 2010, p. 162). They were willing to slot into areas assigned to them and to broadly conform to a layout of rows, although this could be more or less rigid. They built their houses very close to each other, generally less than two metres away. This caused a forced intimacy of sound between neighbours: conversations and activities, shouting and snoring could be overheard (Hofmann and Whittle 2008, 290 f). Independence was counter-balanced by this tolerated or perhaps even valued proximity. Being part of a community hence had real repercussions for people's experienced day-to-day reality, and it was the way most chose to live.

However, proximity may also have been the ideal breeding ground for conflict and difference. A 'village community' was certainly not an idyllic arcadia (e.g. Whittle 2009, p. 253 f). For some, the need for defence in violent times is one of the prime movers for both settling on the lake and for the erection of palisades (e.g. Pétrequin and Pétrequin 2008, pp. 144–146; Gallay 1995, p. 286), although the slight nature of some of these features, or the fact that houses sometimes immediately abut the palisade (e.g. Hasenfratz and Gross-Klee 1995, p. 222; Wyss 1976) may suggest demarcation of the settlement space rather than efficient defence. Beyond inter-community violence, much anthropological work suggests that maintaining harmony within a village could require considerable diplomatic skill and effort. In

many Amazonian societies, for instance, peaceful conviviality is the desired ideal (see e.g. contributions to Overing and Passes 2000; Rival and Whitehead 2001). Yet in practice this is difficult to achieve, and communities remain riddled with tension (e.g. Århem 2001; contributions to Chacon and Mendoza 2007). For Metcalf (2009, pp. 252–254, 317–319), the principal achievement of the great longhouse leaders of Borneo, who presided over several hundreds of people, was to maintain a spirit of community against the odds. Where this was lacking, households one by one began to join other longhouses, either because of outright conflict or because the ambience elsewhere was more vibrant and sociable.

A similar situation could also apply to the lake village evidence. Some few houses were enough to begin a new site, although not all were successful—Chalain 5 (established 2970 BC) never had more than three houses and was short-lived (Pétrequin et al. 1999, p. 304). But charismatic personalities with connections could attract new settlers, perhaps relations or people they had previously lived near to. By skillfully managing the bonds of solidarity, the community could flourish. However, the influx of ever more people may soon have created a situation when factionalism was inevitable. People slowly began to move away until the tipping point of abandonment was reached.² Nevertheless, sites were frequently resettled after a time. It is unclear what compelled people to re-build on exactly the same spot, but memories of a site renowned for its social life or existing rights to land may be as important as more practical reasons, such as access to reusable timbers, a favoured location near a confluence or the easier clearing of secondary vegetation.

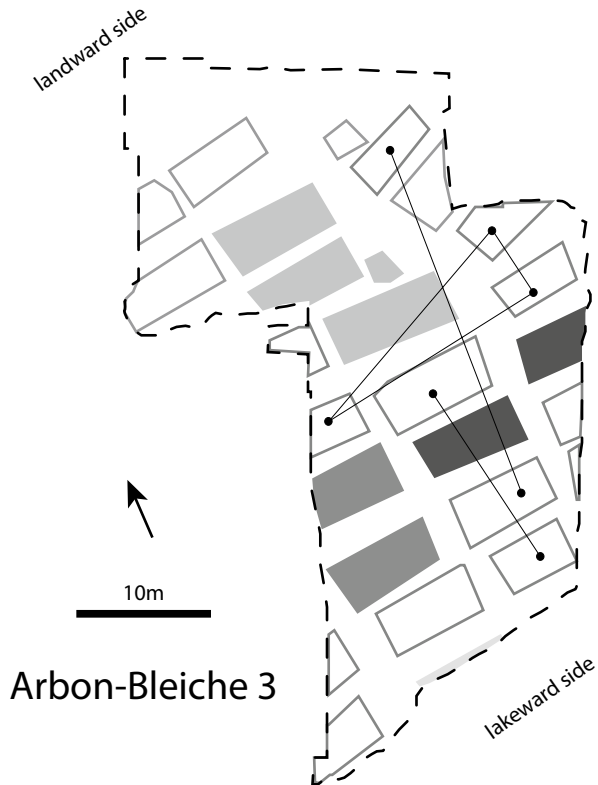
Over their lifetime, people hence probably lived in several villages, creating the bonds which enabled them to choose their membership in future communities relatively flexibly. Faced with possible alternatives and the always present option for dispersal, people nevertheless created a minimal village space with certain layouts, paths and fences, and a sense of history and permanence. This related to a place in the landscape rather than to a continuous history of settlement. Any particular community was short-lived, but remembered, and membership may have created the potential for future association. The change to longer-term continuity was gradual (Strobel 2000, p. 272; Billamboz 2006, p. 335; Schlichtherle 1997, p. 91). Much like the individual house, the community was a matter of constant re-affirmation. And as with the house, it was practice and routine, rather than a rigid structure, through which this was achieved.

The Importance of Practice

In recent research, routine tasks are emerging as a way of building bonds between houses. On several sites, such as Hornstaad-Hörnle IA, Pfy-Breitenloo and the

² Bleicher (2009, pp. 142–148) favours more structured abandonment events in which one or several villages decided to move together, but stresses that this was combined with considerable and continued fluctuations in membership at the household and site level.

Fig. 9.5 Plan of house groups at Arbon-Bleiche 3. Groups which are spatially close are marked in different shades; the others are connected by lines. (Base map after Leuzinger and Jacomet 2005, p. 62; information from Doppler et al. 2010)



Schussenried villages around the Federsee (Dieckmann et al. 2006, p. 236; Strobel 2000, p. 302; Leuzinger 2007), small groups of two to four houses cluster a little more tightly together and broadly share developmental cycles of abandonment and resettlement. Doppler et al. (2010, p. 133 f) argue that these represent households, in this case not bound by the limits of a single domestic structure (see also Ebersbach 2010b, p. 202; 2012).

Where appropriate studies exist, most notably at Arbon-Bleiche 3 (Fig. 9.5), such groups of houses can also be defined through shared activities, even where they are more widely spread in the village. Using exploratory statistics, Doppler et al. (2010, pp. 131–133; see also Jacomet et al. 2005) could identify subtle distinctions between six suggested house groups, three of which cluster spatially. Each group was connected by the preferred consumption of certain animal species. Only house 23 remained isolated. At Hornstaad-Hörnle IA, house clusters specialised in the production of limestone beads or specific methods of fishing (Dieckmann et al. 2008). There was also a division into ‘quarters’ based on the use of dyeing plants: common dogwood (*Cornus sanguinea*) was used in the north-east of the site, sloe (*Prunus spinosa*) in the south-west. Some of these preferences continue across re-building episodes (Dieckmann et al. 2006, p. 239). Thus, although each house contained a

wide enough range of tools to qualify as a self-sufficient economic unit (Billamboz et al. 2006, p. 417 f; Beugnier 1999, p. 285), some shared similar activities. Small groups of houses could set themselves apart from others by their preferences in diet or manufacturing tradition. Their inhabitants most likely shared labour and spent more time together than with other community members.

This point is important. The preservation on lake village sites lends itself to drawing up seasonal calendars of tasks and available resources, including agricultural commitments, herding, gathering and hunting, and time for manufacture and trading (e.g. Jacomet 2009). Within the sometimes rather small structures and across the village space, such tasks were played out in a choreography corresponding to the rhythms of the seasons, the time of day and the associated comings and goings of people. For instance, in some periods of the year most would spend their time in the fields, perhaps helping each other in harvesting or clearance tasks; at other times smaller groups or individuals may have struck out on their own to trade or hunt. In this way, shared routines were one of the main aspects of village life which could create a sense of community.

Alongside the groups connected by similarity, Doppler et al. (2010, p. 133) also define houses characterised by complementarity. Located relatively closely together, they produced complementary resources, which were then shared. This is not just applicable to Arbon. For example, Beugnier's (1999) study of bone tool production in level VIII of Chalain 3 (c. 3185–3165 BC) shows that only some houses had the flint tools necessary to make bone artefacts. However, the bone tools themselves were concentrated in different houses, which presumably used them to manufacture yet another final product. In this system of intra-village 'techno-economic complementarity', some households specialised in the production of specific items that were then exchanged (Beugnier 1999, p. 293). At Chalain, the way different stages of production are split up is interesting. Most houses appear involved in some step of the process, and so all may have had a stake in the elusive final product. A village site was hence cross-cut by a series of mutual interdependencies and interrelations.

This can extend from daily routines to wider-scale cultural affiliation. On many sites, different houses acquired long-distance items from different directions. At Arbon, only some houses had Boleráz-type pottery (Jacomet et al. 2005). At Hornstaad-Hörnle IA, houses linked to Italy by Monti Lessini flint, rock crystal and cornels cluster in one area, the house importing flint from the north is located in another. This again continues across episodes of rebuilding (Dieckmann et al. 2006, p. 240; 2008). In addition, on several sites people belonging to different cultural traditions resided side by side. At Concise in south-western Switzerland, the village phase from 3645–3636 BC has seen a detailed study of its ceramics (Burri 2007). Two cultural groups which normally settle on separate sites occur together here, the Néolithique Moyen Bourguignon (NMB) of adjacent areas of France and the Cortaillod of the Swiss Plateau. These cultures are distinguished by vessel form, but also by temper. Interestingly, all vessels at Concise, regardless of their shape, are made locally using a range of typical Cortaillod tempers. Burri (2007, p. 157) suggests that people with different geographical origins settled together here. Each

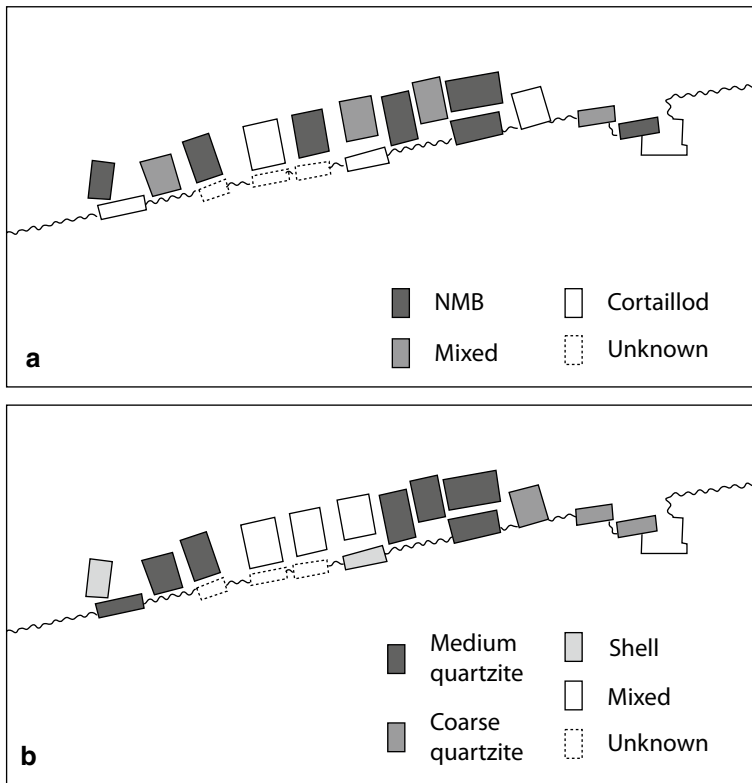


Fig. 9.6 Plan of Concise. **a** Cultural affiliation of houses. **b** Tempers. (After Burri 2007, Figs. 6 and 7)

house then developed a unique preferred combination of pottery style and kind of temper (Burri 2007, p. 160). But while the houses with NMB, Cortaillod or mixed ceramic inventories are spread all-over the site, neighbouring houses share the same kind of temper (Fig. 9.6). The most likely explanation are routine ties which cross-cut larger-scale cultural affiliation. Regardless of their provenance, potters living close together probably worked together, or at least shared temper sources. ‘Cultural’ identity was only one of several salient social bonds.

The example of Concise shows that the interplay between larger-scale connections and daily routines is by no means straightforward. Although in some cases it may be appropriate to postulate the actual migration of people over long distances, cultural changes can sometimes be played out locally (see also Pétrequin 1993) and processes of acculturation were probably both complex and rapid (Pétrequin et al. 1999, p. 299 f).

Differences in routine and in long-distance affiliations also harbour the potential to be divisive—for instance by providing people with the opportunities to join other communities, or to set themselves apart from others. At Chalain 3 level VIII, one

house consistently stands out through increased meat consumption and the use of beaver incisors and boar tusks. These preferences continue across a hiatus of 30 years, although dietary differences are now limited to the presence of frogs' legs. Arbogast et al. (1997) suggest status distinctions (see also Hofmann and Whittle 2008, pp. 289–292).

Similar arguments have been made for the early Horgen site of Torwiesen II (c. 3283–3270 BC), consisting of two rows of houses on either side of a street. In both the north and the south row, the largest houses built with the highest proportion of oak are located at the western end. Their inhabitants also appear to have knapped more flint, including more exotic flint, and grew different cereal crops. However, they were more conservative with their ceramics, preferring the local Pfyn/Altheim style to the newer Horgen elements. Houses further east relied more on fishing and gathering. Near some of the larger houses, extremely small structures of a few square metres were uncovered. At least one of them specialised in the production of bows, the fragments of which were found all over the western half of the site. As the small structure contained a hearth, Schlichtherle et al. (2010, pp. 172–174) class it as the dwelling of a lower-status craftsman, dependent on the larger houses for survival. The site itself functions as a representation of the social order, in which Horgen 'newcomers' with houses at the far end of the village were of lower social standing compared to local Pfyn/Altheim people in the large houses at the front (Schlichtherle et al. 2010, p. 172).

Such rigid distinctions may go too far. Small buildings housed specialised activities, but given their diminutive dimensions, a hearth need not imply full-time residence. Most of the time, their users could have resided elsewhere in the village, but preferred not to fashion bows in the cold. To see craft specialisation as lower status is also unusual in Neolithic archaeology. The relative degree of hunting versus farming, or of the durability of houses, may have to do with people's initial commitment to a place—perhaps a new community needed to be tested before longer-term residence was decided. Latecomers may have relied on the fact that the site would soon move, and limited their investment accordingly (e.g. Strobel 2000, p. 155). In addition, the relative importance of some plants, such as flax, and some building traditions, such as the presence of a central post-row, cross-cut the dominant east-west distinction (see data in Schlichtherle et al. 2010). In a context with generally high residential mobility, a rigid status distinction could in any case have been detrimental to the continued perpetuation of a site, as people could move to places in which their standing was improved. Indeed, Torwiesen II was rather short-lived.

Tellingly, at the Lenzburg cist cemetery there is also one potential high-status burial. An adult male was interred on his own in a particularly large cist with an unusual paved floor and an array of grave goods unparalleled elsewhere on the site: two arrowheads, four bone tools, a knife, a rock crystal blade, a necklace of five dog teeth, a bone comb and some burnt animal bone (Wyss 1967, pp. 29–32). In contrast to the other cists, this burial did not form the starting point of a lengthy sequence of inhumations. While this stresses its uniqueness, it could also mean that this man's descendants did not attain a similar position. He is not the first of a long

genealogy of richly furnished individuals, and any particular status may have been impermanent and not hereditary.

Whichever social model we prefer for the Torwiesen and Lenzburg evidence, social standing and identity were only partly connected to the house and may not have been long-lasting. On some sites, wood types and size could signal status, but in general it is routines and daily practices which formed close social bonds. In both cases, groups of houses may have formed a decision-making unit, sharing activity patterns and rhythms of residence. This is in spite of the fact that all individual buildings contained the necessary tool kit to function as autonomous productive units. The thin walls of lake village dwellings were hence not necessarily the boundaries between households. Landscape use, preferred food, the kinds of pottery it was consumed from, or the places one travelled to were more important in establishing solidarity and belonging.

In spite of their superficial uniformity, lake villages were cross-cut by subtle distinctions, divisions and alliances. Depending on whether one foregrounds the internal layout of the building, the economic emphasis of its inhabitants, production techniques or cultural affiliation, these links create several alternative connections for each household. These cross-cutting allegiances enabled both the fluid and the more permanent aspects of lake village settlement. Specific relations could be stressed or de-emphasised when one chose to re-locate, but rights to land or long-distance contacts could persist over several generations. Not everything was in flux all at once, but there were opportunities for realignment and changing solidarities.

Transmissions and Connections

Cultural Change

The culture-historical approach remains of some importance in lake village archaeology, as the very precise dating allows to trace material culture changes in some detail. In general, one can distinguish between cultural groupings which remain relatively local and short-lived, such as the Aichbühl and Schussenried cultures of the Federsee, and those which see considerable geographical expansion and a longer sequence of development, most notably the Pfyn and Horgen cultures (Schlichtherle 1990, p. 222 f).

For many, cultural change is connected to the movement of people. This is suggested by the speed with which novelties are introduced and their clear geographical source areas (e.g. Pétrequin 2005; Pétrequin and Pétrequin 2008; Pétrequin et al. 1999; Gallay 1995, p. 288). However, on many sites people using material culture of different styles live together, and even rapid sequences of ‘replacement’ are generally followed by complex mutual acculturation. For instance, at the French lakes of Chalain and Clairvaux, a Cortailod-style village organisation is replaced by a Horgen-style system of multiple house rows at around 3200 BC. This layout persists,

but within a generation there are Mediterranean influences in the guise of Ferrières style pottery and three-aisled buildings, reflecting cultural admixture (Pétrequin et al. 1999; see also Kolb 1997).

With the lack of human skeletal material in many areas, it is impossible to trace migrations using isotopic techniques or aDNA. Given the impermanence of early houses and sites, a certain amount of longer-distance movement remains a distinct possibility, but this was coupled with convergences and adoptions. In addition, imports and exotic items show that even as villages became more permanent, the Alpine region retained its position as a cross-road for cultural influences and materials.

An overview of long-range networks is beyond the scope of this paper (but see e.g. Hafner and Suter 2000, pp. 170–205), but some examples deserve to be mentioned. On many north Alpine sites, connections to the south are evidenced by Italian Monti Lessini flint and through finds of European cornel (Dieckmann et al. 2008; Schlichtherle 2008). On the western edges of the Alps, megalithic architecture and statue menhirs show a connection to Atlantic traditions (e.g. Wüthrich 2007), while the Ferrières pottery of the French Jura has links to the Mediterranean (Pétrequin et al. 1999). Contacts are also evident with the eastern European Baden and Boleráz groups, stretching from Serbia into western Austria. Ceramics in these styles repeatedly occur on Horgen sites, and Köninger et al. (2001, pp. 650–652) suggest that the wheel and traction, a greater importance of textiles and increased meat consumption were influences transmitted westwards via a Danubian communication corridor. Finally, some pottery also shows inspirations linked to the *Trichterbecherkultur* (TRB, or Funnel-necked Beaker culture; see e.g. Schlichtherle et al. 2010, p. 163 f) of the northern European plains. It is through these networks that the piece of Baltic amber found at Bachwiesen I probably travelled (Schlichtherle 2005, p. 50). Closer to home, Pfyn pottery is very reminiscent of the central-western German and eastern French Michelsberg culture (Leuzinger 2007, p. 138). On any single site, these different influences combined, as shown for instance by Heumüller's (2009) masterly study of personal ornamentation and its cultural affiliation at Hornstaad-Hörnle.

These wider influences are locally renegotiated. For example, Pfyn pottery is missing some classic Michelsberg forms, such as the famous tulip beakers—rather than a faithful imitation, this is a local reinterpretation (Leuzinger 2007). Similarly, sites are individualistic in their preferred flint procurement networks (Schlichtherle 1995, p. 53 f; Gross-Klee et al. 1995, p. 124). Even Baden influences were not adopted wholesale. Villagers in the northern Alpine foreland emulated the importance of textiles, meat consumption and traction—but they used flax rather than woolly sheep for textile, pigs rather than cattle or sheep/goat for meat production and the wheels of their carts never quite look like Baden ones. These innovations were locally mediated and adapted (Köninger et al. 2001, p. 653).

While outside cultural influences remained vital to developments in the Alpine region, a local character nevertheless persisted. Potentially, in a system with so much emphasis on constant renewal and on the multiple ties of households, showing far-flung connections was an important point in negotiating local standing. In some cases, successive houses rebuilt on the same spot also replicated preferred long-distance networks (see above). It is possible that these, like rights to land, were

inherited. However, we need not assume a strict permanence of cultural affiliation. Rapid cultural change may be part of the competitive ‘opting in’ to a new, valued phenomenon and its material culture trappings, causing the acculturation processes mentioned above.

The Mesolithic-Neolithic Transition

In this context, how could the introduction of a Neolithic way of life have worked? Although the Late Mesolithic remains relatively under-researched on the northern slopes of the Alps, partly because of problems of site recognition (e.g. Della Casa et al. 1999, p. 159), it is clear that far-flung networks already existed. Fieldwork at Arconciel/La Souche in western Switzerland (Mauvilly et al. 2008) has yielded a clay object strikingly similar to the Neolithic *pintaderas*, or clay stamps, of the Balkans. Although it is unclear whether the artefact is an import or an imitation, contact with the Neolithic world to the south-east is evident. In addition, Chaix and Bridault (1992) record the presence of domesticated animals from Mesolithic levels at several French rockshelter sites. Finally, Erny-Rodmann et al. (1997) have suggested widespread pre-Neolithic experimentation with agriculture from at least the mid 6th millennium. They rely on pollen evidence rather than dated sites, and for many areas of southern Germany their conclusions should be treated with caution, as cereal pollen remain difficult to determine unambiguously and could in any case have blown across from Mediterranean areas (Behre 2007). Yet for the western Alps these early dates remain possible (Tinner et al. 2007). Pétrequin et al. (2009) report cereal pollen and macroremains dating to the 55th or 54th century BC from Chalain 3. However, rather than hunter-gatherer experimentation, they connect this to the establishment of early villages by farmers from the south.

The argument is complicated by a lack of good dating evidence. For instance, at Bavans, the Late Mesolithic lower parts of layer 5, dated to the third quarter of the 6th millennium, show a preponderance of hunted animals, but also La Hoguette pottery and some domesticates. It remains unclear whether the latter were directly dated, and radiocarbon dates are in any case few. The upper part of layer 5 also includes Linearbandkeramik pottery, believed to be imported (Aimé 1991, pp. 337–341; Chaix et al. 1991). In Switzerland, radiocarbon dates for the Late Mesolithic remain rare, and there is a gap of about half a millennium between the latest Mesolithic dates and the earliest lake villages (Crotti 1993, p. 221; Stöckli 1995, p. 24; Nielsen 1997; Mauvilly et al. 2002). Stray finds of Großgartach and Rössen pottery may suggest ‘hybrid cultures’ at this time, but there is no associated direct dating evidence (Erny-Rodmann et al. 1997, p. 46). In the Federsee area, the site of Henuhof Nord II suggests Mesolithic occupation contemporary with the LBK culture further north (Kind 1992, 1997), but Kind’s interpretations of the few radiocarbon dates remain controversial (e.g. Bickle and Hofmann 2007, p. 1032).

To an extent, then, the Mesolithic-Neolithic transition in the Alpine area remains the ‘forgotten transition’ and sees relatively little research (Whittle 2003, p. 144).

However, the consensus is mounting that indigenous foragers played an important role. Thus, Nielsen (2004, pp. 192–196) establishes continuities in lithic forms between Meso- and Neolithic. Others argue that the distribution of Neolithic sites is similar to Mesolithic ones and that the lake shores may have been chosen due to existing hunter-gatherer traditions, with the ultimate inspiration for the buildings themselves perhaps derived through established contacts with the south (Hasenfratz and Gross-Klee 1995, pp. 198–200; Whittle 2003, pp. 144–147; Stöckli 1995, p. 24; Mauvilly and Boisaubert 2007, p. 408). The LBK finds from the Swiss Plateau (Nielsen 2004, p. 192) also show early contacts with the Danubian world.

On the other hand, the Federsee and parts of northern Switzerland were also frequented by earlier Neolithic populations, albeit no permanent settlements are known. The marginal LBK settlement cluster in the Hegau, located on tiny loess islands and with evidence for considerable fish consumption (Fritsch 1987; Torke 1987), may have been the base for some journeys further afield. Middle Neolithic material from the LBK's successor groups, such as the Stichbandkeramik or Rössen cultures, has been found in several Swabian bogs (Strobel 2000, p. 435 f; Dieckmann 1990, p. 105). It mostly lacks a clear archaeological context, so it remains uncertain whether local hunter-gatherers used these items or whether farmers themselves were present. Given the lack of a clear 'Mesolithic' context, the latter is perhaps more likely. So why did the transition to the Neolithic not happen sooner? And what is the role of the house in this process?

There are two possibilities. Either the way of life of the longhouse, with its relatively more permanent villages, did not suit the local forager populations. They hence waited until the kind of Neolithic that was 'on offer' just to the north had adopted crops suitable to the local climate (Jacomet et al. 1990, pp. 82–84) and had entirely changed in character, abandoning all vestiges of the Danubian world (e.g. Whittle 2003). Similarly, the alleged parallels between early lake village buildings and LBK longhouses (e.g. Pétrequin 1984, p. 150) remain superficial and ultimately unconvincing. Alternatively, living in boggy areas was impossible for Neolithic settlers as long as the massive longhouses, which would immediately have begun to sink into the soft ground, remained essential for cultural reproduction (Strobel 2000, p. 304). In this scenario, the idea that a lack of Danubian elements must imply local adoption can be seen more critically. By the time the lake villages were settled, the cultural phenomena in the former LBK heartlands, such as the Goldberg, Altheim and Michelsberg cultures, bore hardly any resemblance to what had gone before. Houses were now smaller, sites potentially less permanent, and isotopic studies suggest that diets were diversifying (Strobel 2000, p. 300; Asam et al. 2006; Last this volume). The move away from everything Danubian is widespread across central and western Europe. It is possible that ideas of impermanence, fluidity and improvisation apply much more widely than the Alps, and to long-established farmers as well as foragers.

Impermanence and flexibility in diet need hence not be exclusively 'Mesolithic'. The process of Alpine Neolithisation perhaps combined small-scale colonisation by farmers and adoption by foragers. Neolithic architecture at this time was suited to a wider range of soils, and dietary strategies were broadening. In addition, the areas

now settled contained hunting and gathering populations for whom this way of life perhaps represented no fundamental rupture in how they could reckon relationships flexibly and exploit a wide range of resources. The scene was set for a process of fusion.

Conclusion: Change and Continuity from the Danubian World

A new way of building and dwelling was crucial to this further Neolithic spread (Whittle 2003, p. 145), but there are some continuities. In the more rigid Danubian world, the longhouse perpetuated kinship units. It could serve as a strategy for aggrandising the household, as in the case of monumentally long buildings, or for classifying and categorising internal spaces—and by extension people and activities—through various post settings (Hofmann 2006, 2012b; Pechtl 2009). Although the house was flexible in its use, it varied within relatively defined limits (Coudart 1998). Similarly, an LBK site could be little more than a loose cluster of houses tens of metres apart (as at Langweiler 9; Kuper et al. 1977), or a more tightly organised community defined by an enclosure (e.g. Vaihingen; Krause 1998) and could exist for decades or centuries. In either case, there was a certain permanence of place: houses were rebuilt once every generation (Stehli 1994), but in circumscribed areas of the village. The rights to build in specific plots or to use the intensively maintained fields may well have been hereditary (Lüning 2005; Bogaard et al. 2011).

In the lake village horizon, the house as a physical structure has taken on new qualities and new priorities. Some experimentation with internal spaces remains, but again within limits. Most houses on any one site look similar to each other and monumentalisation is rare even for possible ‘special’ buildings. In addition, sites shifted to the impermanent end of the spectrum, although palisades (and on dryland sites also enclosures) are frequently employed to define a common village space. An architecture stressing impermanence is counter-balanced by the existence of rights, however flexibly reckoned in detail, to build on certain areas of a site and to use specific patches in the landscape. The importance of genealogical sequences is also suggested where there is burial evidence. This goes hand in hand with a widening of potential long-distance contacts, including links to south-eastern, western, northern and Mediterranean Europe, which are more flexibly combined than was the case within the LBK. Cultural ‘patchworking’ is taking place on a new scale.

There are hence some continuing concerns familiar from the Danubian world, especially in reckoning ties to land. However, the house is no longer one of them. Generational renewal has been replaced by impermanence as a guiding principle, creating ‘a subtle form of very loosely defined, but pragmatic communities’ settling together (Bleicher 2009, p. 148; my translation). The house itself need no longer define social groups, as even ‘households’, the smallest unit of collective decision-making, can span more than one building. Dwellings are important only in so far as they express belonging and connections, through location, materials, state of repair and relative permanence, and the activities of their inhabitants. The house, and with

it the way social relations are lived out, is part of a way of life attuned to the rhythms of the environment; for the early part of the sequence at least, it moves and changes with them. In this kind of world, places remain important, but because of the actions that have formed them and the activities they have sheltered, not because of the wooden shells in which these took place.

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Chapter 10

Home is When you Build it. Characteristics of Building and Occupation in the Lower Rhine Area Wetlands (5500–2500 cal BC)

Luc Amkreutz

Introduction

The house and its implications of sedentism and structured life have long formed one of the homely beacons in discussions on Neolithisation. Childe (1957, p. 15), envisioning a ‘settled peasantry producing surplus’ was one of the first to weave these elements together in his ‘package idea’ of the Neolithic Revolution. Undisputedly, in the first half of the twentieth century, the mudbrick walls of ancient Jericho, the early circular stone buildings at Beidha (e.g. Kirkbride 1968), or the many Near Eastern tells formed important cornerstones in our understanding of the dispersal of agriculture and the sedentary character of Neolithic communities. Later on nuances grew, for example with respect to the association of pottery (e.g. PPN or kitchen middens), or the settled character of the preceding Mesolithic (e.g. Lepenski Vir), yet the coupling of structured buildings, sedentism and agriculture remained prevalent in tracking the spread of Neolithisation. From 5500 cal BC onwards, this ‘package’ of a settled Neolithic with a distinctly built environment travelled further north and west into Europe with the dispersal of the central European Linear Pottery culture (LBK). The accent also somewhat shifted from the communal perspective of tells and villages, to the more isolated notion of the independent house as materialized in the often impressive structures of the LBK and the spatially standardized activities that took place around them (Lenneis 2004, p. 154). Around 5300 cal BC, the sturdy and heavy oak-posted LBK longhouses formed a well-known Neolithic baseline across a vast stretch of north-west Europe (e.g. Gronenborn 1999).

Around 4900 cal BC, this is also the case on the southern limits of the Lower Rhine Area (LRA) on the western margin of the north European plain. However, after c. 4800 cal BC we lose much of our grip on Neolithic house plans, the Michelsberg culture (MK) and subsequent Stein group only yielding rare and highly diverse types of structures. This problem is not limited to this part of the conti-

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ment but is a well-known phenomenon, especially in the (lowland) British Neolithic (e.g. Bradley 2007; Last 1996; Thomas 1996a, 1999; Topping 1996; Whittle 1996a). More recently, this idea of mainly ephemeral structures has been challenged especially by finds and excavations from Ireland (Cooney 2000; Grogan 2004; Smyth 2006), Scotland (Brophy 2006; Sheridan 2007) and even the Thames valley (Hey and Barclay 2007). It now seems that different traditions existed side by side, with areas having a distinct development of their own. In contrast, in the LRA it is not until the (Middle) Bronze Age that we again have a distinct idea of what houses and settlements looked like (e.g. Arnoldussen and Fontijn 2006). Nevertheless, for the preceding period there is evidence available on houses and related structures from the wetlands and wet margins of the LRA. These provide an interesting long-term perspective on the habitation of this area during the transition to agriculture.

In this paper, I will explore the characteristics of dwelling in the LRA wetlands and seek out the current evidence for converging traits and commonalities. This way a rather diverse image is constructed of settlement life between c. 5000–2500 cal BC, which contrasts with the well-known LBK and Bronze Age building traditions and the limited evidence available for the Middle Neolithic upland building traditions (e.g. Vanmontfort 2004). The contribution traces the building traditions of consecutive cultures, and hence communities, over time, and these originally have distinctly Mesolithic roots (e.g. Louwe Kooijmans 1998). This long-term perspective may broaden our horizon on the characteristics of domestic structures present within the timespan discussed, the structuring principles underlying the building tradition and the character of occupation in the wetland area during the process of Neolithisation.

A View from the Longhouse

In the shape of the longhouse, the various practices, ideas and novelties associated with the Neolithic arrived on the loess margins of the Lower Rhine Area, most notably on the Aldenhovener Platte, Dutch southern Limburg and the Belgian Hesbaye region.

The uniformity of this new way of life, as expressed in a subsistence strategy largely focused on domestic resources and in settlement location choice, was further shaped by the patterned layout of these structures. The familiar fabric of LBK longhouses took shape in a repetitive canon with several characteristic elements (e.g. Hofmann 2006, pp. 187–197; Modderman 1988). In many LBK villages, this fixedness in the appearance of occupation was accompanied by a considerable occupation span. Settlements such as Elsloo and Langweiler 8 were inhabited in changing constellations for over 350 years (e.g. Stehli 1994).

As argued by Whittle (1996a, b) these longhouses acted as central nodes for patterns of routine movement, formalized behaviour and conformity. Hodder (1990, pp. 119–237 *et passim*) furthermore argues that their monumental character and specific ordering involving aspects of seclusion, inclusion and exclusion emphasized a cultural ordering opposing the wild. In *The domestication of Europe* this

concept of the ‘domus’ is perceived as the conceptual and practical locus of social transformation. It provided a way of thinking about the control of the wild and the larger oppositions between nature and culture, social and unsocial (Hodder 1990, pp. 41–52).

At the start of the fifth millennium, longhouse life of course was no longer a novelty in central and western Europe, yet it is evident that its physical character was markedly different from preceding ways of human habitation. In this sense, there is much to say about the idea that this would have also formed a distinct expression of changed values and beliefs, especially with respect to nature and the enculturation of the wild (cf. Hodder 1990). It also involved the appropriation of an entirely new set of techniques and practices (clearing of forests and fields, cutting and splitting of large trees, digging pits, managing animals for transport, performing complex technical procedures), largely new materials (large posts and beams, adzes, wattle and daub, thatch) and new levels of group organisation and cooperation. In this respect, the daubed and perhaps painted façades of the LBK longhouses (Lichardus and Lichardus-Itten 1985), which could be up to 5m in height, stood out not only against their natural surroundings, but also against preceding and contemporary ways of hunter–gatherer life.

A Troublesome Template

After 4900 cal BC Danubian life continued, albeit with certain modifications. On the Aldenhovener Platte in the German Rhineland, this resulted in the Hinkelstein/Großgartach and subsequent Rössen traditions, yet apart from several Blicquy sites in parts of Belgium (distinctly associated with the former LBK occupation) and a single Rössen settlement at Maastricht-Randwijck, there hardly seems evidence for occupation on the southern margin of the LRA (Vanmontfort 2007, p. 105). It is not until the latter part of the fifth millennium that we again find distinct evidence of occupation, this time of MK origin. Many sites are known of this culture, including flint mines and enclosures, yet what is conspicuously lacking are house plans. Apart from rather singular and extraordinary structures, such as the peculiarly large building at Mairy-Les Hautes Chanvières in the Belgian Ardennes (Marolle 1989), evidence is limited to small and diverse structures such as those at Thieusies-Ferme de l’Hosté (Belgium) or Echzell-Wannkopf in the German Wetterau (e.g. Verhart 2000, Fig. 4.20). These structures are usually found on the loess soils, which also harbour large concentrations of lithic scatters. Further north on the sand, the evidence becomes even more scarce and undiagnostic (Vanmontfort 2007, p. 111).

The evident disparity between the Danubian longhouse and the absent or ephemeral structures of the Middle Neolithic is striking (see Table 10.1). This is partially due to taphonomic reasons (e.g. Burnez-Lanotte et al. 1996; Vanmontfort 2004) and research biases. Rowley-Conwy (2004, pp. 93–104) mentions the shortcomings of the much-used narrow commercial test trenches.

Table 10.1 Presence and visibility of Neolithic features on the upland sandy soils (except Sweikhuizen) for several sites with Middle Neolithic finds. (Adapted from Amkreutz [in press](#)). The second column indicates the number of prehistoric features whereas the third indicates the features positively identified as Neolithic on the basis of their contents

Site	Total features	Prehistoric features	Neolithic features	Neolithic structures
Grave-Pater Berthierstraat	10	3	1	–
Helden-Panningen Industrieterrein	>318	318	3	–
Ittervoort-Santfort	>300	c. 100	3	–
Kesseleijk-Keuperheide	>4	4	1	–
Koningsbosch	–	–	–	–
Linden-de Geest	57	16	1	–
Meeuwen-Donderslagheide	–	–	–	–
St-Odiliënberg-Neliske	42	17	2	1?
Sweikhuizen	–	–	–	–

Recent finds of 30m long Middle Neolithic house plans, currently attributed to the Stein group, near Veldhoven, seem to confirm these methodological shortcomings (Van Kampen and Van den Brink [in press](#)). On the other hand, the marked paucity of features also points to the existence of a different settlement system marked by lighter structures and a higher degree of mobility. In this respect, we might be over-estimating the visibility of the initial material reflection of this type of system.

On the basis of this, it is evident that from a material perspective the Bandkeramik template is not suitable to study post-Rössen settlement systems in this area (Thomas [1996a](#), p. 6). From this it may be assumed that the symbolic connotations that may have surrounded longhouse construction and habitation also changed and are no longer appropriate (e.g. Last [1996](#), p. 40). There is thus no sense in using an LBK framework for studying later forms of dwelling. In effect, perceived against the majority of Neolithic structures in north-west Europe, LBK and post-LBK longhouses form a rather exceptional phenomenon. These conclusions indicate that we need to change our scope in order to find out more about house form and settlement structure in this period. We need to zoom in on the mosaic and try to delimit regionally relevant and structurally related traditions of building and occupation. The wetlands and wetland margins of the LRA form such a piece of the mosaic, where more evidence is available for houses and settlement structure and where there is a cultural continuum of communities from the Late Mesolithic onwards.

Before documenting the material aspects of inhabitation it is necessary to provide a brief context of the natural surroundings and a general outline of the process of Neolithisation.

The Lower Rhine Delta: from Hunting and Gathering to Hunting, Gathering and Farming

On the western margin of the north European plain, the glacial landscapes of boulder clay and ice-pushed ridges and the Pleistocene uplands of loess and coversand converge on a wide area of low-lying land. This geographical triangle roughly runs from the Scheldt basin in the south to the north German coast in Niedersachsen, bordered in the west by the North Sea. From the sixth millennium cal BC onwards, the rise in sea level and groundwater table had a major effect on this area, creating what may best be termed a wetland mosaic. Geologically this vast delta comprises a complex succession of marine, estuarine, organic, lacustrine, fluvial and aeolian deposits (Louwe Kooijmans 1987, p. 227), emphasizing a dynamic environmental past.

In total, five different zones may be distinguished from west to east, whereby marine influence and salt conditions gradually diminish (see Fig. 10.1). They comprise a relatively dry coastal area with beach barriers, bordering on an area of tidal flats, saltmarshes and estuaries (Louwe Kooijmans 1993). Further east, there are freshwater peat swamps with lakes and slow rivers. Dry 'islands' in this area were formed by Pleistocene river dunes, also known as 'donken'. These formed an archipelago of over 80 islands of different size and clustering. A final zone is formed in the margin to the uplands, where riverine influence is prevalent.

This highly variable landscape of course also harboured a rich diversity in vegetation and wildlife (e.g. Nicholas 1998). However, it is important to note that the specific constellation of land, water and resources could also be dynamic and shifting. Resources, dry living areas and transport routes were subject to change over time, which might have been slow, but could also have been swift and dramatic (see Leary 2009). This meant a continuous confrontation with changing patterns of expectation and anticipation. This recursive interaction between landscape, environment and communities (cf. Ingold 2000) would over time have shaped both the practices and the social identity, the *mentalité* of subsequent generations of communities (also see Sturt 2006).

Within this spatially and chronologically dynamic setting, over time a gradual transition to agriculture took place between c. 5000 and 2500 cal BC (e.g. Louwe Kooijmans 2007; Raemaekers 2003). In general there is convincing evidence for a very slow, staged and gradual introduction of Neolithic elements. Pottery production started around c. 5000 cal BC as indicated by evidences at Hardinxveld-Polderweg and Hoge Vaart, forming the start of the Swifterbant culture. During its middle phase the first domesticates (apart from the dog) are introduced, all four species (cattle, sheep, goat and pigs) are present around 4700 cal BC at Hardinxveld-Giessendam De Bruin and slightly later at Brandwijk. At c. 4100 cal BC the remains of chaff and cereal grains appear at Swifterbant-S3 and the Hazendonk, although the discussion on local cultivation is ongoing. Around 3700 cal BC the Swifterbant culture is succeeded by the Hazendonk group in the southern part of the delta. Sites such as Schipluiden, Ypenburg and Wateringen-4 provide first evidence for long-

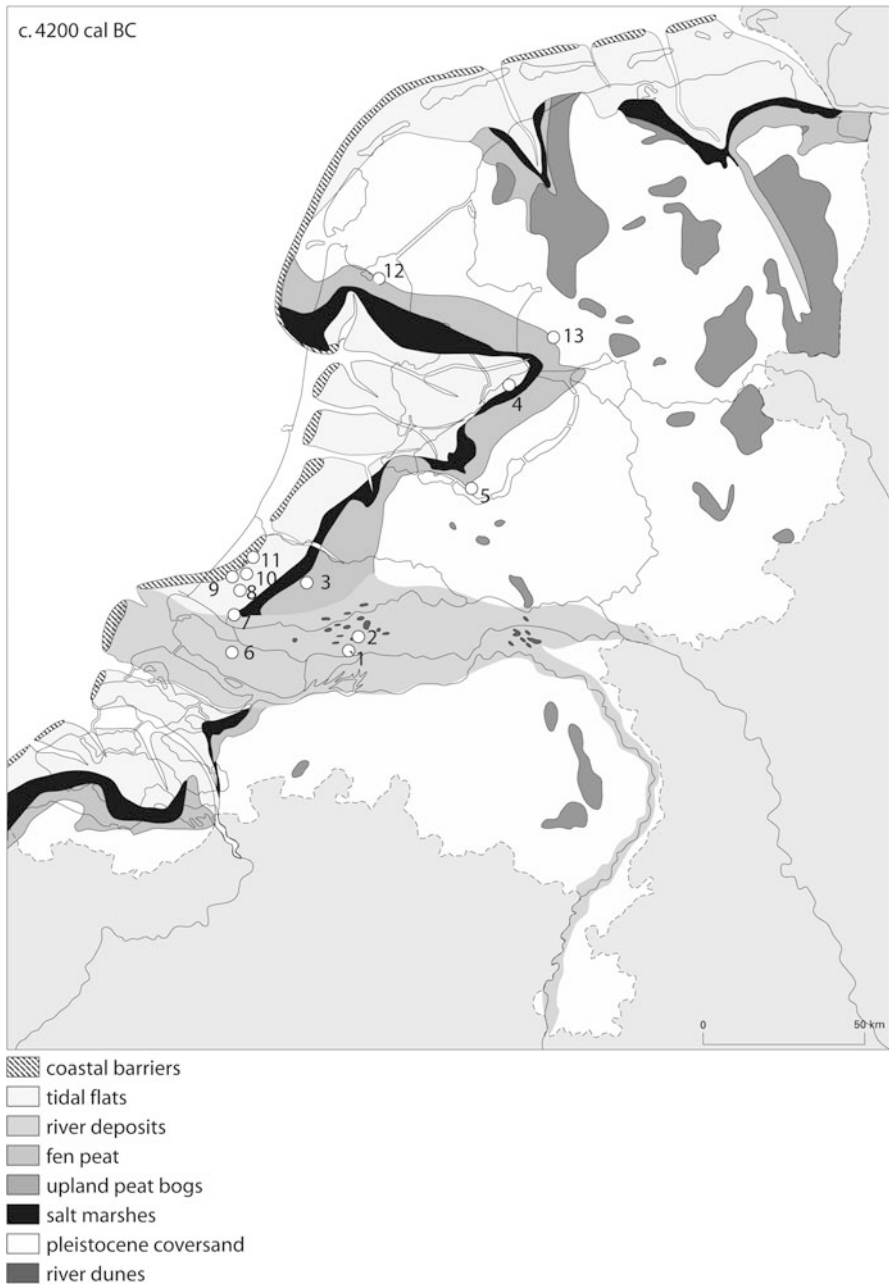


Fig. 10.1 Map of the Lower Rhine Area depicting geological background and sites mentioned in the text (except Hüde I). 1 Hardinxveld, 2 Hazendonk, 3 Bergschenhoek, 4 Swifterbant-S3, 5 Hoge Vaart-A-27, 6 Hekelingen-3, 7 Vlaardingen, 8 Schipluiden, 9 Wateringen-4, 10 Ypenburg, 11 Leidschendam, 12 Slootdorp, 13 Emmeloord. (Map adapted from Van Gijssel and Van der Valk 2005, map 3)

term occupation and indications for sedentism, as well as a more fixed contribution of domesticates and cultigens. The end of the process of Neolithisation is formed by the Vlaardingens culture (c. 3400–2500 cal BC), with several settlements combining distinctly Mesolithic and Neolithic traits.

While the summary above provides a general outline, reality was more complex. The intricate and recursive relationship between the wetland communities and their environment led to a historically contingent development. Different and often pragmatic choices were made and abandoned at different times and places, leading to a consistent degree of diversity in subsistence and habitation and contrasting with an ever increasing general importance of domesticates and cultigens (Amkreutz [in press](#)). Within this setting of a wetland mosaic particular forms of habitation took shape that should not be studied separately from their environmental or landscape context.

Huts, Houses and Clusters of Posts

In following section, the available evidence for tracking the Neolithic house in the LRA wetlands is presented chronologically. The cultural continuity between 5500 and 2500 cal BC provides a good background for studying long-term practices and for perceiving these groups and their material evidence of occupation as part of a coherent and significant tradition. Most of the structures mentioned below are depicted in Figs. 10.3 and 10.4.

The Late Mesolithic (6450–4900 cal BC)

The evidence for Late Mesolithic dwelling structures is limited. In the wetland area so far only the sites of Hardinxveld-Polderweg and De Bruin yielded evidence. At Polderweg two oblong pits measuring 8.5×3 m and 6.5×2 m were located on the slope of the river dune. A possible successor was found at nearby De Bruin. The compacted and possibly trampled layer in combination with a number of postholes suggests we may be dealing with sunken dwellings with a floor cover of organic material (see Fig. 10.2). The depth of some of the postholes indicates they may have been used for rather sturdy structures (Hamburg and Louwe Kooijmans 2001, p. 85). Micromorphological analysis of thin sections indicated possible hearths. The hut features may represent rather permanent structures, since the compacted layer indicates intensive, repeated use, while the admixture of clean sand suggests repeated cleaning of the dwelling (Hamburg and Louwe Kooijmans 2001, p. 100). Other (Late) Mesolithic sites, for example Saxtorp and Ageröd on Skåne, Møllegabet and Lollikhuse, all in Denmark, yielded structures of similar shape and size. The somewhat later Ertebølle structures are characterized by a large heterogeneity in types of



Fig. 10.2 Polderweg hut feature. (After Hamburg and Louwe Kooijmans 2001)

structures (Hamburg and Louwe Kooijmans 2001, p. 96; Karsten and Knarrström 2003, p. 37; Skaarup and Grön 2004, p. 41–74).

The Swifterbant Culture (5000–3400 cal BC)

In the wetlands of the Lower Rhine Area, Swifterbant houses are claimed for the site of Schokland-P14 (Ten Anscher 2000/2001, 2012). On a boulder clay outcrop a large number of features was uncovered. Unfortunately, erosion affected the integrity of the potential house plans and a number of assumed posts are missing. Although four two-aisled house plans are reconstructed, roughly measuring 12–13 × 5–6 m, this makes it questionable whether we are dealing with actual houses. Swifterbant-S3 (De Roever 2004) yielded better evidence for structures, dating to a timespan of approximately 100 years between 4300 and 4000 cal BC. Many small postholes and remnants of posts were documented (Ø 6–11 cm). Although larger, heavier trees must have been available (Casparie et al. 1977), these stakes, mainly of alder, were used to construct what may at best be termed light-weight shelters (De Roever 2004, p. 34). On one of the higher parts of the levee, a vaguely rectangular structure was discovered with a NW-SE orientation amidst a cluster of posts measuring 15 × 9 m. The structure measures c. 8 × 4.5 m. Some post settings are clearly double posts and several shorter lines can be seen, possibly representing an internal division or phases of rebuilding (see De Roever 2004, p. 34). The overall

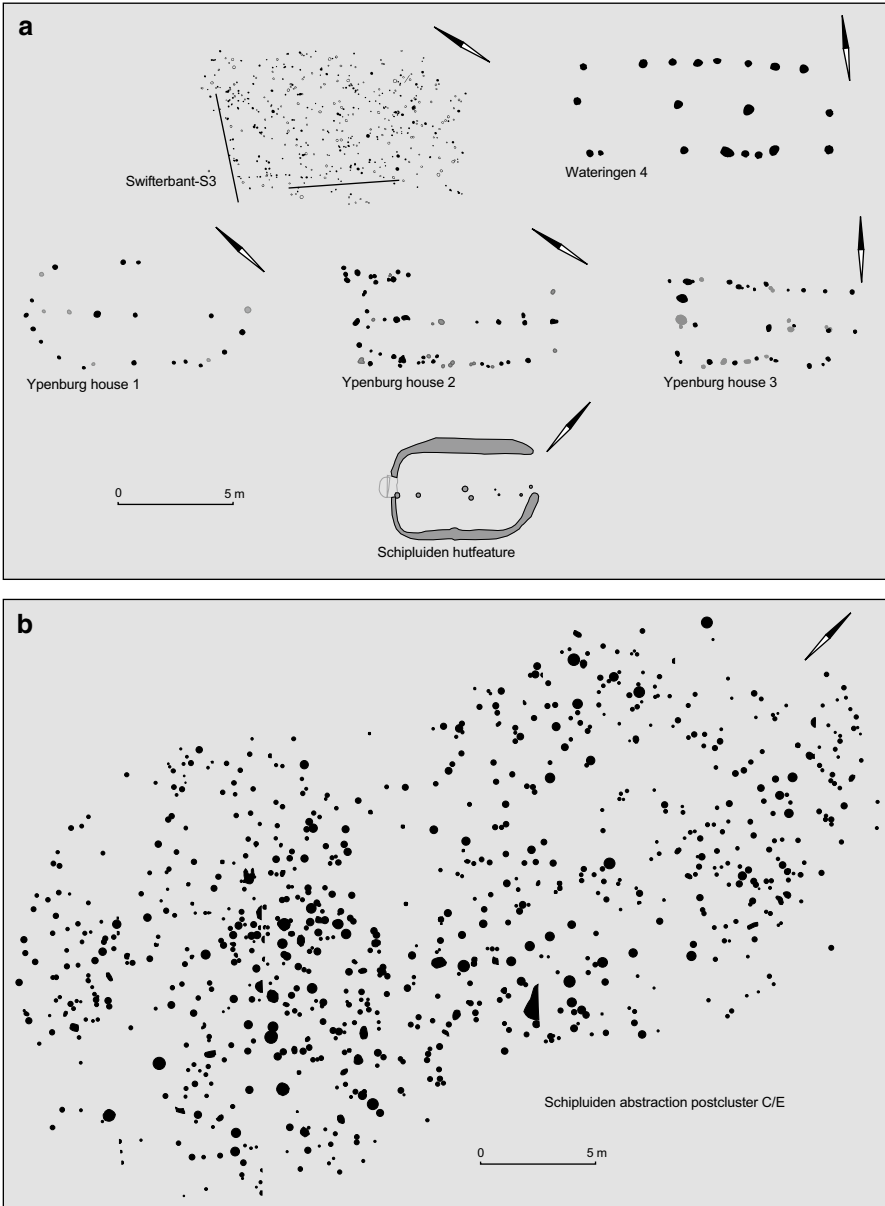


Fig. 10.3 a Swifterbant and Hazendonk houses. Note the *lines* indicating the position of the Swift-erbant structure. (Adapted from Amkreutz in prep; based on De Roever 2004; Houkes and Bruning 2008; Raemaekers et al. 1997). b Detail of the many phases of building and rebuilding documented in Schipluiden. (Adapted from Louwe Kooijmans 2009)

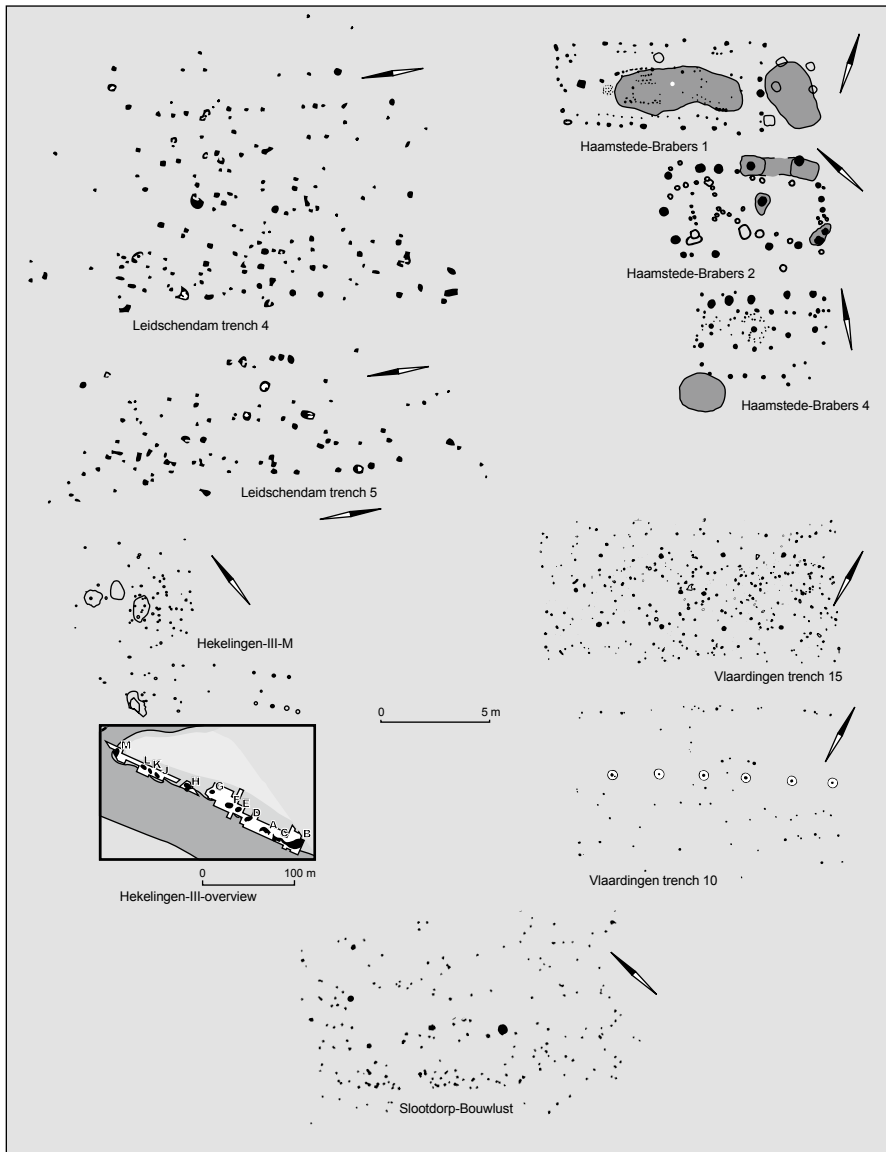


Fig. 10.4 Vlaardingen houses. (Adapted from Amkreutz *in press*; based on Hogestijn and Drenth 2000/2001; Louwe Kooijmans 1987; Van Beek 1990; Verhart 1992)

number of posts (c. 750, see Deckers et al. 1980, p. 137) indicates activities of rebuilding. A fixed hearth and consistent patterns of waste disposal, as well as the layers of woodchips and bundles of reed used to strengthen the site against water-logging and flooding, confirm the domestic character of the location and structure.

The site of Húde I, located on the margins of Lake Dümmer, yields further evidence of Swifterbant domestic architecture between c. 4300 and 3700 cal BC. Bordering on a channel of the Hunte river the remains of at least six structures, tentatively interpreted as huts, have been documented (Kampffmeyer 1991, Fig. 37; Stapel 1991, Figs. 228, 230). Their interpretation as hut features is mainly based on a combination of the different construction techniques that have been identified, including elements such as wattled walls, posts, and different methods of joining planks, posts etc. It is most likely that the wooden structures documented served as a base for wattled superstructures of small branches or reed. Occupation at Húde I consisted of small waterside huts, measuring 3×4 m to 4×4 m with raised floors and wooden bases.

At Bergschenhoek (4340–4050 cal BC), a fishing and fowling camp on the peaty shores of a lake in the coastal area of the Rhine-Meuse estuary, similar structures were discovered. This time they comprise a small living platform of 3×4 m, consolidated with bundles of reed, wooden boards and small trees (Louwe Kooijmans 1986). Bergschenhoek dates to a relatively short span of time (c. 10 years) between 4340 and 4050 cal BC. Central to the site is a sequence of superimposed hearths pointing to the existence of place continuity in activities over several years.

The Hazendonk Group (3800–3400 cal BC)

For the Hazendonk group, recent excavations have provided insight into the characteristics of building and habitation. It appears that from c. 3800 cal BC sites were occupied for long intervals and sometimes even year-round (e.g. Louwe Kooijmans 2007, pp. 299–304). There is a building tradition that is characterized by small rectangular buildings of c. $7\text{--}8 \times 3\text{--}4$ m, with a two-aisled internal layout and a limited post diameter (also see Hogestijn and Drenth 2000/2001, p. 147). Examples of this have been found at Ypenburg and Wateringen-4. At Wateringen, 19 posts formed the plan of a two-aisled house measuring 10.9×4.1 m. The majority of the postholes belonging to the structure still contained wooden posts. This indicates that the many postholes without wooden posts potentially belonged to predecessors of this house on top of the dune. The wood was probably removed again to be used in other structures (Raemaekers et al. 1997, p. 149).

Since no other (contemporaneous) house structures were found, Wateringen-4 should be interpreted as a single house site with an occupation span of c. 2–3 generations (c. 50–75 years; see Louwe Kooijmans 2009).

At Ypenburg, similar structures were found within a number of clusters of postholes. Based on a selection of features with similar characteristics, a number of house plans was identified. Within cluster 1, the main part of a south east–north west oriented two-aisled house plan was documented comprising 24 posts and measuring c. 9.8×4.5 m. Five central posts were probably roofbearing. The post settings indicate this structure may have had a hipped roof (Enderman 2008). Cluster 3 yielded a rectangular two-aisled house plan (oriented SE–NW) measuring 8.9×4 m.

The mean diameter of the posts is 13cm. The large number of posts most probably represent several phases of repair and rebuilding. Cluster 4 also yielded a rectangular two-aisled house plan (oriented E-W) measuring 8.1×3.7 m. The structure is comparable to the structure at Wateringen-4 (Houkes and Bruning 2008). The mean diameter of the posts is between 13 and 20cm. In contrast to Wateringen, the situation at Ypenburg thus represents a number of house yards, some of which may have been contemporaneous. Important to note is the variability in the composition of the houses within one site within a relatively short span of time.

Evidence for frequent rebuilding is especially distinct at Schipluiden, where a total of 3,352 postholes were uncovered located on the top and slopes of the dune. These mainly concentrated within four clusters, associated with consistent activity areas and waste disposal areas to the south, as well as wells to the north. They mark the persistent location of house areas or yards. No house plans could be identified. The frequent rebuilding of houses and structures within the same area anchored the clusters but obscured any structural evidence of a higher resolution. The largest postholes (>30cm) formed up to 36 rows of 5–12 m, comprising three to five relatively heavy posts at intervals of 2–4 m. This makes them quite comparable to the size of structures found at Ypenburg and Wateringen. Since it is probable that juniper and especially alder were used for many of the posts (Louwe Kooijmans and Kooistra 2006), it may be assumed that many of the structures were rather short-lived (up to c. 15 years), which does effectively explain the ‘crowded’ clusters of posts (Hamburg and Louwe Kooijmans 2006, p. 62).

Another structure at Schipluiden consisted of a rectangular trench with rounded corners measuring 3.5×6 m. In the middle of the structure, a number of large posts ($\text{\O} 15\text{--}19\text{cm}$, depth 25–37cm) was uncovered, four of which lay along the central axis and may have supported a roof. It is likely that due to its location and fill, the structure dates to the last phase of occupation of the dune (Hamburg and Louwe Kooijmans 2006).

The Vlaardingen Culture (3400–2500 cal BC)

In contrast to contemporary house plans of the TRB-culture (Midgely 1992) or the recently discovered 30m long houses of the southern Stein group (Van Kampen and Van den Brink *in press*), house plans of the Vlaardingen culture distinctly seem to remain part of the previous delta tradition. A number of sites have yielded structures. At Haamstede-Brabers (see Verhart 1992), situated on a coastal barrier on the island of Schouwen, a total of three house plans was found. The first cluster yielded a rectangular ground plan (9.1×3.8 m), oriented E-W, with a row of central posts, a double row of wall posts and a structured concentration of small posts or stakes on the inside. The four central posts are heaviest (postholes: $\text{\O} 35\text{cm}$, depth 50–60cm). The wall posts are smaller ($\text{\O} 15\text{cm}$, depth 13–40cm). The concentration of small posts on the inside centres on what seems to be a hearth. The second cluster yielded a rectangular two-aisled structure with somewhat rounded ends measuring 7.5×4.25 m (oriented NW-SE). Finally, cluster 4 yielded a rectangular ground

plan (oriented NW-SE) measuring 6×3.73 m. The central row consists of 4 posts ($\text{\O} 30\text{--}40\text{cm}$; Verhart 1992, p. 87).

The three structures at Brabers indicate the existence of considerable diversity in the construction of houses in this period. House 1 indicates that the means and technology to make technically complex houses, which may last for several generations and were recognisably repaired, existed, yet at other moments other, perhaps more simple or ad hoc choices were made. This is also the case at Leidschendam and Vlaardingen. At Leidschendam, located on a coastal barrier, three clusters of posts were uncovered. Trench 4 yielded a rectangular alignment of posts (oriented SSW-NNE) measuring 16.75×4.75 m. The presence of double posts may indicate multiple phases of repair and the structure coincided with the main distribution of finds. The cluster in trench 5 measured c. 12×9 m and included a large number of postholes. The orientation is SSW-NNE and on the eastern end there is a row of eleven posts extending over 9.25m (Van Beek 1990). In 2005, excavations indicated the presence of further rectangular two-aisled structures (Hamburg 2006, p. 18), possibly houses. At Vlaardingen, several rectangular configurations of posts measuring $8 \times 3\text{--}4$ m were found situated on a levee, probably representing house-places of 8–10m in length and c. 4m in width. The many postholes uncovered, however, make their combination into structures difficult. This also seems to be the case at a recently discovered Vlaardingen settlement near Den Haag (Wateringse Binnentuinen). There, several potential house structures could be defined within the clusters of posts. These seem to be of a larger size (3.5×15 m) and again of a diverse layout (Stokkel et al. *in press*).

For the Vlaardingen culture, Hekelingen presents another type of occupation. Situated on a levee, the site extends for c. 200m along the banks of an active creek. Habitation took place between 2900 and 2500 cal BC. Some of the 15 separate artefact and refuse concentrations that were discovered were inhabited contemporaneously and at least 12 different concentrations of artefacts and debris have been located along the creek. Habitation here is not characterized by two-aisled house plans, but rather by clusters of small posts, which can certainly be considered the material remains of round or oval hut sites, often associated with fireplaces (Louwe Kooijmans 1987, p. 245).

Overall, the character of habitation documented at Hekelingen deviates from the nature of Vlaardingen occupation elsewhere, as presented in previous section. The former is characterized by more structural house-places and technically complex and curated buildings. Vlaardingen takes up an intermediate position, while Hekelingen III should probably be interpreted as the remains of tents or huts. Recent excavations such as those at Hellevoetsluis and Hazerswoude seem to confirm these building traditions (Goossens 2009).

A Delta Phenomenon?

Although the number of sites is still limited, the examples above indicate the existence of a number of distinct traditions of building, construction and habitation

in the wetlands of the LRA. To some extent this is also confirmed by sites outside of the cultural continuum discussed. For instance, at the TRB site of Sloodorp (3500–3100 cal BC) in West Frisia (Hogestijn and Drenth 2000/2001), situated in a salt marsh area, 451 stakeholes were uncovered. A two-aisled structure was visible measuring c. 11 × 3.8 m. Again, the number of features suggests several instances of repair, as well as phases of rebuilding. While this site may be a satellite location of more permanent dryland domestic TRB occupation (e.g. Midgely 1992), it may also point to the need for a more diversified perspective in which the TRB salt marsh occupation as recorded at Sloodorp is interpreted in its own right as best fitting the nature of settlement in such a wetland landscape.

Building and Rebuilding: Common Practices and Structuring Principles

The cultural continuum of communities discussed here can be situated in a close, though not exclusive, relation to the wetlands and wetland margins of the LRA. In this respect the communities associated with these landscapes would have been influenced at multiple levels by living in and dealing with such a dynamic environment and this would also have affected the way they built (cf. Ingold 2000). Instead of perceiving such a potential tradition as an epiphenomenon of adaptation, it is argued here that a more dynamic perspective applies. In line with Goodman (1999, pp. 145–146), a study of domestic space and houses should be embedded in a study of the longer-term patterns we uncover. Different levels intermesh and interact and we should try and define characteristics of transmission that surpass the individual life spans and generations, in order to seek a better understanding of the nature of habitation in the area studied. This situated perspective focuses on the transmission of practices and traditions, of *habitus* (Bourdieu 1977; Foxhall 2000) and on the rhythmicity (cf. Lefebvre 2004; also see Sturt 2006) of living in a certain landscape and environment. For the wetlands, this approach takes into consideration ideas relating to the existence of a ‘wetland people’ (Van der Noort and O’Sullivan 2006) and to what extent the close-knit connection between the wetland environment and landscape and its inhabitants shaped a conceptual or moral community (Brück 2005; Whittle 2003, p. 17) with a distinct way of habitation.

In the following section, different aspects of building and inhabiting will be discussed in order to discover commonalities and structuring elements.

A Vernacular Tradition?

At first glance a comparison of 3,000 years of wetland and wetland margin domestic building traditions offers an impression of diversity. The sunken huts at Hardinxveld differ distinctly from the huts of the Swifterbant culture, while the two-aisled buildings of the Hazendonk group are complemented by post clusters and small-

scale hut features, also present during the later Vlaardingen culture. However, as early as the Swifterbant culture and at least from the Hazendonk group onwards, there is evidence for a two-aisled building tradition with structures that are roughly between 8–11m in length and 3–5m in width. The execution of these houses, even within one site, remains variable with respect to layout, post size, building material, orientation, roofing etc. This opposes this tradition against other overarching regional traditions, as for example those of the Middle Bronze Age (cf. Arnoldussen 2008, p. 272), or the earlier LBK (e.g. Modderman 1988). Within these cultures the social rules and conventions regarding the construction of houses signal a much more rigid, controlled type of *habitus* (see Sommer 2001). This does not mean that the traditions documented here are coincidental, or unstructured, but rather that they are of a more vernacular character. They are therefore less a product of design and planning (see Ingold 2000, p. 186). According to Rapoport (1969, pp. 5–8), such a vernacular tradition is characterized by a pre-industrial or primitive architecture with a strong relation between form and culture, because the template or model of dwelling is continually adjusted until it satisfies cultural, physical and maintenance requirements (Rapoport 1969, p. 4). Form adjusts to given problems and available means and building is based on the idea that tasks should be performed in the simplest, most unobtrusive and direct way possible (Rapoport 1969, p. 5). According to Rapoport (1969, p. 5) this involves the tendency to work with the site and micro-climate with little theoretical pretensions, respect for the natural and man-made environment and an idiom of variations within a given order. These traditions are thus distinctly open-ended, leaving room for additions and changes and stressing the relationship between the various building elements over the way they are executed (Rapoport 1969, p. 6). The supposed existence of a vernacular tradition should not be seen as synonymous for an absence of social rules guiding building practices. Certain structures and regularities within architecture may be determined, and these remain important research topics. What the concept of ‘vernacular tradition’ does argue for and places at its centre is the close-knit and recursive relationship between building practices, materials and environmental characteristics. Approaching houses, structures and related patterning at sites from this perspective stresses the importance of material elements as media for social reproduction and for studying the relation of communities with the environment. This explains both the continuity we see over time as well as the internal variability. Architecture is attuned to cultural, physical and maintenance requirements, but at the same time diversity indicates a practice of adaptation to changing circumstances. This continuous yet flexible character seems best suited to study the nature of occupation in the LRA wetlands and wet margins.

Practices of Repetition

The wetland building traditions have now been characterized in a functional way as a ‘vernacular tradition’ anchoring them firmly within the landscape and environment. This enables us to perceive their development in relation to these factors. It

is a bottom-up approach that is much more in line with a dwelling perspective and hence an archaeology of ‘inhabitation’ (Brück 2005; Ingold 2000; Pollard 2000) focusing on the active relationship between humans and their (natural) environment (including the landscape) and stressing the ‘situatedness’ and historicity of this recursive relationship. However, although the characteristics of building are open-ended and adaptable, this does not mean that they are exempt from regularities or returning traits. Elements of what may be termed a building syntax, particular to this region, may be determined.

Building and Rebuilding

Despite the ongoing evidence for seasonal mobility as late as the Vlaardingeng culture (Amkreutz 2010) there is also a distinct investment in dwelling structures or houses. One of its major features is the remarkable degree to which structures were built, renewed and re-built on the same spot. For the Late Mesolithic the compacted layer in the sunken dwellings at Hardinxveld seems to have been repeatedly renewed. The Polderweg structure was intentionally filled in after its last use (Hamburg and Louwe Kooijmans 2001, p. 100), indicating the repeated use and maintenance of these dwelling structures in combination with an act of closure, ending the cycle (Smyth 2006, p. 250; also see Gerritsen 2008). For the Swifterbant culture, practices of re-use become more evident. For S3 it may be calculated that part of the 750 postholes clustering on the top of the levee may point to at least 10 phases of renewal of the structure in the same place within less than a century (Amkreutz *in press*). Similarly at P14 the posts demonstrate evidence of replacement (Ten Anscher 2000/2001, pp. 158–159), while at Hoge Vaart a posthole cluster of 175 features was uncovered (Peeters 2007), suggesting similar patterns of renewing and rebuilding.

The houses uncovered for the various sites of the Hazendonk group show similar patterning. At Wateringen, 19 of the 97 features on top of the dune were attributed to a house plan, suggesting various previous instances of renewal (Raemaekers et al. 1997, p. 149). At Schipluiden 3,353 postholes were discovered in four dense clusters in a zone of 120 × 20m. These represent house sites witnessing frequent phases of repair, re-building, renewal and maintenance (Hamburg and Louwe Kooijmans 2006, pp. 61–62). The largest posts formed 36 rows of 5–12m. Per cluster 5–11 of these rows were identified. In relation to the occupation span, approximately eleven house generations of perhaps five contemporaneous houses occurred (Hamburg and Louwe Kooijmans 2006). Furthermore, it would take approximately 100 houses to account for 3,000 postholes, amounting to c. 20 houses per cluster, roughly seven houses per century per place and a mean renewal every 14 years. At Ypenburg, a similar situation existed. In total, 837 post features were uncovered from which at least four house plans were reconstructed, with frequent episodes of repair and re-building of (parts of) structures in the same place (see Houkes and Bruning 2008).

For the Vlaardingeng culture the coastal site of Haamstede Brabers yielded four clusters of postholes and at least three house plans with instances of repair and

Table 10.2 Number of identified postholes, post clusters, identified or estimated structures and estimated number of posts per cluster for sites with best available data. (Adapted from Amkreutz, [in press](#))

	Postholes	Clusters	Posts per structure	Number of structures
Swifterbant-S3	750	2	20–50	1
Wateringen-4	97	1	19	2–3
Schipluiden	3,352	5	20–30	–
Ypenburg	837–1,044	7	24–55	4
Slootdorp	451	1	20–50	1
Haamstede	c. 300	4	19–140	3
Vlaardingen	2,283	6	40	2?
Leidschendam	c. 569	3	c. 30–50	3

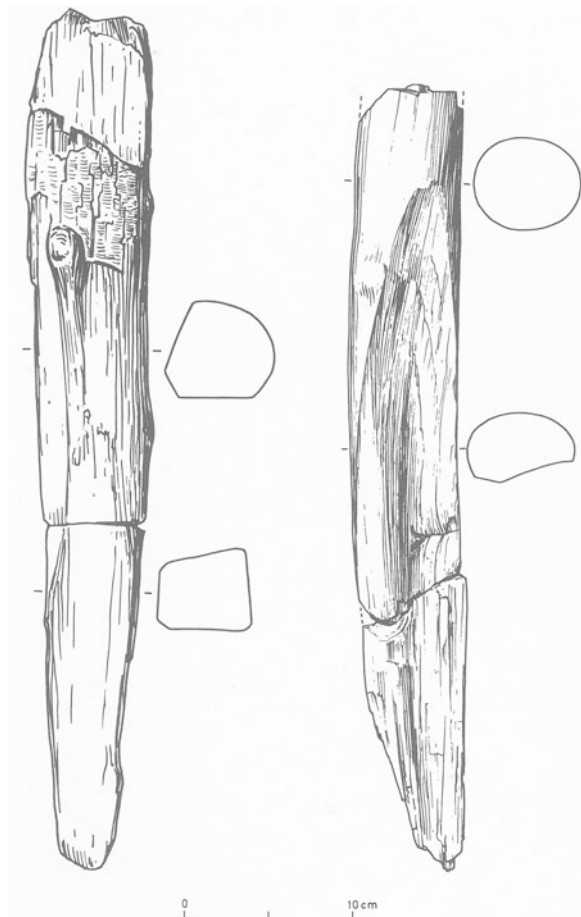
rebuilding. This is also the case at the eponymous site of Vlaardingen itself, which was probably inhabited seasonally (see Louwe Kooijmans 1987, p. 250). Several houses on the levee were contemporaneous and were frequently rebuilt on the spot, resulting in the clusters of posts. Van Beek (1990, p. 233) calculated that within the 250 years of occupation at Vlaardingen, a total of 75 houses may have been built and that approximately three houses were contemporaneous at any time. A similar picture may be sketched for the Vlaardingen settlement at Leidschendam. The creek sites of Hekelingen also show comparable evidence. At Hekelingen III, at least 15 artefact and refuse concentrations were discerned, as well as three separate phases of occupation. Based on the presence of small clusters of postholes several remains of round or oval huts have been suggested (Louwe Kooijmans 1987, p. 245). In total the site was seasonally inhabited for over two centuries. Some of the locations are contemporaneous, others are each others' successor, with multiple phases of occupation and consecutive huts (site F). Recently excavated sites of the Vlaardingen culture, such as Hellevoetsluis or Hazerswoude (e.g. Goossens 2009), also yielded indications (respectively 101 and 60 postholes) for repeatedly rebuilt or renewed structures, as did the wetland TRB site of Slootdorp. A total of 451 post features point to a structure which must have witnessed a considerable number of phases of maintenance and rebuilding (Hogestijn and Drenth 2000/2001, p. 133).

In conclusion, it may be argued that across the cultural succession of wetland communities there is consistent evidence for practices of repetition and place continuity (see Table 10.2). Often the exact number of structures and associated posts remains unknown, yet this is an epiphenomenon of these practices even on those sites with evidence for sedentary occupation (e.g. Schipluiden and Ypenburg).

Wood Use

Another aspect typical of these wetland building traditions is the fact that many structures were made of perishable wood species, predominantly alder (see Fig. 10.5). The average post diameter documented ranges between 5 and 10cm. Alder is of course a common species in a wetland environment, which may have

Fig. 10.5 Two of the alder posts documented at Swift-erbant-S3, a typical element of the wetland building tradition. (Adapted from Casparie et al. 1977, Fig. 7)



made it the most convenient candidate. However, even at those sites where palaeobotanical investigations demonstrated the presence of other species such as oak, for example at Swifterbant-S3, Ypenburg and Schipluiden (e.g. Casparie et al. 1977; Kooistra and Hänninen 2008; Louwe Kooijmans and Kooistra 2006), alder remains most frequently used. In combination with the often wet and fluctuating environment at some sites, this would imply a rather quick decay (Casparie et al. 1977, p. 39). An experimental study by Smith and Orsler (1996, Tables 4–6) indicates that unsheltered, half-buried alder posts with a length of c. 60cm and a diameter of 5cm only lasted between 3.9 and 6 years. Of course there are many drawbacks to these studies, as well as many ways to extend the durability of alder wood in construction (e.g. Arnoldussen 2008, p. 89); nevertheless, the use-life of the posts was relatively short. This means they were targeted in the environment despite their short use-life.

This stresses a major point. People selected a non-durable wood species and on many sites used it in a non-stable environment. They therefore chose a strategy

that required frequent repair and rebuilding of the complete structure, at least every couple of years. This cycle of repair and renewal was actively maintained, making it a meaningful activity. Both in archaeology and ethnography cycles of rebuilding and renewal have been synchronized to significant transitions in the lives of people and communities (burial, death, marriage etc.; e.g. Borić 2008; Cooney 2000; Geritsen 2008; Helms 2007; Joyce 2007; Marshall 2000; Souvatzi 2008; Smyth 2006). Marshall (2000, pp. 75–77) for instance touches upon similar issues when discussing the Nuu-chah-nulth houses of the North American north-west coast people. There, a set of house planks is transported between a number of frames owned by a ‘house’. From a historical perspective the impression of permanence is enhanced by such a repeated practice of renewal, especially since there is a remarkable continuity in the placement and interior arrangement of these houses. Jones (2007, pp. 93–108) stresses that the durability of the house is an important means for social reproduction, but emphasizes the importance of social practices over durability. The high frequency of rebuilding in the wetlands seems to express a comparable importance of social practices and tradition over durability. It evokes a sense of re-affirmation, of continuity over time and in spite of (environmental) change (Amkreutz [in press](#)).

Other Practices of Repetition

The consistency in repeated practices and their performance in the same place is not confined to houses. Several other elements have been documented that seem to confirm a more general tradition. The first of these may be termed artificial surface modifications. Due to the environmental dynamics, several sites repeatedly suffered from flooding. At those sites evidence points to consolidation and management of living areas. At Swifterbant-S3 the living surface on the levee was heightened with wood chips and bundles of reed (e.g. De Roever 2004). At the fowling camp of Bergschenhoek, planks and canoe fragments, bundles of reed and small trees were used to strengthen the same location upon each return (see Louwe Kooijmans 1987). Similar practices were documented at Húde (Stapel 1991, p. 6). People chose to reinforce their living areas in spite of repeated flooding and waterlogging, rather than to look for higher or dryer locations.

Other activities also point to repeated practices and place consistency. The Mesolithic sites of Polderweg and De Bruin demonstrate a graded use of space involving fixed areas of waste deposition and production and maintenance over more than two centuries. At Swifterbant-S3 activities and their debris clustered around the house structure, while dumps of ceramics were consistently centred on the hearths and those of bones on the flanks of the dune. A comparable fixation permanence of activities appeared on other sites such as Wateringen-4, Ypenburg, Schipluiden, Slootdorp and Vlaardingen (Amkreutz [in press](#)).

Hearths form another example. Their extensive use-life suggests they formed long-lasting foci of activity. At S3, some hearths, both inside and outside, were renewed in the same place over many years, several for almost a century (e.g. De



Fig. 10.6 The hearth at Bergschenhoek. This feature was maintained and tended every winter for at least 10 years. Note the layering in the stratigraphy (Photo: National Museum of Antiquities)

Roever 2004, p. 32). Clay bases served as reinforcement and enabled place continuity. Comparably, at the Bergschenhoek fowling camp, a total of 38 layers relate to renewal of the same hearth in the same place for a period of c. 10 years (see Fig. 10.6). Other features such as water wells also show a distinct place continuity (e.g. Louwe Kooijmans 2009).

The repetition and place consistency documented for the features and practices above may not seem remarkable in themselves. Longer or frequent stays evoke a certain structuring of surroundings and space (Schiffer 1995). On the other hand, the consistency in place and over time in a wetland area characterized by physical and ecological change is remarkable and may have additional importance. The physical location of an activity or feature may have been as important an attribute as its function or performance. Certain elements and aspects of sites may in this sense have become meaningful centres of stability, anchor points around which life could evolve. These practices and features may have been part of a more consistent tradition that stressed stability and continuity through time in spite of environmental change and temporal absence. While functional motivations may run parallel, these other explanations deserve further attention.

Discussion

The specific building and habitation syntax discussed above should not be understood as the mere outcome of ‘living in a dynamic environment’, the result of seasonal mobility or a ‘least effort argument’ in favour of the use of alder. Several

arguments, including the sedentary nature of some sites, have already been brought forward and it is evident that the functional aspect of these structures and practices should not become detached from their socio-symbolic importance (e.g. Carsten and Hugh-Jones 1995, p. 46; Casey 1996; Cooney 2000, p. 56; Ingold 2000, p. 187). This brings to the fore questions that engage with the underlying characteristics of living in the LRA wetlands and their margins and the specific flavour of inhabitation this may have brought about.

Keeping Things in Place

Throughout the Late Mesolithic and Neolithic occupation of the wetlands and wetland margins, settlement as well as satellite sites yielded conclusive evidence that structural site features as well as domestic practices are characterised by frequent repetition in combination with place continuity. Dwelling structures, fences, hearths, and other features are repaired and renewed in the same place. Hearths, burial grounds and extractive sites are maintained and revisited for decades, while wet circumstances and damp living conditions are countered by the labour-intensive consolidation of occupation surfaces. The patterns sometimes differ, but do accentuate common principles in practice. While part of this patterning may be the result of optimal behaviour, perhaps in combination with issues such as territoriality and ownership, this is essentially a top-down perspective. It interprets sites as the passive context for occupation and persistent places (cf. Schlanger 1992) as predominantly a result of long-term stasis in behaviour. This does not do justice to the active and dynamic role sites have, especially in a wetland landscape, nor to the way in which communities using them are recursively influenced by them.

If we place the relationship between people and their surroundings at the basis of our analysis, in line with the dwelling perspective (Ingold 2000), then it follows that the resulting behaviour is not purely functional, but the product of the dynamic interaction between people, landscape and environment over time. Places in this sense become meaningful locations where these (social) relations develop, where they anchor (Cooney 2000, 2007, p. 56). Architecture and repeated practices performed at these locations are then also an expression of wider cosmological beliefs and traditions (Cooney 2000). This means we have to assume that the continued activities of revisiting, repairing, maintaining and rebuilding, at specific, fixed locations in the landscape should be seen as meaningful behaviour. Keeping things in place may thus be perceived as a purposive activity characteristic of the ‘moral community’ (cf. Whittle 2003), i.e. the *mentalité* of these LRA wetland inhabitants.

The long-term nature of these practices adds an important sense of time, an awareness of past and future, of endurance. This offers a temporal perspective on the way habitation is bound to places and attuned to the rhythms of the surrounding environment (Ingold 2000; also see Pollard 1999, p. 79). The actual patterning over time, the cumulative outcome of this behaviour, is in itself importantly a product of memory.

Memory Maintenance

In determining the essence of the practices discussed here, it is the place continuity observed, in combination with the repetitive nature of the *habitus* of these communities, which points to acts of re-creation. The repeatedly raised surface at S3 enabled an extended use of the site while the fixed practices provided a sense of familiarity. Similarly, at Schipluiden the fixed settlement layout with house sites, yards and graves provided not only a sedentary site inhabited for c. 200 years (cf. Louwe Kooijmans 2009), but through practices of maintenance and renewal also a familiar encounter lasting some ten generations. A sense of stability and consistency in living conditions was thus actively created and the essence of livelihood was, as it were, stretched across time. A known and familiar environment was copied and consolidated by repetition and continuity.

This type of behaviour is guided by memory. Communities deal with and draw upon the past, by copying and repeating what has been (e.g. Bailey 2007; Thomas 1996b). The past serves as a reservoir for action in the present and future (Gerritsen 2008, p. 145) and memory acts as the conductor for binding these temporalities together. The manner in which this occurs in the places mentioned is mainly indexical (Jones 2007, pp 18–22): past material residues are encountered, recognized and reinterpreted, certain places are designated for this or that activity, remnants of previous structures outline a new one. Encountering and keeping in place actively indexes the past and consolidates the values attached to it. The past is not represented directly by new structures and repetition, but these act as indexes. A good example is formed by the well-known Japanese temples, structures which are perceived as ancient, but which have in fact been built and rebuilt unchanged for many centuries. It is the physical perdurance of material culture and the sensory engagement with it that acts as a means of presencing past events, in which material culture precipitates and evokes remembrance (Jones 2007, pp. 24–25).

The actual acts of remembrance may in this sense be perceived as an ontological activity. They were meaningful practices creating (an idea of) stability in society. Much of these practices were of an incorporating nature (Connerton 1989; Rowlands 1993), not making use of external media, but of bodily practices and skills. It is, however, likely that both work together in the transmission of memory (Gerritsen 2008, p. 145; Mills and Walker 2008, p. 7). Therefore it is not only the outcome of the practices, but also the activities themselves, performed in a distinct location, that are meaningful. These are in fact the acts of commemoration, binding people, objects, places, the environment, past and present together.

Performing Memory

The practices and place consistency mentioned above form a strong aspect of the formation of group identity. The way in which people, places and things resonate

relative to each other and the periodicity and 'rhythm' of the social practices involved are central to this (cf. Lefebvre 2004). In this context, Jones (2007, p. 55; also see Mills and Walker 2008, p. 18) introduces the concept of 'citation'. This means that for existing structural conditions (cf. Barrett 2000) to make sense, they have to reiterate part of similar conditions in the past. The past is therefore re-articulated for the future (Jones 2007, p. 55) and practices become historicized in extensive networks between humans and non-humans (Joyce 2008, p. 28). Stronger links are created between past and present in case of a higher frequency in practices of citation. For instance, the use of ephemeral material culture at many of the studied sites, such as alder wood, requires more frequent acts of citation in order to evoke memory. By repeating these frequent practices and re-creating the structural conditions, a sense of stability, an absence of change is created towards the observer.

With this in mind we return to the wetlands, because it is here (Van de Noort and O'Sullivan 2006, pp. 69, 94, 148) that the meaningful security that stable places evoke (e.g. Casey 1996, p. 18), and the way they are, often metaphorically, tied to identity (see Feld and Basso 1996; Tilley 2004, p. 222) is challenged. Many of the sites frequently flooded or drowned over time, and suffered from water and wind erosion, waterlogged conditions, ecological changes etc. This means that from the perspective of a human time span, places were not at all stable and in fact formed a strong indicator of the passing of time. At Hardinxveld, the landscape changed from an environment with much open water to a marsh forest within a millennium. Water level rose c. 3.5m (or 35cm per century) and the distance from the mainland in that time increased from 5 to 11km (e.g. Louwe Kooijmans 2003). These changes were noticed; they influenced life at least at a generational level.

In view of this, the ontological security that issues from stable locations may have been under threat in the light of their changing and eventually diminishing appearance. Against this background the practices and place-consistency described above become meaningful. Both in a mobile system, as well as from a sedentary perspective, sites were not given up easily. Surface consolidation, clay bases and reinforcements may have functioned to 'fix' sites in time. The same was achieved by keeping things in place, by renewing and rebuilding structures in the same spot and by regularly performing the activities associated with them. It created a sense of stability, evoking and maintaining memory from an external, observable perspective. Central to this image are the incorporating practices described above, practically weaving memory into these places. Inhabitants therefore are never placeless, but instead help to emplace, to constitute places (see also Geertz 1996). These, in turn, possess an important capacity for triggering acts of self-reflection, inspiring thoughts about who one presently is, memories of who one used to be or might become (Basso 1996, p. 55). This 'weds' the physical landscape to the landscape of the mind and makes places and their structures central to identity. As argued by Cooney (2000, p. 71), it is the countless repetition of activities, of routine that is at the heart of what carries on life. In the LRA wetlands, 'freezing' sites in time may have been an important way of keeping in control, of trying to slow down change by keeping things in place, safeguarding social survival and identity.

Creating Persistent Places

It was demonstrated that durable activities of repetition and place consistency are common to the sites in the wetlands and wetland margins. It may be argued that an ideology of renewal was at work (see also Whittle 2003, p. 72). Continuity was affirmed and proclaimed (Helms 2007, pp. 501–502) in view of dynamic surroundings. Interpreting these place-bound activities from a distinct socio-symbolical point of view objectifies underlying practices and makes these meaningful with respect to memory, place and identity. Their existence underlines the importance of place in a changing landscape.

While the considerations above focus on the short- to mid-term scale of generations, it may be productive to briefly adopt a longer-term perspective and focus on these practices and traditions over extended periods of time. The legitimacy in this approach is not self-evident, in reality traditions may change over time, or similar patterns may not always have similar causes. However, the longer-term patterns that can be established eventually originate from the quotidian routine practices that form the ‘everyday’ context of existence (e.g. Whittle 2003, p. 22), they are built from them. While we cannot extrapolate the practices described above over millennia, they find themselves on a continuous scale. This means that the dynamics underlying the short-term rhythms may also reflect on the longer-term patterns analysed here (Foxhall 2000; Gerritsen 2008; Goodman 1999; Ingold 1993, 2000; Lefebvre 2004).

If we focus on the biography of many sites in the region, there is considerable evidence for a long-term commitment to places over time. A certain ‘life history’ can be detected that may span many centuries (Amkreutz *in press*). Despite occupational hiatuses, sites are characterized by a changing but repeated use until they become uninhabitable. Even places that were not used may have remained important markers or nodes on community ‘mental maps’ (e.g. Bradley 2000; Politis 2007, p. 148). These refer to the totality of physically existing places as well as locations of cosmological or other importance that may not be delimited or pinpointed and that are all defined in a community’s regional geography. These places formed part of a network and were rather given new meaning than abandoned (Feld 1996). This means the sites studied here may also have served as important spatio-temporal markers anchoring community identity from an essentially long-term perspective spanning centuries rather than generations. To what extent continuity within this perspective was deliberately created remains difficult to establish. Nevertheless, there seems considerable evidence for ongoing practices of long-term care, maintenance and investment characterizing the relationship between communities and places in the LRA wetlands at different temporal scales.

Conclusion

This overview of the habitation and building practices that characterized the Neolithic in the wetlands and their margins between c. 5500 and 2500 cal BC has brought to light a number of important characteristics, both with respect to the general habitation of the area and the process of Neolithisation.

It is evident that the building traditions of the LRA wetlands and their margins contrast with the classic Neolithic building traditions that are usually seen as ‘part of the package’, as for instance Bandkeramik and later Danubian houses, or later Neolithic monumentality. Therefore the symbolic connotations that may have surrounded these houses and monuments are not appropriate to study the situation in the delta of the north-west European plain (also see Last 1996, p. 40), where foundation deposits and similar distinct indicators of ritual behaviour relating to the built environment are also absent. Instead, we need to zoom in on the particularities of the mosaic (Tringham 2000; Whittle and Cummings 2007) and adopt a bottom-up approach dealing with practices and traditions from a coherent regional context.

If we do so for the LRA wetlands and their margins, an interesting picture emerges in which building practices, structures and other activities form a characteristic tradition rather rooted in the earlier Mesolithic practices of inhabiting this region than in any distinctly Neolithic practice. This specific regional tradition, however, does span the transition to agriculture, taking place between 5000 and 2500 cal BC, during which characteristic Neolithic hallmarks such as pottery, domesticates, cultigens and sedentism became (partially) adopted. It is characterized by frequent maintenance and rebuilding of (dwelling) structures in the same place, the use of non-durable building materials and an overall consistency in the use of places and the practices performed at them. From a long-term perspective, it seems to have been very consistent spanning generations and to some extent centuries.

In this paper I have tried to explain the characteristics of this ‘vernacular tradition’ (cf. Rapoport 1969) beyond the boundaries of a purely functional or economic interpretation. This was achieved by adopting a dwelling perspective (cf. Ingold 2000) in which the characteristic habitation of the area, and its specific building traditions were contextualized by combining them with their environmental context and positioning them in time. Against the background of the environmental and physical dynamics of the wetland landscape, these practices became meaningful as they served as a way to create (the idea of) stability and continuity with respect to place and in the face of changing and unstable surroundings. As such, this *habitus* (Bourdieu 1977) of building, renewing and keeping things in place may be interpreted as ontologically meaningful activities with respect to securing and transmitting a certain wetland way of life as well as socio-cultural identity.

What the LRA wetland houses, building tradition and use of place demonstrate is that research into the Neolithic and Neolithic houses should not automatically be undertaken from the traditional perspective of a process of Neolithisation involving the transition to agriculture in combination with sedentism and new building traditions. Similarly, we have to abandon the idea that this transition in any way *has to*

imply any socio-symbolical shift or different attitude towards the wild (cf. Hodder 1990) in order to incorporate new Neolithic elements (see also Barnard 2007; Descola 1994; Ingold 2000). In line with the gradual incorporation of domesticates and cultigens, which became part of an extended broad spectrum subsistence (Louwe Kooijmans 2007), the partial development of sedentism alongside other options, the continuity in building tradition and habitation practices in general indicate an absence of any direct change, shift or Neolithic influence. Instead they demonstrate an extensive and long-lived tradition of gradually changing while keeping things in place. When tracking the Neolithic house across Europe we should thus be aware that the people living there already were at home.

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Chapter 11

The End of the Longhouse

Jonathan Last

Introduction

The Linearbandkeramik (LBK) of the later sixth millennium cal BC is characterised, among other things, by the construction of rectangular post-built longhouses as the basic domestic unit. Their remarkable uniformity from the Danube to the Paris Basin and the significance of their different elements have been much discussed (Coudart 1998; Last, *in press*; Fig. 11.1a). However, after 5000 cal BC the shape of the longhouse and its internal arrangements began to alter and regional differences appeared; in the west of the LBK region, these and other developments are characteristic of the Großgartach and Rössen cultures in the Rhineland and the Blicquy/Villeneuve-Saint-Germain (BQ/VSG) culture in Belgium and northern France (Hampel 1989; Chap. 7 by Penny Bickle in this book; Fig. 11.1b–e). Then with the mid-fifth millennium Bischheim and Cerny cultures the longhouse disappeared, and it is a very different type of Neolithic (at least in terms of what we encounter archaeologically) that is represented by the Chasséen-Michelsberg cultural complex, which is contemporary with the origins of the Neolithic in Britain and Ireland. In this contribution, concentrating on the western end of the Danubian distribution, I wish to consider what may have led to the demise of the longhouse and how it might be connected with the kinds of houses we find on the English side of the Channel.

Fifteen years ago, the Neolithic Studies Group published a volume of papers relating to houses in Britain and Ireland (Darvill and Thomas 1996). The editors set out contrasting views on the question of British Neolithic houses: for Darvill (1996, p. 79) such buildings were ‘diverse in form and character ... and more numerous and widespread than commonly believed’, while for Thomas (1996, p. 2) much of the discussion was based on attempting to ‘interpret the atypical as the norm’; rather than trying to find houses we should be seeking to better understand

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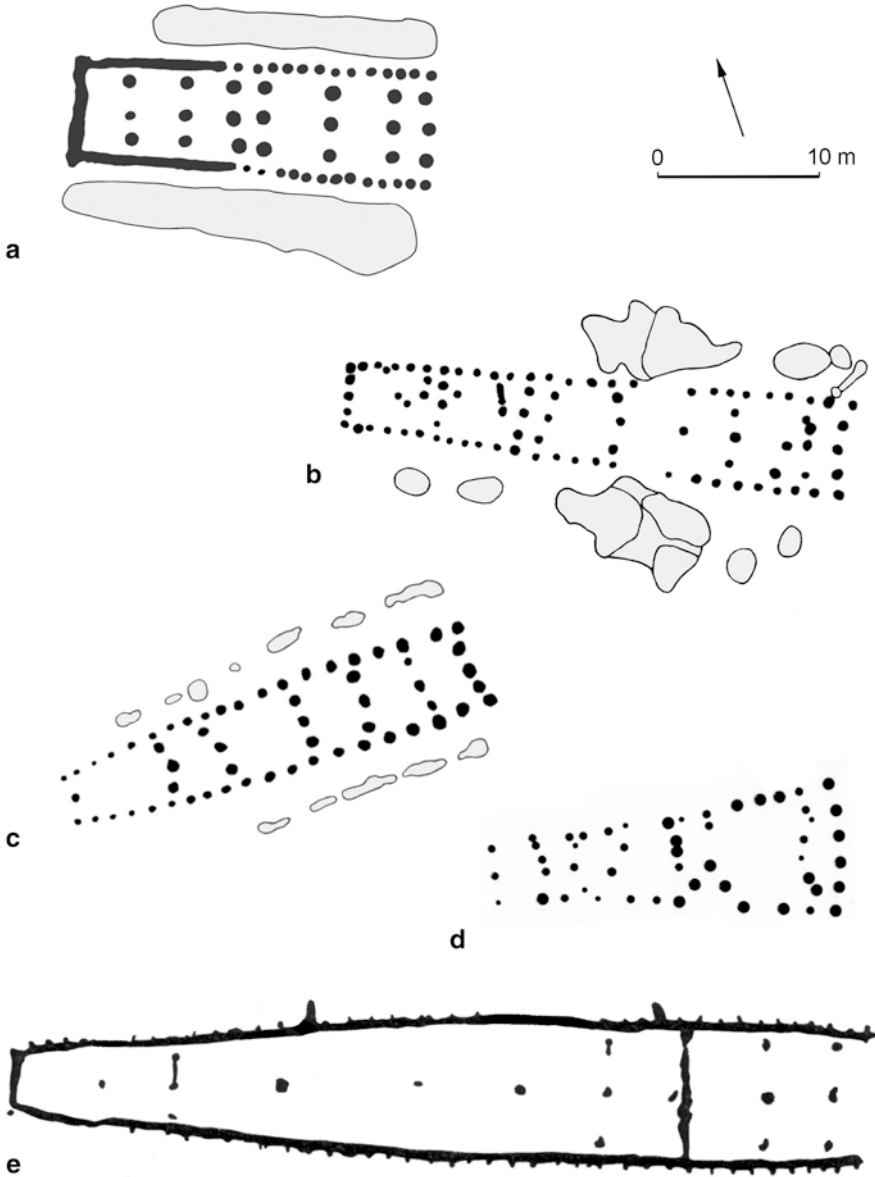


Fig. 11.1 Danubian longhouses. **a** RRBP—Cuiry-lès-Chaudardes (after Hachem 2000). **b** VSG—Poses (after Bostyn 2003). **c** VSG—Gurgy (after Duhamel and Prestreau 1997). **d** VSG—Haut-Mée (after Cassen et al. 1998). **e** Rössen—Inden (after Lüning 1982)

‘the complexity and heterogeneity of Neolithic settlement patterns’. Although there have been important new discoveries since, and much discussion in the literature, essentially these two positions still characterise the debate, as set out recently by Bradley (2007, pp. 38–40); but the argument over whether British houses were

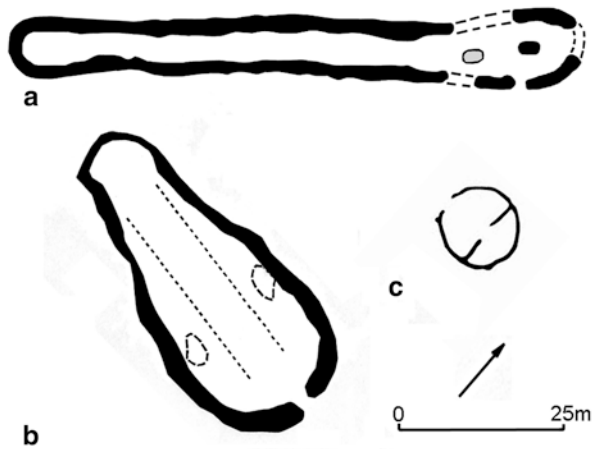
ephemeral or genuinely scarce, given further impetus by the number now known from Ireland, has tended to overshadow consideration of the significance of those that have been found.

The Shadow of the Linearbandkeramik (LBK)

There is a longstanding and not altogether helpful connection between continental discoveries and approaches to Neolithic houses in Britain. As I have previously pointed out (Last 1996, 2006), the pivotal excavations at the LBK settlement of Köln-Lindenthal (Buttler and Haberey 1936) had a great influence on British archaeologists of the time. The Lindenthal publication marked the culmination of the pit-dwelling paradigm in European prehistory, but also provided the basis for subsequent recognition of the significance of the longhouse. What did not change, however, was a certain inferiority complex on the part of the British. Before the War there was a contrast in the connotations of living in pits as set out by British and German scholars. Thus, while the Köln-Lindenthal pit dwellings were spacious and clean (Buttler and Haberey 1936, Fig. 30), in Britain the causewayed enclosure ditches then interpreted as dwellings were often associated with squalor: primitive people living in their own detritus. For example, Reginald Smith, discussing Leeds' excavations at Abingdon (in Leeds 1927, pp. 463–464), stated that 'People living in such a trench could not have been far above the level of savages', while Curwen (1937, p. 81) suggested 'Life at Whitehawk camp must have been at a very low level'.

After the War, the recognition of LBK longhouses and the influence of the exiled Gerhard Bersu ensured that British archaeologists continued to look for continental parallels. Piggott (1954, p. 26) wrote that there was 'no reason to suppose that the southern English Neolithic was so immeasurably inferior to... the Danubian village of Köln-Lindenthal with its timber houses...'. The implication was that if one looked in the right places, similar houses would be found in Britain. However, radiocarbon dating gradually made it clear that the British Neolithic began 1,000 years after the end of the LBK, while the increasing pace and scale of fieldwork still failed to find many houses compared with the number of monuments such as long barrows. Interpretations of some of the known British 'houses' were accordingly revised; for example, the domestic character of the structure from Fengate was questioned by its excavator (Pryor 1993). There are also cautionary tales, from the Late Neolithic 'structure' at Little Paxton, which is clearly a tree-throw (*pace* Darvill 1996, p. 101), to the 'Neolithic' houses from Cheviot Quarry, Northumberland, which radiocarbon dating subsequently showed to belong to the fifth century AD (Johnson and Waddington 2009). This, of course, is the opposite of the situation at Balbridie in Scotland, where what was assumed to be an early medieval building turned out to be a Neolithic 'timber hall' (Brophy 2007). Such discoveries mean that the lure of the LBK has remained hard to resist: Hey and Robinson (2011, p. 227) have recently restated the opinion that the 'distant origins' of British early Neolithic

Fig. 11.2 Cerny curvilinear structures: funerary enclosures from **a** Passy and **b** Balloy, and, **c** round-house from Auneau. (After Chambon and Thomas 2010; Prestreau 2003; Laporte and Marchand 2004)



houses ‘lie in the Early Neolithic structures of the Linearbandkeramik cultures of central and northern Europe...’. Here I aim to show that such statements require, at best, substantial qualification.

The Disappearing Longhouse: VSG and Cerny

In northern France, the Cerny culture (Constantin et al. 1997) probably arose around 4700 cal BC from the BQ/VSG, which itself succeeded (perhaps following a period of overlap) the regional late LBK (Rubané récent du Bassin parisien or RRBP). It was followed in the west by the Chasséen, after 4400 cal BC, and in the eastern Paris Basin by an epi-Rössen phase lasting a century or so, before the Michelsberg culture took root about 4300 cal BC. Material culture generally shows a gradual evolution from VSG to Cerny, with little sign of a rupture except for the disappearance of the schist rings typical of the former. There is some development within the Cerny culture, including changes in ceramic styles between the ‘eponymous’ Cerny (or Cerny-Videlles) and the later Cerny-Barbuise (Louboutin and Simonin 1997). However, the impression of continuity in ceramic developments serves to emphasise the significance of the evident discontinuity in architecture (houses, enclosures and funerary monuments). Alongside an expansion of settlement beyond the zone of VSG occupation, the Cerny culture sees the appearance of large enclosures, some with interrupted ditches and palisades (Mordant and Simonin 1997), and elongated mortuary enclosures, sometimes of considerable length, especially at the well-known site of Passy (Kinnes 1999; Chambon and Thomas 2010; Fig. 11.2a and b). While the large enclosures sit at the head of a millennium-long tradition of such sites, including the British causewayed enclosures of the fourth millennium BC, this style of funerary monuments appears to be unique to the Cerny culture.

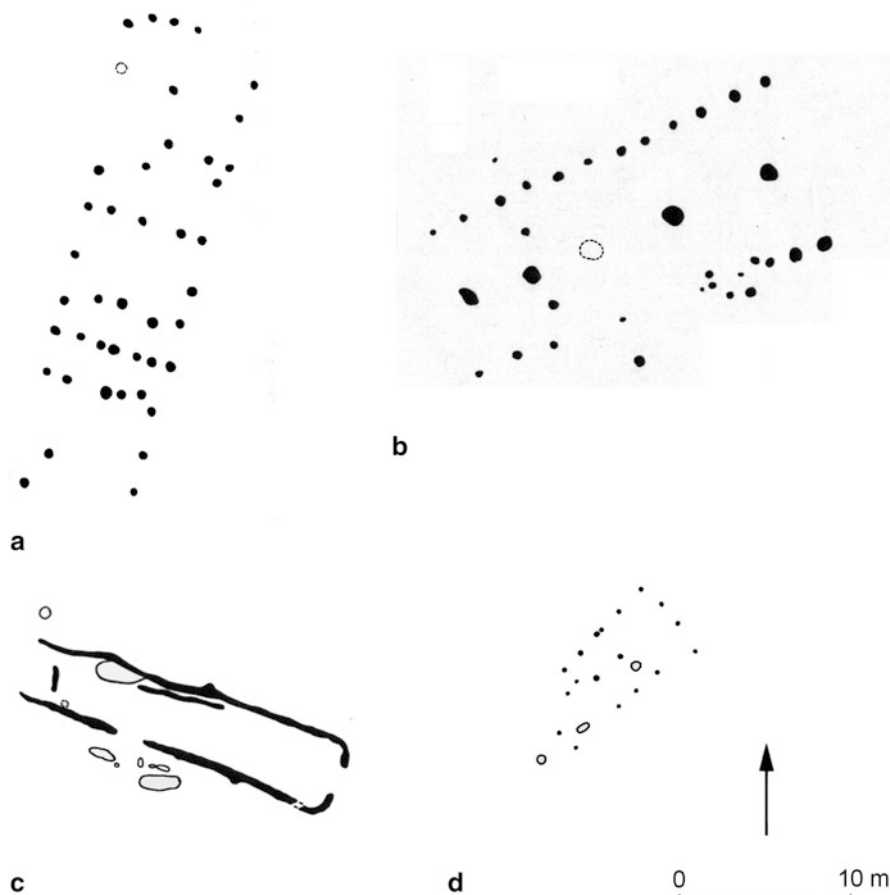


Fig. 11.3 Cerny rectilinear structures. **a** Vivoin ‘le Parc’ (after Ghesquière and Marcigny 2003). **b** Herblay (after Ghesquière and Marcigny 2003). **c** Molinons (after Prestreau 2003). **d** Jaux (after Yann 2004)

In contrast to these new types of enclosure, Cerny domestic structures are rare or absent; there have been several claims for Danubian-type longhouses in this phase but many appear dubious. The most plausible example is the structure from Vivoin (Sarthe), assigned to the early Cerny, which measures $21 \times 6.5\text{--}7.8$ m (Ghesquière and Marcigny 2003; Fig. 11.3a). The Cerny attribution of the trapezoidal building from Herblay (Val d’Oise; Ghesquière and Marcigny 2003, Fig. 24; Fig. 11.3b), which is about 23m in length, has been questioned (Mordant and Simonin 1997, p. 320; its single axial row of large postholes is characteristic of the later developments discussed below), while other longhouses previously claimed to belong to Cerny are likely to be either considerably later in date (Berry-au-Bac) or older RRBP/VSG structures overlain by Cerny features (Marolles-sur-Seine). Uncertainty also remains about the trench-defined structure from Molinons (Yonne), which

has some resemblance to the Cerny mortuary enclosures but is argued by the excavator to be a domestic building, partly because it is more rectilinear than the monuments at Balloy and Passy (Prestreau 2003; Fig. 11.3c). However, it does not appear very different in shape from the funerary enclosures at Gron (Chambon and Thomas 2010, Fig. 5). Mordant and Simonin (1997, p. 320) have accordingly suggested it could be a monument of this type superimposed on a VSG house. That may also explain the apparent contradiction between the late VSG/early Cerny finds assemblage and a late Cerny radiocarbon date.

Other Cerny buildings are clearly unrelated to the longhouse tradition. These include small rectilinear structures, such as that from Jaux (Oise), which measured about 7×4 m (Yann 2004; Fig. 11.3d), and a growing number of circular houses with distinctive internal divisions (Verjux 1998; Laporte and Marchand 2004; Bostyn 2007; Fig. 11.2c) that at Goulet dating to around the 45th century cal BC (Marcigny and McFadyen 2011). The circular structures may have Mediterranean origins and clearly pertain to the largely unresolved questions concerning the extent of southern (Cardial) and more local (Mesolithic) influence on late Danubian societies (e.g. Jeunesse 1997; Hauzeur and van Berg 2005; Paillet et al. 2008). Whatever the answer to that question, the evidence for a diversity of Cerny architectural practice marks a clear break with the highly uniform buildings of the Danubian tradition. It is also notable that, whatever their shape, Cerny structures are generally isolated: there is no evidence for organised settlements similar to those of the RRB or VSG. Large enclosures such as Balloy in the Seine valley (Mordant and Simonin 1997) contain evidence for occupation by multiple domestic units in the form of finds layers and hearths, but there is no sign of buildings; the nature of domestic architecture had clearly profoundly altered. It has been suggested this might reflect the development of construction techniques suitable for a wider range of soils, including sands and gravels (Duhamel and Prestreau 1997), but if that were the case we might still expect to find substantial structures at sites such as Balloy, where Danubian longhouses had previously been built; that we do not, suggests there is more to the change than just technical issues.

To make sense of these developments we need to understand what is special about the Danubian longhouse. Its significance cannot be reduced to a single variable: across its distribution there is great variety in the length of houses, wall construction techniques and other architectural elements, as well as the presence and form of flanking pits (Coudart 1998; Hampel 1989). Three features of the longhouse seem irreducible, however. The first, rather obviously, is its linearity, structured around an entrance in one of the narrow ends; although small houses or *Kleinbauten* are consistently present in the LBK (Coolen 2004), and outbuildings or *Nebenbauten* in the Rössen culture, these never occur on their own. The second is the consistent orientation of houses in each region, though there is variation between regions (see Bradley 2001). The third key feature is the internal post arrangement. Every longhouse interior comprises a (varying) number of transverse rows of three posts (*tierces* in French). The plethora of internal posts in the LBK provided structural stability and symbolic resonance ('People brought the woods into the house': Whittle 2009, p. 257), but much of the development in Danubian architecture seems

to reflect attempts to maximise the amount of interior space without sacrificing the basic principle of the *tierce*, for example, the ‘Y’-post arrangement seen in the Flomborn phase of the LBK. In the late Danubian cultures, the number of internal post-rows reduced, until eventually they became disorganised, as at Haut-Mée in Normandy (Fig. 11.1d), or disappeared entirely, as in the Late Lengyel houses of the Brześć Kujawski group in Poland (e.g. Grygiel and Bogucki 1997). The immense Rössen houses from the Rhineland (Fig. 11.1e), while retaining a limited number of *tierces*, show a focus on the axial posts which may be a precursor of later developments (see below). By analogy with ethnographic studies of house-based societies (e.g. Waterson 1990, pp. 122–124), the arrangement of posts can be seen as one of the underpinning cosmological principles of the longhouse, and therefore fundamental to LBK culture, though the details of Danubian worldviews remain a topic for further research (Whittle 2009, p. 257).

The latest longhouses in northern France belong to the VSG, which has a much wider distribution in Normandy and central France than the preceding RRB. One well-published site is that at Poses in the lower Seine valley (Bostyn 2003; Fig. 11.1b), which is assigned to the middle VSG. Here two rows of large houses show strong similarities to RRB buildings, including the characteristic *tierces* as well as flanking pits with evidence for consistent patterning of refuse disposal. Only the shape of the buildings really distinguishes them from the RRB: the VSG houses show an increasingly trapezoidal form over time (broader at the entrance than the rear and with a slight porch). Late VSG buildings are less well-known, but sites such as Gurgy and Monéteau in the Yonne valley may show a tendency towards more ‘naviform’ shapes (Duhamel and Prestreau 1997, p. 118; Augereau and Chambon 2005; Fig. 11.1c); at the latter site a sequence of trapezoidal to naviform houses may be visible. Another change, which may reflect a decline in the symbolic significance of the house, is the disappearance of regular *tierces*, as exemplified by the house at Haut-Mée, perhaps dating to the 48th century cal BC, which has a highly trapezoidal, almost axe-shaped plan with a disorganised arrangement of internal posts (Cassen et al. 1998; Fig. 11.1d). Thus, there are trends in the shape of houses during the early fifth millennium that presage the eventual transformation of the Danubian tradition.

These structures also provide a point of contact with the Rhineland, where naviform houses may appear a little earlier, during the Großgartach phase, which is probably contemporary with the earlier part of the VSG, around the 49th century cal BC (Zimmermann et al. 2005). Here is not the place to go into detail about the Rhineland sequence, especially as it remains hard to correlate precisely with the Paris Basin, but we can note one or two differences between the two areas. The Rössen culture, which succeeds Großgartach and is broadly contemporary with late VSG and the transition to Cerny, is characterised by a number of extremely long houses, as found at the site of Inden 1, where they reach more than 50m in length (Fig. 11.1e). In this area, therefore, the Danubian architectural tradition seems to have persisted a little later than in France, coming to an end in the Bischheim (or epi-Rössen) phase, around 4500 cal BC. Bischheim houses remain more visible than Cerny ones but show a similar variety in form: for example, a structure rather simi-

lar in plan to that from Haut-Mée was found at Garzweiler in the Rhineland, along with a more rectilinear example (Arora 2001, 2002), while others appear to be semi-subterranean, as at Schernau in Bavaria (Lüning 1981; Zeeb-Lanz 2001). Different again are the small epi-Rössen houses from Berry-au-Bac in the Aisne valley, discussed further below.

Variability is therefore the hallmark of both Cerny and Bischheim domestic architecture. Even the Vivoin building, which resembles the earlier longhouses in plan, especially in possessing *tierces*, has an unusual orientation and is associated with a finds distribution that suggests an entrance in one of the long sides, rather than the narrow end. In most cases, however, little can be said about the use of space because of the disappearance of the borrow pits that flank RRBP and VSG houses and often contain large quantities of material culture.

House shape is not the only thing that changed in northern France during the course of the VSG; in terms of subsistence, for instance, pigs generally became more important, though not at every site. The same pattern seems to hold good for Cerny, though the data are more limited (Bedault 2009, pp. 122–124). There is also evidence for increased exploitation of wild animals, especially red deer, in the Cerny culture after a decline in the VSG—though the proportion of wild animals in the faunal assemblage remains lower than in the RRBP or the cultures that follow Cerny (Augereau et al. 1993; Sidéra 2000). This may have some relevance to funerary practices, which represent another major discontinuity between VSG and Cerny. The BQ/VSG has evidence for more diversity in the treatment of bodies than the RRBP, ranging from simple interment in refuse deposits to more complex manipulations of the corpse (Pariat and Thevenet 2008), but this development is not really sufficient to explain the elaborate funerary monuments that subsequently appeared in the Cerny culture, recently discussed by Chambon and Thomas (2010) and Thomas et al. (2011). The Passy-type enclosures were not collective tombs but contained only a small number of individuals; hence interpretation has tended to stress increasing social inequality or hierarchy, with the wide range of ages represented in the monuments, including young children, perhaps indicative of inherited status. Individual monuments also appear to be gender-specific (Chambon and Thomas 2010, Fig. 3). Though grave goods are not common, most are linked to hunting (projectile points found in male graves) or are made from wild animal bone. While these practices are apparently at odds with the agricultural basis of Cerny society, they cannot help but recall Hodder's (1990) structuring ideological principles of the European Neolithic, and more specifically the suggestion of households specialised in hunting in the RRBP (Hachem 2000).

It appears that Cerny status roles were more explicitly marked out than in the LBK, which many, but not all, researchers interpret as a fairly egalitarian society, perhaps organised around lineages, moieties or big men (see references in Whittle 2009, p. 253). Bogucki (1988) has argued that the uncertainties of LBK life tended to promote wide-ranging household networks and discourage the emergence of status differences. A switch from the investment of labour in houses to funerary monuments for a smaller number of people could therefore be interpreted as evidence of developing inequality. It may also explain why longhouses disappeared

more rapidly in France than in the Rhineland, where funerary monuments are not found, but aggrandisement of houses into the massive Rössen structures may have been an alternative strategy for accommodating growing social differences. Jeunesse (1997, p. 553) has pointed out the apparent paradox that the RRBP, the group most open to the exterior, was also the most resistant to innovation; the frontier appears to have been a conservative place. Thus, ideological change within the late LBK may have reached the western periphery later than other areas, but was subject to more profound transformation there, in the form of the expansionist VSG and the early disappearance of the longhouse—these two developments quite possibly related to the need to accommodate groups and influences from beyond the frontier. The rise of new types of enclosure in the Cerny culture may indicate a transformation in social organisation, perhaps based on growing status differences linked to the ability to muster collective labour for larger constructions. In this situation, the ideology of equality seen in the uniformity of longhouses which differed, if at all, only in length could no longer be sustained. Households became more fluid and less important within broader social structures, reflected not just in a reduced investment in house-building, but also in a greater variety of architectural forms. Put simply, house form just did not matter so much any more, either as an expression of cultural identity or as an arena of socialisation. Enclosures and tombs began to take on some of these roles.

How then are we to explain the forms of the Cerny mortuary enclosures? It is a commonplace to call funerary monuments ‘houses of the dead’ but in this case they do not look very much similar to the earlier longhouses, though there are clearly some significant connections. In a number of cases, including Balloy (Chambon and Mordant 1996; Cassen et al. 1998, pp. 66–67) and probably also Molinons (Mordant and Simonin 1997), mortuary enclosures are superimposed on Danubian longhouses. This attention to old house sites is also seen with some of the palisaded enclosures, including Balloy again and Villeneuve-la-Guyard, where the ditches intersect earlier structures (Mordant and Simonin 1997). The practice may continue in later periods, e.g. at Monéteau, where a Chasséen enclosure and graves overlie a VSG site, though here the burials are not directly superimposed on older houses (Augereau and Chambon 2005). The link between the new types of monument and ancestral houses is particularly clear from a unique discovery at the site of Beaurieux in the Aisne valley, where a group of Cerny funerary enclosures lay adjacent to a monumental trapezoidal building 80m in length. Although resembling Danubian houses in its shape and in the presence of eleven *tierces*, the building lacked evidence for an outer wall and flanking pits, and is therefore interpreted as an open structure, possibly connected to mortuary rituals (Colas and Manolakakis 2010).

As well as these links between the earlier longhouses and the later funerary monuments there are also differences. One is the variability in the mortuary sites: for example, the monuments at Passy are extremely elongated but vary in orientation (Fig. 11.2a); those at Balloy are more rounded and share the orientation of the earlier longhouses on the site (Fig. 11.2b). This variability in the way houses are referenced is mirrored by the odd shape of the enclosures, which seem to be attempts to blend or mediate the circular and rectilinear house forms that represented different

strands of Cerny society: the Danubian inheritance and the Mesolithic/Cardial influences. Something similar may explain the ideological association with hunting seen in the grave goods, at a time when, as discussed above, only a limited increase in the exploitation of wild animals is evident.

In the Cerny culture, therefore, the concern with representing society through architecture shifted from the domestic to the mortuary sphere, and from the individual household to high-status lineages and perhaps the larger social groups which came together to construct enclosures. The traditional longhouse was referenced in this process but its legacy seems to have varied locally, the key architectural/cosmological principles identified above transferred only patchily at best. This may indicate a situation of ideological uncertainty, as Jeunesse (1997, p. 554) has suggested. It certainly shows that there was no simple evolution of the Danubian longhouse into later traditions: instead the worldviews of longhouse society were radically reinterpreted. It remains undeniable that there are similarities between longhouses and later long barrows in Britain and elsewhere (Hodder 1990, pp. 149–153), but Cerny does not appear to be the means by which those influences were passed on, though interaction with native communities on the margins may have played a part (see Sherratt 1990) and the role of the post-Cerny cultures in Brittany needs further consideration (Marcigny and McFadyen 2011).

A New Tradition: Epi-Rössen, Chasséen and Michelsberg

The Cerny and Bischheim/epi-Rössen cultures represent a transition to a very different late fifth millennium milieu. This is a period of rapid and still poorly understood culture change and interaction (see e.g. Dubouloz 1998) which includes the Chasséen culture in much of France, the broadly similar Michelsberg culture in western Germany, the Rhineland and north-eastern France, and the western TRB and Baalberge groups in northern and central Germany respectively. It is within the timespan of these cultures that the British early Neolithic began, around 4000 cal BC.

In northern France and adjacent areas, houses remain as rare as they are in the Cerny culture (or in Britain), especially as the examples discussed here span a period of at least 500 years. In Germany, few Michelsberg houses are known (Lichardus 1998, p. 267) and they are extremely variable in form; for instance, Höhn's (2002) discussion of later Michelsberg (c. 3600 cal BC) trapezoidal Grubenhäuser-type buildings from the site of Echzell-Wannkopf near Frankfurt finds them hard to parallel elsewhere, but they are reminiscent of the preceding Bischheim semi-subterranean tradition. TRB domestic architecture, especially in the west, is equally elusive. The houses from Flögeln in lower Saxony are perhaps the best known (Midgley 1992, pp. 335–337; Zimmermann 2008), but these date to the later fourth millennium and do not seem to be part of the formative milieu.

Closer to the Channel, there are rather more examples. Post-Cerny houses in the Paris Basin include a group of rectangular buildings within a circular enclosure at

Fig. 11.4 Post-Cerny houses and enclosure at Berry-au-Bac. (After Ilett 1983; Dubouloz 2000)



Berry-au-Bac in the Aisne valley; they are dated to the epi-Rössen phase, around 4400/4300 cal BC (Ilett 1983, pp. 30–32¹; Fig. 11.4). The smaller houses are almost square, with internal post rows dividing them into two not quite equal rooms; the largest building, which measures c. 20×10 m, is essentially the same but has an additional room or porch to the west and gullies in place of some of the post rows. Rather similar to this structure is the post-built house from Osly-Courtill, also set within an enclosure, further downstream along the Aisne (Dubouloz 2000). The two buildings share an orientation but this may just be a coincidence: the houses at each site seem to be aligned in relation to their enclosures, that at Osly-Courtill apparently attached to the internal palisade. A further difference is that the Berry-au-Bac house appears to have two aisles, whereas Osly-Courtill has three.

In the Chasséen, small structures also predominate: for example, those at Paris-Bercy, which had two aisles and measured c. 9m in length (Verjux 1998, p. 186). Traces of small huts have been found at Noyen in the Seine valley, while larger but rather irregular post-built structures of similar size from Saint-Vigor-d'Ymonville (Seine-Maritime) are assigned to the transitional Cerny-Chasséen and the Chasséen proper (Marcigny et al. 2002); it is notable that building 1 here also has a longitudinal row of axial posts (Fig. 11.5a; and see below). At Longueil-Sainte-Marie (Oise) a Chasséen posthole building was partially preserved; measuring at least 9m long and 4.5m wide, and oriented north-east/south-west, it had a single internal post (Jo-

¹ See also http://www.asava.info/au-cours-du-temps_53.html.

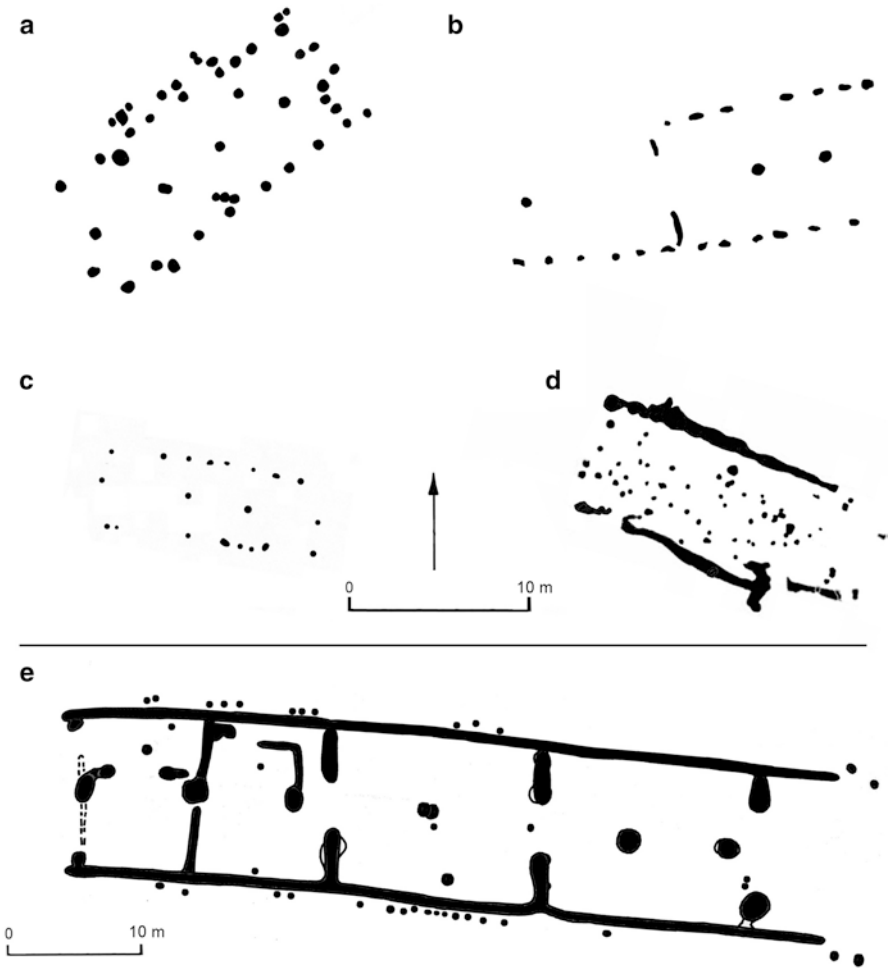


Fig. 11.5 Post-Cerny structures from **a** Saint-Vigor-d'Ymonville (after Marcigny et al. 2002). **b** Lantremange (after Marchal et al. 2004). **c** Watingen (after Raemakers et al. 1997). **d** Cairon (after Ghesquière and Marcigny 2011). **e** Mairy (after Marolle 1998)

séph 1996). At the enclosure of Carvin, in the Pas-de-Calais, assigned to the Groupe de Spiere, which has both Chasséen and Michelsberg affinities, two buildings measuring approximately $20 \times 7-8$ m in size appear to be similar; they also had central axes of large postholes and were divided internally into two parts by perpendicular gullies.² Of less certain form is the structure of similar size beneath a megalithic

² http://www.inrap.fr/archeologiepreventive/Decouvrir/Multimedias/Toutes_les_decouvertes/p-2408-Une_enceinte_neolithique_a_Carvin.htm.

monument at Cairon in Normandy, which comprised two parallel trenches enclosing an irregular arrangement of postholes (Ghesquière and Marcigny 2011).

However, the French settlement evidence is dominated by the exceptional site at Mairy in the Ardennes, where over twenty rectilinear ‘longhouses’ were found within a large enclosure, assigned to the Michelsberg culture and dated to the period 4300–3800 cal BC (Marolle 1998). The buildings range in size from c. 20×10 m, equivalent to the largest of the known epi-Rössen and Chasséen structures, up to a monumental 60×13 m and comprise wall gullies with a longitudinal row of internal postholes and transverse divisions (Fig. 11.5d). Their varying orientations, single axial post row and internal wall trenches dividing the buildings into small rooms are very different from Danubian longhouses, however. In fact, each ‘room’ at Mairy resembles the small houses found elsewhere, so it may be more productive to see these buildings as agglomerations of smaller units rather than a recapitulation of the Danubian house. Perhaps, similar to the causewayed enclosures of this period, they mark the emergence of a supra-household level of social organisation. However, the number and size of the buildings at Mairy is unprecedented anywhere else and there have been suggestions of a non-domestic purpose: Bradley (2003) sees the Mairy structures as enlarged, ritualised versions of the smaller houses found elsewhere. Although the site remains unparalleled, a single comparable building, probably also of Michelsberg association, has been uncovered at Lantremange in Belgium (Marchal et al. 2004; Fig. 11.5b). It measures over 20m long and again seems to have an axial post-row, but lacks gullies (except internally) and is slightly trapezoidal in plan. Finds were sparse and luminescence dates centre on the mid-fourth millennium BC, though with a wide error range.

Thus, after the architectural variability of Cerny, the late fifth and early fourth millennia see the reappearance (in some areas at least) of organised settlements of houses, including small and large buildings, often associated with enclosures. The key Danubian principles of linearity, shared orientation and *tierces* are lost, but three new architectural principles can perhaps be distinguished: these are the transverse internal divisions marked by small gullies or rows of close-set posts; the single axial row of often large postholes, presumably supporting a simple pitched roof (though Lengyel houses in east-central Europe, with rather similar principles, have evidence for an upper storey: Pavúk 2003); and the evidence for agglutination of smaller building units at some sites. A key question is therefore to what extent these principles can be traced in the British evidence.

Crossing the Water

I have traced the disappearance of the longhouse tradition and the emergence of a new house-building tradition in the late fifth millennium, though this was less central to cultural identity as it is evident at far fewer sites. It was in this context that the Neolithic first spread across the Channel: ironically, given how the Danubian longhouse sparked such an interest in settlement archaeology in Britain 75 years

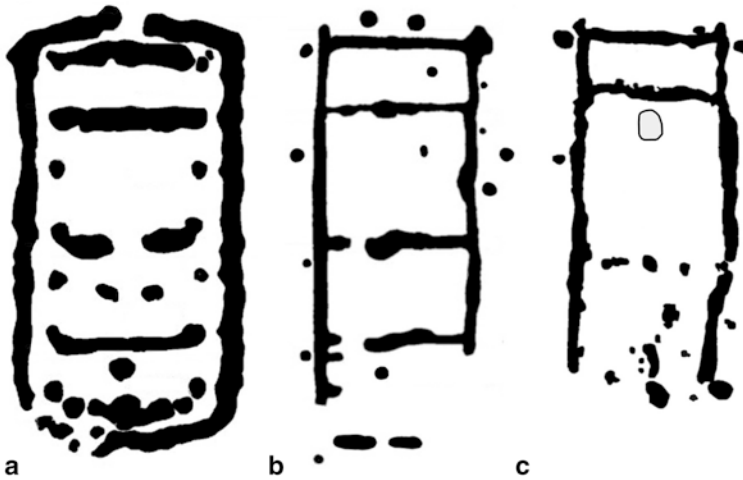


Fig. 11.6 A possible shared spatial layout at Balbridie (Scotland), Flögeln (Germany) and Ballyglass (Ireland). (After Brophy 2007, Fig. 7; Midgley 1992, Fig. 99; Cooney 2000, Fig. 3.1). For scale of buildings, please see other figures

ago, its demise seems to have been a necessary precursor to the appearance there of a Neolithic way of life.

Three main groups of early Neolithic houses are now known from Britain and Ireland. In eastern Scotland, at least eight sites with roofed ‘timber halls’ are now known (Brophy 2007), the dated examples appearing no earlier than 3800 cal BC (Whittle et al. 2011, p. 832). Their characteristic sub-rectangular or oblong form is different from the southern British buildings discussed below and indeed hard to parallel in Chasséen-Michelsberg contexts, though it is shared by some later Danish TRB houses (Whittle 1996, p. 232): the internal layouts of Balbridie and Claish, in particular, are similar to one of the later TRB structures from Flögeln (Fig. 11.6a and b). Certainly their easterly distribution does not preclude a Danish or north German connection, though there are no known contemporary parallels: small houses seem to be more characteristic of the early TRB in the north (Midgley 1992, p. 327).

The largest group comprises the Irish houses, of which about 80 are now known; they appear to have a rather narrow currency in the late 38th and 37th centuries cal BC (Whittle et al. 2011, p. 598; Smyth 2011; this book). There are points of similarity with some of the British structures mentioned below, while the relatively large houses from Ballyglass and Tankardstown resemble, at least in part, the Balbridie-Flögeln layout (Cooney 2000, p. 53; Fig. 11.6c).

Finally, the English and Welsh examples fall into two groups (Fig. 11.7). The first comprises the ‘longhouses’ at White Horse Stone, Kent (Garwood 2011), Yarn-ton, Oxfordshire (Hey and Robinson 2011) and Building 1 at Lismore Fields, Derbyshire (Daryl Garton, *pers. comm.*), which date between about 4000 and 3750 cal BC, with White Horse Stone the earliest and Lismore Fields the latest. The second

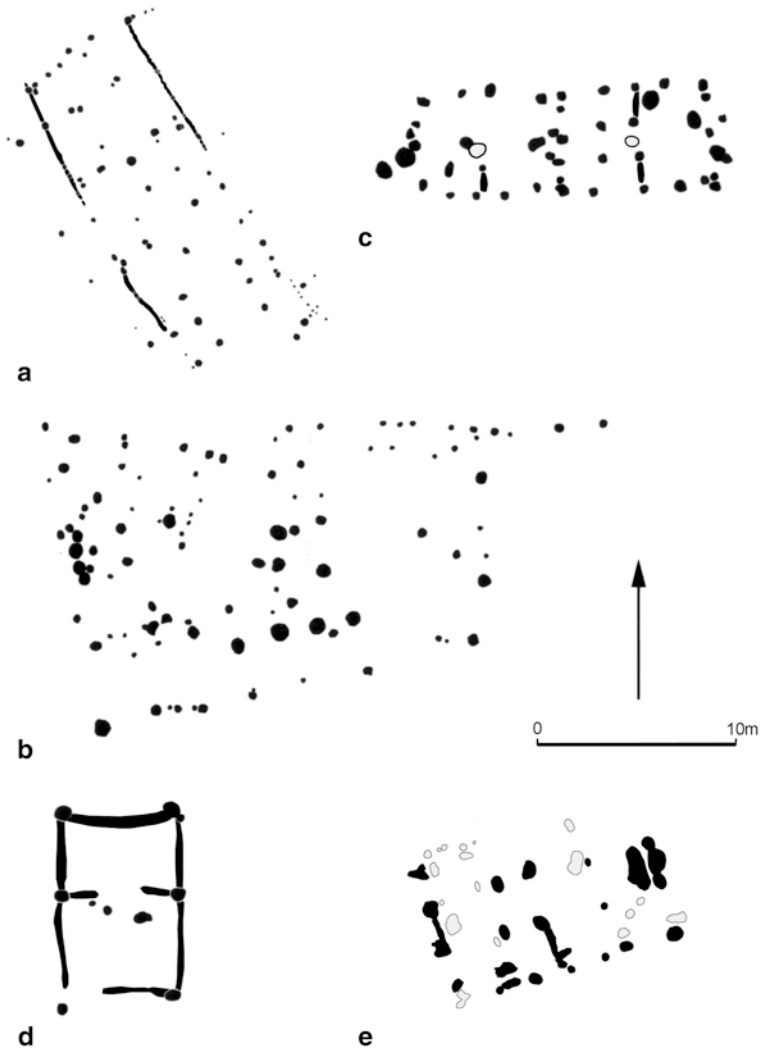


Fig. 11.7 Early Neolithic houses from England and Wales. **a** White Horse Stone, Kent. **b** Yarnnton, Oxfordshire. **c** Lismore Fields, Derbyshire. **d** Horton, Middlesex. **e** Llandygai, Gwynedd. (Llandygai after Kenney 2009. Others after Hey and Robinson 2011)

group consists of the smaller buildings from Horton in Middlesex,³ Gorhambury, Hertfordshire (Neal et al. 1990), Llandygai, Gwynedd (Kenney 2009) and elsewhere, which appear to date to the second quarter of the millennium (Whittle et al. 2011). It is this latter, larger group which shows connections to the Irish tradition.

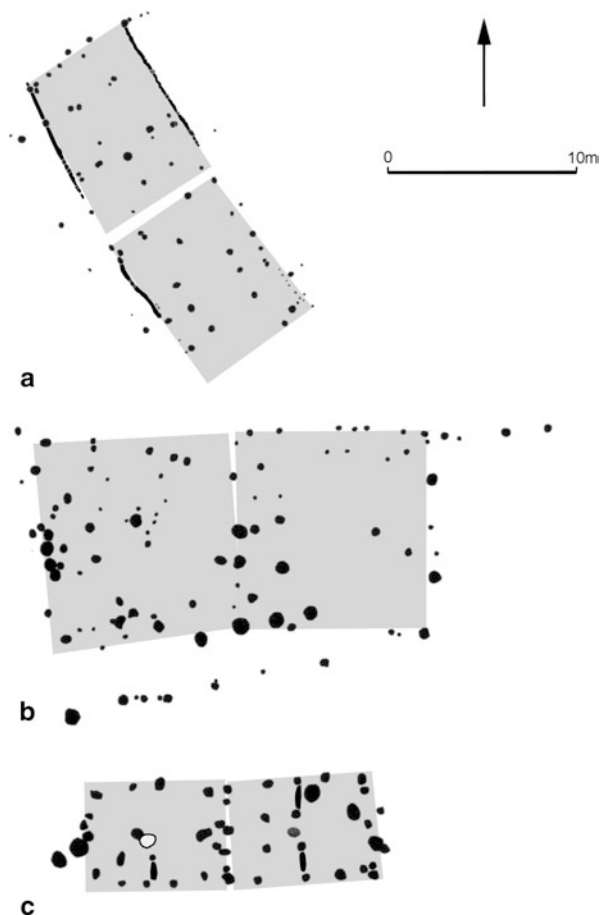
³ <http://www.wessexarch.co.uk/blogs/news/2008/06/30/stone-age-house-found>.

The origin of the British houses has recently been considered by Garwood (2011), who notes the diversity of their designs and construction techniques. Certainly, the British structures (especially those from England and Wales) vary considerably in shape, size and construction method (postholes or gullies), perhaps even more so than the continental examples referred to above. Interestingly this contrasts with the earliest Neolithic (Carinated Bowl) pottery in Britain, which comprises a restricted range of vessel forms compared with the Michelsberg assemblages from which they probably derive. The cultural transmission of pottery and houses seems to have occurred in very different ways.

All the British early Neolithic houses occur singly or in pairs; there are no organised or enclosed settlements to compare with Berry-au-Bac or Mairy, for example. In relation to the Chasséen-Michelsberg architectural ‘principles’ outlined above, axial post rows are scarce if not absent in Britain, in contrast to the mid-fourth millennium building from Wateringen 4 in the Netherlands, for example (Raemakers et al. 1997; Fig. 11.5c). The later group of British houses often have small gullies dividing internal space into ‘rooms’ of equal or unequal size, as do many of the Irish examples. There may be a modular principle at work, however, in the earlier buildings at White Horse Stone, Yarnton and Lismore Fields. As noted by the excavators in each case (and see Garwood 2011, p. 75), these buildings could represent two smaller ‘units’ joined end-to-end or succeeding one another (Fig. 11.8). Unlike Mairy, where the multi-room buildings appear to be unitary constructions, there are subtle changes of alignment between the two parts in each case; at White Horse Stone and Lismore Fields each half contains a hearth. To accommodate this interpretation at Yarnton, however, the southern row of posts would have to be a separate fence-line (see Hey and Robinson 2011, Fig. 13).

The earliest houses in Britain therefore appear to carry over only one of the three post-Danubian principles identified above, that of modularity. The appearance of internal divisions in the later group may represent a second point of contact, but the Scottish buildings suggest this relates to a distinctive insular (or perhaps more broadly north European) arrangement of rooms, accompanied by the disappearance of the modular principle. Although there may be some resemblance between the structure at Cairn and the earliest British Neolithic houses, evidence for direct cross-Channel contact is therefore very slight. The British structures need to be studied on their own terms and the search for specific Chasséen-Michelsberg ‘prototypes’, let alone Danubian ones, may not be helpful. Hayden (2011) and Garwood (2011, pp. 77–80) also discuss many of the examples considered here and reach similar conclusions; for the former cultural influences were present but operated like ‘Chinese whispers’, leading to different kinds of structure either side of the Channel. Garwood (2011, p. 80) meanwhile suggests that seeking a continental tradition from which the British houses derived misses the point: “‘traditions of practice’ were local in character and often short-lived”. This does not, however, explain why the practice of house-building arose in Britain. To address this it is helpful to look at the British examples in the context of the cultural significance of houses in the post-Danubian world.

Fig. 11.8 The houses from White Horse Stone, Yarnton and Lismore Fields interpreted as paired modules



Recent radiocarbon dating programmes have clarified the existence of a ‘pre-monumental’ Neolithic during the first couple of centuries of the fourth millennium, before the main horizon of long barrows and causewayed enclosures (Whittle et al. 2011). The early houses therefore assume some importance since they are among the most substantial structures known from this phase; as Hey and Robinson (2011, p. 231) notes, there may also be a connection to less coherent post-built structures underlying some long barrows, such as Ascott-under-Wychwood. Given that monumental mortuary structures and causewayed enclosures both begin on the Continent as early as the Cerny culture, it is interesting that these do not also appear in the ‘pioneer phase’ of the British Neolithic. Instead, pit deposits like the Coneybury ‘anomaly’ (Richards 1990, pp. 40–61) and individual burials like that from Blackwall (Coles et al. 2008) suggest a focus on household-scale rituals, so structures such as White Horse Stone and Yarnton, though rare in the archaeological record, may well have played a significant social role in this respect. It is far from certain

that they were ‘normal’ dwellings—the structure at Yarrnton contained a cremation deposit, for example—but in the absence of much other evidence for their function they can be assessed as such in terms of their spatial layout.

Houses are not necessarily a mirror of social organisation but inevitably they both structure and are structured by the relationships between their inhabitants (Bourdieu 1990, pp. 271–283). The differences between British and continental houses may therefore reflect differences in social organisation and worldviews, just as the abandonment of the longhouse in the Cerny culture reflects the incorporation of communities beyond the Danubian frontier into a new form of Neolithic. Accordingly, it is tempting to see a similar process at work in Britain, dissolving and reforming the Chasséen-Michelsberg house-building tradition under the influence of Mesolithic groups with different social and household organisations, before the eventual emergence of a more coherent indigenous tradition around the time that the first tombs and enclosures appear.

The increased precision of British Neolithic dates and improved understanding of the fifth millennium sequences in northern France and the Rhineland allow us finally to sever the connection between the LBK longhouse and the north-west European cultural milieu around 4000 BC. Danubian architectural (and social) principles, emphasising shared origins and lineage history, were abandoned during the Cerny culture, after which the emergence of a distinctive Chasséen-Michelsberg house-building tradition has to be understood as part of a broader context including new types of architecture in the form of mortuary structures and enclosures. At the same time the fact that most settlement sites lack houses and comprise concentrations of pits without visible structures, similar to their British counterparts, demonstrates that the house, though not without cultural significance, no longer had the central place in the reproduction of cultural identity that it possessed in the preceding millennium. Nevertheless, the dissolution and re-formation of a house-building tradition in Europe between about 4700 and 4200 cal BC appears to be mirrored by developments in Britain in the early centuries of the fourth millennium. Further research is now required to see whether these processes have similar causes in relation to the Neolithisation of indigenous (and often invisible) Mesolithic communities.

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Chapter 12

Early Neolithic Habitation Structures in Britain and Ireland: a Matter of Circumstance and Context

Alison Sheridan

Introduction

A great deal has been written about Early Neolithic habitation structures in Britain and Ireland over the past 20 years. Most of the debate has revolved around the degree of sedentism or mobility involved in the associated lifestyles (e.g. Darvill 1996; Whittle 2007; Cooney 1997; Rowley-Conwy 2004; Thomas 2007); the function of houses (Cross 2003) and of the large structures which tend to be labelled as ‘halls’¹ (e.g. Brophy 2007), but which are here referred to as ‘large houses’; the Irish ‘house boom’ or ‘house horizon’ of the late 38th to 37th century BC (e.g. McSparron 2008; Smyth 2006, this book, 2013); and Continental structural comparanda (e.g. Barclay et al. 2002; Ghesquière and Marcigny 2011, Fig. 69; Chap. 11 by Jonathan Last in this book). Over this time, there have been advances in our understanding of where, how and when the inhabitants of early fourth millennium BC Britain and Ireland lived. New discoveries of houses (e.g. in and around the Thames Valley: Hey and Robinson 2011; cf. Barclay 2003 for lowland Scotland) have allowed us to expose the canard (Thomas 1996, 2003, 2004, 2007) about Early Neolithic groups in Britain and Ireland continuing a pre-existing, semi-nomadic lifestyle based on hunting, gathering and fishing with minimal use of domesticates. These newly discovered houses also serve to remind us of the structural similarities between houses (in the c. 6–12m length range) on either side of the Irish Sea,

¹ The use of the term ‘hall’ derives from Anglo-Saxon archaeology, where it is used to describe high-status structures, constructed using the ‘post-in-trench’ or ‘plank-in-trench’ method, which range in length from 14 to 24m (and, in one case, 28m), and in width between 7 and 12m, with a length-width ratio mostly of 2:1 and up to nearly 3:1 (A. Marshall and G. Marshall 1991). Since the term has connotations of the aristocratic feasting that is attested from documentary sources—a function that has not been demonstrated for the large Neolithic structures—the term ‘hall’ is eschewed here, and ‘large house’ is used instead. Others might no doubt take issue with the use of the term ‘house’, but it is this author’s opinion that this is what these structures were.

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and to challenge the idea that there existed some kind of contrast in the nature of Early Neolithic settlement between Britain and Ireland (e.g. Thomas 2008, pp. 67–70. Compare, for example, the ground plans and reconstructions of the houses at Llandygai, Gwynedd, with those from various Irish sites: Kenney 2008; Chap. 13 by Jessica Smyth in this book). Furthermore, the discovery of a large, sub-rectangular post-built house, at least 19m long and 7m wide, at Penhale Round, Fraddon, Cornwall, extends geographically the range of our Early Neolithic settlement structures, and in particular, of large houses (Jones and Reed 2006, Table 7; Nowakowski and Johns *in press*; Nowakowski, personal communication). In the meantime, the full publication of two recently excavated large houses, at Warren Field, Crathes, Aberdeenshire (Murray et al. 2009) and Lockerbie Academy, Dumfries and Galloway (Kirby 2011), has enhanced our understanding of these imposing structures. Chronological issues are now easier to address, thanks to a growing body of high-quality radiocarbon dates and to the application of Bayesian modelling (although the latter, as its exponents admit, is only as good as the assumptions and dates upon which each model is based: Bayliss et al. 2011a). These dating advances have confirmed the suspicion that large houses belong to the earliest process of Neolithisation in the areas where they are found, with the example from White Horse Stone in Kent possibly being built as early as the late 41st or 40th century BC (Bayliss et al. 2011b, pp. 379–381). It also appears that these large houses predate the Irish ‘house horizon’, even if—according to Bayesian modelling—the Scottish examples may predate the Irish houses by only a couple of generations (Whitehouse et al. 2010; Bayliss et al. 2011c, p. 807). And the application of Bayesian modelling to the most reliable of the radiocarbon dates for Irish Early Neolithic houses has revealed that this ‘house horizon’ was short-lived, spanning the period c. 3715–3625 cal BC (95.4 % probability: see Chap. 13 by Jessica Smyth this book and Cooney et al. 2011). This date span is consistent with the ceramic evidence, since some of the Carinated Bowl (CB)-tradition pottery found in the Irish houses displays a degree of ‘style drift’ away from the earliest, ‘traditional CB’ version of this pottery towards its ‘modified CB’ versions, with features such as shoulders (rather than gentle carinations), relatively heavy and/or angular rims and, very occasionally, decoration. (See Sheridan 2007 for an explanation of these terms, and cf. Sheridan 1995 on Irish Neolithic pottery in general.)

All these advances get us closer to answering the ‘where, what and when’-type questions concerning the habitation structures of the Early Neolithic inhabitants of Britain and Ireland, but many key questions remain, not least concerning why large houses were built, why they had such an apparently short currency, why none has been found in Ireland² and why it appears difficult to find precise Continental paral-

² There is one ostensibly large building, 24m long, at Mullaghbuoy, Co. Antrim (McManus 2004), but it is clear that this was a two-phase structure, with each phase representing a ‘normal’-sized rectangular house. Either one house was ‘tacked onto’ the end of the other (at a slight angle), or else one house was rebuilt beside its original location. This is not comparable with the single-phase large houses discussed here. Space does not permit a full discussion of the fascinating question as to why no large house has (yet) been found in Ireland, and of the dynamics and dating of the colonisation process in Ireland.

lels for them and for the smaller houses, despite an unmistakable general affinity in design and construction. This brief contribution sets out to offer one explanation for this, which differs from that offered in Chap. 11 by Jonathan Last in this book (where it is argued that there was a dissolution and reforming of ‘the Chasséen-Michelsberg house-building tradition under the influence of [indigenous] Mesolithic groups with different social and household organisations’). It focuses on the circumstances under which large houses were constructed, arguing that we are dealing with the practicalities of small groups of immigrant farmers arriving from France, and it aims to set developments in Britain and Ireland within the context of social and economic change in different parts of northern France, directing our gaze to the areas from which these hypothetical pioneering farmers are likely to have come. Finally, in reviewing the range of evidence for settlement structures, this contribution makes the point that the Early Neolithic way of life was not exclusively sedentary but also involved activities that demanded less substantial habitation structures than post- and/or plank-built houses. Indigenous hunter-fisher-foraging communities are not absent from this scenario: the author’s model of Neolithisation (as expounded, for example, in Sheridan 2010a) explicitly accommodates a process of acculturation. However, they are not regarded as having had a significant impact on the appearance and subsequent early fourth-millennium development of a lifestyle that was based mainly (but by no means exclusively) on the use of domesticated resources. The question of the extent and nature of the indigenous input into this lifestyle is not a matter that can be dealt with here; readers can find plenty of other publications that address this question (e.g. Bradley 2007).

The Neolithisation of Britain and Ireland, and the Role of Large Houses in this Process

Without doubt, the appearance of rectilinear structures of post- (and sometimes partly plank-built) construction—be they large houses between 18m and 24m long (16m long if the Lismore Fields, Derbyshire, structure is included here) and up to 11m wide (Fig. 12.2), or smaller houses around half that size (Fig. 12.1)—represented a wholly novel architecture, totally alien to any style of building that had ever previously existed in Britain and Ireland. Not only were the structures and their method of construction new, they also formed part of an entire package of novelties, ranging from domestic animals and plants to the novel technology of pottery making, and involving new styles of object (e.g. leaf-shaped arrowheads), new practices (e.g. as regards the treatment of the dead) and new beliefs (e.g. as seen in the possession and deposition of special axeheads of Alpine rock: Sheridan et al. 2011; Sheridan and Pailler 2012; Pétrequin et al. 2008, 2011).

The question of how these novelties arrived has been discussed for well over half a century, with Stuart Piggott (1954) and Humphrey Case (1969) being early supporters of a ‘colonisation by Continental farming groups’ hypothesis. The question

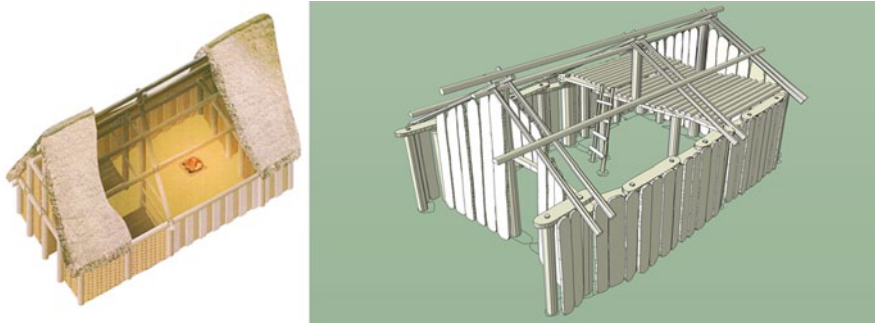


Fig. 12.1 Examples of ‘smaller’ (‘normal-sized’) houses from Britain. *Left*: Llandygai 1966 house, size c. 12×7 m; *right*: Kingsmead Quarry, Horton, Berkshire, size 10×5 m. Llandygai is based on a reconstruction by Frances Lynch. (First published in *Archaeologia Cambrensis* 150 for 2001, reproduced courtesy of Clwyd-Powys Archaeological Trust.) Kingsmead Quarry is a reconstruction by Karen Nichols. (Reproduced courtesy of Oxford Archaeology)

of agency continues to be discussed vigorously today, and there are currently at least four competing models of the Neolithisation process, namely:

1. Indigenous hunter-forager-fishers as prime movers, adopting a new lifestyle from the Continent around 4000 BC. This has most frequently been articulated by Thomas (e.g. 2004, 2007, 2008);
2. Two episodes of colonisation from France, arriving in and around Wessex during the 40th century BC, and in Scotland less than a century later, and spreading out from those two centres, with rapid indigenous acculturation (Collard et al. 2010);
3. Colonisation from north France to Kent and the Thames Estuary during the 41st and 40th centuries BC and subsequent spread northwards and westwards from there, with rapid indigenous acculturation and fusion, plus subsequent contact with the Continent (Bayliss et al. 2011c, pp. 833–847 and pp. 858–866, especially Figs. 14.177 and 15.8); and,
4. The present author’s ‘multi-strand’ hypothesis, featuring four separate episodes/phases of immigration from different parts of northern France to different parts of Britain and Ireland, for different reasons and with different outcomes (including differing reactions by indigenous communities), between c. 4300 BC and the 39th century BC. (For details, and an account of subsequent developments, see Sheridan 2010a, 2011; and Sheridan and Pailler 2011. Cf. Garrow and Sturt 2011 on the maritime aspect of the Neolithisation process.)

It is not proposed to discuss these models in detail here or to critique models (1–3), as this has already been published elsewhere (e.g. Sheridan 2010a, 2012). For the purposes of the present discussion, suffice it to say that, regarding the present author’s model, no settlement evidence has yet been discovered relating to the first two ‘strands’ of Neolithisation. (The first of these is represented solely by a few bones of domestic cattle, found in a Late Mesolithic camp site at Ferriter’s Cove

in south-west Ireland; it featured a hypothetical small-scale movement from north-west France to south-west Ireland around 4300 BC which seems to have failed, probably due to there having been an insufficient critical mass of immigrants and their domesticates, together with natives who were not interested in becoming acculturated. The second ‘strand’, involving a northwards movement from the Morbihan region of Brittany along the Atlantic façade to coastal regions of Wales, western Scotland and the north of Ireland at some time between 4300 and 4000 BC, is currently attested solely by megalithic funerary monuments and their associated material culture.) The rectilinear timber structures referred to above belong to the last two ‘strands’, namely the ‘Carinated Bowl Neolithic’, arriving over much of Britain and Ireland from the north of France between the 41st and 39th centuries BC (Sheridan 2007, 2010a), and the ‘trans-Manche ouest’ (‘western cross-Channel’) strand, arriving in south-west England from Normandy and possibly northern Armorica around the 39th century BC (Sheridan et al. 2008, 2011. Cf. Ghesquière and Marcigny 2011, Fig. 69). The aforementioned large house at Penhale Round arguably belongs to this ‘trans-Manche ouest’ strand.

The most striking characteristic of the large houses is, as their name suggests, their imposing size and shape (Fig. 12.2). They are sophisticated architectural feats, constructed by people skilled in the use of large timbers (mostly of oak) and capable of creating exceptionally wide roofs. There is some variability in the size and shape of these buildings, with the east and east-central Scottish examples forming a regional cluster (Table 12.1, and see Brophy 2007 regarding further possible examples). Those at Crathes and Balbridie in Aberdeenshire (Fig. 12.2a, b), and from Claish in Stirling (Fig. 12.2c), have ends that are gently or more markedly bowed, as does the suspected Early Neolithic large house at Doon Hill, East Lothian (Fig. 12.2d). The example from Lockerbie Academy, Dumfries and Galloway, in the south-west of Scotland (Fig. 12.2e) might also have had slightly bowed ends. In contrast, those from the Thames Valley and Kent (Figs. 12.2f, g) and the slightly smaller structure from Lismore Fields, Derbyshire (Fig. 12.2h), appear to have squared-off ends. Crathes, Balbridie and Doon Hill are proportionally broader than Claish, Lockerbie and the English large houses.

Constructionally, these large buildings appear to have been post built (presumably with the area between the posts filled with wattle and daub), with slots for the posts clearly present in several cases. This practice of ‘post-in-trench’ construction has been recognised to provide strength and stability, and to facilitate the construction of a wide roof of complex internal design (Fairweather and Ralston 1993; Barclay et al. 2002; Murray et al. 2009; cf. A. Marshall and G. Marshall 1991 on the structural benefits of slot construction regarding Anglo-Saxon halls). In addition, the use of split timber, including as planking, has been confirmed at Crathes and the use of squared timber is suspected for Balbridie (Ian Ralston, personal communication). All have internal divisions, while some have additional features of note. At Crathes, the construction of the large house appears to have started with the erection of two massive posts—one c. 40cm in diameter, the other c. 50cm—on the long axis of the structure (Murray et al. 2009, pp. 39–40). The excavators have argued that these were not structural posts, but instead were primarily symbolic in

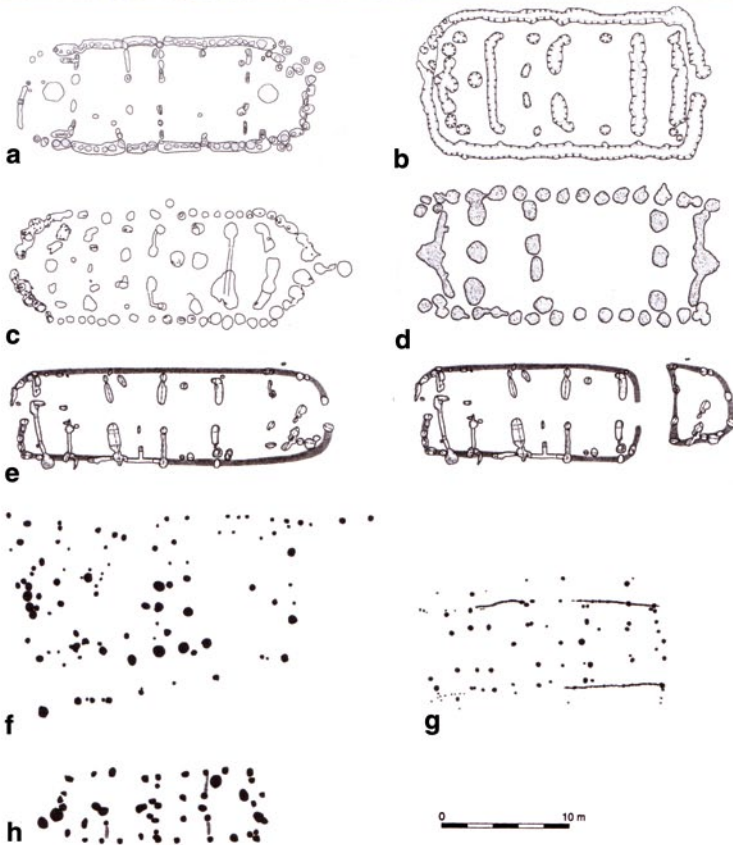


Fig. 12.2 *Top*: reconstruction of large house at Balbridie, Aberdeenshire, by David Hogg (from Barclay 1998). *Bottom*: plans of large houses from Britain (a–g), plus slightly smaller house (h), shown at the same scale but with varying orientation. **a** Crathes Warren Field, Aberdeenshire. **b** Balbridie, Aberdeenshire. **c** Claish, Stirling. **d** Doon Hill A, East Lothian. **e** Lockerbie Academy, Dumfries & Galloway (showing alternative interpretations of plan, as one and as two structures). **f** Yarnton, Oxfordshire. **g** White Horse Stone, Kent. **h** Lismore Fields, Derbyshire. (Sources: a–c Murray et al. 2009, d Smith 1991, copyright Society of Antiquaries of Scotland, e Kirby 2011, f–h Hey and Robinson 2011)

Table 12.1 Dimensions (in metres) of Early Neolithic large houses in Britain

Location	Length (m)	Width (m)
<i>Scotland—east and east-central</i>		
Crathes Warren Field, Aberdeenshire	c. 22.5	8
Balbridie, Aberdeenshire	22	11
Claish, Stirling	24	8.5
Doon Hill (structure A), East Lothian	23	10.4
<i>Scotland—south west</i>		
Lockerbie Academy, Dumfries & Galloway	19 or 27 ^a	8
<i>England—south east</i>		
Yarnton, Oxfordshire	21	11
White Horse Stone, Kent	18–20	8
<i>England—south west</i>		
Penhale Round, Cornwall	19	7

The next largest is Lismore Fields, Derbyshire, at c. 16 × 6 m

^a Depending on whether one or two structures are involved; see Kirby 2011, p. 7 and Fig. 12.1

function, acting perhaps rather like totem poles (and echoing the imposing split trunks that lie at either end of Early Neolithic ‘linear zone’ mortuary structures: Kinnes 1992). They appear to have been removed prior to the deliberate burning down of the large house. The excavators have observed that a single large axial pit at Balbridie might also have held a similar post (Murray et al. 2009, p. 52). At Claish, two wide and deep pits (F15 and F19) were found in one of the segments of the large house, roughly on its central axis, and these had been used for burning, but were deeper than normal hearths; their function is uncertain (Barclay et al. 2002, pp. 77–79).

The dating of many of these large houses is discussed by Whittle et al. (2011, especially Chap. 14), and the dates for Lockerbie Academy have also been published (Kirby 2011, p. 12). That structure is broadly contemporary with those from Crathes and Balbridie and shares the same kind of pottery (i.e. ‘traditional CB’ pottery) with Crathes and Claish. As for Doon Hill, the dating of encrusted organic material on the interior of a sherd of ‘traditional CB’ pottery from the area of the structure has produced an Early Neolithic date of 4925 ± 35 BP (SUERC-23733, 3780–3650 BC at 95.4 % probability; date funded by Historic Scotland: Derek Hall, personal communication), but verification of whether the structure itself is of Early Neolithic date will only come from the dating of structural charcoal; this is imminent. Setting Doon Hill to one side, it appears that the earliest dated large house is the better-preserved of two examples at White Horse Stone which, as noted above, could have been constructed during the late 41st or 40th century BC (Hayden 2007; Bayliss et al. 2011b, pp. 379–381). According to Bayliss et al.’s Bayesian modelling of the radiocarbon evidence for British large houses (2011c, pp. 832–833), the Crathes and Balbridie examples (and, by extension, Lockerbie Academy) may have been built during the first half of the 38th century, with the Yarnton structure in the Thames Valley dating to ‘perhaps the 38th or 39th century BC’ (Healy et al. 2011, p. 431 and Fig. 8.27) and Penhale Round, c. 3800 BC (Whittle et al. 2011b, p. 516 and Fig. 10.30). Therefore, if one accepts the results of the Bayesian modelling, the

phenomenon of building large houses in Britain appears to span the 41st/40th to the early 38th centuries BC.

In seeking Continental comparanda for these large houses, the geographical and chronological net has traditionally tended to be cast far and wide (Case 1969; Fairweather and Ralston 1993; Kinnes 1988, 2004), with many authors looking to Middle Neolithic architectural traditions in northern France and the Low Countries—and even to Danish Early Neolithic structures (Barclay et al. 2002, pp. 128–129)—for possible clues as to the origin of British large houses and of the smaller houses found in both Britain and Ireland. Both Jonathan Last (Chap. 11, this book) and Chris Hayden (2007) join previous commentators in remarking that no *exact* parallel can be pinpointed, despite a generalised affinity in the use of post-built, more or less rectangular structures. As noted above, Last cites the possible influence of indigenous Mesolithic communities in Britain as a possible reason for this apparent lack of a close match, while Hayden has argued that the differences between the British and near-Continental structures are echoed by variability within Middle Neolithic architectural traditions in northern France and the Low Countries during the early centuries of the fourth millennium BC—a variability expressed, *inter alia*, by a range in Michelsberg house sizes from around 5 × 3–4m (in an enclosure at Ferme de l’Hoste, Hainault, Belgium) right up to 60 × 11m (in the enclosures at Hautes Chanvières and Mairy in the Ardennes). Hayden (2007, p. 14) adds that the process of cultural transmission usually involves variation in response to local conditions. It is therefore not necessary, he argues, to expect precise architectural matches.

Hayden takes the view that, in order to understand British large houses, it is necessary to understand not only the *cultural context* from which they sprang, but also the *circumstances* of their construction. Regarding the former, while Hayden is right in emphasising variability and transmutability in architectural traditions c. 4000 BC on the near Continent, it is nevertheless legitimate to continue searching for Continental comparanda since the quest is far from complete, and we can now arguably narrow our focus to areas that are most likely to have been the points of departure for our hypothetical immigrants. We can focus our chronological target as well. The days when Ian Kinnes could bemoan the fact that ‘[e]nvious eyes cast across the Channel are too often chronologically unfocused or using small-scale atlases’ (Kinnes 2004, p. 194) are over. Two such areas are involved, namely those in which our ‘Carinated Bowl Neolithic’ and our ‘trans-Manche ouest’ strands of Neolithisation originated.

As far as the ‘Carinated Bowl Neolithic’ is concerned, its origins appear to lie in one of the several regional groups that emerged to the north-east of the Paris Basin towards the end of the fifth millennium BC, whose pottery shows a combination of northern Chassey and Michelsberg characteristics (Sheridan 2007, 2010a; cf. Crombé and Vanmontfort 2007, p. 271 regarding one such group in the Scheldt Basin). It may be that such groups had moved into these areas—as a second wave of Neolithisation, in some cases following a much earlier Linearbandkeramik colonisation—as a result of the infilling and perceived overpopulation of the Paris Basin after over a millennium of farming activity there (Crombé and Vanmontfort 2007; cf. Crombé and Sargant 2008). The subsequent decision for some to move

on across the sea could have been driven by the infilling of these areas and/or by the realisation that many were not ideal for agro-pastoral practices; in other words, they were ‘sub-prime’ farming areas. (See Shennan and Edinborough 2007 for a discussion of general demographic trends in prehistoric farming communities.) Ceramically, the most promising candidate as the area of origin for the ‘Carinated Bowl Neolithic’ seems to be the Nord-Pas de Calais region and environs where, for example, an enclosure at Étaples-les Sablins has produced a bowl that shows affinities with Carinated Bowl pottery (Philippe et al. 2011, Fig. 6). Other types of evidence accord with this view. From a detailed study of the typochronology of Alpine axeheads, for example, Pétrequin et al. (2008, 2011, 2012) have concluded that most of the examples found in Britain and Ireland are likely to have left the Continent from one or more points along the north French coast between the mouth of the Seine and the border with Belgium—and this includes the Nord-Pas de Calais region.

Unfortunately, virtually no houses dating to the 41st to 38th centuries BC (i.e. the Middle Neolithic II, according to the local periodisation) are known from this region, not least because of the high levels of destruction caused by two World Wars, industrialisation and other developments. Most sites of this date in Nord-Pas de Calais consist of surface scatters or isolated pits (although a few enclosures and a flint mine are known); just two house plans are known, and in both cases they are in poor condition (Michel Philippe, personal communication). These are from the site of Carvin ‘La gare d’eau’ (Monchablon et al. 2011). Even though they do not offer an exact parallel for any British large house—and the difficulties of dealing with highly truncated structural remains should not be understated in making the comparison—they confirm Hayden’s observation that people were perfectly capable of constructing large houses, here around 20m long by 7–8m wide and of rectangular or trapezoidal shape. The situation in the neighbouring region of Picardie is similar: only two or three house plans are attested, and these are not all convincing (Dubouloz et al. 2005; Michel Philippe, personal communication). Nevertheless, just as the existence of the ‘Chasséo-Michelsberg’ regional groupings had not been realised until Bart Vanmontfort identified the ‘Group de Spiere’ just a decade ago (Vanmontfort 2001), it may well be that the precursors of our British Carinated Bowl Neolithic large houses remain to be discovered in this part of northern France. Barclay et al. (2002) were right to highlight the untapped potential of the aerial photographic archive.

The other area where we need to focus attention is Normandy (and possibly northern Brittany), since this is the likely area of origin for our ‘trans-Manche ouest’ strand of Neolithisation, and hence of the builders of the Penhale Round large house, or at least their ancestors. (See Sheridan 2010a, 2011; and Sheridan et al. 2008, 2010 for a detailed justification of this view.) Here, as in the Paris Basin, there had been a tradition of agro-pastoral farming for over a millennium. The work of Marcigny and his colleagues has clarified the evolution of domestic architecture, and of processes of socio-economic and demographic change, in Normandy over the course of the fifth and fourth millennia BC. They have argued that, from 4500 BC, the Linearbandkeramik tradition of building long, trapezoidal, internally segmented

post-built houses was abandoned (Marcigny et al. 2007, p. 94). In its place there emerged shorter (but still post-built and still sizeable), rectangular structures such as the large house at Cairon ($18 \times 6\text{--}7$ m), which dates to 4100–4000 BC (Ghesquière and Marcigny 2011, Fig. 164) and offers a possible precursor for the Penhale Round large house. By the time that the latter was built, in the 39th to 38th centuries BC, shorter (c. 12×5 m), rectangular post-built houses are attested at the settlement of Saint-Vigor-d'Ymonville (Marcigny et al. 2007, p. 98). However, Marcigny et al. (2007) have noted that the number of house sites dating to the Middle Neolithic II in Normandy is remarkably small, so the number of potential comparanda is limited. They have argued that the reason for this paucity of Norman houses may well be that there had been a socio-economic crisis in Normandy (and possibly parts of Brittany) at some time between 4200 and 3800 BC, relating to the westward expansion into Lower Normandy and Brittany of farmers of the 'Northern Chassey' tradition (Ghesquière and Marcigny 2011). This population expansion—which seems to be a western version of the phenomenon noted above for the far north of France and neighbouring regions—may well have caused tension between these Chasséen incomers and the existing inhabitants. Other signs of this tension include the cessation of building large enclosures and the beginning of building fortified hilltop sites; the perceived pressure on land could have led some people to cross the Channel in search of other places to live. (See Ghesquière and Marcigny 2011, Fig. 69, for a graphic representation of their version of the 'trans-Manche ouest' strand, but note that there are some issues of accuracy concerned with the British and Irish parts of this illustration.)

So much for the cultural context—the societies from which small groups of hypothetical emigrants departed. As for the *circumstances* that could have occasioned the construction of the British large houses, we are forced to return to the practicalities of colonisation—a topic touched upon by Case in 1969, but which can be returned to in the light of our improved knowledge of the archaeology of Early Neolithic Britain. If we accept the possibility that small groups of farmers really did embark upon a sea journey in search of good farming land, taking their domesticated animals (as lambs, calves and piglets) and plants with them in light hide-covered boats, then it makes sense that, having landed in suitable areas, they should have chosen to live together in communal large houses until such time as they felt sufficiently well established to 'bud off' into individual households, housed in smaller structures. The large house was therefore a response to a specific need; furthermore, as a communal effort, it may not have involved a significantly larger amount of work than would have been involved in the construction of several smaller houses. The principles of its construction may well have followed traditional Continental practice in the areas in which the migrants originated. Its size would have been determined by the number of families to be accommodated and by culturally specific ideas about how much space would be required; under any scenario, an estimated internal area of 195m^2 (in the case of Crathes; Murray et al. 2009, p. 51) could comfortably have accommodated over a dozen people. Therefore, there is no requirement for there to have been structures that were identical in size and shape to those in the areas of

origin; we may assume that the colonists had sufficient initiative to cope with the challenge of relocating, scaling the structure as they felt appropriate.

Some indication of how such structures had been used, and that they had indeed been lived in, justifying the use of the term ‘large house’ to describe them, is provided by the excavated examples. Even though artefactual assemblages tend to be relatively small—perhaps because possessions would have been removed when the structures were deliberately burnt down—there is nevertheless clear evidence for the preparation and consumption of food within them. The lipid analysis of the Crathes pottery (Šoberl and Evershed 2009) has demonstrated that the inhabitants had access to domesticated cattle and/or sheep/goat (used for milk, if not also for their meat) and to pigs; the fact that ruminants were being exploited for their milk sheds important light on Early Neolithic husbandry practices. Furthermore, the presence of some 20,000 threshed and winnowed grains of wheat and barley in the burnt-down structure at Balbridie (Fairweather and Ralston 1993) hints at the careful storage (or indeed ceremonial deposition) of a precious foodstuff, while the palaeoenvironmental analysis of the environs of the Crathes structure (in Murray et al. 2009) concluded that cereals had been cultivated in one or more fields in the vicinity of the large house. That the inhabitants rapidly managed to establish networks of contacts, linking them with other pioneering farming communities elsewhere, is demonstrated by the presence of Arran pitchstone at Crathes, imported in pebble form and worked on site (Warren 2009; cf. Sheridan 2007 on the phenomenon of Early Neolithic networking in general). It is suspected that these structures might not have been inhabited for very long—perhaps one or two generations—before being deliberately burnt down. It is also possible that the Balbridie structure was built soon after the Crathes structure, just across the River Dee, had been destroyed in this way.

Therefore, it is clear that these large houses could have served as the communal residences of pioneering groups of colonists, protecting them and allowing them to set down roots and establish their lifestyle until the inhabitants felt comfortable to ‘bud off’ and set up individual households in smaller houses. That they were much more than just safe houses, however, is clear from their design and their likely impact on the areas in which they were constructed. The communal effort involved in clearing a substantial area of dense forest and erecting these massive buildings would have served to reinforce community bonds. Furthermore, the buildings and associated fields would have constituted a clear statement of presence, identity and possibly even ownership, obvious to all who encountered this novel landscape: ‘We are here and we are claiming this land’. Even the burning down of the large houses can be interpreted as a statement, in a ‘bridge-burning’ kind of way: ‘We are sufficiently well established to move on from our initial places of settlement.’ This materialisation of the settlers’ aspirations and intentions is paralleled in their funerary practices, in the erection of timber mortuary structures, in the use of fire to transform them (and, elsewhere, to burn bodies on open pyres) and to seal the remains under imposing long and round mounds. (See Bayliss et al. 2011c, Fig. 14.172 for modelled dates regarding Scottish long and round barrows, and Sheridan 2010b

for a discussion of the dating of the latter. See also Lelong and MacGregor 2007, Chap. 2, for an example of Early Neolithic practice in East Lothian, not far from Doon Hill; and Ashmore 1996, Fig. 14, for a visualisation of a mortuary structure with carved ends.) Other ways in which the large houses would have played a central role in expressing the beliefs and preoccupations of the inhabitants are hinted at by the large ‘totem pole’-like posts at Crathes (and perhaps Balbridie). That these posts may well have had symbolic significance—a phenomenon known from the present and recent past in large houses around the world—is very likely, but we can only speculate as to what the specific referent had been.

Subsequent Developments: ‘Budding Off’ and the Use of a Range of Habitation Structures

That there had indeed been a process of ‘budding off’ into smaller, individual households is suggested by the discovery of small Early Neolithic houses not far from the large houses at Crathes and Balbridie. At Garthdee Road, Aberdeen, some 20km from Crathes and closer to the mouth of the river Dee, Hilary and Charles Murray excavated the remains of a roughly oval, turf- and post-built house c. 11 × 8m in size (Murray et al. 2009, p. 62). This produced a sizeable assemblage of traditional CB pottery and radiocarbon dates of c. 3800–3650 cal BC (Bayesian-modelled in Bayliss et al. 2011c, Fig. 14.157). Also at Wardend of Durris, Aberdeenshire, just 3.5km from Balbridie, the remains of an Early Neolithic rectangular house built using posts and planks set in a slot trench were found (Russell-White 1995; Barclay 2003; Sheridan 2007, p. 482). Both these discoveries fit our model well. The finds from these and from the many other Early Neolithic houses in Britain and Ireland confirm that the inhabitants were practising arable agriculture and animal husbandry as well as utilising wild plant and animal resources (but not, apparently, marine resources). The construction of (most of) the houses and the requirements of tending crops indicate that there was some degree of permanence in the inhabitation of these settlements. In other words, people were living in the settlements all year round and over several years.

However, there are other Early Neolithic structures, smaller and flimsier in their construction, that hint at a different temporality of use and which suggest that transhumance, or other activities requiring fairly basic levels of shelter, was also part of the Early Neolithic lifestyle. At Auchategan, Argyll & Bute, south-west Scotland, traces of two Early Neolithic ‘huts’ were discovered on a small level area in a steep-sided glen above the river Ruel (D. N. Marshall 1978). The associated assemblage of traditional CB pottery includes one classic Michelsberg-style ‘tulip beaker’ (Marshall 1978, Fig. 11) and the occupation here is likely to be every bit as early as that seen at other settlement sites of the initial ‘Carinated Bowl Neolithic’. The ‘huts’ consist of roughly circular structures, less than 5 × 4m in overall diameter and constructed using non-earthfast posts; these may well have been used for trans-

humance. Similarly, at Bolam Lake in Northumberland, a relatively insubstantial post-built rectangular structure, c. 10 × 3.5m, was interpreted as a temporary residence for transhumant herders (Waddington and Davies 2002; see also Johnson and Waddington 2009 for a discussion of this and other insubstantial Early Neolithic structures in Northumberland). Also in Ireland, the early fourth millennium structural evidence at Lough Kinale, Co. Longford (Fredengren et al. 2010), offers yet another glimpse of the variability in Early Neolithic living structures, in this case being a lakeside platform used by people who hunted as well as herded (and used cereals). It may be that this site offers us a rare example of a habitation/use structure used by the descendants of the Mesolithic groups who had previously exploited this rich ecotone—in other words, acculturated indigenes. Finally, it should be remembered that some activities that were undertaken by Early Neolithic farmers, such as hunting deer (as at Rotten Bottom, Dumfries & Galloway: Sheridan 2007, p. 451 and Fig. 5) will have required no shelter at all.

While much effort has understandably been invested in the research-based or developer-funded excavation of large houses and rectilinear Early Neolithic houses on both sides of the Irish Sea, it would be useful if attention could be focused on identifying the full range of habitation structures relating to the early fourth millennium BC inhabitants of these islands. A fuller characterisation of such structures, and of the lifestyle to which they relate, could possibly offer clues as to why the tradition of building fairly substantial rectilinear timber houses appears to have ceased during the late 37th century BC. (See Chap. 13 by Jessica Smyth in this book).

Conclusions

It is hoped that this review of the evidence has provided a narrative that is both plausible and testable against future fieldwork. While some will no doubt seek to brand it as ‘culture history’, it is important to understand what would have been involved in the process of colonisation. It could reasonably be asked, ‘Why don’t we find large houses throughout the area of early colonisation?’—just as one could ask ‘Why didn’t people build enclosures straight away, since such structures had been part of the traditions in the areas of origin?’³ The answers to these questions must largely reside in the need to consider the *circumstances* of colonisation as well as the social and economic *context* for colonisation. Just as large houses offered a ‘safe house’ for groups of immigrants, enclosures were built as and when circumstances dictated that they were needed. If there were not enough people in an area to construct an enclosure, and no need to build one, then none would be built, even though there had been a tradition of building them in the ancestral areas in northern France.

³ Here is not the place to discuss the question of whether the causewayed enclosure at Magheraboy, Co. Sligo, had been built around 4000 BC (cf. Cooney et al. 2011).

This offers an explanation as to why the enclosures of southern England do not seem to have been built until several generations of farmers had lived in the region.

The editors of this book are to be congratulated for focusing attention on the ‘what’, ‘how’ and ‘why’ of Neolithic houses at this particularly interesting juncture, when we have a decent body of evidence and are able to identify directions for future research into Neolithic settlement and lifestyle. Given the great advances made in our knowledge over the past 20 years, one hopes that the next two decades will see a continuing refinement of our narrative. Only time will tell.

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Chapter 13

Tides of Change? The House through the Irish Neolithic

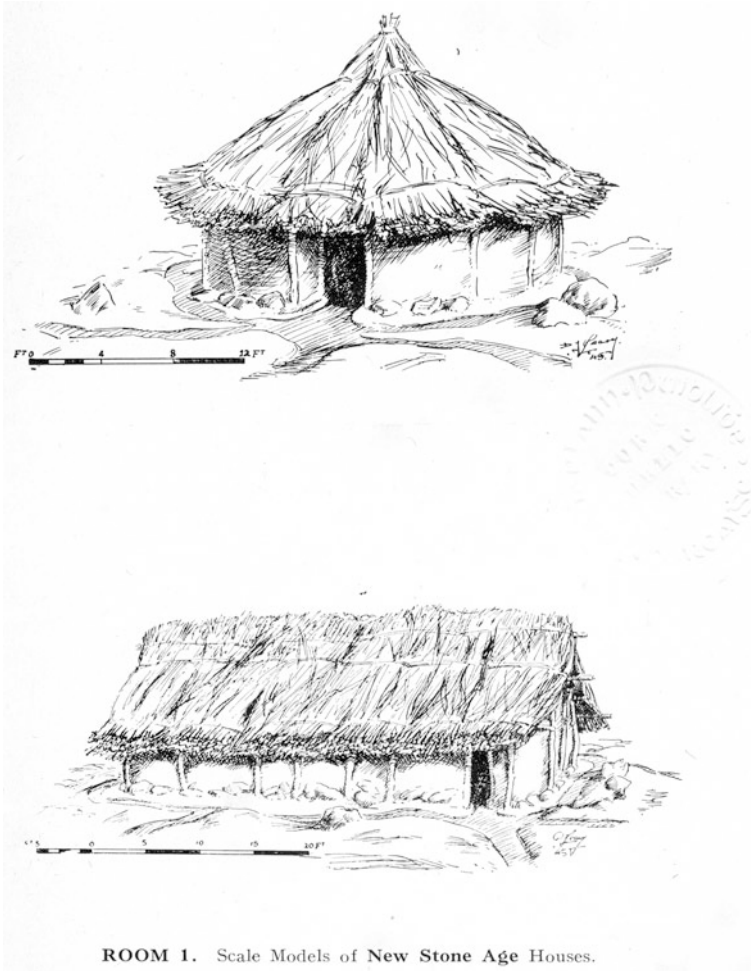
Jessica Smyth

Introduction

The house first appears in published narratives of the Irish Neolithic in the late 1940s, at around the same time that continental archaeologists are recognising the presence of the timber longhouse on the European continent (see Chap. 11). The clusters of buildings excavated in the 1930s across the Knockadoon peninsula alongside Lough Gur in County Limerick certainly seemed to be likely bases for a farming population, which only a decade or two earlier were thought to have inhabited the ditches of causewayed enclosures (e.g. Curwen 1929; Clark 1937; Childe 1940). The stone-footed and double-walled structures were associated with large amounts of early pottery, some carinated or ‘Western Neolithic’, and quickly became the type sites for Neolithic settlement in Ireland. This was helped by early reconstruction drawings of the houses made for inclusion in a 1945 museum guide and since reproduced in many syntheses of Irish prehistory (Fig. 13.1). However, it was not until the discovery of a rectangular, plank-built Neolithic house at Ballynagilly in County Tyrone in the late 1960s that the much-looked-for link to the timber longhouses of the European continent was declared to have been found (e.g. ApSimon 1969; Cole 1970, p. 57; cf. Cole 1967, p. 55; Whittle 1980, p. 330). While these ‘longhouses’ never materialised in high numbers in Britain (e.g. Last 1996; Chap. 11), similar buildings continued to be uncovered on the island of Ireland, sporadically at first (eight houses over three decades), but with the boom in infrastructural development peaking at 12 per year (in 2006), with the total now standing at 82 (Smyth 2011; 2013). On this evidence, houses appear to be a core element of the Irish Neolithic. Just how long this was the case, and indeed what we mean by an Irish Neolithic, is scrutinised below.

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ROOM 1. Scale Models of New Stone Age Houses.

Fig. 13.1 Reconstructions of the types of Neolithic houses found at Lough Gur in County Limerick (From Cork Public Museum souvenir guide 1945. Image courtesy of Cork City Library)

The Nouvelle Vague

When discussing the start of the Neolithic in Britain and Ireland, 4000 cal BC is the most frequently cited date. It is a conveniently round number and it is not surprising that research has since produced a number of hypotheses regarding the timing of the Neolithic in this part of Europe, which, depending on the model, fall in the centuries on either side of 4000 cal BC (e.g. Sheridan 2010; Whittle 2007; Whittle et al. 2011). One thing is certain however: the island of Ireland had no indigenous large fauna and no wild large-grained grasses. Thus, wheat, barley, cattle and sheep/goat must

have been brought in from outside, whether through a series of waves of contact or through a single ‘colonising’ event. Pottery (of a style very similar to that being produced in northern France at the beginning of the fourth millennium BC; Sheridan 2007, pp. 468–469, 2010, pp. 98–99) also appears in the archaeological record at this time. While houses are not the only archaeological site type producing evidence for crop and animal husbandry and for pottery use, they so far represent some of the earliest, most extensively and most conclusively dated form of Neolithic activity on the island, and thus appear to be strongly associated with the arrival of farming. The radiocarbon dating of these houses, recent modelling of the dates and their implications are discussed in more detail below.

There are currently over 80 Irish Neolithic houses from 52 sites across the island. As has been noted elsewhere (e.g. Grogan 2004; Smyth 2006, 2011), most houses are 6–12m long and 4–8m wide. They are rectangular in shape, although some of the shorter examples are almost square, and a small number of additional houses have curving end-walls. Walls are constructed using split oak planks and posts, post and wattle, or a combination of the two, set into slot trenches. These elements most probably had a covering of daub. Sizeable fragments of daub with the imprint of twigs or roundwoods still visible have been recovered from Monanny (Grogan and Roche in Walsh 2009, p. 247) and several excavation reports mention the presence of burnt clay or possible daub.

In terms of internal features, most buildings contain rows or pairs of postholes and there is a strong transverse emphasis in the Irish houses. An especially common arrangement is a pair of posts arranged across the centre of the building, much like the transverse rows of three posts found in LBK longhouses. This two-post row frequently lines up with postholes within or just outside the slot trenches (Fig. 13.2). A strong transverse emphasis is also created by occasional internal walls or divisions defined by slot trenches running across the building. Floors almost never survive, truncated by agricultural practices and topsoil stripping ahead of excavation. The deposits that are recovered tend not to be tied in stratigraphically to structural features and, like the pits that are also sometimes uncovered, may either relate to the use or to the decay/abandonment phase of the house. As with most prehistoric architecture, the superstructure of these buildings is also a matter of conjecture. However, the deep foundation trenches and substantial postholes found at a number of sites, e.g. Corbally in County Kildare (Purcell 2002) and Upper Campsie in County Derry (Martin McGonigle, personal communication), suggest that at least some houses supported very large and heavy roofs.

This is undeniably a new, Neolithic form of architecture. There is nothing of comparable robustness and size in the preceding Irish Mesolithic. Indeed, the circular stakehole structures uncovered at Mount Sandel in County Antrim in the 1970s remain the only definitive example of Late Mesolithic domestic architecture in Ireland (Woodman 1985). As the distribution currently stands (Fig. 13.3), there appears to be a strong preference for sitting houses along the river valleys and mouths of major waterways, in particular along the eastern and northern coasts. The middle of the island remains relatively empty of sites, although this area has not seen the same level of infrastructural development and accompanying rescue excavation as



Fig. 13.2 Plans of a selection of Irish Early Neolithic houses



Fig. 13.3 Current distribution of Irish Early Neolithic houses

other regions; early (Neolithic) bog growth in the midlands may also have inhibited settlement (Smyth 2006). At a site level, buildings are normally located on gently sloping ground, which is usually but not always south or south-east facing. There is an emerging pattern of two or three buildings clustered together, usually one or two similar-sized buildings side-by-side with a third, often smaller building located a short distance away (Cooney 2000, p. 64; Ó Drisceoil 2004, p. 379). At Corbally in County Kildare, six buildings were uncovered on a quarry site, but significantly in two groups of three, separated by what may have been a palaeochannel (Tobin 2003). Sites where traces of more numerous buildings have been found, i.e. Thornhill (Ballynashallog) and Ballygalley in County Antrim and Knowth in County

Meath, are either unpublished or the remains are too severely truncated to make any conclusive statement on larger settlement sizes (although the last two sites both produced traces of palisades enclosing the buildings, perhaps indicating a higher status or special function).

The Dating Revolution

Neolithic timber houses have traditionally been well-dated. Very visible during excavation, they become the obvious focus of any programme of radiocarbon dating on a site. Samples were originally taken from charred oak planks—the most prominent sources of organic material—but in recent years there has been a greater awareness of the impact of the old wood effect and the need to sample short-lived materials such as cereal grains and hazelnut shells. A significant development, one occurring within the wider Bayesian dating revolution (Bayliss 2009), has been the piecing together of a very narrow date range for the construction and use of these houses based on such higher resolution dates.

This date estimate of c. 3715–3625 cal BC (95 % probability) was originally modelled using a handful of sites (McSparron 2003, 2008; see also Cooney et al. 2011), but is now securely based on over 100 dates from short-lived materials from nearly one third of known sites (Rick Schulting, personal communication). Radiocarbon dates from houses all over the island have been shown to fit within this date range, suggesting that this particular form of architecture (and its architects) spread across Ireland within decades, perhaps years. From where might this wave of people and/or ideas have originated? In Aberdeenshire on the east coast of Scotland, a number of larger and longer ‘hall’-like buildings have been excavated (Brophy 2007), recently found to slightly pre-date the Irish houses (Bayliss et al. 2011), while on the north-east coast of Ireland, on the Islandmagee peninsula at Mullaghbuoy, an unusually long house has been revealed, oriented north-east/south-west towards the sea and Scotland (McManus 2004). At 24m long (albeit constructed in two phases), it is far closer in scale to the Aberdeenshire houses than anything from Ireland. ‘Longhouses’ have also been excavated in several parts of England (Chaps. 11 and 12), again appearing to date to the centuries immediately after 4000 BC, before the Irish houses begin to be constructed.

Who Were These House Dwellers?

Given the strikingly short period that these houses were in use—less than a tenth of the 1,500 year span of the Irish Neolithic—questions such as ‘why did they spring up?’, ‘how were they used?’, and ‘why were they abandoned?’, seem particularly pertinent. It is tempting to see these houses being built by incoming farming groups, as a means of maintaining focus and fostering a sense of togetherness in unfamiliar

places and situations (e.g. Cooney 2007, p. 557). Based on the chronologies mentioned above, and on similarities in layout and methods of construction, one might even suggest that the Irish houses represent a branching off of smaller social units from ‘parent’ farmer groups in Britain, represented by the larger ‘longhouse’- or ‘hall’-style buildings in Scotland and England (see Sheridan 2007, pp. 97–98).

At the same time, these houses and their occupants do not exist in a vacuum. While houses are relatively small, there is clear evidence for larger social undertakings, including the construction of at least two causewayed enclosures in the northern half of the island, at Magheraboy in County Sligo and Donegore Hill in County Antrim (Danaher 2007; Mallory et al. 2011; see Cooney et al. 2011 for detailed discussion of their date and context). In the northwest of the island, a series of field walls, some forming co-axial field systems, run intermittently for some 50km along the north Mayo coast. The chronological resolution of these complexes remains grainy, but it seems likely that the laying out of the regular field system coincides with large-scale land clearance observed in the pollen record from the late 38th century cal BC onwards (Graeme Warren, personal communication). Enclosures and field systems would require, one would assume, the input of more than one household, as would the quarrying and axe production that we know is taking place in upland and island locations from the Early Neolithic onwards (e.g. Cooney et al. 2011, pp. 601–603).

In terms of use, these houses clearly provided a setting—although not the only setting—for domestic activity. Pottery fragments, stone-working debris and food waste have been recovered from most sites, and the presence of one larger, sometimes central, ‘room’ along with one or more smaller spaces within many of these houses has led some authors to suggest that different activities were being carried out in different parts of the building, with larger spaces serving as living quarters and smaller areas perhaps used for storage or for housing animals. The division of space does not seem fixed however: in houses 1–3 at Corbally in County Kildare, evidence of more intensive occupation consistently occurred in the north-western end towards the rear of the house (Purcell 2002, p. 69), while at Newtown in County Meath, and house B, Monanny in County Monaghan, the front of the building seems to have served as the main living area (Halpin 1995; Walsh 2006).

Taphonomics, site truncation and, no doubt, the relatively short period of time these houses were in use, have left little evidence for the build-up of occupation levels, and almost without exception houses are not constructed on top of one another. It thus remains difficult to establish whether multiple houses were occupied sequentially, with settlement shifting across a site over generations, or if all buildings were used and occupied simultaneously. There are signs of repair or remodelling on some but not all houses, ranging from a partial rebuild following fire (house 1, Ballyharry; Moore 2003) to the occasional re-cutting of a posthole (Kishoge; O’Donovan 2003/2004, p. 10 f). Some sites have produced buildings that are more or less identical, such as Ballintaggart in County Down (Chapple et al. 2009), which despite a modelled date range of c. 80 years (Whitehouse et al. 2010, p. 18) provided no clues as to whether each house stood on its own for a generation of c. 25 years, or whether all three were contemporary with one another. Other sites have produced

buildings of varying size, e.g. Corbally, Ballygalley and Tankardstown, suggesting that in some instances different buildings served different functions, perhaps one or more dwellings associated with a smaller work-building or store. This may well have been the case at Corbally, where crop-processing waste was found to be concentrated in samples from house 3, a smaller building located a short distance from houses 1 and 2. Again, dates from the Corbally houses, while enabling a relatively tight date estimate for occupation of the site as a whole, are not numerous enough to provide detail on the sequence of houses, i.e., six buildings erected one after another, two settlements of three houses established one after another, or two contemporary settlements located side by side.

Do these houses see permanent, year-round settlement? Certainly, there is ample evidence for other Early Neolithic traces of activity, such as pit groups and occupation spreads, which have been uncovered in varied locations across the landscape (Smyth 2007, 2012, 2013) and occupants need not have been tethered to one settlement or location all year round. In terms of fixed plots or fields that may have surrounded houses, no systematic search for such features has been carried out to date, although the presence of possible fence-lines or enclosures is occasionally reported (e.g. Kiely 2003). A recent wide-ranging programme of palaeoenvironmental analysis has firmly established that houses are associated with cereal remains (McClatchie et al. 2009, p. 7; Whitehouse et al. 2010, p. 18) and, together with the ard-marks found layered between houses at Ballygalley in County Antrim (Simpson et al. 1995, p. 4) and the broad association of the timber house at Ballyglass with the Céide field complex, provides some compelling (albeit circumstantial) evidence for permanently settled, farmed areas. At the same time, the amount of cultural material recovered from these houses can vary considerably, and this may indicate that some sites were occupied for only short periods of time. The house from Barnagore in County Cork, for example, produced only a few hazelnut shell fragments (Danaher 2003), while the settlement at Ballygalley in County Antrim (Simpson 1996) produced many thousands of lithics and pottery sherds.

The House and Society

Whether or not early farmers regularly ventured far beyond these houses, there is much evidence to suggest that symbolically and socially they were strongly tied to them. As discussed in detail elsewhere (Smyth 2006, 2012), many late 38th and 37th century cal BC houses produce evidence for purposeful deposition and burning. The types of objects deposited, their location and their treatment, as well as the intensity of burning, points towards a suite of ritualised practices centred on the house.

Axes are a particularly common find: in the foundation trench of house 4 at Corbally, for example, a mudstone axe was found positioned blade up partially surrounded by a ring of pottery sherds (Tobin 2003, pp. 185–186). Another mudstone axe was recovered from structure 1 at Earlsrath in County Kilkenny, in the basal fill in the southern half of the northwestern wall trench (McKinstry 2010). A porphyry

axe was found within house B, Monanny, associated with stone packing. It was located at the intersection of the side wall and internal partition, and appeared to have been deliberately smashed (Walsh 2006, p. 13). At Ballintaggart, the blade of a burnt flint axe and a broken porcellanite axe came from the southwestern gable wall of house 1 (Chapple et al. 2009, pp. 11, 15), while at Kilmainham 1 A a near-complete polished axe was found lying horizontally near the base of a posthole in structure 2 (Ed Lyne, personal communication). Arrowheads are another relatively common find and have been recovered from houses at Granny, Ballyglass, Kilgobbin and Ballyharry. In some cases the position or orientation of objects appears to have been significant: at Ballyharry, a basalt axe and an arrowhead were placed blade edge and point downwards behind packing stones in the central postholes of the eastern and western side walls respectively (Moore 2003, p. 158), and at Newrath, a plano-convex knife and a broken scraper were found pressed into the side of an internal posthole, their blades/points facing downwards (Wren 2006, p. 8, 12). At Townparks, a chert blade, possibly a javelin head, had been placed blade downwards in the upper fill of the western wall of structure 1 (Yvonne Whitty, personal communication) while the porphyry axe from Monanny house B had also been placed blade downwards in a posthole (Walsh 2006, p. 13).

In some cases it is possible to distinguish between objects and materials that have been deposited as a building was erected, such as the Ballyharry axe and arrowhead, and those that may have been deposited at the point a house was abandoned, for example the stone tool found immediately over a posthole in a side wall of a house at Cruicerath in County Meath (Ellen O'Carroll, personal communication). It can be difficult to relate pits to any stratigraphic sequence within a house, but where they extend over the floor of a building, as at Haggardstown in County Louth and Ballygalley in County Antrim (McLoughlin 2010, pp. 21–22; Simpson 1996), it is not unreasonable to assume that they were dug after the living space had fallen out of use. Location-wise, the central two-post row referred to earlier may have had a special significance. At Kilgobbin, the lower fill of one of these postholes contained a chert arrowhead as well as sherds of pottery, flint flakes and a flint blade fragment. This deposit was sealed by three granite slabs (Ines Hagen, personal communication). At Newrath, the knife and scraper also came from one of these paired postholes (Wren 2006, pp. 8, 12), while the Ballyharry objects came from postholes in the side walls aligned on the two-post row.

The burning of these early houses is another well-recorded phenomenon (e.g. Cooney 2000; Smyth 2006; Bradley 2007), with substantially or completely burnt buildings documented on approximately half of sites. A number of experimental studies and observations in the field (e.g. Bankoff and Winter 1979; Shaffer 1993; Stevanović 1997; Cavulli and Gheorgiu 2008) have indicated that it would have taken a considerable amount of effort and, above all, time to achieve the extensive levels of burning seen on some sites, making accidental conflagration or even violent attack—though they undoubtedly both occurred from time to time—an unlikely cause. What we may be seeing is the deliberate firing of houses at the end of their (use) lives or the lives of one or more of their occupants, or both, as documented in many societies worldwide (e.g. Waterson 1997; Ó Riain 1992; LaMotta

and Schiffer 1999) and indeed argued for parts of south-east Europe in the Neolithic (e.g. Stevanović 1997; Chapman 1999). If these late 38th/37th century houses were one of the ways in which incoming farming groups expressed their identity and maintained social cohesion in a new setting it is not surprising that evidence for such formalised, ritualised behaviour is regularly uncovered.

Things Fall Apart?

The distinction between an earlier and later Neolithic, in which a period of fixed settlement, intensive cereal cultivation and population growth eventually collapses to be replaced with a largely pastoral economy, has been present in British and Irish narratives since at least the 1970s (e.g. Wainwright and Longworth 1971, p. 266; Whittle 1978, p. 34; Megaw and Simpson 1979, p. 168; Herity and Eogan 1977). Do the efforts of these pioneer farmers begin to fail after only a few generations, at c. 3625 cal BC, and might this be the reason why rectangular timber houses cease to be constructed?

In terms of evidence for cereal cultivation, the sampling and analysis of plant macrofossil remains has been focussed on Early Neolithic sites, particularly houses (Whitehouse et al. 2010, p. 18), and a clear picture of crop husbandry and the consumption of cereals into the mid-fourth millennium cal BC has yet to emerge. The pollen record for the island has similar chronological and spatial gaps, although recent analysis has revealed a decline in plantain or *Plantago lanceolata*—taxa indicative of clearings created by humans—at numerous sites in or around 3600 cal BC, i.e. almost immediately after the ‘house horizon’ (Whitehouse et al. 2010, p. 19). At a regional level, this apparent contraction in grassland may be related to a decline in the growth of oak trees observed in the dendrochronological record in the north-east of the island (Phil Barratt, personal communication). In the west of Ireland, palaeoenvironmental sequences suggest widespread clearance in the Céide Fields region of north Mayo at c. 3700–3600 cal BC, with agricultural activity possibly declining slowly over time, although not until c. 3450 cal BC (O’Connell and Molloy 2001), while an advance in hazel taxa across previously cleared terrain has been noted from c. 3550 cal BC in a core from Loughmeenaghan in County Sligo (Stolze et al. 2012).

While the apparent *Plantago* decline at c. 3600 cal BC and other signs of woodland regeneration and/or a deteriorating climate certainly warrant further investigation, there is not as yet any conclusive evidence for an economic or environmental driver for the change in domestic architecture. Another, not necessarily conflicting, approach is to view this change in social terms, and to consider the impact that various stresses and/or encounters may have had on both incoming farming groups and an indigenous population. The appearance of modified, regional forms of the traditional ‘Western Neolithic’ or Carinated Bowl pottery a few generations into the Neolithic has long been recognised (e.g. Case 1961; Herity 1982; Sheridan 1995, 2010, Chap. 12). There is good evidence to show that at around the same

time as these ceramic forms change (i.e. decoration appears, rim forms become more elaborate), people became less interested in reproducing the rigidly rectilinear ‘continental-style’ house forms.

Recent rescue excavation across a gravel mound at Tullahedy in County Tipperary has uncovered what appears to have been a 36th century cal BC enclosed settlement (Cleary and Kelleher 2011). Approximately 60% of the site was disturbed following extensive gravel pitting from the 19th century onwards, as well as by an earlier phase of excavation (Logue 1998), but remains comprised at least three structures on the north-eastern and southern side of the mound, a series of associated pits, stakeholes and hearths, and a palisade trench running along the western edge of the mound. Examining the structures in more detail we see that all three are defined by sections of slot trenches, although they are curving and quite irregular, and form at most two sides of each building (Fig. 13.4). The trench sections of house 1 contained evenly spaced postholes, supported with stone packing, while postholes were also visible in the corners of the house 2 trenches. Charcoal recovered from the trenches of all three structures, as well as the palisade trench, indicate that posts were of oak.

Unlike the late 38th/37th century houses, there was no evidence for the use of split oak planks. Trench sections were associated with scatters of stakeholes, postholes and pits. Many did not form a regular pattern or outline, although arcs of postholes were observed in house 3, and a line of pits uncovered in house 2 may have held internal structural posts. A number of artefacts—querns, rubbing stones, an axe, axe flakes, retouched stone tools and pottery—were recovered from the trenches of these buildings, while a third quern appeared to have been deliberately placed in the interior of house 1. All three buildings contained charcoal-rich and/or oxidised fills in at least part of their trenches, along with occasional burnt artefacts. Following abandonment, houses 1 and 2 were also overlaid with a charcoal-rich spread that included polished stone axes, flint, pottery and a large charred plant assemblage. A final stage of Neolithic activity was marked by the laying down of substantial amounts of glacial till, mainly around the steeper parts of the mound’s southern edge.

An extensive AMS radiocarbon dating programme coupled with Bayesian modelling indicates that the houses were constructed somewhere in the 100 or so years between 3665 and 3555 cal BC (95 % probability), and lasted anything up to 135 years—but most likely much less than that—before being covered over by a charcoal-rich layer (Schulting in Cleary and Kelleher 2011). While this date range does overlap with the Early Neolithic ‘house horizon’, it falls towards the end of the phase and indeed may lie outside of it. This, it can be argued, is reflected in the footprint of the Tullahedy buildings, which is less regular in plan than the earlier houses and lacks formal structural elements such as paired central posts and rectilinear side, gable and internal wall trenches. This break with tradition is also displayed in the pottery assemblage. Unlike the traditional Carinated Bowl pottery commonly found on earlier house sites, the Tullahedy pottery is decorated, with bands of two to five evenly spaced incised lines running along the interior of many of the vessel rims (Cleary and Kelleher 2011). The closest parallel for this development in ce-

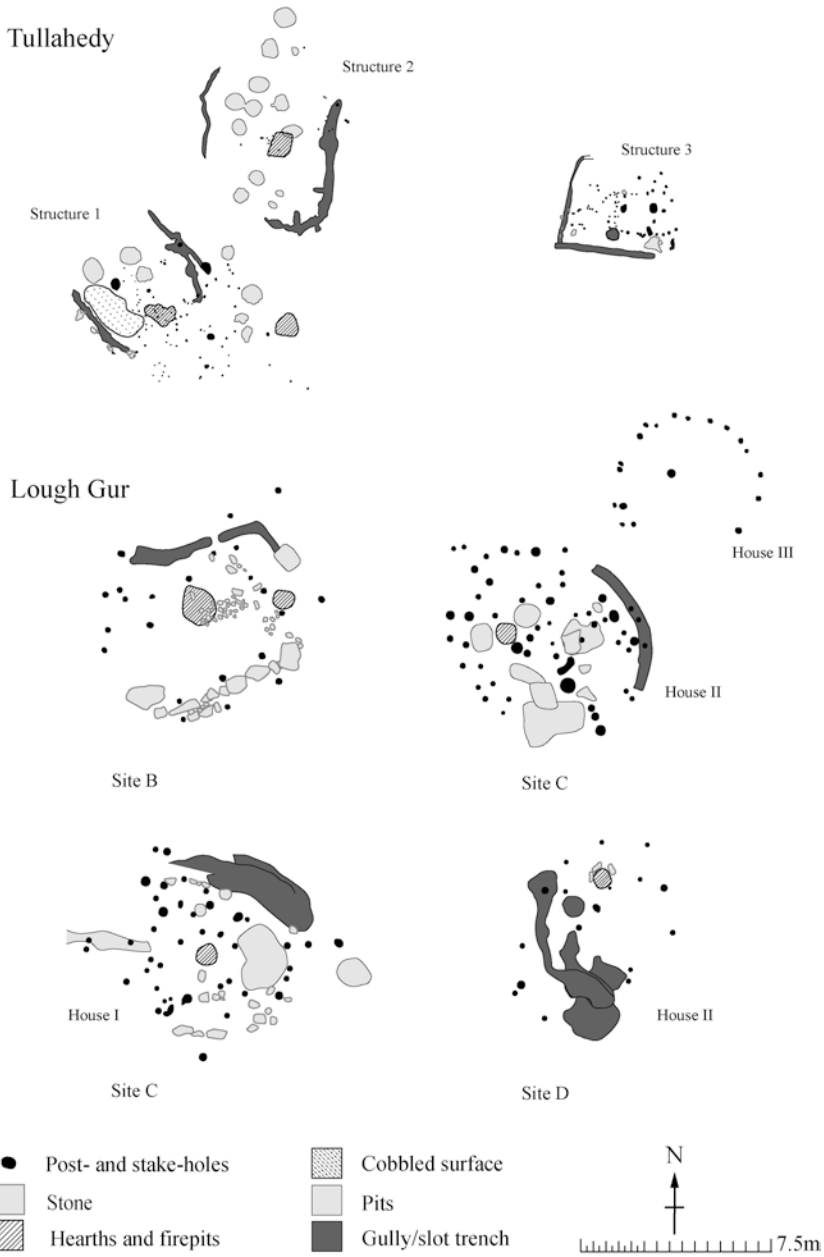


Fig. 13.4 Houses from Tullahedy in County Tipperary and from Sites B, C and D, Lough Gur in County Limerick

ramic style is found at Lough Gur (Cleary and Kelleher 2011, p. 340), a site which has produced structural remains very similar to those described above.

Many of the Lough Gur buildings, first uncovered across the Knockadoon peninsula in the 1930s and 1940s, are now considered to date to the Middle Bronze Age or later (Cleary 1993; Grogan 2005), but a number of examples may well belong to a late 37th/36th century BC post-‘house horizon’ (Fig. 13.4). Sites C and D both produced child burials very similar to one found on the northern slopes of Knockadoon, dated to between 3640 and 3370 cal BC (4740±60 BP, 95 % probability GrN-16825; Cleary 1995; Brindley and Lanting 1990). The site C burial also produced an almost complete pottery vessel of a style termed ‘Class Ia’ by the excavator (Ó Riordáin 1954), now recognised as Middle Neolithic modified carinated pottery (Sheridan 1995, pp. 8, 16). Sections of trench and arcs of stones give a circular shape to the buildings on site C, which are otherwise defined by stakeholes or small postholes, in some instances too numerous “to incorporate into a logical plan” (Ó Riordáin 1954, p. 324). There are traces of double-walling, indicated by occasional double rows of posts. The buildings uncovered at site D are more irregular in plan, with lines of stones, sections of trench and outcropping rock defining a number of roughly D-shaped or oval houses (Ó Riordáin 1954, pp. 386–387). Like sites C and D, site B produced an assemblage of classic carinated pottery (‘Class I’) and modified carinated pottery, again with a building defined by short stretches of stone footings, trenches and postholes. There appeared to be several phases to the building, but “the complete plan of any one house could not be discovered” (Ó Riordáin 1954, p. 312).

What the evidence from the above two sites seems to be showing us is a gradual ebbing-away of a rigid, perhaps socially prescribed, building style and associated traditions, towards more individualistic, *ad hoc* methods of construction, that mirrors the ‘style drift’ (Sheridan 2010, pp. 95–96) observed in the ceramics of the same period. Elements such as continuous, rectilinear slot trenches and split plank construction seem to disappear almost immediately, while practices relating to the use of oak, to deliberate deposition and burning may have been more socially embedded, taking longer to fall out of use. This loosening of traditions may have come about as ties to historical origins became weaker and a regional identity stronger. If the earlier houses did function as a type of clan house, a means to keep people working and living together productively in the testing first decades of opening up new land, they may well have served their purpose by the end of the 37th century cal BC, a measure of the success of the introduction of farming, rather than the result of any environmental or social disaster.

The dimensions of houses post-‘house horizon’ seem roughly the same as before (e.g. Grogan 1996), and perhaps the basic social unit or household size did not change that much. The remains from Tullahedy and Lough Gur suggest that settlements may have been larger however, with a greater number of households choosing to live side-by-side. The topographical settings of both sites are also remarkably similar, on glacial knolls or promontories overlooking lakes, and at Tullahedy at least there is evidence for a roughly contemporary enclosing palisade.

While admittedly extrapolating from just a single site, the burials at Lough Gur may also reflect a new tradition of bringing the dead, particularly children, into the domestic sphere.

If, for argument's sake, larger settlements are a feature of post-‘house horizon’ Neolithic Ireland, are there any other signs of similarly shifting social networks, increasing or expanding in size? Bayesian modelling has indicated that causewayed enclosures, i.e. the only two sites confidently identified as such—Magheraboy and Donegore Hill—continue in use into the 36th and 35th centuries (Cooney et al. 2011, p. 585), bridging the ‘house horizon’ and post-‘house horizon’ and indicating some form of social continuity. However, this same programme of modelling has also indicated that a new, seemingly regionally distinct type of funerary architecture—Linkardstown-type burial mounds—appears after the late 38th/37th century rectangular houses (Cooney et al. 2011, p. 663). Linkardstown mounds, named after a type-site in County Carlow (Raftery 1944), have a distribution currently focussed in Munster and south Leinster (Herity 1982; Brindley and Lanting 1990; Sheridan 1995). Indeed, two examples are located approximately 10km north of Tullahedy, and 2km apart, at Ardrony and Ashleypark in County Tipperary (Wallace 1977; Manning 1985). Linkardstown mounds typically feature a large earthen mound or cairn covering a central, stone-built cist containing the inhumed remains of one or more individuals accompanied by a decorated pottery vessel. The small number of people deposited in these monuments need not imply the establishment of a more hierarchical society in the later fourth millennium BC, although access to burials would have been cut off by the covering mound, assuring the significance of those interred (Cooney 2000, p. 99). This lack of contact with the dead may also mean that site histories and memories developed along different lines to those monuments where the bones of the dead were available for further manipulation (as seems to be the case at Parknabinnia court tomb in County Clare; Beckett 2011, p. 409). There is also the outward appearance of these monuments: a round mound, a significant departure from the linear forms of court tombs. At Ashleypark, this roundness is further emphasised by an enclosing bank and two internal ditches (Cleary and Kelleher 2011, p. 129). While enclosing elements (frequently low stone kerbs) are common to many fourth millennium BC monuments, the Linkardstown mounds seem to have incorporated a motif of enclosure or enfolding that ran through the monument, from the layering of slabs forming the burial cist (see Herity 1982, pp. 251–255; O’Sullivan 2009, p. 20), and the cairn and mantle of soil sealing the burial deposits, to the circular form of the mound itself and associated earthworks. As mentioned above, we see a similar turn towards enclosure and ‘boundedness’ in the contemporary settlement evidence, in the construction of palisades and the location of sites on promontories or peninsulae. Could these putatively larger post-‘house horizon’ settlements have generated (or have been generated by) a different scale—and a different sense—of community, one that needed to be mediated through certain individuals and reinforced in mortuary practice?

The Rise of the Tomb

The resolution gets even more fuzzy as we pass into the second half of the fourth millennium BC, but broadly speaking the slot-trench style of construction appears to wane further, with more and more stakehole construction in evidence (Fig. 13.5). At Newrath in County Kilkenny, a curving trench was excavated, forming a semicircular structure 9m in diameter (Wilkins 2006). Some of the larger stones recovered from the trench were perhaps intended as packing, although there were no postholes identified and the structure may not have supported a roof. A pit or possible posthole was located immediately to the north-east of the structure, along the mid-point of the trench, and an additional pit was excavated in the centre of the structure. Sherds from two Middle Neolithic vessels found in a small area in the eastern section of the trench dated the building.

The form of Newrath recalls that of two buildings uncovered adjacent to a court tomb (Ma. 14) at Ballyglass in County Mayo in the 1970s (Ó Nualláin 1998). The northern structure was C-shaped and defined by two foundation trenches enclosing an area of c. 5×5 m that opened to the north. Both trenches were packed with small, flat stones and contained stakeholes, while a number of stakeholes and pits were uncovered within the structure and outside of it. The southern structure was defined by four irregular trench sections that created an elongated, roughly semicircular area measuring c. 6.5×3 m, also open to the north. These trench sections were also packed with stones and the two eastern sections contained postholes. A number of stakeholes and pits were enclosed by the trenches and an arc of stakeholes immediately to the north may represent a third small building with a diameter of 3.5m. A 1970s radiocarbon date obtained on charcoal from the trench of the northern building came with a very large error (SI-1461 4390±100 BP [3400–2750 cal BC, 95 % probability]), but a large lithic assemblage featuring nearly 200 concave scrapers indicates a Middle Neolithic date (Woodman 1994; Bamforth and Woodman 2004).

A few kilometres to the north-west, and at approximately the same time, an oval stone enclosure was excavated at Glenulra within the Céide field complex. In the eastern part of the enclosure lay a small horseshoe-shaped stone footing approximately 7m across, open to the north. A number of charcoal spreads and at least 10 postholes were identified to the west of this footing, although they did not seem to form an identifiable pattern or plan and may have resulted from a series of activity phases. Immediately outside the enclosure to the south-west lay an area of rough cobbling or paving. Until recently, the only indication of date was another 1970s radiocarbon determination with a large error—4460±115 BP (3550–2850 cal BC, 95 % probability; SI-1464; Caulfield et al. 1998, p. 638)—and sherds from three Early Neolithic carinated bowls that *may* have come from a layer overlying the stone footing (Roche in Caulfield et al. 2010). However, a new date in the 35th/34th century cal BC supports the idea that Glenulra also post-dates the ‘house horizon’ (Graeme Warren, personal communication).

Building footings, this time earthen, are also a feature of the Middle Neolithic structures uncovered on Knocknarea mountain, in County Sligo, part of a complex



Fig. 13.5 Examples of possible Middle Neolithic houses

of banks and circular ‘huts’ that partially enclose the summit and its Neolithic cairns (Bengtsson and Bergh 1984; Bergh 2000a, b). Five structures have been excavated so far, and the published examples show that they were oval in shape and up to 7m in maximum internal diameter. A curving ditch encircled the occupation area and the upcast was used to form an inner bank. Into this bank, a series of stakes were inserted at an inward slant. The irregular positioning of the stakeholes indicated that they had been rebuilt and/or repaired several times. An additional outer section of ditch and bank was constructed upslope from one of the structures, and this same structure produced traces of a possible hearth.

A similar ditch and bank arrangement delimited the Middle Neolithic occupation area at Townleyhall 1 in County Louth (Liversage 1960). Within this, lay a charcoal-rich occupation layer cut by more than 90 stakeholes that appeared to represent a structure or structures repeatedly altered or rebuilt. A layer of clay, fire-reddened in a number of places, overlaid this internal area and over this again the cremated remains of an adult were found placed in a pit covered by a stone to the north of the stakeholes. Near the entrance to the ditch and bank lay the scattered remains of a second adult along with sherds of Middle Neolithic pottery (Sheridan 1995, pp. 12, 16). The final event was the construction of a mound, containing a small quantity of burnt and unburnt human bone, over the occupation remains.

Two kilometres away, at Townleyhall 2, a scatter of 142 stakeholes and nine hearths were found sealed beneath a small passage tomb, the overlapping contexts again demonstrating that not all features were in use simultaneously (Eogan 1963). The stone-paved hearths uncovered here are very similar to the hearth uncovered to the east of house 1 at Tullahedy and some of the hearths found beneath the main passage tomb at Knowth (Smyth 2011, plate II), in association with some 600 stakeholes and an assemblage of decorated Middle Neolithic pottery (Eogan and Roche 1997, pp. 51–52). At least 10 structures were identified from among the scatter of stakeholes, some defined by arcs of stakeholes. Several hearths appeared to be centrally placed within these arcs, suggesting that the buildings were circular, despite the fact that complete ground plans were not recovered. The recently modelled date estimate for the main phase of funerary activity in the passage tomb above, probably beginning between 3160 and 3050 cal BC (Eogan and Cleary in press), provides a *terminus ante quem* for these houses.

Of course, not all of the examples described above may have functioned as houses. There was no evidence for domestic habitation, floor surfaces, or a hearth at Ne-wrath. The pottery recovered was extensively decorated and burnished, although internal burnt accretions showed it had been used for cooking, and was perhaps even lidded. It was very similar to two vessels recovered from pre-henge levels at Balre-gan in County Louth, and compared well with the assemblages from Knowth and Townleyhall 2, both located beneath passage tombs (Grogan in Wilkins 2006). The Ballyglass buildings, while associated with a large lithic assemblage and two concentrations of working debris tentatively identified as knapping centres (Ó Nualláin 1998), were located very close to a court tomb. Likewise, the Knocknarea houses were sited just below a complex of passage tombs. The remains from Glenulra and Tullahedy, the former connected to a field system and producing stone-working

debris and pottery, the latter yielding lithics, pottery, cereal grains and animal bone, fit more easily to our notion of domestic spaces.

Regardless of function, these Middle Neolithic or post-‘house horizon’ sites are encountered far less often than the 38th and early 37th century BC timber rectangular houses—approximately 10 sites uncovered in 5 decades compared with over 50 of the latter in the same period. The difference in recovery rate could be due to the type of construction techniques and materials employed from the mid 37th century onwards, a building style that has left a lighter footprint. Houses, for example, may have been constructed from sod layers (Loveday 2006), a technique in evidence in some of the covering mounds of the late fourth millennium Boyne Valley passage tombs. The ethnographic record is replete with examples of communities that construct both elaborate tombs and houses (see Chap. 17) and late fourth millennium cal BC mortuary architecture may well have amplified principles evident more ephemerally in daily life. At the same time, there does seem to be a discernable difference in the *formality* of early fourth millennium domestic architecture compared to that from later in the Neolithic. Later buildings also appear to be built directly on top of one another, and while not completely circular in many instances, they can no longer be described as rectangular.

It is for these reasons, I would argue that there was less social investment in houses generally post-‘house-horizon’ (see Grogan 2004; Smyth 2011), or perhaps more precisely, that they no longer served as units of social reproduction. What may have appeared in their place, and why, remains unexplored. The development of passage tomb complexes—on the west coast of Ireland at Carrowmore in County Sligo from the 37th century cal BC (Robert Hensey, personal communication), and on the east coast peaking around the 33rd/32nd centuries cal BC—speaks of wider networks of contact, communication and co-operation, driven perhaps by the requirements of an expanding cattle economy; the remains of nearly 60 butchered cattle from the ditches of a Middle Neolithic enclosure at Kilshane in County Meath offer a tantalising glimpse of the communal rituals associated with such forms of animal husbandry (Moore 2007).

The Grooved Ware Influence

Around the turn of the third millennium BC, an apparent cultural shift took place: the appearance in the archaeological record of a distinctive, flat-bottomed, decorated pottery type—Grooved Ware—originating most likely in the Orkney Islands in northern Britain (Brindley 1999; Sheridan 2004b; Schulting et al. 2010). This pottery is associated with new forms of architecture: timber circles and large four-post arrangements, both of which often occur on the same site, the latter frequently appearing at the centre of the former (e.g. Hartwell 1998; Eogan and Roche 1997; Fig. 13.6). Roughly contemporary are large circular enclosures defined by substantial earthen banks, inner ditches and/or scarped interiors, although only one of these embanked enclosures has been directly dated so far (Ó Donnchadha and Grogan

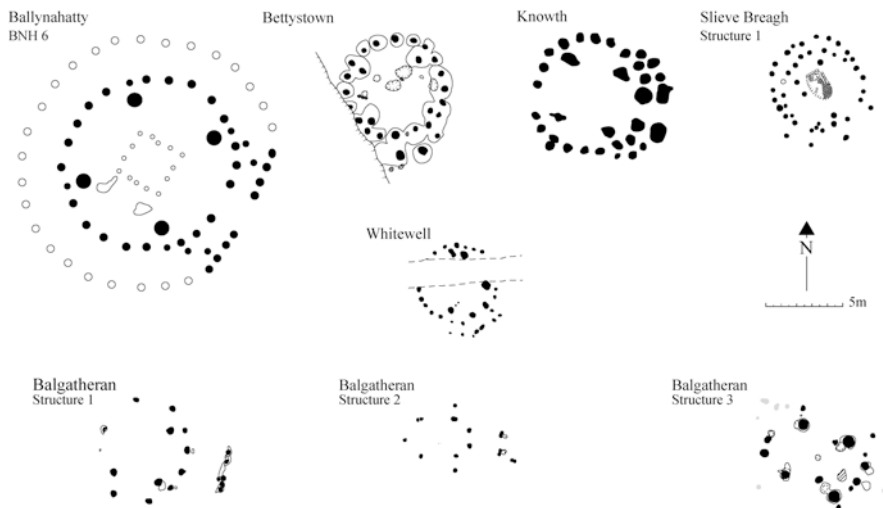


Fig. 13.6 Irish Grooved Ware timber buildings

2010). As outlined elsewhere (Smyth *in press*), neither pottery nor architecture appear to have any clear-cut native forerunners, but seem to be regional interpretations of a suite of cultural practices and forms shared across the islands of Britain and Ireland into the first half of the third millennium BC. Recent Bayesian modelling of when the primary Neolithic use of passage tombs ceased in Ireland—probably within the first century and a half of the third millennium cal BC (Bayliss and O’Sullivan forthcoming)—suggests that this Grooved Ware ‘package’ displaced earlier practices on the island rather than carrying on alongside them.

Do these exotic Grooved Ware traditions influence houses of the period? There is an increasing amount of evidence from Britain and Ireland to suggest that the spread of traditions from Orkney in the late fourth millennium cal BC included not just pottery and monument types but ideas on the ordering of domestic space. In Orcadian houses, internal stone furniture is frequently organised around a four-sided central hearth, creating a concentric ordering of space. Each element, including the doorway, is also lined up on the hearth, creating two distinct axes and a cruciform configuration. Significant numbers of houses have axes running north-west/south-east and north-east/south-west, which it has been argued reference the four key or cardinal points in Late Neolithic Orcadian society, corresponding to the midwinter and midsummer sunrise and sunset (Richards 2005, pp. 58–60).

A similar design has recently been uncovered at Durrington Walls, Wiltshire with several buildings that appear to be copies or versions of the Orcadian houses, except the former were constructed in local materials of chalk and wood, and the square stone-edged hearths found in Orkney become oval, plaster-lined hollows at Durrington Walls (Parker Pearson 2007). Several authors have noted the similarities between this arrangement of domestic space and that found in larger, ceremonial

buildings or structures, with the layout of the latter drawing on that of the former (Bradley 2005; Richards 2005; Pollard and Robinson 2007; Hodder 1982, p. 222).

As already mentioned, in Ireland this square-within-circle layout is seen in timber circles (Fig. 13.6), the first examples of which were at ceremonial complexes such as the Bend of the Boyne in County Meath, and Ballynahatty in County Antrim (Eogan and Roche 1994; Hartwell 1998). The dozen or so examples excavated to date feature several very formal design elements, such as a symmetrical layout and prominent entrances, which invariably face south or south-east, and are also associated with a number of seemingly deliberate, ritualised acts such as the dismantling and/or burning of the large posts and structured deposition within the post pits. The presence of areas of burning, lithic waste and pottery sherds and the small scale of many of these timber circles have led some archaeologists to argue that several were in fact houses (Lyne 2008; Ó Drisceoil 2009). Certainly, if we compare timber circles like Whitewell in County Westmeath with one of the few known Late Neolithic houses from Slieve Breagh in County Meath (Fig. 13.6), there are many points of similarity, such as overall dimensions, the size and number of postholes and orientation. However, where the Whitewell building has a four-post setting, partially truncated, at its centre, the Slieve Breagh house has a rectangular stone-edged hearth aligned on the entrance, reminiscent of those from Orcadian houses.

It may be that hearths are the key to identifying the Late Neolithic or Grooved Ware house in Ireland, a seemingly very significant element of the Orcadian Late Neolithic (e.g. Hodder 1982; Richards 1993, 2005) that may have had an added or prior significance in an Irish context. As noted earlier, paved or stone-lined hearths comprise the most formal elements of Irish Middle Neolithic or late fourth millennium domestic architecture, and the central, rectilinear Orcadian hearth thus could have been one of the Grooved Ware elements most readily incorporated into Irish houses. At Newgrange, approximately eighteen rectangular stone-edged hearths were uncovered in front of the passage tomb. A small number of nearby trenches, hollows and post-holes provided some evidence of the hearths being enclosed by small, possibly circular structures (O'Kelly et al. 1983). Their date has proved difficult to determine, but as outlined elsewhere (Smyth 2011), there are strong similarities with the Durrington Walls houses in terms of siting and the associated faunal record, and the Newgrange hearths closely resemble the stone-edged Orkney hearths, although more elongated, and edged with cobbles rather than tabular Caithness Flagstone (Fig. 13.7). Furthermore, at least one hearth is located within what appears to be a four-post setting and is aligned south-east/north-west. The presence of additional Grooved Ware houses may yet be confirmed at Piperstown in County Dublin, where a number of rectangular, stone-edged hearths were uncovered, enclosed by circular stone footings (Rynne and Ó hÉailidhe 1965; Smyth 2011, Fig. 7). Analysis of the lithics indicates a general Late Neolithic/Early Bronze Age date (Rice 2006).

At the same time, a recently excavated Grooved Ware site at Ballynacarriga in County Cork (Tierney 2009) indicates that if the symbolism and ordering of Late Neolithic domestic space was influenced by Orcadian 'fashions', it was on a limited or selective basis. The settlement at Ballynacarriga comprised a number of pits and hearths and up to six structures, associated with early third millennium cal BC radio-



Fig. 13.7 Top: Hearth 12, Western Area, Newgrange, County Meath. Bottom: Grooved Ware structures uncovered at Ballynacarriga, County Cork

carbon dates and/or Grooved Ware, all of which may have been enclosed by a number of rectilinear ditches (although no conclusive date came from these latter; Lehane et al. 2011). There was no trace of rectilinear, stone-edged hearths, and buildings were for the most part poorly defined. Where traceable, they were roughly circular or sub-circular and post-built, occasionally incorporating short sections of slot trench.

Tides of Change

We are still scratching the surface when it comes to understanding the house in the Irish Neolithic and its role in early farming societies. The earliest, plank-built rectangular houses are by far the best represented, in number and in visibility, yet these appear to have been in use for only a few generations in a period of approximately 1,500 years duration. Our picture of how people lived and what types of buildings they occupied after c. 3600 cal BC is much more coarse-grained, although even at this early stage of research we might argue that the form, and perhaps the symbolic importance, of the Irish Neolithic house was never again so rigidly prescribed. It is not surprising that this formality is associated with a period of significant economic—and very likely ideological—change in the early fourth millennium cal BC.

Whilst acknowledging the current paucity of settlement data from successive centuries, we might suggest that changes in house form after c. 3650/3625 cal BC are the result of social re-configuration, perhaps even mixing with indigenous populations, as the house becomes less about group identity or stating one's origin, and reproducing the same house plan or template becomes less important socially. Again, the chronological resolution of this post-‘house horizon’ phase is still poor, but such a shift may in turn be related to greater investment in larger group undertakings exemplified by Linkardstown mounds and passage tombs. In the Late Neolithic, at the turn of the third millennium cal BC, it could be argued that the house becomes a renewed symbolic focus for communities across several parts (at least) of Britain and Ireland. Such a focus appears to have originated in the Orkney Islands in the very north of Britain, and its transmission should be seen in the context of a wider web of connections across the Irish Sea Zone at this time (e.g. Bradley and Chapman 1986, pp. 127–136; Eogan and Roche 1999, pp. 109–111; Ritchie 2000; Sheridan 2004b, pp. 32–33; Cummings and Fowler 2004), but between eastern Ireland and Orkney in particular, for reasons that are as yet imperfectly understood. In Ireland, the Orcadian house- or hearth-centred ordering of space is selectively adopted, with nothing like the penetration of earlier periods. Overall, the evidence so far uncovered in Ireland illustrates very well the idea of a house as a fluid social phenomenon, meaning different things to different people at different times and places.

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Chapter 14

Lost and Found: Houses in the Neolithic of Southern Scandinavia

Lars Larsson and Kristian Brink

Introduction

The chapter aims to give a broad survey of Neolithic houses in southern Sweden and Denmark (Fig. 14.1)—their basic architecture, function and social setting. This is done through examples drawn from the hundreds of known house remains from the period. The emphasis is on houses excavated during the last decade and a half of large developer-funded projects. These projects have made a substantial contribution in terms of the number of Neolithic houses and knowledge about them. General source-critical factors and conditions are also briefly considered.

The survey follows the general south Scandinavian periodization of the Neolithic—Early Neolithic (TN I, c. 4000–3500 cal BC and TN II, c. 3500–3300 cal BC), early Middle Neolithic (MN A, c. 3300–2800 cal BC), late Middle Neolithic (MN B, c. 2800–2300 cal BC) and the Late Neolithic and Early Bronze Age Period I (SN, c. 2300–1700 cal BC and ÅBÅ Period I, c. 1700–1500 cal BC).

Finding Houses

As in many other countries, Neolithic houses in Scandinavia were very few in number as long as the investigation of settlements involved digging trenches on sites with a well-preserved occupation layer. Since the methodological breakthrough of open plan excavations in the 1970s, post-built houses started to be found on a large scale in fully ploughed areas of southern Scandinavia. Postholes from Late Neo-

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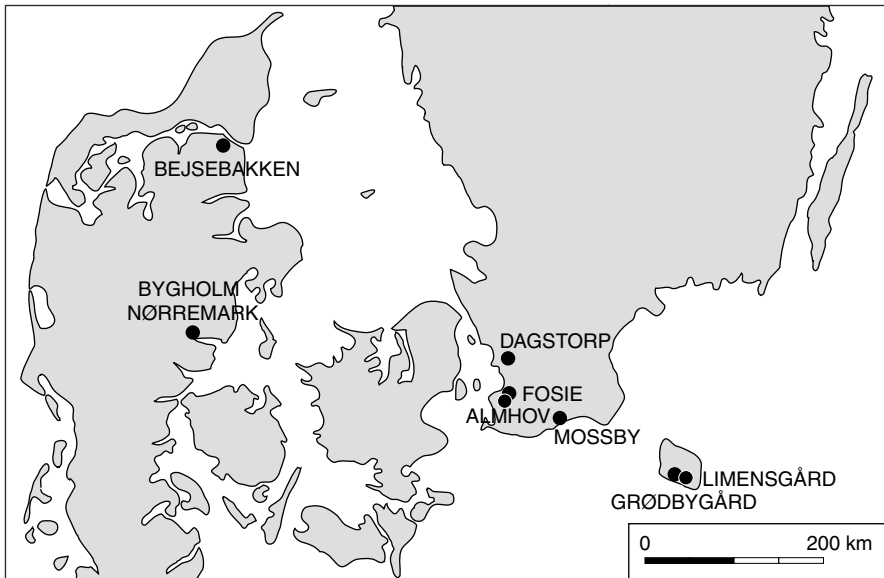


Fig. 14.1 Southern Scandinavia with the location of sites mentioned in the paper

lithic houses were among the first remains found by this new method (for example, Bjørhem and Säfstestad 1989). Since then, they have been found in large numbers, mainly in the course of developer-funded projects.

As houses from different periods within prehistory have been found in large numbers, the debate and discussion on buildings as social agents has been intensive (Göthberg et al. 1995).

Early and Middle Neolithic house remains were, and often still are, more difficult to identify, but are nevertheless steadily increasing in number (see Artursson et al. 2003 for a survey of houses and a thorough source-critical discussion). In the ploughed landscape that dominates parts of southern Scandinavia, Early and Middle Neolithic houses are often poorly preserved. In some regions large areas have been excavated (see, for example, Nilsson and Rudebeck 2010), but few houses from these periods were discovered. On a cold and rainy day of work, one or two post-holes are easily missed, thereby perhaps resulting in a house being overlooked altogether. Generally, there are also abundant and distinct remains from later periods to deal with on these sites. This sometimes makes it difficult and time-consuming to sort out badly preserved Neolithic structures.

Often only a few postholes are found, containing little or no direct evidence as to specific activities carried out in the houses. Traces of some of the activities lie in the topsoil, mainly in the form of flint tools, flint waste or other stone implements (Sarnäs 2008). Topsoil investigation has in a few cases proven to be successful in tying activities to a specific house (Larsson 2008). However, investigating the topsoil in the ploughed landscape of southernmost Scandinavia is seldom cost-

effective as a method of finding single houses or tying traces of activity to them. Flint tools and flint waste are often found over quite large areas, making it difficult to pinpoint the possible remains of a single house. Generally, the great time-depth of sites also makes it hard to tie what is often chronologically quite anonymous material to a specific house.

Huts and Houses During the Early Neolithic

Discussion of social complexity features prominently in accounts of the transition from the Mesolithic to the Neolithic that occurred around 4000 cal BC in southern Scandinavia. It has often been remarked that people lived in huts during the Mesolithic and houses in the Neolithic. Every house design that is presented attracts massive criticism, a behaviour that has been named the ‘Mesolithic house syndrome’ (Larsson 1995, p. 101). Huts used for a short stay of a few weeks during the summer are well represented in wetland environments, but during winters, even if they were warmer than today, there was a need for a more stable structure. More stable structures are not suitable for analyses such as refitting because of the longer duration of use and resulting mixing of deposits. They hence do not fit into the ordinary view of settlement sites consisting of small camps used for a relatively short time. A number of robust buildings dated to the later part of the Mesolithic have been found, some with sunken floors (Larsson 1985; Karsten and Knarrström 2003). It is possible to see links with similar constructions in central and northern Sweden (Carlsson 2008). On the other hand, with respect to the Neolithic and later prehistory, the term ‘house’ is rarely questioned.

The introduction of farming is usually regarded as involving the introduction of a small number of people with the knowledge and know-how needed for agriculture and stock-breeding. These were probably people who made a significant impact socially as well as genetically (Larsson 2007). The material culture undergoes rapid change and the Funnel Beaker culture is established. This cultural context seems to spread northwards to central Sweden within a few generations (Hallgren 2008).

The distribution of the main settlement sites during the first part of the Early Neolithic (TN I) differs considerably from the distribution of Mesolithic sites: the sites are now located at some distance from the shoreline, marking dependence on the new economy. Most of the sites are small, representing the location of individual farms.

As late as the 1980s, the view of the Early Neolithic as a society exhibiting a low degree of complexity fitted well with documented remains of huts and features similar to huts from the Mesolithic (Madsen and Jensen 1984). People were living in small huts, usually with a D-shaped layout. The first identification of *mesula*-shaped houses, i.e. those with an inner row of roof-supporting posts, dated to the Early Neolithic was made in 1985 during the excavation of a site in the southernmost part of Sweden (Larsson 1992b).

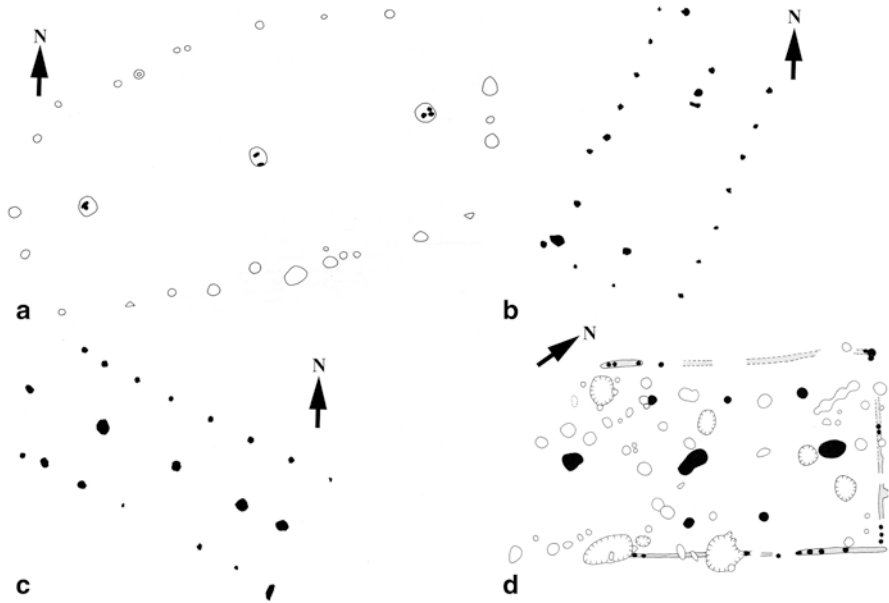


Fig. 14.2 Houses from the Early Neolithic and early part of the Middle Neolithic. **a** House of the Mossby type (Larsson 1992b, Fig. 69). **b** House of Dagstorp I type (Artursson et al. 2003, Fig. 15). **c** House of Dagstorp II type (Artursson et al. 2003, Fig. 24). **d** House of Limensgård type (Nielsen and Nielsen 1985, Fig. 3)

This house, with somewhat convex walls and rounded corners, had a length of 12m and a width of 6m (Fig. 14.2). A row of three stone-lined postholes supported the roof, and the walls were marked by smaller posts in a regular arrangement. Carbonized barley seeds gave dates corresponding to the earliest part of the Neolithic. This type of house, named the Mossby type after the first location of discovery, has later been recognized throughout southern and central Scandinavia (Buus Eriksen 1992; Artursson et al. 2003). By 2003, houses of this type numbered about 20 (Artursson et al. 2003). Some more were published later (Hadevik 2009). They varied somewhat in size, 10–17m in length and 35–130m² in area, and there are indications that the later examples are generally somewhat larger than the older constructions. Houses of the Mossby type exist during the entire Early Neolithic. It is difficult to observe any links between this type of house and earlier buildings in continental Europe (Larsson 1995). On the other hand, the similarities to houses dated to the Late Mesolithic in Scandinavia are striking. Postholes in rectangular arrangements might indicate smaller buildings for storage connected to the larger Neolithic house representing a farmstead.

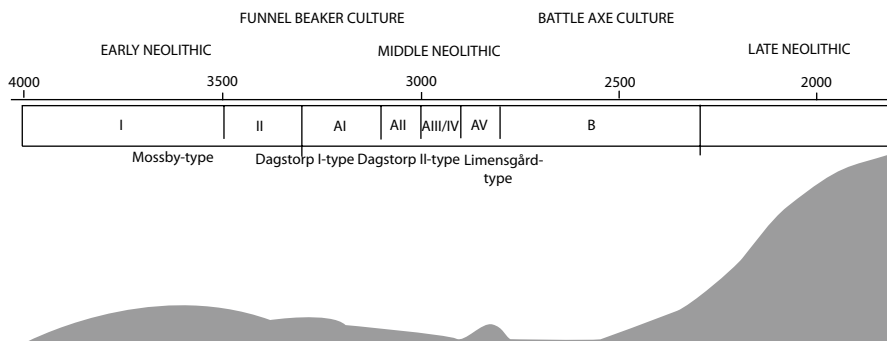


Fig. 14.3 A tentative diagram of the representativity of recorded houses during the Neolithic. (Partly based on Artursson et al. 2003, Fig. 41)

Houses from the Later Funnel Beaker Culture

Two other types of *mesula* houses have been identified. One type is somewhat trapezoidal with straight long sides and usually with fewer posts for the walls, especially for the gable ends. The length varies from 7 to 16m, with an area of 30–50m², but most have a size close to the lower values. This house shape, named Dagstorp type I, has so far only been identified in the southernmost part of Sweden (Fig. 14.2).

The other type has straight long sides and gable ends (Dagstorp type II), some with trenches instead of wall posts along the long sides (Limensgård type). Posts for the gable ends are often missing. The houses of the Dagstorp II type have a very limited size variation, around 16×6 m and 96–130m², while the Limensgård houses are normally somewhat longer, with a range of 14–22m and 50–165m² (Fig. 14.2).

During the later part of the Early Neolithic (TN II) tombs such as dolmens and later passage graves start to be built, indicating social differences within societies. As many as 25,000 may have been erected (Ebbesen 2011). During the transition to the Middle Neolithic (MNA), increased social complexity is also indicated by the construction of causewayed enclosures (Andersen 1997). The settlements increase in size and the distribution of sites indicates greater diversity in the use of the landscape.

During the very late part of the Early Neolithic, the Mossby type may have existed in parallel to the Dagstorp types I and II (Fig. 14.3). However, there is a clear trend of replacement of Dagstorp type I with the Mossby type, while the Dagstorp type II continues as late as MN III, at about 3000 cal BC (Artursson et al. 2003, Fig. 41). The Limensgård type is evident in the very late part of the early Middle Neolithic (MN V), but the number of such houses is small and there is no clear evidence of continuity among site features, although the Dagstorp type II and Limensgård type structures exhibit several similarities.

A considerable number of small huts of different shapes, some with irregularly positioned posts, can also be added to the range of building structures. Most common are round or oval huts with a length of 3–7m. They may be marked by post-

holes and ditches (Fig. 14.2). A small number have a sunken floor. Another type is U- or D-shaped, with a length variation of 3–7m. A small number have a row of roof-supporting poles along the middle. Fewest in number are rectangular or trapezoidal huts with a length of 4–6m.

At sites where two different house types are present, there are no indications that the houses existed contemporaneously. However, ordinary houses might in some cases have been combined with huts to form a farmstead with buildings suitable for storage (Larsson 1995).

All three hut types are known during the Early Neolithic, while a small number of huts, especially rectangular examples, have been dated to the early Middle Neolithic (MNA). Most numerous are round or oval huts, totaling about 60, with about 30 U- or D-shaped huts and 10 rectangular or trapezoidal examples (Artursson et al. 2003). This includes the huts of the Funnel Beaker culture. There are a number of round or oval huts that belong to the Pitted Ware culture.

The discovery of a considerable number of buildings from the Early and Middle Neolithic in Scania, the southernmost part of Sweden, is the result of a number of developer-funded excavations involving topsoil removal in large areas and excavation by archaeologists with a special interest in the Neolithic.

There are only limited differences between the house types of the Early Neolithic and those of the early Middle Neolithic, so a direct link between one and the other is most plausible. No certain difference as to function has been found. The division might in some cases, as with house type Dagstorp I, be a question of architecture based on regional influences. We have almost no knowledge of deposition inside the houses and their function, due to the fact that it is mainly the postholes that have been found, directly below the plough zone. They have also been built on dry soil with an unfavourable preservation environment, something that applies to houses throughout the Neolithic. In addition, one and the same locality has been used for a long period, so that mixing needs to be considered as an important aspect of source criticism. Some houses have pits of various sizes. However, the finds do not give any important clues to the use of the features. Some might have been used for storage. Of special interest is the presence of vessels, axes and other artefacts intentionally deposited in postholes. Some finds, such as pottery of special shape and typological composition, in pits within houses have also been interpreted as ritual depositions because of the combination of objects and the large number of finds (Andersson 2004).

The fact that most houses have been detected just below the plough zone makes it very difficult to obtain information about the building material. Most samples of charcoal from the postholes have been identified as oak, making it very plausible that most houses were built of oak wood. As regards the walls, burnt clay has been recorded, but in such small quantities that it may originate from the oven. The two most plausible materials are wattle and daub or turf, with reed or straw as the roof covering.

Based on the size of houses, the number of persons in the household during the Early Neolithic has been calculated as between 5 and 20, equal to one- and two-family groups (Artursson et al. 2003). In most cases, a settlement consisted of a single house. However, at some sites there are indications suggesting that two to four houses were occupied at the same time (Andersson 2004).

Considering the number of known sites from the Early Neolithic, the number of houses is very small compared with the large number of houses found at settlements from the Bronze Age and Iron Age. The intensity of agriculture, the depth of ploughing, the faint colour of the Neolithic postholes and the accumulation of later settlement remains are some of the reasons for the low number of houses. In areas with fertile soils the number of documented houses is smaller than in sandy areas, where agriculture has been less intensive (Hadevik 2009).

Houses for the Living—Monuments for the Dead

At the same time as the houses of the Moss by type began to be built, the first monumental features, the earthen long barrows, were erected (Larsson 2002; Rudebeck 2002a). For a long time these features were regarded as remains of longhouses, some of them divided into several rooms (Skaarup 1975). However, later analyses of the excavation results have provided convincing evidence for regarding the structures as earthen long barrows (Liversage 1992). There is still something of a link between the much smaller houses and the long barrows. Underneath the earthen long barrow of Bygholm Nørremark in Jutland a house of the Mossby type was found, 10m long and oriented in the same direction as the 60m long barrow (Rønne 1979). A grave was situated immediately above the centre of the house, which has been interpreted as a mortuary house. The small size of the building distinguishes it from the other structures of this type. Settlement sites have been documented below earthen long barrows (Madsen and Jensen 1984; Larsson 2002). However, no architectural similarities have been recognized between the house types and the earthen long barrows. The earthen long barrows may relate to the longhouses of the early farmers in central Europe. This link with the home of the forefathers was limited to the house of the dead (Bradley 1998). A certain connection might be observed between the trapezoidal Dagstorp I house type and the trapezoidal shape of most long barrows. However, the houses of the Dagstorp I type do not appear until after the erection and use of earthen long barrows had ended. The D-shaped houses have a size equal to the dolmens but there are no other resemblances. For the time when dolmens and passage graves were being built in their thousands, there are no good indications of any architectural relationship between the houses of the living and the monuments of the dead.

Continuity and Change—House and Farm in the late Middle Neolithic

During the course of the late Middle Neolithic (MNB), people in southern Scandinavia were strongly influenced by the continental Corded Ware and Bell Beaker traditions. Encounters with people from the continent brought new ideas and new ways

of doing things to local societies in the region. In archaeological terms, this is clearly seen as a new material culture that enters around 2850–2700 cal BC, and a new way of burying people, from c. 2850 cal BC in western Denmark and from c. 2500 cal BC in southern and central Sweden and parts of eastern Denmark—according to currently available radiocarbon dates. This new burial tradition is known as the Single Grave culture in the former area and the Battle Axe culture in the latter areas (Malmer 1962, 2002; Larsson 1992a; Furholt 2003; Andersson 2004; Hübner 2005; Ebbesen 2006; Edenmo 2008; Brink 2009a; Larsson 2009).

A recurrent problem when dealing with the Single Grave/Battle Axe culture has been, and still is, the difficulty of identifying settlement sites, and thereby also houses. This is the case in several regions of the European Corded Ware tradition (Svensson 2004; Larsson 2008, 2009). It has led to widely differing interpretations of economic and social systems in southern Scandinavia. The lack of settlement sites is regarded by Mats P. Malmer as an effect of source-critical factors, that is to say, modern agriculture has to a large extent destroyed the remains of sites and houses, making it hard to identify them. He regards the Battle Axe culture as a sedentary agricultural society (Malmer 1962, 2002). However, the lack of settlement sites with evidence of houses and dug features has also led to interpretations emphasizing a more mobile—nomadic—way of life (Larsson 1992a; Andersson 2004).

Despite the difficulties in identifying house-remains, they do exist and are slowly growing in number. A survey published in 2003 mentions a handful of more clearly identifiable constructions (Artursson et al. 2003). They are unevenly and sparsely spread in southern Scandinavia. The one clear exception from a south Scandinavian perspective is the Danish island of Bornholm, with the two well-known sites of Limensgård and Grødbygård (Nielsen 1999). Between them, they have produced evidence of 34 two-aisled houses from the later part of the early Middle Neolithic and the earlier part of the late Middle Neolithic. At Grødbygård there are also a few timber circles. The largest house measured c. 22 × 7 m, thus having had an internal area of a little more than 150 m² (Fig. 14.2). The houses represent some 300 years of occupation—from c. 2850 to 2500 cal BC—during a time when Funnel Beaker groups started to absorb influences from the continental Corded Ware traditions.

With the exception of these sites, there has been little research on late Middle Neolithic houses, because of their small number and often poor state of preservation. The following discussion will primarily focus on a local example of houses and settlement in south-west Scania, Sweden. Large-scale excavations during the last 10–15 years have resulted in the discovery of several new houses—just over a dozen two-aisled houses and a few smaller houses and huts—from the period in this region, thus permitting a somewhat clearer view of settlement structure and the importance of the house and farm (Brink 2009a).

Local Funnel Beaker societies in this region had a settlement pattern interpreted as formed by a high degree of local mobility, not to be confused with a nomadic way of life (Björhem and Magnusson Staaf 2006). Thus during the early part of the late Middle Neolithic, people lived in a landscape of widely dispersed places where different tasks and activities were conducted (Brink 2009a). The farm—broadly de-

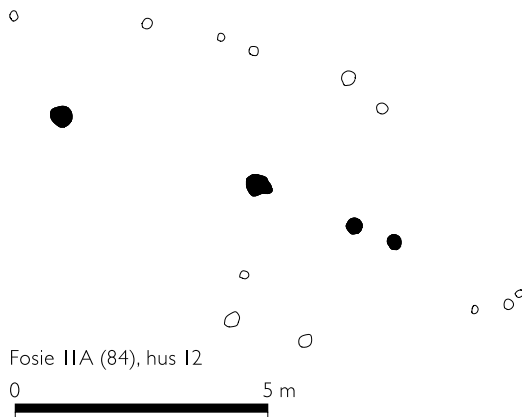
defined as a house inhabited by a group of people who primarily lived from cultivating the land and raising cattle (Welinder 1998)—was one of the places of importance to people during this time. Hunting and fishing sites, as well as places of collective ritual importance—megaliths and palisaded enclosures—were also part of this landscape. People moved between these places and stayed for various periods. This system thus required a high degree of collective accessibility to the local landscape, where individuals and groups of people moved freely.

From the later part of the late Middle Neolithic, c. 2500 cal BC onwards, a new relationship to the landscape was formed as Battle Axe traditions grew stronger. A more stable settlement structure seems to have been established, and a landscape divided between single farms emerges in certain intensively occupied areas (Björhem and Magnusson Staaf 2006; Brink 2009a). At some sites a greater continuity of place can be detected. More than one generation of houses was built on some farms indicating continuous use of the surrounding farmland. The farm seems to have grown in importance during this time compared to the Early Neolithic and early Middle Neolithic, becoming the primary arena where people shaped and expressed their social position. The characteristic Battle Axe graves were located on the farm, signaling a high social position, and nearby megaliths were used for burials by individual families. Megaliths were, however, no longer used for larger collective ritual activities (Andersson 2004) and palisaded enclosures were no longer built (Brink 2009a). As will be seen when we turn to the Late Neolithic, the importance of the farm would eventually be manifested in building very large houses. This was, however, still a few centuries away.

The societal change briefly outlined above did not have an immediate effect on the house itself. Instead, domestic architecture, materials and building techniques generally show continuity from previous periods. This means that there is no specific late Middle Neolithic house type, distinguishable from houses of earlier periods. Radiocarbon dating is thus often the only method for dating houses to the late Middle Neolithic, since there are usually few finds in settlements. The farm consisted of a single building, although there are indications of the existence of small storage buildings on a few farms (Brink 2009a). As yet, there is no indication of social differences between families reflected in the houses.

Remains of houses generally consist of a single row of three to five postholes from the central roof-supports. Often these postholes are the only traces, but in some cases postholes from long walls and gable ends have also survived. The postholes indicate fairly simple and uniform constructions of more or less rectangular shape (Artursson et al. 2003; Brink 2009a). Sunken house floors have been found in a few cases in southern and central Scandinavia (see for example Larsson 1992a; Larsson 2008). In the few cases where posts from the long walls and/or gable ends have been sufficiently preserved, calculations of length and internal area have been made. The houses from south-west Scania have lengths varying from c. 10m up to c. 15m and areas of c. 45–120m², the majority being larger than c. 65m² (Brink 2009a). We know little about the internal structure and use of the houses. Generally the houses are interpreted as places of permanent, year-round residence.

Fig. 14.4 House 12 at Fosie 11A, south-west Scania, Sweden. North is at the *top* of the image. (From Brink 2009a, Fig. 75)



The houses have usually been interpreted as the homes of multi-generational families (Welinder 1998). These were generally open-plan houses. Entrances or specific activity areas can be singled out in a few cases. A few houses have indications of spaces used as cooking areas: macrofossils found in postholes in certain parts of the house. It is hardly possible to generalize on the placement of cooking areas or entrances, but in the few cases where this is indicated they resemble the house in Fig. 14.4, with the cooking area in the western part and the entrance in the eastern part (Brink 2009a).

A good example of both house type and state of preservation is house 12 at Fosie 11A, south-west Scania, Sweden (Fig. 14.4). Based on charcoal and grain samples from postholes, house 12 is dated to c. 2500–2300 cal BC. The plan illustrates the often poor conditions of preservation in the fully ploughed landscape of south-west Scania. Postholes from the roof-bearing construction are c. 0.3m deep, topsoil removed. The house was c. 1m long and 5.5m wide, thus measuring c. 70m². Two opposite openings have been identified in the western part of the construction. A fossil placed in one of the postholes of the roof-bearing construction has been interpreted by the archaeologists excavating the house as a possible ritual deposition. A concentration of macrofossils in the central posthole has been interpreted as indicating that the larger western room was used as the cooking and main living area. Perhaps this area was separated from the entrance area by an inner wall, only represented by one posthole along the southern wall, but this is uncertain.

As already mentioned, finds are generally sparse, often only consisting of a few flints and small pieces of pottery. Other types of evidence for everyday activities in or just outside the houses, such as wells or pits, do exist, but are less commonly detected. In a few cases, where large areas have been excavated there are examples of features such as wells, found a few hundred metres from the house(s). This indicates a rather large area of everyday activities on the farm (Brink 2009a).

The rather sparse and anonymous situation regarding houses—although slowly improving—changes dramatically when we reach the Late Neolithic.

Houses and Hierarchies—Farms and Villages of the late Neolithic

The archaeological record from the Late Neolithic and the Early Bronze Age Period I stands in sharp contrast to earlier periods of the Neolithic. From this period, we have comparatively abundant and also more varied source material. Houses are counted by the 100, but a more exact number has not been established (see Artursson 2005, 2009 for a survey). Houses are found in southern Scandinavia and parts of central Scandinavia, but are primarily concentrated in the southernmost part of Sweden and Denmark. Because of the relatively rich source material, discussion on the houses and farms, and their societal importance, has been more comprehensive than is the case for earlier periods of the Neolithic.

The Late Neolithic landscape of southern Scandinavia was dominated by single farms, village-like clusters of farms and hamlets or villages that grew out of a social change that started in the later part of the late Middle Neolithic. The social and ideological importance of the house and farm in southern Scandinavia during the Late Neolithic has been thoroughly discussed during the last decade (see for example Nielsen 1999; Vandkilde 1996, 2005; Gröhn 2004; Artursson et al. 2005; Björhem and Magnusson Staaf 2006; Sarauw 2006, 2007; Artursson 2009, 2010; Brink 2009b). The very large houses, built from c. 2000 cal BC onwards, have been interpreted as manifestations of individuals and families in a high social position within local and regional societies. Several researchers have argued that society was based on inheritance, that is, social position was given from birth in a fixed hierarchical society (Apel 2001; Nordquist 2001; Lekberg 2002; Kristiansen 2006; Artursson and Björk 2007; Artursson 2009). The general picture presented of south Scandinavia shows, as mentioned, a varied settlement pattern. Single farms are common, but on a regional level certain centres of settlement can be detected.

The starting point for discussion will be one such centre, a site in south-west Scania, Sweden, called Almhov (Fig. 14.5). The site, excavated in 2001–2002, contained the largest number of house remains from a single Late Neolithic site so far excavated in Scandinavia (Artursson 2009; Brink 2009b). The remains of close to 40 houses dating from the final part of the late Middle Neolithic to the Early Bronze Age have been investigated here. House 26 marks the beginning of the Late Neolithic continuity and expansion at the site (Figs. 14.5 and 14.6). Investigations have shown how the farms on the site gradually grew in number and size (based on house-size) before the decline towards the end of the Late Neolithic and the beginning of the Early Bronze Age. Individual houses were dated through a combination of ^{14}C dating and stratigraphy. Dates and spatial observations were used to establish the location of individual farms. At around 2000–1900 cal BC, Almhov possibly had as many as six contemporaneous farms, some with very large houses and a few of them with more than one house. Some of the farms existed for several hundred years, houses being replaced continuously (for example the farm starting with house 26, Fig. 14.5). From c. 1800 to 1700 cal BC a decline can be seen, since the number and size of farms decreases, until they finally disappear from the site c. 1700 to

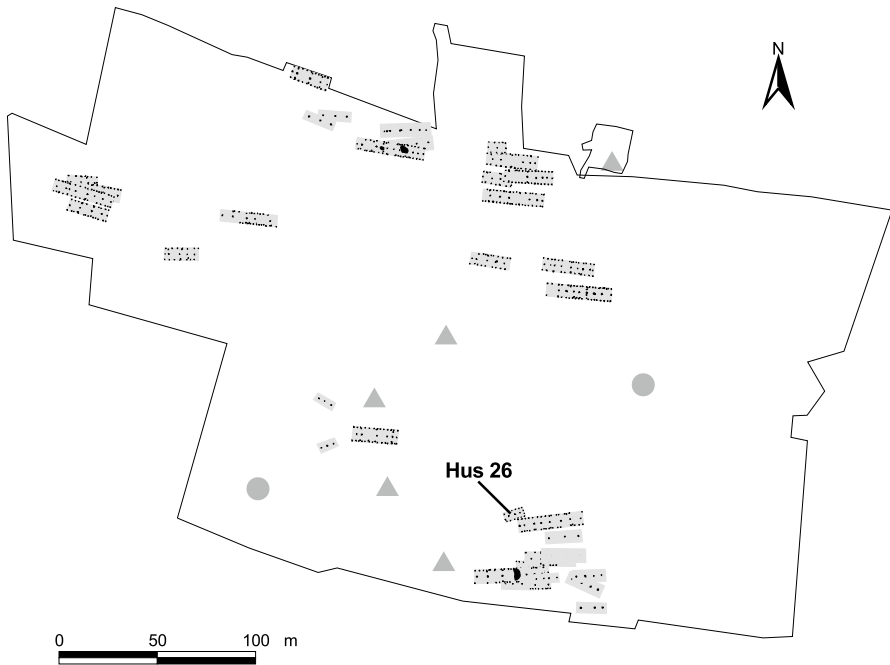


Fig. 14.5 Almhov, south-west Scania, Sweden. House 26 marks the beginning of Late Neolithic continuity and expansion at the site (house 26 is shown in detail in Fig. 14.6). Long mounds—*triangles* marking the eastern façades. Dolmens—*circles*. (From Brink 2009a, Fig. 79)

1600 cal BC. The close spatial relationship and long continuity of the farms at Almhov indicates that forms of co-operation existed for example in cattle-herding and possibly even cultivation (Björhem and Magnusson Staaf 2006). This would mean that the general pattern of individual farmsteads largely functioning independently should be nuanced. However, this is a question that needs further research. It is clear that the farms were built on a site that had already been important previously. During the Early Neolithic, four or possibly five long mounds and two dolmens were built. The Late Neolithic farmers used this place of past importance to manifest and enhance their local and regional power. The old monuments were perhaps also used for burials during the Late Neolithic. They were, however, only partly preserved beneath the topsoil, so there is no evidence of this.

The establishment and long continuity of place of individual farms, which can be detected from the end of the late Middle Neolithic onwards, also led to the firmer establishment of the main routes of communication. In south-west Scania, a major communication route that lasted through the Bronze Age and Iron Age is suggested as having been established already during the Late Neolithic (Rudebeck 2002b). A place like Almhov, with its long continuity, supports this interpretation on a general level, although no direct evidence of paths or roads has been detected archaeologi-

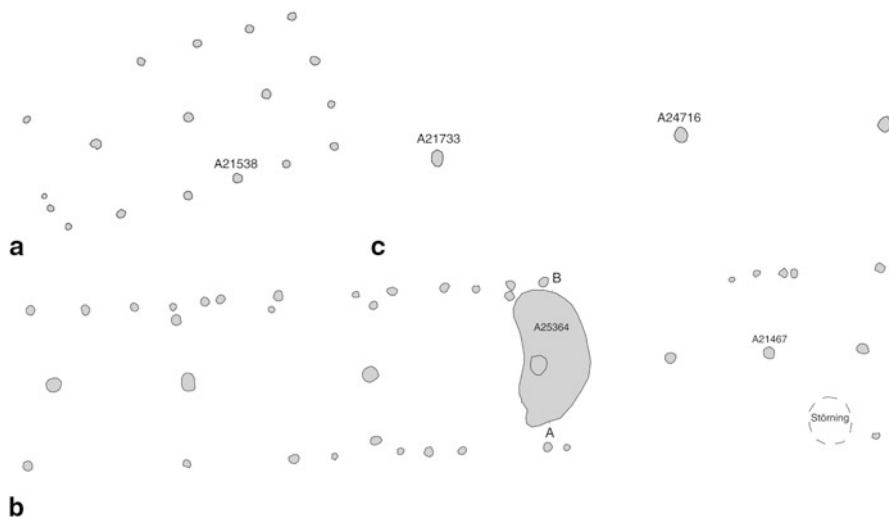


Fig. 14.6 Three of the houses from the southernmost part of Almhov (see Fig. 14.5). North is at the top of the image. **a** House 26 from c. 2200 BC, 12×5 m House 29 from c. 1900 BC, 35×7 m. **c** House 37 from c. 1900 BC is at least 15m long and belonged to the farm at the time when house 29 functioned as the main building. (From Gidlöf et al. 2006, Fig. 118, 121, 130)

cally. Almhov, with its imposing buildings and old monumental graves, formed a stable unit for hundreds of years. How to get there is something that would certainly have been known far beyond the local community, and its name and the names of those who lived there were probably widely known. A traveller approaching Almhov would probably have seen the large houses from quite a distance in the fairly open landscape. In this respect, the houses themselves functioned as monuments (Björhem and Magnusson Staaf 2006; Brink 2009b).

From a south Scandinavian perspective, the location of Almhov is favourable in relation to regional and supra-regional networks of exchange (see Apel 2001, Fig. 9.17; Björhem and Magnusson Staaf 2006, Fig. 68). Metal became truly important in south Scandinavian societies from c. 2000 cal BC (Nielsen 1999; Vandkilde 1996, 2005). It probably played an important part in the expansion at Almhov, although the basis of the economy was farming. Its favourable location in the southwest corner of Scania made it a natural node in contacts that came through the Danish isles and spread north. The farmers at Almhov were thus part of a world of geographically wide relations.

The Late Neolithic building tradition is rooted in the Middle Neolithic tradition (Artursson 2009), but new influences can also be seen in the form and details of construction (Björhem and Magnusson Staaf 2006). When people travelled, they brought not only portable goods, but also ideas, including new ideas and knowledge of how to build and use houses. These new ideas were incorporated into older local building traditions. Some houses, especially the larger ones, have parallels in

northern and central continental Europe, indicating contact between élite families (Nielsen 1999; Vandkilde 2005; Björhem and Magnusson Staaf 2006). These contacts meant that the Nordic area was integrated into ‘a common cultural and social model of society’ (Kristiansen 2006, p. 189), that among others was reflected in greater standardization in house architecture throughout south Scandinavian societies, not only within the élite (Björhem and Magnusson Staaf 2006). The Late Neolithic house is typically a two-aisled longhouse of varying size, with or without a sunken floor and with an east-west orientation (Fig. 14.6). Sunken floors are a characteristic rooted in the late Middle Neolithic. Smaller houses and huts also occur quite frequently. Regional and local variation exists on a more detailed level, but it is not possible to go into all these details here (see Björhem and Säfvestad 1989; Nielsen 1999; Sarauw 2006; Artursson 2005, 2009 for thorough surveys on house types).

The south Scandinavian two-aisled longhouse varied in size from smaller houses, roughly the size of houses from earlier Neolithic periods, up to houses with an area of well over 200m² and in a few cases even over 300m². The length varied from c. 9–10m up to c. 40m and in a few cases even close to 45m (Nielsen 1999; Artursson 2005, 2009). An example of a large house is house 29 (Fig. 14.6). It was built c. 1900 cal BC. The house was the largest of all the houses built at Almhov, measuring 35m in length and with an area of c. 250m². The house had a sunken floor in the central part. During this phase, the farm also included two smaller buildings, one of which is seen in Fig. 14.6. Of course, the building material depended on local resources and traditions, but the Late Neolithic longhouse is generally a sturdy construction necessitating a lot of timber. Roof supports were made from large timbers. The position of wall posts indicates that in some cases the walls were built in sections, interpreted as corresponding in length to horizontally placed planks, or to whole or split timbers (Nielsen 1999; Björhem and Magnusson Staaf 2006). Wattle-and-daub and turf have also been suggested as wall materials in some cases (Björhem and Säfvestad 1989; Sarauw 2006). These houses may have stood for as long as a century, perhaps more (Welinder 1998; Artursson 2009).

Longhouses are interpreted as the homes of multi-generational families of about seven or eight adults (Björhem and Säfvestad 1989; Gröhn 2004). The social unit living in the houses is however something that would need renewed research, not least because more houses are now known, showing great variation and complexity in size and internal spacing (cf. Gröhn 2004). The general interpretation of internal structure (with exceptions) is that the western part was the main living area. Traces of hearths and/or macrofossils in postholes often indicate cooking in the western part. The eastern part probably fulfilled a variety of functions, although direct evidence is sparse. Entrances are generally placed in the eastern half in the smaller houses, but there is greater variation in the placement of the entrance in larger houses. Open gable ends in some houses have been discussed as possible evidence of stabling (Nielsen 1999). Phosphate analysis has in a few cases shown high levels (Sarauw 2006; Brink 2009b). This can possibly, but not conclusively, indicate the presence of cattle byres.

The sunken floors (see Fig. 14.6, house 29) represent a characteristic feature, found in several houses. There are clear examples from Bejsebakken, north Jutland,

Denmark where 18 out of 23 houses had sunken floors (Sarauw 2006, 2007). Evidence suggests that this part of the house had many different functions (see Sarauw 2006 for a survey). For example, loom weights have been found in some sunken floors in Denmark, suggesting that weaving may have been one of the activities carried out in this part of the house. On a few farms close to Almhov, loomweights have been found in postholes (Brink 2009a). They have been interpreted as ritually deposited during the building phase, and possibly also representing weaving in the houses. Depositions of this kind are quite common in Late Neolithic houses. The objects deposited are primarily flint tools, but bronze tools and pottery occur as well (Artursson 2009).

Many of the larger farms also had smaller houses, often interpreted as being used for storage (Fig. 14.6). However, at Almhov the evidence suggests that people lived in some of them (Brink 2009b). Perhaps people lived there on a temporary basis when the main house had been destroyed, since there are indications of houses being burnt down; it is also possible they had been deemed unfit for living in some other sense. The smaller houses may have functioned as living quarters while a new main house was built. They may, of course, also reflect permanent residence, indicating that more complex social relations than previously thought existed on these larger farms.

The internal spacing that can be seen in very large houses suggests that they had multiple rooms for different purposes. This is often seen as indicating greater social complexity, compared to the simpler and smaller houses of earlier periods of the Neolithic (see for example Gröhn 2004). It has been suggested, for example, that socially and ritually important feasts were held in the large houses (Artursson 2009). From an archaeological perspective this makes the interpretation of large Late Neolithic houses comparable to interpretations of the social and ideological role of large Bronze Age and Iron Age houses (Artursson 2009).

Around 1500 cal BC the three-aisled house replaced the two-aisled house as the dominant form of building in southern Scandinavia. Not far from Almhov, at Elinelund 2A, the end of the Neolithic two-aisled house and the beginning of the Bronze Age three-aisled house can be followed in close-up (Björhem and Magnusson Staaf 2006; Brink 2009b). When the family living there decided to build a new house they did so in a new architectural style, thus leaving behind the old ways of building houses.

Conclusions

The number of identified Neolithic houses has been increasing since the 1980s, when excavations within developer-funded projects made possible the stripping of topsoil in large areas. However, the houses are not evenly distributed throughout the Neolithic. The houses from the middle part of the Middle Neolithic are exceptionally difficult to identify.

The transition from the Mesolithic to the Neolithic is obvious in many aspects. However, there seems to be a traditional link concerning the shape of houses. The

earliest type of Neolithic house, with rounded gables and an inner row of roof-supporting posts, remains more or less unchanged throughout the Early Neolithic. This indicates a stable form of building construction, independent of the architectural innovations related to mortuary practices, namely earthen long barrows and dolmens. Somewhat different houses appear at the end of the Early Neolithic and the early part of the Middle Neolithic. The somewhat greater size might correspond to larger family groups or a couple of families living at the same farm. Smaller houses or huts may be linked to farmsteads. However, no obvious clustering of farms into something like a small village is discernable.

During the course of the 3rd millennium BC encounters with people bearing Corded Ware traditions from the continent brought new ideas and new ways of doing things to local societies in southern Scandinavia. This is most clearly seen in the new way of burying people in single graves. This change did not have an immediate effect on the house itself—small two-aisled houses were still built in a way known for centuries. What can be seen in the later part of the late Middle Neolithic is a new relationship to the landscape. A more stable settlement structure seems to have been established, and a landscape divided between single farms emerges in certain intensively occupied areas. At some sites a more stable continuity of place can be detected. More than one generation of houses was built. The house and the farm seem to have grown in importance during this time, becoming the primary arena where people shaped and expressed social position. This increased social emphasis on the house and the farm can be more clearly seen in the Late Neolithic. In this period social ambition and ability was clearly manifested in the houses. On some farms very large houses were built, and often these farms also had separate smaller buildings used for storage. Overall, the settlement structure was more varied, with single farms, village-like clusters of farms and hamlets or villages. Together with the differences in house sizes between farms, this is interpreted by some scholars as evidence of increased social complexity in the Late Neolithic societies of southern Scandinavia.

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Chapter 15

From Diffusion to Structural Transformation: the Changing Roles of the Neolithic House in the Middle East, Turkey and Europe

Ian Hodder

The chapters in this volume make a good case for the centrality of the domestic house in the Neolithic of Europe, not only in the sense that it sheltered and protected but also that it contributed substantially to the production of society. In small-scale societies such as these, the house was often the main mechanism by which economies were organized, social units created and ideologies substantiated. Notions of place and time were tied up in the house and its fabric. The materiality of the house brought people together in construction and in maintenance, in foundation and abandonment. The house often seems to have had an anthropomorphic presence, cared for and modelled. For example, Souvatzi emphasizes that in Neolithic Greece the house was the fundamental organizing structure of society and much of the surviving material culture is found in houses and especially around the hearth. In Macedonia, Naumov argues that the house was a focal point and that house models indicate that the birth-life-death of houses had anthropomorphic associations. For Chapman, the house is seen as structuring the whole of community life in Cucuteni–Tripolye sites.

My aim here is to make three points in relation to this discussion about the central role of the Neolithic house.

Material Entanglements of Houses

The chapters in this volume adopt the now common research focus of identifying the house as part of the social order, and interpreting it in terms of social and economic relations. Thus the authors discuss the house in terms of the social units that lived in them, and the ways in which production and consumption took place inside structures. They draw out how establishing houses also involved establishing the stable communities of the first agriculturalists. The authors are surely right to

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discuss houses in such terms, but there is less emphasis on the material character of the house and how the material entanglements with houses drew humans into particular forms of relationships with each other and with the world (Hodder 2012). The construction and maintenance of houses drew people into specific forms of relationships, and the gradual decay, slumping and transformation of houses impinged on human lifeways.

There are, however, intriguing intimations of the material weight of houses. Chapman mentions experimental work showing the material implications of timber-framed Cucuteni–Tripolye house buildings. This work suggests that a total of 500 person-hours was needed to mobilize 15t of clay, 4,380l of water and 1t of straw, gathered from a cultivated area of 1 ha, as well as large quantities of reeds for roofing. The result was a 7×4 m house with a wall height of 1.8m and a wall thickness of 30–35cm. For the LBK in the Paris Basin, Bickle notes estimates of 2200 man hours to build a longhouse, or 10 able-bodied individuals working 10 hours a day for 22 days. Presumably such joint endeavours tied social groups together over periods of time and the scale of the investment indicates that foundation and abandonment of houses would have had a strong social focus.

Such investments would also have entangled humans in maintenance and repair and it would be fascinating to explore such variation between house forms. Do some types of houses require or allow more or less maintenance than others? Bickle notes that there is little evidence of change to LBK houses in the Paris Basin through their use lives. Is this because the use life was short or because large timber buildings are difficult to change? On the other hand, the later Horgen houses in the Alpine foreland, described by Hofmann, were slight and needed a lot of rebuilding and repairing. The first repairs became necessary within two years, and more substantial rebuilds after about six years. These were short-term houses with 12-year use-lives. All this suggests that very different types of society were needed for or possible within these two types of building. Humans were differently entangled within large LBK and small Horgen houses and I will note some of the differences below, but it would be helpful to have further studies of the different entanglements between humans and houses, and further detailed experimental work regarding construction, maintenance and abandonment.

The Occupants of and Activities within Houses

Over recent years archaeologists have increasingly come to problematise the relationship between the material form of a domestic building and the people who occupied and used it for a variety of different activities. We now understand that there are ‘house societies’ (Borić 2008; Gonzalez-Ruibal 2006) in which social units may be closely attached to material houses, but it is also possible for the term ‘house’ to refer to larger entities (as in the ‘house’ of a lineage or extended family). We have also observed that material houses may not relate to households, that they may be used by circulating individuals and social units, and that productive activities

may take place in and around multiple houses (Souvatzi 2008). There can be no simple relationship between material houses and units of kinship, production and consumption. These relationships have to be demonstrated in particular cases rather than assumed.

Many of the authors make the assumption that Neolithic houses were on the whole inhabited by family units based on kinship. For LBK house buildings, Pyzel suggests a nuclear family of about six persons. In the Danubian LBK, Hofmann argues that the longhouse perpetuated kinship units. In the Irish Neolithic, Smyth envisages a family or kin group living in each house. Goring-Morris and Belfer-Cohen suggest that in the PPNB in the southern Levant residential units were based around the extended family but they also note that definitions of nuclear and extended families are difficult and culturally variable. Souvatzi, too, does note the complexity and fluidity of who may live in a house.

Our evidence from Çatalhöyük is salutary in this regard. Here in the late 8th and 7th millennia BC humans were buried beneath the floors of houses, so we have an opportunity to explore the relationships between people and dwellings. Unfortunately aDNA does not survive well at the site, but biodistance studies based on dental morphology of the human remains (Pilloud and Larsen 2011) show that biological affinity played only a minor role in interment location. The individuals buried together beneath the floor of a house had no greater biological affinity than those buried in the settlement as a whole. To some degree, then, those that were buried in houses were ‘practical’ rather than official biological kin—that is they were people brought together on the basis of a wide range of factors including the need to cooperate and share in joint labour. The larger ‘house’ made up of all the people buried in a particular building may have included adoptive, foster or fictive kin. It is also possible that those buried in a building did not live within the ‘house’ of that building: it is possible that burial location was part of the negotiation of social and economic relations between households after the death of one of their members. On the other hand, the evidence about some degree of distinct diets associated with those buried in buildings in Çatalhöyük at least suggests that the group that ate together also was buried together. Often this co-eating, co-burying group was larger than an individual building. The important result from the work by Pilloud and Larsen is that links between those buried in buildings at Çatalhöyük were not simply biological; rather, buildings were connected to each other by complex social ties. These results also suggest that we cannot assume that ‘kin’ or ‘nuclear families’ lived in Neolithic houses. Indeed in ‘house societies’ relationships between people are established in the construction, maintenance and handing down of the house and its contents. Membership of the house is based on rights and practices rather than on kin. It may well be the case that Neolithic houses played much more complex roles than feeding and protecting biologically defined kin.

Chapman does consider the various types of occupants in Tripolye–Cucuteni houses. He suggests there may have been four categories of people: living residents, guests, ritual occupants and the ancestral dead. In terms of tasks carried out by the residents, Chapman suggests storage, preparation, cooking and consumption with much clustering of activities around the hearth or oven. He indicates household

production of pottery and flint and antler tools. However, as with the question of the connection between kinship and houses, there is much work that remains to be done on the relationships between Neolithic houses and units of production and consumption. What actually went on in these buildings? Naumov helpfully describes evidence of production in houses in Neolithic Macedonia—especially the grinding of cereals and the making of bread. For the Irish and British Neolithic, both Smyth and Sheridan note that there is clear evidence for the preparation and consumption of food in the longhouses. In other types of houses, definition of activities actually carried out is difficult. The lack of occupation deposits in LBK longhouses means that the internal use areas remain unclear, but houses seem divided into several sections suggesting multi-functional ‘farm’-type arrangements.

The Changing Roles of the House

The third and main argument that I wish to make stems from looking at the development of the house in Neolithic Europe from the vantage point of central Turkey. It might be thought that the inclusion of papers in this volume dealing with the Middle East and Turkey provides a starting point. This is where house development in Europe took off from. But I want to make a different case, that in fact the sequence in Europe is itself part of a larger and longer-term transformation that includes the Middle East and Turkey. To some degree there is a larger process that can be followed in both Europe and the Middle East.

In order to make this point I need to outline the sequence of house development in Turkey and the Middle East. In very general terms I argue that the house in the Earlier Neolithic in the Middle East was the locus of a limited range of activities and that it had an important role in developing historical and ritual ties between community members. The house created historical depth that was both central to the delayed return economic system of agriculture and allowed larger communities to be built, held together through ritual and social ties as much as by economic co-operation and collective distribution (Watkins 2004, 2006). Through time this collective emphasis began to change and house buildings became more independent, more self-sufficient, shorter term and more focused on consumption and the control of production. With the domestication of cattle and the more intensive use of cereals and sheep and goat, house buildings could join larger social groups or be relatively independent and mobile. There was greater potential for social differentiation.

More detail can be provided of this overall process. In the southern Levant we can see the size of settlements gradually increase over time (Kuijt 2008). The largest late Natufian settlements are about 0.2ha each. The largest PPNA settlements in the tenth millennium BC average over 1ha. The largest middle PPNB sites after 8500 cal BC are 4.5–5.0ha. It is not until the late PPNB that settlements such as Basta and ‘Ain Ghazal reach 10–14ha, more in line with Çatalhöyük East in the late eighth and seventh millennia BC. Also of note is that through these time periods the density of occupation in sites increases. Only small portions of the megasites

such as Basta and 'Ain Ghazal have been excavated, but so far there is no evidence of social segmentation or hierarchical divisions of power and authority. Mortuary practices and residential architecture show little sign of social differentiation (Verhoeven 2006).

It has often been argued that through time in the southern Levant, there is a shift from nuclear family households to extended households that own independent property (Flannery 2002; Goring-Morris and Belfer-Cohen 2008; Kuijt 2008; Kuijt et al. 2011). Through time, houses shift from round to rectangular (PPNA to PPNB) become larger, internally divided and double-storey (by the late PPNB). They have more evidence of in-house storage (see the section below). It is also possible that as the processing of plant and animal products (bone, meat and milk) became more intensive, these tasks were most effectively achieved in a domestic space that was also more controlled and private. Perhaps the most significant process was a change from neighbourhood clusters and collective labour to more autonomous house units (Düring and Marciniak 2006; Marciniak 2008; Byrd 1994). These changes can be seen most clearly in connection with storage. There is very limited evidence of storage in Natufian settlements, but at the PPNA site of Dhra' near the Dead Sea in Jordan there is evidence for large-scale storage structures (Kuijt and Finlayson 2009). These granaries were placed in extramural locations and are presumed to have been collective. Over time in the Levant, from 9500 cal BC onwards in the PPNA, there are large silos like Dhra' but also small bins. Kenyon (1981) also identified possible collective storage structures at PPNA Jericho near the tower. By 8500 cal BC storage bins occur in houses in the mid PPNB, and by 7500 cal BC there are dedicated storage rooms in houses in late PPNB Neolithic villages (Kuijt et al. 2011). As Goring-Morris and Belfer-Cohen show in this volume, in the Pottery Neolithic A (starting c. 6400 cal BC) there is overall a general trend towards smaller, more dispersed settlements in both the south and north Levant, but on the other hand there are a few very big sites like Sha'ar Hagolan at over 50 acres. Whether Yarmukian Sha'ar Hagolan really displays town-like features, with social hierarchy based on differential household sizes remains debated.

An important component of the house throughout the Neolithic of the Middle East is the production of historical sequence. As houses became established as foci of many aspects of social life, so they became key to the maintenance of social relationships that were tied into histories. In the Natufian we see some degree of sedentism. In short-term sites such as Hatula and Beidha, there is little evidence of repetitive practices (Byrd 1989; Ronen and Lechevallier 1991). Even in substantial Natufian sites, we find little evidence of structured repetition. Valla (1991) points out that it is often difficult to follow coherent levels of habitation in Natufian sites, and it is difficult to show the absolute contemporaneity of buildings (see also Kenyon 1981; Moore et al. 2000). However, in the early Natufian site of Wadi Hammeh 27 in the central Jordan valley there is 'a continuity in spatial arrangement of constructed features through successive phases' (Edwards 1991, p. 125). The earliest evidence of Natufian occupation at Hayonim Cave is Grave XIII, 'which was covered by the floor of Locus 3'—that is, by one of the structures with undressed stone walls (Bar-Yosef 1991, p. 86). At 'Ain Mallaha we definitely find superpositioning

of houses. In the so-called ‘ancient level’, houses 131, 51 and 62–73 succeeded each other on the same spot (Perrot 1966). According to the re-analysis by Boyd (1995) the 131-51-62-73 sequence of buildings started with 12 skeletons beneath the floor of 131. He draws attention to the continuity of activity in the same place, beginning with a set of burials. In the ‘recent level’ at the site we find another sequence of houses dug into each other (houses 26, 45 and 22). In the final Natufian at Mallaha, each major building had a succession of floors, one on top of another, with no sterile layers between (i.e., no abandonment fill; Samuelian et al. 2003).

PPNA and related sites were often much more structured than most Natufian sites. Qermez Dere in northern Iraq has good evidence of rebuilding in the same place (Watkins 2004, 2006). In Phase II at Mureybet on the Middle Euphrates, investigators found three habitation levels of round houses that were superimposed on the epi-Natufian house xxxvii, taken as evidence for direct continuity with the Epi-Natufian (Cauvin 1979, p. 26). ‘Three habitation levels of round houses are directly superimposed on house xxxvii, which dates to phase IB. Clearly, we are seeing the re-use of the same settlement space, a direct continuity of the epi-Natufian’ (Cauvin 1979, p. 26; translation by editors). In one part of the site they found five levels of occupation in this phase. At Jericho, ‘some of the PPNA houses lasted through several phases, but usually with rebuildings almost from the base of the walls. Associated with most of the phases was usually a long succession of surfaces, particularly in the courtyard areas linking the various buildings’ (Kenyon 1981, p. 269). At Jerf el Ahmar in northern Syria, in Village 1/east, Stordeur found a sunken building with wooden posts to hold up the roof. At the bottom of one of these posts ‘two human skulls were found’ (Stordeur 2000, p. 1). These findings begin to suggest the specific use of skulls to build histories in houses, although using skulls in this way may have been simply protective or magical. Nevertheless, links to the past and past individuals may have been of increasing salience.

Turning to the PPNB in the Levant, Jericho again has much evidence of repetitive use of buildings and at Beidha, ‘the inhabitants were extremely conservative in their siting of the different elements of the village’ (Kirkbride 1966, p. 14). At Abu Hureyra 2 ‘each house was usually constructed on the remains of an earlier one, and the form of that building largely determined the plan of its successor’ (Moore et al. 2000, p. 262). Overall, Moore et al. (2000, p. 265) conclude ‘that the builders of a new house often remembered not only the plan but also the internal arrangements of its predecessor, and considered it appropriate to replicate both’. On the basis of distinctive skeletal and dental traits that are probably genetically transmitted and which were identified in house burials, it is also clear ‘that in some instances they themselves were the descendants of the inhabitants of the earlier structures’ (Moore et al. 2000, p. 266).

Much evidence in the PPNB and related groups in the Middle East and Turkey indicates repetitive practices in houses and history making, often using burial or ritual elements. Goring-Morris (2000, p. 119) argues that at Kfar HaHoresh many PPNB burials stratigraphically pre-dated the construction of the overlying architectural features and floors. For example, ‘in at least three instances at Kfar HaHoresh burial pits clearly stratigraphically underlie and are sealed by plaster surfaces’

(Goring-Morris 2000, p. 119). In some cases, we see a time lapse between burial and/or skull removal and the making of the floor. Thus buildings ‘remembered’ the location of the burials or skulls. There is also PPNB evidence of circulation and handing down of artefacts through time. Practices of stone recirculation and reuse were identified at Çayönü. Standing stones up to 2m high were found in the plaza and in the Skull and Flagstone ceremonial buildings. ‘Some of the standing stones were intentionally broken and then buried under the subsequent reflooring of the plaza’ (Özdoğan and Özdoğan 1990, p. 74). In the PPNB levels at Jericho, Kenyon (1981, p. 306–307) found a large, carefully flaked bituminous block that had been obtained from the Nebi Musa district some 17 miles away. It was located in the foundation of wall E223 of phase lxv, but fit exactly into a niche of the earlier phase lxiv, where it had probably stood on a stone set on an earth pillar with plaster traces. This stone hence had a role in phase lxiv and was then reused in the foundation of phase lv. In phase lxiii this same room had a distinctive green clay floor, all suggesting that this part of the building had a special character over three phases.

Overall, then, the pre-Neolithic and Neolithic societies of the Middle East and Turkey were increasingly concerned with temporal depth. Evidence suggests repetitive practices in houses, and sometimes in outside areas (such as courtyards or midden areas at Jericho), as well as in public spaces such as paved streets. Evidence of specific history making using ritual is also found where houses are built over burials, or as skulls and other objects are circulated and passed down through time. There is often evidence of elaborate foundation and abandonment rituals. The concern with time depth and history reaches its apogee in the PPNB, at the same time that domesticated plants appear in quantity, but it starts to emerge at least by Kebaran and Natufian times, even in contexts in which sedentism is limited. It is difficult to explain the focus on temporal depth as the result of living in dense villages. Rather, the emergence of greater temporal depth was a necessary condition for dense settled life, the delayed returns of intensive subsistence systems and the shift to domesticated plants and animals, as well as for the staging of large-scale feasts, exchanges and marriages.

In central Anatolia, by the second half of the ninth millennium there are both small settlements, as at Boncuklu and Pınarbaşı (Baird 2007b), and the large highly agglomerated village at Aşıklı Höyük (8400–7400 cal BC; Esin and Harmankaya 1999; Özbaşaran 2011). At the latter site there is very little evidence of storage facilities in domestic houses. As a result of large open-area excavation, a clear social geography has been identified, with public ritual buildings (frequently renewed) separated from other dwellings by a monumental street. The dwellings are organized into sectors by narrow spaces or streets, and there are collective middens. The area with public ritual buildings and perhaps storage is distinctive in having larger number of pressure-retouched projectiles and higher percentages of cattle bones. There is evidence of butchering and sharing of meat. Overall, this is interpreted in terms of the collective and communal, rather than in terms of centralized elites. However, there is also a very strong focus on history making in that there is much exact reuse of buildings and streets, and of domestic and ritual areas. In some house

sequences, the hearths repeatedly occur in exactly the same place through many rebuilds and across many centuries.

On the Konya Plain itself, in the period 8500–7500 cal BC, Boncuklu has painting, bucrania and sub-floor burials all very reminiscent of the later Çatalhöyük, presaging its ritual complexity, but in a small wetland site with dispersed oval houses (Baird 2007a). There is an overall increase in house size in the area, as seen in the Levant, but the changing density of settlements suggests a rather more complex picture. Regional survey by Baird (2002, 2005) shows increasing population densities, but also concentration through time into the one large site of Çatalhöyük, followed by dispersal into multiple tells in the Chalcolithic.

At Çatalhöyük East (7400–6000 cal BC), there is much more going on in the earliest houses than was the case in Boncuklu or Aşıklı Höyük. Houses are used for storage, a wide range of daily productive activities, ritual and burial. There is also a strong emphasis on history making, with houses rebuilt in the same location and often with repeated symbols such as pairs of leopard reliefs. At times the inhabitants dug down to retrieve the remains of humans or sculptures, and these items were circulated or reused in houses. Some buildings in the early and middle levels at Çatalhöyük were rebuilt more frequently, were more elaborate in terms of architecture and contained more burials—indeed they seem to have been used as burial places for a larger social grouping or unit than could have lived in one house building. These houses, which do not seem to have had controlled production or storage, have been termed ‘history houses’. ‘Normal’ houses in the earlier levels seem to have lasted 80–120 years—considerably more than one human lifetime. However, history houses often went through sequences of four to six rebuilds covering 500 years at least. In the upper levels, from about 6500 cal BC, houses are replaced more often (Düring 2006) and this shift is associated with a number of other changes. The houses in the upper levels are bigger, more multi-functional and ‘farm’-like. There is little evidence of social differentiation, but there are some slight indications of incipient specialization of production. Houses are less likely to be built directly over earlier buildings. There is evidence for greater mobility seen in cross-sectional geometry of human bones, in the presence on the site of resources obtained from wider areas and in isotope measurements on sheep that show a greater diversity of landscapes exploited for grazing. Population seems to increase through the early levels and reaches a high point around 6500 cal BC, after which there is dispersal, both on the site itself and in the region. This process of population increase and dispersal in the upper levels at Çatalhöyük may have helped to fuel the spread of the Neolithic from Turkey into the Aegean and south-east Europe. The changes in the upper levels at Çatalhöyük and throughout the region in the seventh millennium BC seem related to the domestication of cattle, and perhaps the more intensive exploitation of sheep and goat and the intensification of cereal production.

Returning to the chapters in this volume, I argue that in general terms we can see a similar process taking place throughout Europe at its own temporal pace. Everywhere a focus on increasingly large houses that establish historical and ritual ties and that have already become centres of production in their own right is gradually replaced by smaller, less permanent and more self-sufficient houses, sometimes

with initial indications of social hierarchy. The emphasis on history making seems to continue although often in new forms that emerge outside the house, such as cemeteries and tombs or stable and long-term field systems.

The houses of the Early Neolithic of Greece (68/6500–5800 cal BC) described by Souvatzi recall the contemporary houses in the upper levels of Çatalhöyük. Souvatzi notes the extraordinary degree of diversity in the Greek Neolithic house and shows that there is not a lot of stability within individual houses. There is change through time in size and location of houses in relation to earlier ones. In Macedonia, discussed by Naumov, burial occurs in and between houses and houses are deliberately burnt at the end of their use lives. In Tripolye–Cucuteni sites, Chapman shows that timber framed houses existed in short- or longer-term settlements from 5000 cal BC. There are huge sites 50 acres in size with 2000 structures that reach up to 30–40m² each. Variation in house size does not relate to variation in status. Houses are often decorated on their outsides, including with bucrania/bull horn motifs. The house was still an important ritual focus and there is much evidence of the placing and burying of figurines. Burial in houses is relatively uncommon. Houses were filled with pottery and food before being burnt as part of elaborate abandonment procedures. There is repetition through time in that earlier houses are copied, but structures are not rebuilt in the same location. Chapman sees the Cucuteni–Tripolye house as fairly independent but able to be combined into groups from 20 to 2000. Overall, the evidence from Greece, the Balkans and eastern Europe indicates relatively self-sufficient and independent houses parallel to the system found in the upper levels at Çatalhöyük, but locally retaining some features of the earlier focus on ritual elaboration.

In the LBK, from the mid 6th millennium BC, houses seem relatively independent units that can be combined into larger multi-phase settlements of varying size. Bickle argues that in the Paris Basin the house buildings have a multi-functional ‘farm’-type arrangement, as was the case for the later part of the sequence in the Middle East and Turkey. However, the houses seem shorter-lived, standing perhaps on the scale of individual human lives (Bickle proposes 20–30 years for the Paris Basin), and historical ties are represented by the decay of earlier houses. Settlements are divided into different and independent ‘yards’, in which houses are replaced through time. Histories are perhaps created by fields, as Bogaard’s (2004) analysis of the weed remains from LBK contexts suggests that they were cultivated for far longer than the duration of the house. It seems that it was fields, and not houses, that were passed on between the generations.

An overall change through time of the type noted in Çatalhöyük and in the Middle East is indicated by Pyzel’s comparison of the LBK and Brześć Kujawski cultures in the Polish lowlands. She suggests that the LBK had more of a focus on building new houses while older ones still stood; whereas the BKC in the second half of the fifth millennium BC displayed a greater variety of abandonment practices, including houses being built independent of earlier ones. The length of BKC occupation remains unclear. Pyzel argues that the BKC houses cannot be called history houses in that there is little focus on continuity and no correlation between the extent of house continuity and numbers of burials.

After the LBK on the north European plain, discussed by Amkreutz, houses seem more diverse, small and mobile, although there is much variation. The evidence that houses and hearths often being built and rebuilt in the same location in the neighbouring wetlands—for example in the Vlaarding culture—shows that the focus on history making is a function of intensive rather than just agricultural economies. Houses are sometimes filled in on abandonment. The period of house occupation seems short, but Amkreutz argues that a sense of continuity, memory and habitus is conjured up here in the context of a very changing and uncertain wetland environment.

In the north-western European Middle Neolithic, Last suggests that households became more fluid and less important within broader social structures, resulting in a reduced investment in house-building, and also a greater variety of architectural forms. For the Alpine foreland in the late fifth and fourth millennia BC, Hofmann argues that a new post-LBK model based on less permanence and more diversity of diet was adopted and that this allowed the occupation of lakeside villages. For example, in Horgen house buildings with their 12–15 year use-lives, the floors were frequently remade and resurfaced and ovens rebuilt. There were often fires and floods—so the whole impression is of change and a lack of stability. On the other hand, houses often occupied the same spot and fields seem to have been relatively permanent. There are also communal aspects like pathways and fences that needed maintaining by the community at large.

Although Alpine foreland settlements are normally organized into rows of buildings, each house was relatively independent with its own external links. However, in some sites there appear to be small groups of houses with their own distinctive preferences of animal consumption, and there are differences in forms of fishing and plant use. Hofmann, following Beugnier (1999), argues that there was intra-village ‘techno-economic complementarity’, with some households specialised in the production of specific items that were then exchanged. The village settlement was thus interlaced by a series of mutual dependencies and interrelations. Individual houses have crystals or flint from different areas, and adjacent houses can make different styles of pottery, even if using the same temper. All this indicates a highly complex web of interactions and we have found much the same in both the lower and upper levels at Çatalhöyük, although the web is perhaps most tightly woven in the lower levels. At Çatalhöyük, the nature of the web seems to change through time, with the early levels dominated by symbolic, social and ritual ties and the upper levels increasingly engaged in ‘techno-economic complementarity’ as specialization of production emerged.

For the Irish Neolithic, Smyth discusses a ‘house horizon’ of rectangular buildings concentrated in the 38th century BC, followed by a phase of less formal and well-built houses. For Neolithic Britain, Sheridan explains this shift in terms of farming groups living together in longhouses until they felt sufficiently well established to ‘bud off’ into independent, smaller household groups. Again the longhouses might not have been inhabited for very long—perhaps one or two generations—before being deliberately burnt down. In the Early Neolithic of southern Scandinavia, Larsson and Brink suggest that in most cases a settlement consisted of

a single house. However, at some sites there are indications that two to four houses were occupied at the same time.

Overall, then, there is evidence that from the Middle East to north-west Europe the roles of houses changed gradually along similar pathways. I do not argue that the processes happened at the same time throughout this vast region. Indeed, they undoubtedly took place progressively later as we move to the west and north. Neither do I argue that the similar processes were produced by contacts between or movements of people. The diffusion of goods and ideas may have played some role, but my argument is rather different: that throughout the whole region there was a process by which early agricultural or intensive hunter-gatherer-fisher societies invested in the material house in order to establish social dependencies and temporal depth. However, through time the individual house unit became more independent and mobile, in the Near East and Turkey especially after the domestication of cattle and the more intensive exploitation of sheep, goat and cereals. In different ways and in different areas, these more self-sufficient units were able to disperse or to join in settlements of greatly varying size but the overall tendency was for the house itself to play an increasingly reduced role in building society and history. The greater mobility or shorter duration of houses and house units often meant that society and history were better established through other means such as tombs, cemeteries and field systems.

Conclusions

This has been an interesting set of papers to comment on and discuss. The comparison of the Middle East, Turkey and various parts of Europe proved fruitful in that broad trends can be observed. Clearly one cannot argue that the shift in the Pottery Neolithic in the Levant towards smaller, more dispersed settlements directly influenced the much later shift to the less permanent houses of the Middle Neolithic in Europe. That is not the argument made here. Rather, a larger structural transformation occurred throughout the region, occurring at different paces in different areas. In very general terms, the transformation might be described as having three phases. In the Earlier Neolithic, especially in the Middle East, houses provide temporal depth and social ties as people settle into early agricultural systems. There is a strong ritual focus to houses, often associated with burial. In a second phase, the house increases in size and becomes increasingly independent. We see this structural phase throughout the whole region from the Middle East into central and north-west Europe. In a third phase, houses become more strongly independent but also smaller, able to be combined either into mobile dispersed systems or into major sites of varying size. Houses increasingly achieve a 'techno-economic complementarity' as specialization of production and sometimes a degree of hierarchy emerged.

Answering the question of why this happened must await further work on the first two points that I made above. It will be difficult to explain why the three-part transformation occurred without knowing more about what took place in houses,

what production and consumption occurred and who the occupants were. At Çatalhöyük, we see that the change from the first to the second phase was very much tied up with economic changes as the inhabitants adopted domestic cattle and invested heavily in sheep herding across a greater diversity of environments. We see changes in the ways that herds were managed and changes in specialization of production. Therefore, the transformation of houses is tied to a range of other re-alignments, and future work can explore whether similar changes occur in other sites and regions. I would argue that these processes of transformation were intimately tied not to human social strategies of domination, domestication and differentiation, but that humans were increasingly drawn into an entangled web of human-material dependencies in which houses played their part. I have made such a case for the role of material houses in entanglements at Çatalhöyük (Hodder 2012). Until the Neolithic house is seen not as representing the social but as entangled in its production, we will be unable to understand its role throughout the region.

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Chapter 16

House, Household, Home

Lesley McFadyen

It is a privilege to read, and to be given the opportunity to discuss, the research in this book. These authors know their material, and the chapters offer a critical engagement with the evidence. In these pages, there is a lot more to know about the Neolithic of Europe, and there are new ideas to think with.

What is a House?

In terms of discussion, I want first of all to turn to the topic of the house. After all, the research in this book centres on the issue of the house in the Neolithic of Europe. The term appears in the title of the book, and in the chapters with material from the Levant (Goring-Morris and Belfer-Cohen), Greece (Souvatzi), Macedonia (Naumov), the Ukraine (Chapman), Carpathian Basin (Bánffy), Paris Basin (Bickle), Lowland Poland (Pyzel), Britain (Last), Ireland (Smyth) and Scandinavia (Larsson). And I want to ask the question: what is a house? In the *Oxford English Dictionary*, a house is ‘a building for people to live in’. And in this book too, it would seem that, first and foremost, a house is identified and defined as an object, and described in physical terms by posts or walls (and sometimes floors and roofs)—structural detail. This holds true to such an extent that often in the chapters there are replacement words for ‘house’ such as ‘structure’ or ‘building’ or ‘architecture’. It is as if these words are inter-changeable. Furthermore, do ‘plan’ and ‘layout’, especially in image form, stand in for the ‘house as object’ too? It is important to think about the implications of this, because an understanding of house as object presumes that what matters most in the study of architecture is the visual effect of the three-dimensional form (for a discussion of this in the discipline of architectural history, see Ballantyne 2002).

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Yet there are other terms present in the chapters of this book. For example, for the Ukraine Chapman speaks of the ‘home’ as well as making reference to the ‘house’, and Amkreutz too is a ‘home’-user with evidence from the Lower Rhine. What difference does this make? Essentially, this shift in terms puts the emphasis of study on life rather than object: it centres on people. This means that the ‘house’ extends beyond its walls, and is given and perhaps even gives dimension in other ways. This distinction is articulated in the outline of the journal *Home Cultures* as ‘... the critical understanding of the domestic sphere, its artefacts, spaces and relations, across timeframes and cultures’ (Buchli et al. 2004; Buchli 2010). The point I am underlining here is that ‘home’ encompasses more than ‘house as object’. In our book, Naumov with his material from Macedonia and Goring-Morris and Belfer-Cohen on the Levant take things a step further by referring to ‘households’; and Sheridan refers to habitation structures with her focus on evidence from Britain and Ireland—these are clever moves that bring life and built fabric together.

Interestingly, although the above reveals different forms of emphasis in the book (e.g. house, household, home), none of the authors determinedly follow an object-led or subject-led study through to any point of isolating conclusion. In fact, a dominant theme of approach is how past worlds are constructed and known through inhabitation. Therefore, despite preliminary fixations with the ‘house as object’, there is often a shared understanding amongst the authors that in the Neolithic the practice of living was involved in the production of architectural space, and in people’s perception of the built environment. The point may not always be made explicitly, and whether it needs to be or not is another matter, but a line that runs through many of the chapters is the time and space of architecture as practice.¹

So how did the chapters get there? And how does the practice of inhabitation create an understanding of architecture as practice in this book, when so often within its pages a ‘house’ is conventionally defined as an object? I think this is precisely because the evidence is archaeological and not simply architectural. Archaeology is a partial engagement with the material and historical conditions of people’s lives: the evidence is always fragmentary, especially in prehistory (after Barrett 1994, 2006; McFadyen 2010). It is therefore reductive to restrict study to an architectural object in archaeology because we never have complete objects to study in detail. In this book, we do not have visible three-dimensional forms—there is no superstructure (e.g. there are no elevation drawings). Instead, structural detail consists primarily of a series of groundplans representing lines of postholes, wall trenches, stone foundations; just occasionally platform floors or floor surfaces, and rarely collapsed upper floors.

It is, of course, possible to restrict study to an architectural object in archaeology, and traditionally this is exactly how we have presented our research, especially in the compilation of house plans. Last refers to this legacy as the LBK canon, and, as Bickle argues, this traditional line does not so much create knowledge but allow archaeologists to make a series of statements on the overall homogeneity of ground

¹ In arguing this point, I am not simply replacing the word ‘house’ with ‘architecture’—I am considering ‘architecture’ as a more open term, and one that is not necessarily wrapped up in the ideas of object.

plans (e.g. of LBK structures in France), or conversely on their heterogeneity, as noted by Pyzel between ground plans of LBK and BVC structures in Poland. What do we actually learn from making these comparisons, which are solely restricted to the spatial—purely horizontal outlines of architectural objects? Where can we go with this information? Interestingly, Bickle and Pyzel do not stay with this line of study for long and instead take their studies off and explore the temporal dimensions of the evidence.

In thinking through the verticality (in all of its forms) of any architectural object, and as the chapters in this book demonstrate, it is important in archaeology to divorce foundation from occupation deposits. This is due to the time-depth of our evidence: different features did not necessarily exist in the same time-space. Similarly, in the Ukraine, Chapman can identify the collapse of secondary floors on top of primary floor deposits, but his two-storey structures will always exist as these two superimposed fragments (a point that Chapman appreciates only too well). This is important, and needs to be emphasised. An archaeological architecture is not a three-dimensional form, it has very little (if any) of the structural detail that architectural historians get caught up in, and this should be seen in a positive light. Archaeological plans are sparse in detail (spatially), and furthermore they are nearly always composite (vertically). This means that the times of making, using and un-making are intertwined and often irrevocably so. However, we should be celebrating this fact because it allows us to be critical of objects and produce understandings of architecture in other ways. There are three very important ways in which this is done in this book. The first extends architectural history into material culture studies. The second explores the dimensions of architectural space and its part in landscape studies, and the third approach lets time and use add meaning to architecture.

Interior Worlds

I have mentioned the horizontal—the spatial outline of form—but I want to turn this around and talk about some of the evidence in Bánffy's research. For example, for the early LBK in Hungary, Bánffy describes floors that were covered with architectural debris, but, interestingly, without any identifiable postholes. This would seem to be evidence for an architecture of materials, rather than an architectural object. So how can we explore the continuities between people, things and action, when we do not have the kinds of structural detail that is traditionally recognised in architectural history? Many of the authors in this book do this by bringing material culture into the architectural context. In Macedonia, Naumov refers again and again to broken pots and building—pottery is described through its incorporation into the edges of hearths, in the matrix of the platforms for ovens, and concentrations of pottery inside houses are referred to as deposits. In the Ukraine, Chapman describes refitting studies that demonstrate that food and objects were shared across houses (i.e. there is a spatial connection to deposition), and broken objects are assembled in deposits inside houses before they are burnt (i.e. there is a temporal dimension to deposition). This would also seem to connect elements of the Macedonian and

Ukrainian evidence. Goring-Morris and Belfer-Cohen note the sharing of tools and communal tasks across structures from the Levant. Pyzel carries out a spatial distribution of pottery and notes for LBK sites in Lowland Poland that there are concentrations of pottery in the southern pits, while Bickle develops the ‘sided-ness’ of deposition that she encounters in the Paris Basin and suggests that it is evidence for how people moved around and used outside space. These examples are important for their research on the ways in which structural and artefactual evidence work together. The chapter by Last reminds us that this is what prehistorians do best—a contextual archaeology.

However, I still think we need more research on the fragmentation of pottery (and other materials and objects) on these kinds of site, across the board, at a European scale. Indeed, I would go further to say that material culture as a part of architecture seems to be more of an approach to evidence in eastern and not western Europe in this book. We still have to fully investigate the potential of the fragmentation of things (Chapman 2000, 2008; Chapman and Gaydarska 2007), not so much in terms of their symbolic meaning, but rather in terms of the kinds of spatial and temporal configurations that are made possible by taking this line of approach, and how this builds a contextual archaeology that is a part of architectural understanding.

Refitting studies open up a missing spatial-temporal dimension that will never be gleaned from examining the groundplans of structures or distribution plots of objects alone. Past movement resides in the making, breaking and deposition of things, and by articulating these trajectories a kind of reanimation becomes achievable.

Several of the authors turn to the material culture associated with interiors. For example, Souvatzi with Greek evidence, Naumov in Macedonia and Chapman in the Ukraine discuss the particular conditions that are created in building internal features as fittings, be it hearths or ovens, or benches and altars. These are described in terms of what they do to the life of the building, that is, these interiors build social worlds and are in no way reduced to placing furniture in structures. Architecture does not pre-exist in these studies as a fixed container, but is instead made or built from the inside. More needs to be made of this kind of work. Once again, this research should be distinctive and important in its opening up of a different approach that archaeologists might take to architecture. Although arguing with a different set of evidence, Hofmann puts this nicely as ‘...a re-orientation in the way buildings are connected to the identity of their inhabitants’. These interior worlds are determinedly centred on how space is experienced and produced through living, and not simply traced. Indeed, Souvatzi makes this dynamic explicit in more theoretical terms by stating that her research is a consideration of the house as a producer of transformation, rather than a response to it.

Out of Bounds

Architecture constantly extends beyond the limit of a building’s walls. For example in Macedonia, Naumov notes the distribution of storage pits out with houses, and in the Ukraine Chapman demonstrates the refitting of material culture between the

pits of different houses. In Poland, Pyzel describes the sharing of pits and wells, and for the Alpine foreland Hofmann outlines the shared enterprise of constructing and maintaining palisade walls. From the nature of this archaeological evidence, we find that it is impossible to think of architecture as a container for people or social action. These archaeologists understand architecture as far-reaching spatial practice. I argued earlier that we should be positive about the fragmented nature of our architectural objects, for the conditions through which we know past worlds force us to consider material culture as a part of architecture. Interestingly, in the last decade there has been a turn in architectural theory and history to rethink architecture on similar lines (e.g. Hill 2003). Furthermore, in critical theory as it wrestles with contemporary architecture, it takes pages of philosophical discourse to be able to argue this effectively (e.g. Grosz 2001). Archaeology has much to offer other disciplines, if it would only be more explicit about how it understands architecture.

Bánffy may in part focus her ideas on the plan as a plot—a house location—but she also explores more extensive architecture and landscape relations by critically describing the emergence of architecture through environmental and mental factors with the Hungarian evidence. Not only is this second part of her work about people's perception of the built environment, it also has a different range—it is an understanding of architecture as a domestic sphere where its limits are not structural or necessarily physical but established through knowledge of the world. In his discussion of construction, Chapman continues with this line of perception and where it extends, for he connects daub to clay to quarry pits and timber to wood to woodland management. In my own work, I have argued that this is a dynamic of landscape as architectural practice (McFadyen 2008), but an even more effective and challenging way of thinking exists in this book with architecture at a landscape-scale. For the Lower Rhine, Amkreutz describes a practice of inhabitation that subscribes to a wetland mosaic that cannot be separated from the environmental or landscape context. And to show how these scales collide and are brought back into the interior—Hofmann demonstrates how the architecture of the Alpine foreland exists as structures woven from the environment. What is noticeable is that Scandinavian, French, British and Irish evidence, and the Levant and Greece, are missing from these approaches. The question we now need to ask: is this due to differences in the evidence?

Home Time

So, how does time work in this archaeological architecture? I have commented on how important it is for the archaeologist to untangle foundation from use deposits; and there also exists an important discussion on use and abandonment and destruction. For example, Naumov and Chapman note the accumulation of material culture inside houses before they are burnt. But perhaps most of all it is Smyth who explores in detail the temporal connections between structural and artefactual evidence with her distinctions between founding deposits and construction, and closure deposits and destruction. All three of these researchers deal on very critical terms with the

ways in which fragments of time are juxtaposed. There is no assumption of linear time at work within this archaeology; instead there is a reconfiguration of time and home in relation to material culture. And if we go back to include the interior spaces articulated in the Greek evidence, what is interesting is that the researchers of Greek, Macedonian, Balkan and Irish evidence let time and use add meaning to architecture. They take inspiration from the time-depth of archaeological evidence.

There are other chapters where time is circumscribed in circular terms. The lifecycle of the house in prehistory was an idea developed by Brück (1999), and whilst I greatly admire this approach I am not so sure it is always the way to think through our structural and artefactual evidence. For example, how often do we find evidence in the form of a complete cycle from construction to destruction, interwoven with founding and closure deposits, from the same archaeological feature? And without a specific study on the temporal imbrication of architectural sequence and artefactual deposition, is it always appropriate to think of time and home as cyclical? Or of house and body as involved in a mutual understanding of lifecycle? Are we not in danger of employing this approach, that has been good to think with, as a statement? Is it acceptable to keep commenting on social theory and what is possible for the past without actually exploring the time of the archaeological evidence? There exist a number of truisms in this volume. For example, Naumov's equation of houses with bodies as common symbolic process in Macedonia, Bickle's statement on the lifecycle of the longhouse in the Paris Basin, and Pyzel's arguments on dealing with house societies in Lowland Poland. These chapters are full of ideas, and have a critical dimension—but what methodologies and materials are studied to examine these in practice? I want to know time from the materials themselves, rather than be told what it is good to think about. I am worried that we are creating a theoretical gap, and I wonder if it is not related to the desire to reconstruct and create the architectural object with its three-dimensional form.

Material Culture and Time

A study in the spatial distribution of material culture illustrates how often particular objects occur and the density of particular categories of things, making it possible to analyse the presence or absence of material culture in a specific space: it is about *where* things are. The problem is that it is not about *when* things are. For example, loomweights are no longer attached to the loom, the bones are from bodies but not living animals or humans, the sherds are from broken pots. Something has happened to these objects. There was a time before deposition that exists outside of the frame of the spatial (i.e. the groundplan), and the text that is fixed by these drawings. Fortunately, the fragments of material culture hold to them parts of those other stories. Other times are material in things.

I propose more of a temporal study of the fragmentation of materials (for pottery, see e.g. Knight in Garrow et al. 2005; Brudenell in Brudenell and Cooper 2008; McFadyen *in press*), and how this relates to the excavated contexts in time. The

aim would be to get at the immediacy, or distance, between the breaking of a vessel and the deposition of its fragments and to pinpoint the other practices that the sherds were caught up in. This will tell us something more about how structural and artefactual evidence relate to each other in time and open a methodological path of enquiry into the time of inhabitation. It is in this light that I look forward to reading Bickle's future work on architecture as palimpsest and practices of deposition.

Time and Chronology: Context or Circumstance

There is a legacy to the ways in which we study architecture, and a legacy to the way in which we study the Neolithic. Souvatzi outlines in analytical terms how archaeologists have thought the Neolithic in Greece. Furthermore, Amkreutz and Last, in their critique of the history of ideas, bring us back to the Mesolithic with the evidence from the Lower Rhine, and Southern Britain and Northern France. Amkreutz writes of an architecture that becomes an object through time—houses do not straightforwardly stand in the world as important and permanent markers. He writes that buildings are cumulative and are to be understood as encounters that come to keep place over time (see also Hofmann's ideas on the way maintenance requires constant acts of renewal in the Alpine foreland); this questions how we understand permanency. Last argues for a contingent architecture—an architecture that is perceived through action, and that is about connections with material culture and environmental context; this questions the fixed nature of location. Taken together, these authors question sedentism and its equation with the Neolithic. Instead, this architecture depends on many things and it connects to the other forms of evidence—rather than 'house as object'—setting the terms for what is to be looked at within archaeological evidence. With this understanding of things, the medium is more effectively understood through the relational technologies of Mesolithic worlds.

In this way, Amkreutz (through time) and Last (through contingency) make the case that groundplans cannot mark a change in events and argue that structural detail should not be taken as circumstantial evidence for the Neolithic. The archaeologies of these two authors are an engagement with the material and historical conditions of the evidence—contexts are material, but *in time*. This is key to how we are to understand a contextual archaeology, for here is Barrett's (1988) point that the material and the historical should not be conflated as fossil record, but instead understood as evidenced in their relation to each other. And yet, in this book Sheridan once more makes a claim for circumstance as well as context. I want to look again at circumstance and how it has been used in thinking the Neolithic. To mention it, as Sheridan does herself, is to cite the work of Kinnes (1988). On this subject, he wrote that: '...both observation and interpretation of fourth millennium bc circumstance in Britain has depended upon the partial perceptions of individual scholars, vulnerable to the disparity of the evidence as much as to the persuasions of the intellectual context. The information sets need to be defined and reviewed

towards a realization of the structure which must exist but is, conceivably, not (yet) capable of formulation' (Kinnes 1988, p. 2).

Here circumstance is a part of a social structure, that has still to be understood in terms of relations with other things (like context), but it is also something that is hidden or eludes the archaeologist and that requires reconstruction. Furthermore, from the Kinnes quote on circumstance and context, his negative take on variability in detail, and skepticism about the influence of the history of ideas in archaeology, would suggest that social structure is reconstructed through the forensic study of the evidence without the need for question-led theory. But here is the problem: archaeology very rarely questions its understanding of architecture. Too often there is the hegemony of three-dimensional form, and along this path lies the reconstruction of the 'house as object'² (effect) and the reconstruction into the reasons behind its appearance (cause). However, if the importance of three-dimensional form is called into question, and architecture is understood through external conditions—for example through material culture studies and environmental contexts—then are precedents ever to be found in matching groundplans?

To return to the context of Sheridan's research, personally I am more interested in the artefactual assemblages and why these are relatively small in Scotland (e.g. Crathes). I want to know about the spatial and temporal study of depositional practices and how these connect to the structural detail, as we have seen on the sites in Eastern Europe. Here archaeologists have demonstrated that we can learn about the rhythm and tempo, and the extent, of inhabitation on these different terms. However here is the rub; as this book demonstrates, exploration along these lines is a matter for the archaeology of Eastern Europe only. This is, then, also a problem for Last. What is more, this problem was pointed out some time ago by Gibson (2003) in regard to evidence from Britain and Ireland. Gibson (2003, p. 136) has stated that archaeologists can no longer afford to fix their sights on house plans, but that instead they must engage in the study of all evidence for how Neolithic people went about living their lives.

Archaeological Architecture

I have mentioned an archaeological architecture, and I have suggested that it is not 'house as object'. I have said that this is a good thing, because it allows us to produce understandings of architecture in other ways. There are three very important ways in which this is done in this book: the extension of architectural history into material culture studies, the part architectural space plays in landscape studies, and allowing time and use to add meaning to architecture. This kind of research opens up the different approach that archaeologists can take to architecture, and it in turn provides a detailed contextual understanding of Neolithic worlds. However, more

² There is no danger of a Potemkin Village here; the ways in which we are being asked to conduct research make houses, and the significance of their appearance, real.

needs to be made of it. As things stand, I am unable to assess whether there are differences in the evidence or variations of approach on an east-west line through Europe.

What is striking about these prehistories is that terms such as house, home, structure, architecture, sedentism, and practice can all initially sit next to each other in a sentence, but they are then equally drawn into and transformed by the questioning of and inspiration from the archaeological evidence, and by the understanding of context that then materialises in the texts. The critical scrutiny of these prehistorians is high. Similarly, the book reveals that the analysis of archaeological evidence works at this European scale. It is now time to truly demonstrate that confidence in context and set out more explicitly our approaches to architecture in archaeology. Interestingly, this comes at a time when architectural theorists are starting to write about the dependent nature of their profession and practice too (Till 2009).

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Chapter 17

Transformations in the Art of Dwelling: some Anthropological Reflections on Neolithic Houses

Roxana Waterson

Being asked to contribute to this volume is, for an anthropologist, both an honour and a challenge. My task here is to try to offer some comparative perspectives based on my own long-term interest in investigating people's relationships with the 'living house' of Southeast Asian, and particularly Indonesian, societies (Waterson 1990). When first researching this topic, I found common cause with archaeologists in exploring applications of the 'house society' concept (Waterson 1995b, 2000).¹ The workings of memory as a social phenomenon have been another focus of investigation for me, one which is also reflected in recent archaeological theorising (Rowlands 1993; Jones 2007; and several chapters in this book). However, my task is made harder by the fact that archaeologists are themselves very diligent in mining contemporary ethnographies for ideas and parallels that might offer fresh angles on the interpretation of archaeological data. Gratifying though this undoubtedly is for anthropologists, it certainly makes it harder to proffer any new ethnographic insight that my fellow authors may not have thought about already. As their bibliographies show, the authors participating in this collection need no introduction to the ideas of anthropologists such as Basso (1983, 1996), Ingold (1993, 2000), Gell (1998) and Bloch (1995), which have equally been an inspiration to me. Therefore, it is with some trepidation that I offer my reflections here on some of the linking threads that can be seen to run through these chapters.

At the same time, given the remarkable prominence of the longhouse in Neolithic Europe, the ethnography of island Southeast Asia might indeed provide some useful food for thought, for longhouse or multi-family living arrangements have until recently featured in a wide array of societies in Borneo and Indonesia.² How-

¹ See also Waterson 1995a, 1997, 2003, 2010.

² On Borneo longhouses, see Freeman (1970); Rousseau (1990); Winzeler (1998, 2004); Sather (1993, 2001); and Cramb (2007). Some comparative discussion is also found in Waterson (1990).

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ever, even this line of inquiry is tenuous, since clearly no case can be made for any direct transfer of contemporary longhouse arrangements to an archaeological context so distant in both time and space. The best that can be said for the ethnographic evidence from present-day Southeast Asian societies is that it indicates the great variety of possible kinship arrangements, of degrees of social equality or inequality, and rhythms of life, that can be encompassed within the architectural structure of a longhouse. This at least ought to warn archaeologists to be wary of premature conclusions about Neolithic 'lineage' organisation (for instance Renfrew 1973). If these were 'house societies' we can expect that, if there had been anything amounting to a 'descent' system in any of them, it would have shown a high degree of flexibility and irregularity. Since the impulse toward such systems generally has everything to do with inheritance, we must also reckon with the fact that the idea of passing on land would have been as emergent in this era as the practice of agriculture itself.

This book contributes to a very active field of research, in which a vast amount of new evidence has been unearthed in recent years, partly due to changing methods of excavation (as Larsson and Brink observe in Chap. 14). Interpretation struggles to keep pace and to be ever more self-consciously aware of the unexamined assumptions that make some older lines of inquiry now look dated. The importance that we ourselves attach to 'home' and home comforts may, as much as the apparent durability of the LBK longhouse itself, have led at one time to an overly static and coherent representation of Neolithic sedentism and the cultural 'package' that was supposed to come with it. What this book reveals on the contrary is that, as the amount of available data exponentially increases, the enormous diversity of actual houses and practices has to be reckoned with. Moreover, the direction of developments is not consistently toward a larger and more solid architecture. Standing back from the wealth of detail now available about individual sites in order to paint the bigger picture is an undeniable challenge. The arrangement of chapters in this book already helps to develop this picture, as it leads the reader through a historical trajectory stretching across two or three millennia, and across a geographical area extending from southeast Europe through central Europe into the far north and west, ending with Britain, Ireland, and Scandinavia. The scope is immense, and raises many questions about just what it takes to transmit an architectural tradition: how much is needed in the way of visual images, technical knowledge, plans, memory, or the persons of skilled craftsmen? How much actual population movement was involved, or was the new way of living just as often observed and borrowed by indigenous local communities? What meanings might have been evoked by the house, and how did these change over time?

Archaeology and Social Theory

If the answers to many of these questions remain elusive, they are at least worth asking. It is not only the state of the evidence that has changed greatly; so have the prevailing lines of interpretation. Archaeologists continue to set themselves greater

and greater challenges by asking more difficult kinds of questions, some of which may remain forever unanswerable, yet are of profound importance for our deeper understandings of what it means to be human. Far beyond the more technical and economic lines of inquiry that once dominated archaeological interpretation, a host of questions are now entertained about experience, sociality, ritualisation, memory, the aesthetics of everyday practices, and the phenomenology of individuals' movements through the landscape and the 'taskscape' created by their activities in it (Ingold 1993; Tilley 1994; Whittle 2003; Bickle 2009). All of these may help to evoke a more vivid impression of 'dwelling' in the most holistic sense possible. These shifts of focus closely parallel those in the neighbouring disciplines of anthropology and sociology. If the focus that dominated in these disciplines over the first half of the twentieth century was overwhelmingly upon structures, later shifts for anthropologists included a much stronger emphasis on diachronic and regional perspectives, on process and performance, and more recently on long-range networks, hybridity, and the multiplicity of identities, in place of the falsity of the 'ethnographic present' and the outdated notion of 'cultures' as bounded entities.

All of this only served to introduce another turn, by the 1990s, towards a concern with individual, embodied experience. We may describe social structures, or trace historical trajectories, but what does it actually *feel like* to live in that structure, or to be caught up in that particular historical moment? How much difference does it make whether I experience these as a person who is male or female? How do individuals, whatever their gender or social position, struggle to make something of life within the constraints of the circumstances in which they find themselves? The 'second wave' of feminist discourse beginning in the 1970s had already served to establish these questions as legitimate. The prolonged debate in sociology regarding structure and agency, with its awareness that actual people and their activities should appear in our work as more than just ciphers, and that assumptions about 'actors' have often been grossly oversimplified, has been a closely related trend that has also carried over into archaeology (e.g. Whittle 2003). In anthropology there have been still more challenging debates about the nature of personhood and the extent to which 'the individual' must itself be understood as a culture-bound notion with a very particular history in the West. Archaeologists have found food for thought in discussions of personhood in Melanesian ethnography, especially Strathern's (1988) oft-cited analysis of the 'dividual' in Mount Hagen society. Here, it is argued, relationships are what bring the social person into being rather than the other way round. The desire to do justice to individual experience can be further observed in an increased appreciation in the social sciences for the value of personal narratives and life histories.³ That line of enquiry, regrettably, may be a luxury that is largely unavailable to archaeologists, yet there is the same kind of impulse to reach beyond structures and historical trajectories to a keener imagining of individuals' experiences. Fowler (2004, 2005), for example, draws heavily on comparative ethnography as a means to expand our ways of thinking about persons in Neolithic societies. He complicates the picture of how individuals in an array

³ See for instance Skinner et al. 1998; Chamberlayne et al. 2000; Waterson 2007.

of possible social positions might have been thinking about material objects and putting them to use in the negotiation of identities. The emphasis on strategy and negotiation helps us to imagine a greater possible diversity, ambiguity, and instability of social arrangements than is suggested by previous styles of analysis. The approach is helpful, too, in making us more reflexively aware of our own cultural assumptions about the value of objects. The posing of these new kinds of questions reflects how closely archaeology is entwined with the other social sciences, and can only enhance the attempts to put flesh on the bones of our images of Neolithic life.

In the face of all the diversities presented here, what continuities can be found? What important contrasts must be drawn? How were people actually living in these houses, as varied in their construction as they were? What of the apparently complex relationships between longhouses and 'shorthouses' or other types of dwellings, and between dwellings in general and the monumental constructions which in later phases seem to take precedence, as social statements, over the house? When house forms changed, did this necessarily imply a corresponding change in social activities? These kinds of questions, it appears, have been the impetus behind the compilation of this book. They necessitate a teasing out or dissolving of many previously taken-for-granted oppositions, which may now be seen to be potentially misleading: between the economic concerns of everyday life and ritual activity, between the domestic and the public, the sacred and the profane, the practical and the aesthetic, the 'rational' and the 'non-rational' (Hodder 1990; Bradley 2005). Although the comparative materials that contemporary ethnography can provide can never simply be imposed on archaeological data, they do at least offer potential stimulation to each new line of inquiry. Their most important contribution, I believe, is to expand our understanding of the whole scope of what is possible in human social arrangements. That in itself helps us to be ever more consciously aware of the unexamined assumptions that lie behind our own view of the world.

The aesthetic dimension is an intrinsic feature of human life, and one that it is no longer fashionable to dismiss. Just one architectural comparison may be mentioned here: the massive construction and trapezoidal plan of houses of the Brześć Kujawski Culture (BKC) of lowland Poland, discussed by Joanna Pyzel in Chap. 8, cannot be explained in functional terms but was clearly communicating some meaning. Since the entrance was in the broader side, Pyzel notes that the effect for anyone approaching the house is to make it look larger than it actually is. Given their uniformity, the houses must also have been making a statement about shared identity. Hodder (1990, p. 129) has further suggested that an increased emphasis on entrances and boundaries at this period reflects an ideological shift emphasising social relationships between household units, with more competitive display between houses. The apparently arbitrary shape of the house, and the constructional demands that this would have imposed, bears comparison with the wide distribution, indicative of an ancient heritage, of extended and curved roof ridges in the Austronesian world. This feature, too, has no functional explanation, yet has been maintained over millennia in a range of cultures of the Indonesian archipelago, and even into Melanesia and Micronesia, presumably for reasons of aesthetic satisfaction and identity (Waterson 1990, pp. 3–26). Moreover, should the house become

harnessed to competitive social projects, such distinctive structural features are precisely those that lend themselves to potential exaggeration as a means to project an image of power. Both Neolithic and Austronesian societies offer examples of this process, as I shall discuss below. The enormous sizes of Neolithic longhouses, though open to a variety of interpretations, must have been deeply meaningful to those who inhabited them. Gell urges us to see houses as being not just passive symbols but ‘indexes of agency’ (1998, p. 252), capable of serving as peculiarly powerful expressions of ‘the evolving consciousness of a collectivity’ (1988, p. 258). This remark seems particularly salient in regard to Neolithic communities, given the momentous changes that were under way in their whole mode of existence, with all of their long-term implications for consciousness. The collectivity would doubtless all have joined in the process of construction itself, as is still the case in most parts of the world where architecture continues to be made ‘without architects’ (Rudofsky 1964; Oliver 1987, p. 7). As community members had a direct hand in shaping the house, so would the house in turn have shaped their consciousness in a more personal and embodied way. Architecture, then, has always presented itself as ‘a tool of thought’ (Wilson 1988, p. 152), one that must have carried a special force at this historical juncture because of its newness. European populations of the Neolithic era were clearly experimenting with its possibilities, even as they maintained some remarkable continuities of form and style over great spans of time.

Reflections on Sedentism and its Consequences

The long revolution of the transition to agriculture is a topic which retains its fascination because it had such profound effects not just for plants and animals but for humans themselves. The idea that in the process, humans were in fact ‘domesticating’ themselves is one that has been thoughtfully explored by more than one writer. Indeed the whole trend in archaeological analysis toward a more phenomenological style of interpretation, reflecting on how people would have experienced a particular landscape, way of life or social reality, has been formative in assisting a deeper and more lively understanding of such past transformations, as well as of what it means to live in a house. An intriguing aspect of this trajectory is that people must have embarked upon it without being able to foresee all of its entailments. Shortly before the publication of Hodder’s oft-cited work on *The Domestication of Europe* (1990), another archaeologist, Peter Wilson, was exploring the same topic with a broader geographical brush in his *The Domestication of the Human Species* (1988). Wilson argues cogently that sedentism and the building of permanent houses represented an unparalleled watershed in human affairs. Solid walls create privacy and enable hoarding, impossible in most hunter-gatherer societies, where people live their lives in full view of others. The impossibility of viewing what your neighbours are doing within their walls may give rise to envy, suspicion, and eventually witchcraft accusations—a pattern Wilson notes was entirely uncharacteristic of groups like the Dobe Ju/’hoansi (formerly known as !Kung) of the Kalahari in their old

hunter-gatherer days, but very typical of many of their farming neighbours.⁴ This potential of the house as a site of private accumulation, and consequent competition, is touched upon in this volume by Goce Naumov in Chap. 4. Another consequence of living in permanent houses was the development of an etiquette of ‘hosts’ and ‘guests’ (Wilson 1988, pp. 92–98). The extending of protection and honoured treatment to a visiting outsider is a deeply held moral principle in many settled societies, whereas the hunting and gathering Ju, for instance, drew no such distinction when visiting between bands. Visitors were given no special treatment, but were expected to join in foraging activities, and participate in sharing, on exactly the same terms as longer-term members of the band they were visiting. How a solid architecture may contribute to the distinguishing of these new categories of hosts and guests, insiders and outsiders, is a theme touched upon also by Hodder (1990, p. 135) with regard to the probable usefulness of pottery (especially the finely decorated vessels that typified the height of the LBK period) for presenting food and drink to visiting outsiders, as well as for communal feasting.

As Wilson rightly claims, the first steps on the path of agriculture had truly momentous consequences for later social developments. The production of surpluses and the storage of food increase the likelihood of material inequalities in a community. The picture developed here confirms that in the Neolithic of central Europe, greater disparities in house sizes become evident. Some longhouses reached an enormous size, perhaps because of a kin group’s greater productive success, while others were much smaller. Settlement sizes, too, were very varied. The cultivation of grains (as opposed to tubers, which rot rapidly after being dug up) introduces the possibility of storing food over long periods, and hence also the risk of its being confiscated by someone else, creating a need to defend it. Without the possibility of persuading (by whatever means) cultivators to surrender their storable surpluses, city living would never have become a historical possibility. Display of surpluses, even perishable ones, can also be developed into a political game. Bradley (2005, pp. 88–92) draws upon Malinowski’s insights into Trobriand garden magic and the subsequent display and presentation of harvested yams in special storehouses to stress the extent to which ordinary, everyday activities can be deeply imbued with ritual and symbolic aspects.⁵ This is an example of how intimately the economic and the ritual, kinship and politics, the domestic and the sacred, may be entangled with each other. Wilson (1988, pp. 114–115) further notes the aesthetic effort put into the display of piles of surplus food and valuables destined for redistribution in feasting economies such as those of the New Guinea highlands. The architectonic qualities of such displays, and the co-ordination of labour necessary within the extended kin group in order to stage a feast, may even have provided a first step in the

⁴ On the Ju/’hoansi, see also Lee (2001).

⁵ One might add the vital role they play in articulating kinship and political relations, since in this matrilineal society, it is the duty of men to present yams to their married sisters. Since chiefs in Trobriand society are the only ones who are permitted to be polygynous, they have more brothers-in-law who must present yams to them. They can convert this into political capital by the public display of yams, followed by their generous redistribution.

direction of the later political use of monumental architecture to convey an image of power. The extent and variety of monumental projects in the later Neolithic, and the quite extraordinary amount of hours of labour put into them, proves that those communities had developed considerable capacity to organise communal effort to such ends. Last (Chap. 11) includes a suggestive discussion of the development of different architectural strategies that could have been exploited for political purposes, again prompting thought of Southeast Asian parallels. The investment of labour either in the aggrandisement of houses, or in the elaboration of funerary monuments, as a way of giving publicly visible form to growing social inequalities is echoed in similar contrasting developments among some Indonesian peoples, such as the Toraja and the Toba Batak (Waterson 1990, pp. 236–247).

How far the monumental projects of the Neolithic must be taken to imply the development of a social hierarchy, or of charismatic individual leadership, remains an open question. Part of the difficulty in finding answers lies in our lack of knowledge about Neolithic kinship structures. The chapters in this book give clear indication, if only by way of their silences, of the great uncertainty that remains about this topic. The processes by which kin groupings might have become ranked in relation to one another are equally a matter for speculation. We still can only guess at what constituted a ‘household’ in any of these locations, whether longhouses were inhabited by multiple families, or whether a household in some cases might have stretched across more than one building. One technique that shows real promise of offering insights into these matters is the isotope analysis of teeth and bone (Bickle and Hofmann 2007; Claßen 2009; Knipper 2009). Claßen (2009, p. 101), for instance, has made some interesting inferences about the isotope evidence for virilocal marriage in LBK communities in western Germany, using this to construct a model of the possible spread of pottery styles (assuming these were transmitted from mother to daughter) when women moved at marriage. Isotope analysis, perhaps surprisingly, is touched upon here in only one chapter (Chap. 7), and only with respect to possible patterns of transhumance evidenced by seasonal changes in animal tooth enamel, rather than of human movements. While some sites may yield insufficient human remains to lend themselves to this line of research, this is a technique with obvious future potential.

A number of comparative points may be made about Borneo longhouse-dwelling peoples. Firstly, there is no necessity for unilineal descent patterns. Borneo kinship systems are typically bilateral, and indeed it has been speculated that the very fine balance the Iban appear to maintain between uxori-local and virilocal marriages, such that they are practically equal in number in many longhouses, might be the result of conscious efforts to keep things ‘fair’.⁶ The outward appearance of the longhouse tends to reflect degrees of social equality or hierarchy. The longhouses of the famously egalitarian Iban exhibit a visual uniformity between family compartments or *bilek*, but other groups such as the Kayan and Kenyah have well-developed systems of rank. Their longhouses feature an enlarged central compartment for the chief’s family, with a higher roof section and a great concentration of decoration.

⁶ Freeman 1970; Geoffrey Benjamin, personal communication.

One way in which potential social inequalities are evened out is through the practice of feasting. Any group of swiddening families will typically experience unpredictable variations in annual yields, depending on the qualities and microclimates of the plots they have cleared. In the more egalitarian Borneo longhouse societies, it is common for the more successful families in any given year to make loans to those whose harvests have fallen short (since another year they may find themselves in the same predicament), and to use up most of their remaining surplus by sponsoring ritual feasts. Dove (1988) provides a close-grained analysis of the swiddening ecology of the Kantu', an Ibanic people of West Kalimantan, documenting the variability of yields across households. The Kantu' have developed a pattern of reciprocal feasting and ceremonial drinking that tends to promote social integration between longhouses of similar size and capacity. Although on the face of it, the drinking would appear to be simply a waste of rice converted into wine, whose calories are lost to both hosts and guests since the guests are expected to drink until they vomit (and will be coerced if they refuse), the arrangement ensures mutual social benefits. Partnerships tend to be formed between houses that are best able not only to repay each other's hospitality, but also to help each other with the exchanges of grain and labour that are necessary to even out shortfalls in their harvests. This provides all concerned with a safeguard from the vagaries of their economy. Dove's analysis might be stimulating to those who have suggested that some Neolithic longhouses could have been ceremonial halls designed for feasting, rather than living in.

Not all longhouses are divided into family compartments; a different pattern is observable among the Sakuddei of Siberut island, off the west coast of Sumatra (Schefold 2008), where the space of the longhouse is divided simply into two halves by an interior partition. The front part is more public, providing the stage for shamanic performances, and is where the men sleep at night; the rear part, which has its own entrance, is more private and is the domain of women and children. Life in the longhouse is restrained by the need to observe a large number of taboos. It is noisy, and when all-night rituals are in progress there is little chance to sleep. Couples therefore prefer to oscillate between the intense sociality and ceremonial life of the longhouse, and the relative privacy of their field huts, where they can live more freely and catch up on sleep. The Rejang of South Sumatra, by contrast, illustrate the possibility of a different kind of movement between formal and informal dwellings, linked to stages of the life cycle rather than the seasons (Wuisman 2008). They often start their married life in a field hut, and move into the village, with its more permanent houses and intensified public life, only later. As noted above, the extent of variation possible in longhouse living is of little help in extrapolating to the Neolithic context, but it does at least encourage us to think broadly about what Neolithic patterns might have been.

The development of the new mode of subsistence implies shifts in relationships to landscape, as Ingold (2000) has thought-provokingly explored through his 'dwelling' perspective. 'Dwelling' in the landscape is not at all dependent on having a house, for foragers also develop particularly intimate and deep connections with the lands that they regard as their ancestral territories. So it is intriguing to speculate about the overlaps between these groups in the Neolithic era, and on the resulting

shifts in how the land was being dwelt in and used. Many of the chapters here are admirably sensitive to these questions, and they reveal just how much flexibility and variety was involved in the process, particularly for instance in the wetland regions of the Lower Rhine described by Amkreutz in Chap. 10, the lake dwellers of the circumalpine zone, treated by Hofmann in Chap. 9, or in Britain, as described by Last in Chap. 11. It is perhaps in this matter of relations to the environment that the archaeological imagination is able to yield its most successful results, with rather more kinds of evidence available to go on, and the possibility for the researcher of experiencing the landscape itself at first hand, however greatly changed it may be. These chapters succeed in evoking seasonal taskscapes with some vividness. A few, notably Souvatzi's, also sketch the wider geographical networks of connection through trade, while by contrast the picture of household relations and ritual life remains perforce frustratingly thin.

Many questions have been raised about the interactions of farming communities with their foraging neighbours during the Neolithic expansion. World-wide, the displacement of hunter-gatherers from arable lands has continued relentlessly until it has reached the point that those few who remain have been pushed further and further into uncultivable 'wilderness' areas. Hugh Brody (2001), who has dedicated his life to doing fieldwork with hunting and gathering people, examines the bigger historical picture of agricultural expansion from their point of view. He points out that ironically, though hunter-gatherers have often been looked down on by settled peoples for their 'nomadic' lifestyle, that epithet better applies to agriculturalists, for they are the ones who tend to exhaust particular environments or experience rising populations, and are never content to stay where they are. Sooner or later, agricultural populations became sufficiently dense to render the competition for resources increasingly violent, but this need not have been the case initially. The Neolithic expansion was surely not always peaceful, yet an older model of 'colonisation' by waves of settlers carrying with them discretely bounded 'cultures', conveniently identified by their pottery styles, and simply displacing older populations, has been qualified by other approaches favouring a much more fluid process, with a high degree of interaction and absorption. Hodder (1990, p. 101) for instance retains the possibility that most of the changes involved in the shift to farming in Europe could have been accomplished by indigenous groups, turning their attention to areas of loess soil that they had previously avoided (for reasons that he does not specify). That picture of fluidity is partly reinforced and partly challenged by the fresh evidence presented here, since some chapters do find evidence for a relatively sudden appearance of farming, especially in Britain, where its arrival must in some way have involved sea crossings. It seems to me that these different scenarios are by no means mutually exclusive, and perhaps the Austronesian expansion provides a useful comparison here, being spread out over a not entirely dissimilar time span beginning over 4,000 years ago (Bellwood et al. 1995; Lansing et al. 2011). Great progress has been made in the past two decades in building a more detailed picture of the Austronesian expansion, one of the world's most remarkable population movements. This has been achieved by the integration of data from archaeology, historical linguistics, genetics, history and anthropology. Bellwood et al. (1995)

presented a ground-breaking synthesis, which continues to be refined with the addition of new evidence as the pace of archaeological investigation in Southeast Asia quickens (Bellwood 2006, 2011; Simanjuntak et al. 2006, 2008; Spriggs 2003, 2007, 2011, 2012). Although the scenario of rapid expansion out of Taiwan of both the Austronesian language and agriculture has not gone unchallenged (Donohue and Denham 2010), it remains the most convincing explanation of the data that we have at present. However, interesting questions remain as to the reasons for this rapid migrational spread, the relative tightness of the Neolithic “package” the migrants were bringing with them, and the extent of cultural exchange which may have taken place with populations already present in the region.

Taiwan is the linguistic homeland of a language or group of dialects termed Proto-Austronesian, which probably came into existence at least 6,000 years ago. Speakers of one of these dialects, known as Proto-Malayo-Polynesian (PMP), began to migrate south from there into the previously uninhabited Batanes islands, then into Northern Luzon, from around 2200 BC and thence into western and eastern Indonesia. Journeys into Oceania began sometime after 2000 BC, while the Malay peninsula and Vietnam were reached by a movement back toward the west after 500 BC. The Marquesas were reached by about AD 700, Hawaii and Easter Island by AD 900, and New Zealand by AD 1200. Indonesians had also settled in Madagascar by around AD 500. Austronesian-speaking populations today number over 270 million and are spread around half the earth’s circumference.

Early Austronesian seafarers setting out from Taiwan with their possessions in outrigger or double canoes were literally bringing with them a discrete and distinctive cultural repertoire which (as reconstructed by historical linguistics) originally included rice and millet, pigs, dogs, a variety of fishing techniques, and red-slipped pottery—not to mention the sailing canoe itself, the all-important technological invention that made the expansion possible.⁷ Like Neolithic farmers in Europe, they were arriving in islands already thinly populated by hunter-gatherers, with whom they undoubtedly had much interaction. The prevailing image is one not of violent displacement, but of continual interchange and gene flow between two populations that were already highly varied in themselves, as the Austronesians experienced a Neolithic population explosion. Lansing et al. (2011) present a fascinating refinement of this picture based on extensive new genetic research in Indonesia, which confirms that the iteration of an apparently trivial variation in social arrangements can have dramatic effects over time, without the need to posit any violence being involved in the process. Their interpretation demonstrates how social mechanisms (a ‘house society’ type of organisation, coupled with matrilineal marriage) could account for the remarkable displacement of non-Austronesian languages throughout most of island Southeast Asia. Their model shows that, if even 2% of non-Austronesian husbands were marrying into Austronesian-speaking communities, where their children would grow up speaking their mother’s language, this would be sufficient over a time span of 50 generations to account for the actual distribution of genetic

⁷ A word for ‘chicken’ is reconstructable for PMP, but not for PAn, indicating that this was an addition to the repertoire only after the initial movement out of Taiwan (Bellwood 2011, S367).

markers currently observable in the range of Indonesian societies they studied, and could also account for linguistic changes. The cumulative effect of this ancestral pattern of social organisation is most visible in Polynesians at the far end of the migratory chain. Mitochondrial DNA in Polynesia is predominantly of Asian origin, while Y chromosomes are largely Melanesian. Moreover, the authors are able to demonstrate that exactly the same process of Austronesian expansion still continues today in the Wehali region of central Timor, an ancient matrilineal and matrilocal society whose women occasionally accept husbands from neighbouring Papuan-speaking villages.

How tight was the Austronesian Neolithic “package”? Not all cultural items need necessarily be expected to appear in each excavated location. Spriggs (2003, 2012) argues for a loosening of the connection between agriculture and the Neolithic repertoire of material culture, and proposes that rather than population pressures, the dynamism of new ideas may have provided the impetus for the rapidity of Austronesian expansion. There were important cultural changes along the way, especially in agricultural and arboricultural subsistence, and a probable hybridization of their original domesticated pig (the Eurasian *Sus scrofa*) with an indigenous Sulawesi species (*Sus celebensis*). In Sulawesi there is continuity of pre-Neolithic flake-blade stone tool industries into the Neolithic, while further east, perhaps in northern Maluku, the earth oven was adopted, to become a major cooking technique in Oceania (Spriggs 2003, pp. 64–65). As the Austronesians moved further south into latitudes where climate and day-length conditions were unsuitable for the cultivation of subtropical rice species, there was of necessity a shift to reliance on tropical root and tree crops such as taro, yam and bananas. A point of contention concerns exactly how this shift was accomplished. Given the evidence for independent domestication of taro from 7000 BC in the New Guinea Highlands, Donohue and Denham (2010) postulate that movement of useful plants such as taro, sugarcane and bananas from New Guinea eastward into Indonesia might already have occurred and that pre-Austronesian populations were already agricultural. There is no archaeological evidence at present to confirm this assumption, but it seems to me that these are not mutually exclusive scenarios. The idea that Austronesians must have actively adapted their repertoire to exploit different crops does not preclude their also having learned about new plants from the populations they mixed with. In short, current work is adding nuance to an originally simplistic picture of Austronesian takeover; Spriggs promotes the usefulness of Green’s (2000) model of ‘intrusion, integration and innovation’ as a more complex and interactive way of thinking beyond the limitations of a binary opposition between migration or diffusion. The newcomers, who clearly brought with them new domesticates and a new cultural repertoire, in their exchanges with local communities also learned a great deal from them and integrated elements from those already-existing cultures. Given that cultures are in a constant state of change, the picture would be incomplete without, thirdly, the incorporation of new inventions over time. Such complex processes must have occurred across Europe too.

Given their seafaring skills, Austronesian peoples have always tended to view the ocean as a highway rather than a barrier to communication. Once a crossing had

been made to new islands, people knew that they could sail to and fro, rather than feeling that there was no possibility of return (Horridge 1995). While European populations may have relied more on walking or river travel than on seafaring, a point of interest to me in this volume is the occasional discussion of long-distance networks of trade and communication, as in Souvatzi's chapter. To understand what life was like in any of these communities, or how people saw themselves in the world, we must look beyond the hearth and the four walls of the house to take into account these wider linkages.

In a world in which, at the time of writing, the global population just passed the 7 billion mark, a mere 12 years after it exceeded 6 billion, it takes an effort of imagination to re-envisage a Europe, parts of which were still conspicuously empty or very thinly populated. The chapters presented here confirm the picture of settled populations being very small, sometimes shrinking rather than expanding, in landscapes still largely dominated by hunter-gatherers. Bánffy (Chap. 6) raises the possibility that fishing may have been more conducive to permanent settlement than hunting, but notes that the process is by no means irreversible. She proposes, however, that belonging to a sedentary farming community was something that came to be seen as prestigious and attractive by forager groups, at least in the Carpathian Basin of Hungary. Last (Chap. 11) confirms the picture of Britain as lagging behind continental fashions, with a delayed adoption of the Neolithic mode of subsistence, not necessarily accompanied by longhouses. The reasons for the sudden discontinuity in architectural forms after 5000 BC, with the abrupt demise of the Danubian longhouse after 500–600 years of stasis over a large part of Europe, remain obscure. The reshaping of house-building traditions that seems to have gone on in Britain in interaction with already existing Mesolithic practices there echoes Whittle's (2003, pp. 144, 150) characterisation of 'filtered colonisation' in these areas. Smyth's account of Ireland (Chap. 13) and Sheridan's (Chap. 12) contribution suggest that the earliest farmers might on the contrary have clung on to longhouse arrangements for security at first, later generations happily abandoning it for something more ephemeral once they felt established enough to branch out beyond the original settlements. Thus the house can be seen as crucial to group identity at some periods, while at others it seems not to be needed. In this interpretation, if massive structures fell out of fashion, this could as well be a mark of agricultural success as of any obvious social failure. We may note that the reasons suggested here for the relatively rapid architectural changes revealed in the archaeological record have less to do with practicalities than with ideological commitments. Neolithic narratives must take account of the possible trade-offs between autonomy and security, freedom and social constraint, independent effort or the pooling of labour for communal projects. There would have been tensions between these opposing possibilities, whose various possible outcomes must have affected the whole spectrum of variations explored in this volume.

Social Memory and the Life and Death of Houses

Houses as containers for people lend themselves to a metaphorical interplay with body symbolism. Southeast Asian peoples have many ways of thinking of the house as a 'living' thing, which interacts continuously with its inhabitants (such that, for instance, a fault in construction could cause illness or misfortune to befall a house dweller). It is not surprising that the potential for anthropomorphism in thinking about the house arises in several of the chapters here, too. In Chap. 4, Naumov discusses the production in Macedonia of clay house models which morph in their upper parts into female bodies. He writes about 'corporeality as a medium through which these objects and constructions could function symbolically and ritually', for some of the models seem to have been used as lanterns, perhaps in a ritual context. The Tripolye-Cucuteni culture examined by John Chapman in Chap. 5, too, was one in which figurines were produced in great numbers, making use of 'the body as an organising metaphor' in a way which may well have found parallels in the way people thought about belonging to the house. Though the meanings that may have been attached to these figurines remain disputed, it is difficult not to suppose that they played some part in domestic rituals—rites which, as Chapman suggests, may well over time have become nested within an evolving hierarchy of more public rites, in some of this culture's surprisingly huge 'mega-settlements'.

I think it makes sense to imagine possibly quite long periods in which rituals would have retained their domestic focus within or around the house, before an adaptation of these to larger public contexts (as often happens) and the later development of monumental structures which surely had a more communal ceremonial emphasis. It is typical of the many small-scale societies of Indonesia, which evolved their own religions and were not politically centralised, to find an absence of specialised religious buildings: for the people of Toraja, Tanimbar or Sumba, for instance, the house itself serves the simultaneous function of dwelling and ritual centre, being inhabited as much by the spirits of the ancestors as by the living, whose placentae are commonly interred beside the house or preserved within it (Waterson 2003). Burials in the house floor, or its environs, reflect a desire to keep the dead close. In the case of babies and children so deposited, I would be inclined to interpret this not as evidence of their lack of status, as has sometimes been speculated, but rather of how much they were valued. An ethnographic parallel can be found among the Makasarese of South Sulawesi, where a baby that fails to survive may be buried at the foot of the house stair in the expressed hope that its fragile soul will thus find it easier to return quickly. In the traditional Makasarese house, the baby's placenta, which is regarded as its twin (a genetically correct assumption), is stored in the attic, where it is believed to continue as the child's spiritual protector. The attic is also home to the ancestors, who have their shrine there, shaped like a miniature house (Gibson 1995, p. 138). This is an example of a culture in which houses might appear quite plain and unremarkable in form, yet a full account reveals that they are nevertheless saturated with meanings.

Thinking about the house as alive led me to extend that thinking to a more diachronic perspective in my own research. If houses are viewed as alive, it follows that they also have life histories, and if these extend long past the lives of individual inhabitants, then identification with the house offers to those who dwell in it a sort of immortality (Waterson 2003). The editors of a recent volume on the Indonesian house (Scheffold et al. 2003) discuss what they aptly term the 'affective potential' of architecture to lend itself to the visible expression of group memories and distinct cultural identities. In Indonesia, different aesthetic expressions and techniques of construction can often be found even within the same society, and certainly appear to have been deliberately maintained between neighbouring groups in a process which the authors call 'mutual contrasting'. In the jointed timber architectures of Southeast Asia, there is great potential for creativity in the expansion of the house over time from a basic core structure. Houses thus have the potential to become singularly powerful repositories of memory.

When genealogies were told to me in Tana Toraja (Sulawesi, Indonesia), they always began with the names of a couple who had founded a house, and there would follow an account of the branch houses founded by their children and later descendants, as they spread out from the origin house. Those who were sufficiently knowledgeable could begin from the very first origin houses and supply not only the names of the mythical siblings (generally held to be eight in number) who set forth from it, but also the names and locations of the houses they founded, and even the name of the magical heirloom object that each of these individuals took with them as their inheritance from the first house. I began to consider the possibility that the houses themselves had their own genealogies, remembrance of which formed a sort of mythologised geographical map of settlement of the Toraja region. Bradley's argument that the longhouses of the Linear Pottery Culture throughout Europe were oriented so that their doorways faced in the direction of previous settlement resonates for me with Toraja memory patterns. It suggests how early agriculturalists, even as the new way of life predisposed them to move, may have been holding in memory, through the house and their own movements in and out of it, the knowledge of where they had come from (Bradley 2002, pp. 26–28; Jones 2007, p. 96). The Indonesian ethnography also offers an array of provocative parallels in the architectural linkages to be found between the houses of the living and of the dead (Waterson 1990, pp. 199–228), a topic that seems to be particularly salient for later Neolithic developments.

Objects, too, have their own life histories (Appadurai 1986; Hoskins 1998) in the course of which their functions can change. The formal deposit of everyday objects at points in or around the house, or in postholes, is one example where items which were of practical use at one point in their histories might later take on a sacred or ritual function. The placement of objects in postholes has a resonance with my own fieldwork, for the Toraja and many other Southeast Asian peoples have shared this tradition. One typically quotidian object placed in postholes by the Toraja has traditionally been a piece of a cast-iron frying-pan. Because of its quality of hardness and durability, this is symbolically intended to ensure that the house, too, will

endure. The addition of tiny beads, worn in necklaces by noble women, signifies the hope for continuing prosperity for the house dwellers.

Rituals become part of the house's biography, their memory often reinforced by the addition to its structure of related markers, ornaments, or animal remains (buffalo horns, pig jaws) as proof of past events. In the ritual process itself, the house becomes cosmically charged with spiritual presences—another layer of its vitality. Sather writes particularly vividly of shamanic performances in the Iban longhouse, the shaman operating as a mediator between the parallel worlds of the seen and the unseen which make up the Iban cosmos. It is believed that action in either of these worlds has real effects in the other. There is a strongly theatrical element in the shaman's performance, in which the longhouse, as symbolic microcosm, becomes the stage for his drama. Everyday objects such as chairs, bowls, cloths and rice pestles are used as 'props' to signify mountains, lakes and bridges in the world of the dead, or to represent the lair of a spirit who has stolen a sick person's soul. When the shaman enacts his recapture of the wandering soul with the aid of these devices, this is supposed to have the desired consequences in the unseen world (Sather 2001). When gods or ancestors are summoned in long chants to attend festivities in the longhouse, the detailed description of their journey and eventual arrival makes of the longhouse itself a sacred location, thronged with unseen guests. Contemporary ethnography helps us to grasp the many ways in which everyday objects, and the house itself, can be put to use in ritual practice; the problem for the archaeologist of course is that the acts which create these layers of meaning often leave no discernible trace.

One further example of the multiple meanings of objects may be added here. Recent anthropological research by Geneviève Duggan (2008, 2009, 2011) on the island of Savu, eastern Indonesia, yields a number of fascinating examples of the use of material objects (including houses, hearths, textiles, and even brooms and chicken bones) as mnemonic devices in a previously non-literate society. The people of Savu, across all levels of society, display a quite remarkable tenacity and depth of orally transmitted genealogical knowledge. Duggan is the only anthropologist to have done fieldwork in all four domains of Savu, and her painstaking study of the interconnections between these immense genealogies across the four domains shows that they have a high degree of coherence and stability. Moreover, this area had early contact with Portuguese and Dutch visitors, and the oral memory of certain ancestors and events can be verified by cross-reference to their appearance in Dutch documents dating from the seventeenth century. The Savunese use a house-related metaphor for the reciting of genealogies; they call it 'piling up the beams' (*huhu kebie*). The image invoked is that of a house foundation constructed from crossed logs, like a log cabin, with each beam constituting a generation. The Savunese have extended the genealogical model in unusual ways. As with many other peoples of eastern Indonesia, historical memory is embedded in mythical narratives which describe an ordered list of named places along the migratory paths travelled by the ancestors. Fox (1997, p. 8) has called these kinds of narrative recitations 'topogenies'. Duggan has further coined the term 'domogenies' to describe the way that the diachronic relationships between named houses are remembered as if they

too formed a genealogy, and ‘textilogenies’ for the chronology of weaving designs passed on by women, whose motifs themselves serve as identity markers of the matrilineal moieties and their subgroups. This knowledge is essential to women’s claims on heirloom land passed through female descent lines (Duggan 2011, p. 172).

Each domain of Savu has its own complex ritual cycles, based on a different number. In Dimu a cycle takes 6 years to complete, a different clan taking charge of the rite in each year, concluding with a community-wide celebration in which all participate. Liae’s cycle is based on the number seven, and their longest cycle, up until its abbreviation in the twentieth century, was of 7×7 , or 49 years. The cycles were kept track of by storing a chicken leg in a particular house every year for 7 years; then a broom, *heboro*, was kept for each cycle of 7 years. The domain of Mesara, whose cycle is also based on the number seven, has maintained its 49-year cycle until the present. Special rituals relate to the all-important lontar palm, whose sugary juice makes a vital calorific contribution to the diet in this arid island where agriculture is limited and droughts a frequent occurrence. The priest responsible for these rites in Mesara has his own system for keeping track of the years. He must construct a ritual hearth (*rao pana*) for cooking the lontar sap. It is the only hearth in the entire island allowed to have four holes, which gives it a particular elongated shape. The hearth is closed at the end of each lontar season, and covered with soil, forming a clearly visible mound. It is reopened in each succeeding year over 7 years, then in the following year a new hearth is dug parallel to the first. This will be used for the next 7 years, and so on until a row of seven hearths is formed, having served 7 years each. The passing of 49 years is thus tracked, after which the climactic ceremony called *Kelila ae* is celebrated for the entire domain in the following rainy season. The seven elongated hearth mounds thus provide a visual mnemonic of the passing of almost half a century in Mesara (Duggan 2008, p. 92). The domain of Seba, with a focus on the number 9, has combined two mnemonic devices to keep track of its cycle. Each year, one layer of lontar leaves is added on the ridge of the roof of a ritual house belonging to the priest Deo Rai and his wife, both of whom have important ritual roles. These fresh new leaves shine in the sun and are visible from far away. When three layers of leaves have been put on the ridge, in the next year all are removed and the process begins again. The ritual hearth for boiling the lontar syrup is also used here for 3 years before a new one is built beside it. When the three layers of leaves have been replaced three times and the cooking place built three times, a 9-year cycle is completed; after three of these, totalling 27 years, the domain-wide climactic ceremony is celebrated. The addition of a further 9-year sequence formerly created an even longer cycle of 36 years.

Continuity and Competition

A theme that runs through these discussions of architecture concerns the different ways in which societies everywhere, and Neolithic communities in particular, strive to assert a feeling of social continuity. A striking contrast emerges between

the massive solidity and imposing lengths of LBK longhouses, and the more flimsy and impermanent dwelling solutions frequently pursued in more westerly regions, where the effort after social continuity, it is proposed, must have rested not so much on the durability of the house as on the engagement in the processes and activities of continual rebuilding. In early stages, the repetitive enactment of processes may have had much more to do with immediate responses to the environment and the nature of subsistence activities than with the encoding of hierarchy and status, though ethnographic parallels can show us how those processes can be harnessed to a variety of ends. Lightweight or portable architecture such as that used by nomadic pastoralists, for instance, can still provide dwellers with a sense of security, while aesthetically it mediates relations with the environment rather than cutting people off from it.⁸ Where shifting seasonal activities may have favoured flexible practices and a lightweight approach to shelter, as Amkreutz suggests for the Lower Rhine area wetlands (Chap. 10), feeling at home in the landscape clearly depended on other things than the solidity of the house. If it had more to do with the confidence deriving from local knowledge, practical skills and a sense of relative autonomy, people might well have been reluctant to give those up for the greater constraints of living at close quarters in a longhouse or more permanent sort of settlement. As Amkreutz pointedly observes, 'the people living there already were at home', and he cautions us that 'we have to abandon the idea that this transition in any way *has* to imply any socio-symbolic shift or different attitude towards the wild'. How far may people have progressed along the paths of self-domestication before they became aware of how much they had changed themselves?

For the Toraja of Sulawesi, one kind of periodic repetition of an ephemeral form of architecture is the construction of ritual altars and other structures out of bamboo. They spring up as required, and are then dismantled or left to decay. The cultural continuity here lies in the knowledge that is held in memory and transmitted across the generations about how to build them. Wetland dwellers must have had the confidence of carrying this sort of transmissible, practical knowledge, even if (or just because) their dwellings were not built to last. By contrast, we also find some Neolithic examples of repeated rebuilding of houses before it could have been practically necessary, even where highly durable timbers such as oak were being used. What could have been the motivations? The Toraja case suggests one possibility. Here, the rebuilding of houses (commonly at intervals of 25 years or so, and often before it is necessary from a functional point of view) is an essential part of the process by which the house gains history and significance, such that its descendants come to regard it as an origin house (*tongkonan*). The process itself, demanding meetings of kin and contributions from different clusters of descendants, reinforces

⁸ A vivid sense of how permanence can be achieved through repetition can be found in Labelle Prussin's account of Rendille pastoralists in East Africa. A Rendille elder's account of nomadic movements over a 71 year period (1903–1974) produced a route map covering an area of over a 100,000 square miles with journeys amounting to 12,000 miles, during which his family camp with its tents had been pitched, struck, loaded, and unloaded almost twelve hundred times (Prussin 1995, p. 39).

ties, and as the house gains in prestige, it becomes correspondingly important as a site of ceremonies at which kin will gather. Thus rebuilding projects may be harnessed for competitive ends. In sketching out his idea of the ‘house society’, Lévi-Strauss (1983, p. 187) observed that the ‘house’, ‘[b]y gluing together real interests and mythical pedigrees [...] procures for the enterprises of the great a starting point endowed with absolute value’. The nobility of some Indonesian societies clearly did try to use the house as a vehicle for their aspirations to power; in Tana Toraja, they were pushing the envelope of what was physically possible within the traditional house design in the increasingly exaggerated height and extension of the roof, to the point where the eaves require to be propped up at front and back by additional free-standing pillars, the *tulak somba*.⁹ This can only be taken so far without risk of collapse, and clearly serves the function of augmenting the impressiveness of the house, as seen from the outside, without enhancing the interior living space in any way. The nobility who built these houses were also funding elaborate rituals, which similarly served as competitive claims to status. The houses of Nias chiefs provide still more impressive examples (Waterson 1990, pp. 100–13).¹⁰

On the other hand, here as in some other parts of eastern Indonesia, some very ancient and prestigious founding houses have not existed for generations, perhaps centuries, yet their vacant sites are well preserved in memory and retain their mythical importance. As Traube (1989, p. 329) expresses it in the cases of the Mambai and Tetum peoples of Timor: ‘Absence signifies original presence.’ As abandoned LBK longhouses were left slowly to decay into mounds (as Bickle describes for the enormous longhouses of the Paris Basin in Chap. 7), did they tenaciously persist in memory too? From the point of view of social memory, indeed, one of the most fascinating aspects of the materials gathered here appears to be the sharp contrast between those peoples who chose to allow older houses to decay *in situ*, and those who marked an ‘abandonment event’ by deliberately burning the house, as discussed by Chapman in Chap. 5 for the Tripolye-Cucuteni culture of what is now the Ukraine and Moldova, which shows close connections to the practices of Early Neolithic house-dwellers in Southeast Europe, where houses also contained large quantities of clay and daub (Stevanović 1997; Tringham 2000). The most curious aspect of this procedure is that by firing the house at high temperatures, even as they dramatically marked its end, the owners were converting the ensuing rubble to a highly durable ceramic state. The evidence for repetitions here suggests an ingenious interplay of both forgetting and remembering, for as Jones (2007, p. 114) has

⁹ This historical development has been carefully documented by Kis-Jovak et al. (1988) through comparative study of surviving houses of different ages.

¹⁰ In his discussion of the similarly competitive development of the Maori meeting-house from the 1870s to the 1930s, Gell (1988, p. 258) points out how house-building, as a political gesture, and the house itself as object, carry the traces of both ‘a movement of memory reaching down into the past and a movement of aspiration, probing towards an unrealized, and perhaps unrealizable futurity’. Actual houses must have been limited by the resources available at a time when Maori communities were already dispossessed and impoverished; hence, the ultimate meeting-house was something that could only be imagined. For Neolithic communities, what could effectively be realized may have had more to do with the limitations of available tool kits and technologies.

pointed out, such a sensorily powerful event would have impressed itself vividly in memory. It thus must have had a productive, as well as a destructive, intention. 'Fire acts as an agent of memory formation', he suggests, being deployed in the service of repetition and recurrence, or as he puts it, 'the process of changing whilst staying the same' (Jones 2007, p. 98). Deliberate burning and the use of fire as an agent of transformation recur in Sheridan's account of longhouses in Scotland in Chap. 12, as far away as possible from these earlier examples. Was it independently reinvented here, perhaps with quite different meanings? Or could the idea of using fire's transformative possibilities have been retained in deep social memory as one highly durable possibility or strand of social action in relation to house lives? Such deep memories do seem characteristic of Austronesian societies, whose cultural repertoires share a whole set of salient themes and ideas that clearly have had a long history of being recombined and refashioned in new guises in different times and places.¹¹

The potential uses of repetitive rebuilding as a social or political statement suggest a parallel with a famous example from Japan, though one that might resonate more with the monumental constructions of the later Neolithic. The ancient Shinto shrine at Ise has been reconstructed at 20-year intervals since the late seventh century, the most recent rebuilding having been completed in 1993. There has been only one period of interruption to this tradition, during a 123-year spell of civil war in the late 15th to 16th centuries. The rebuilding process is highly ritualised, takes 8 years to complete and required on the last occasion a total of 13,600 cypress trees. Another shrine in the same tradition, at Izumo, has likewise been rebuilt, but more irregularly, depending on the strength of its ruling patrons relative to Ise, the last time having been in 1744.

The chiefs who oversaw the building of Ise and Izumo were acting at a time of increasing centralization of power, looking for ways to impress their followers while also being involved in a political struggle with each other (Coaldrake 1996). As statements of political authority, the shrines seem to have developed as an alternative to an earlier tradition of tomb-building, popular with chieftains from the second to sixth centuries AD. What is intriguing is that, although they clearly derive from a common and very ancient architectural heritage, the projects are the result of contrasting 'architectonic strategies' (Coaldrake 1996, p. 50), the architectural and spatial possibilities of the sites being differently exploited in the search to create an impression on the visitor. At Ise the shrines are quite small buildings, modelled on the ancient granary, which give an impression of purity and refinement achieved over centuries of subtle innovations. However, up until the ninth century, they were even more unassuming (Coaldrake 1996, p. 19). The site at Ise became greatly expanded and elaborated in this period in terms of the total number of shrines included (120) and the defining of a series of compounds and gateways through which one

¹¹ See Fox (1985) on how fairly minor modifications to a basic set of proto-Austronesian kin terms could have generated a whole range of regional variations in kinship systems. This 'generative' argument can be extended to the regional distribution of features such as horned gable finials and extended roof ridges (Waterson 1990).

must pass before at last arriving at the Inner Shrine. This is approached up a flight of stone steps, surrounded by huge cedar trees and moss-covered rocks which at this point press in around the visitor to create an impression of the sublime. Nature and topography, as much as the architecture itself, are thus artfully exploited to achieve an awe-inspiring atmosphere. Perhaps the very modesty and restraint of the buildings, when finally arrived at, may create the sort of paradox that is often at the heart of ideas of the sacred. The approach at Izumo was in certain respects very different. The retention of a vernacular idiom is common to both, but here the architects chose the house rather than the granary as model (its door is in the narrow rather than the long side of the building, though it otherwise appears very similar). Here it was not only the tempo of rebuilding, but the size of the structure itself that became a measure of chiefly aspirations. In periods when the rival state of Nara flourished, Ise gained ascendancy over Izumo; when Nara declined, rebuilding at Izumo regained its vigour. During the Heian period, in the latter half of the eleventh century, rebuildings accelerated in frequency and the shrine became larger and larger. It fact it became so huge as to be architecturally unstable, being hoisted on enormous cedar trunks to a height of 48m, and approached by way of a vast ramp 109m long. No fewer than six times during the 12th and 13th centuries the building collapsed as a result of its own instability. The surviving structure of 1744, 24m high when measured to the tip of the gable finials, is merely half the size of its largest predecessor, but still twice as tall as the shrine at Ise. In contrast with Izumo's failed monumentality stands Ise's investment in the act of rebuilding, whose continuity has been assured by unbroken patronage of one form or another over the centuries, and its eventual incorporation into State Shinto after the imperial restoration of 1868. The intricate linkage of political developments to the construction of these sacred buildings can here be historically documented, and although the contest was between domains at a much more advanced stage of political centralisation that has been postulated for European Neolithic populations, it provides some suggestive lines of conjecture about the multiple layers of meaning which doubtless adhered to their monumental projects, too.

Conclusion

The contemporary and historical ethnographic examples loosely assembled here cannot offer any particular answers to the host of pressing questions that remain about Neolithic social forms and practices. They serve at best to provide an array of vantage points from which to speculate about the past, as well as to critique our own contemporary assumptions. Many of the authors here stress the continued incompleteness of the data about Neolithic houses and settlements, not least the difficulties of linking them clearly to earlier dwellings of the Mesolithic, which have left few traces and are correspondingly rare in the archaeological record. However, given the tremendous progress that has been made just within the past two decades, there can be no doubt that future exciting finds are still to be made. We may hope

that the dialogue between archaeology and anthropology may continue to aid in that imaginative process that will always be a necessary part of their interpretation.

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