

## Longhouse Lifestyles in the Central European Neolithic



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### Abstract and Keywords

Linearbandkeramik (LBK) buildings are among the most monumental domestic structures created in prehistory and are fundamental for understanding the social life, cosmology and historical trajectory of central Europe's first farmers. This paper approaches the characteristic longhouses as frameworks for living, comparing the houses of the LBK and its various successor cultures in terms of their affordances for daily life, the way they structured settlement space, how they framed routine activities such as discard, and the kinds of groupings they could have sheltered. Also discussed are how houses related to other contemporary structures, and to predecessors and successors as part of wider genealogical schemes. In this way, it can be shown that houses were flexible aspects of social life which played a fundamental part in negotiating the transition from the early to the middle Neolithic.

Keywords: Linearbandkeramik, middle Neolithic, central Europe, discard, longhouse, settlement community, house biography, daily life, Hofplatz model

### Introduction

ALTHOUGH named after its characteristic pottery, the Linearbandkeramik (LBK) culture is perhaps better defined by its buildings: there are hard-and-fast rules which allow us to recognize an LBK longhouse from western Hungary to eastern France (Stäuble 2005a, 207).<sup>1</sup> In the 70 years since the first major publication (Buttler and Haberey 1936), research on LBK houses has primarily attempted to define functional categories of building (e.g. Modderman 1970, 100–120) and tease out local sequences (e.g. Stehli 1994). Perhaps because of their resemblances to the later long barrows of north-west Europe, British archaeologists have more readily engaged with the symbolic dimensions of houses (e.g. Hodder 1990; Bradley 1996). Both approaches, however, present rather static, idealized views (Hofmann 2006, ch. 3); detailed considerations of how longhouses were inhabited in practice remain rare.

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In the 1980s, knowledge of LBK houses and their middle Neolithic (MN) successors (together termed the 'Danubian' tradition) was synthesized by Coudart (1998) and Hampel (1989). Since then, important new research directions have been established, with significant implications for understanding houses. One is the study of the 'earliest' (*älteste*) LBK, mostly in Germany and Austria (Stäuble 2005a), which has raised questions about the development of the 'typical' later longhouses and the use of space in and around them. A second research area has drawn on isotope studies of human and animal bones to highlight social aspects of houses and households, such as migration, marriage, and transhumance (Bickle and Hofmann 2007). Finally, the growing evidence for violence, both real and symbolic, in the late LBK (e.g. Orschiedt and Haidle 2006; (p. 274) Bentley et al. 2008) should inform our understanding of the transition to the MN, with its regionally distinctive house forms.

The LBK spans the second half of the sixth millennium BC, whilst the regionally circumscribed MN cultures (including Lengyel, Stichbandkeramik, Großgartach, Rössen, and Villeneuve-Saint-Germain) cover the first half of the fifth millennium. For the purposes of this chapter, I divide the LBK into three stages—early (*älteste*, c. 5500–5250 BC), middle (sometimes termed 'Flomborn', c. 5300–5150 BC) and late (c. 5150–4950 BC)—whilst noting that questions remain about the chronology of the early stage (Gronenborn 1999, 153–156), the duration of the overlap between early LBK and Flomborn (Cladders and Stäuble 2003), and regional variations at the end of the LBK (Farruggia 2002).

## Houses as Microcosms

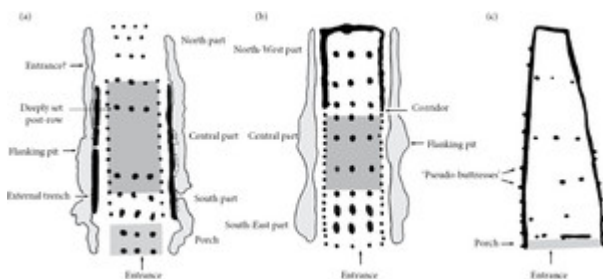


Fig. 14.1. Representative house-plans: (a) early LBK

(after Stäuble and Lüning 1999, fig. 1a); (b) middle/late LBK (after Lüning 2000, fig. 53); (c) MN (Rössen; after Coudart 1998, fig. 93a). Not to scale.

Although the traditional LBK house typology of *Großbau* (type 1), *Bau* (type 2), and *Kleinbau* (type 3), first set out by Modderman (1970, fig. 12), has been subject to revision and critique (cf. Coudart 1998, this volume; Birkenhagen 2003), observed variation in house form remains limited. The key structuring principles of LBK longhouses include: their rectilinear or slightly trapezoidal groundplan; their orientation, which shows systematic regional variation (Mattheußer 1991); their modular construction, with buildings comprising particular combinations of north/west, central, and south/east parts; the division of internal space by numerous transverse rows of three posts, producing a four-aisled struc-

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ture; and the presence of elongated pits flanking the long walls. Collectively, these make up a 'linear house' with a 'dramatic effect of sequence and order' (Hodder 1990, 119) (Fig. 14.1b).

**(p. 275)** However, recent studies of early LBK longhouses have modified this picture. In a revision of the Modderman typology, Cladders and Stäuble (2003, fig. 2) summarize the differences exhibited by the early buildings, including: a more trapezoidal shape; an orientation closer to north/south; a different logic to the modules; a reduced number of internal posts, especially in the central part; and trenches or gullies between the long walls and the flanking pits (Fig. 14.1a). The origins of these houses are still poorly understood, but may lie in the Starčevo-Körös tradition (Gronenborn 1999, 159; Bánffy 2004). Whatever their genesis, they formed a stable and widespread architectural tradition and clearly played a key role in creating LBK cultural identity. Around 5300 BC, alterations in house form were synchronized with changes in other aspects of material culture, notably pottery, and with a further stage of LBK expansion. The Flomborn houses represent a sudden development following a long conservative phase, rather than a gradual transition (Cladders and Stäuble 2003). However, the two styles appear to have overlapped, possibly for more than a century, although rarely on the same site. So, rather than representing an unchanging cultural backdrop, house form served to differentiate groups or traditions within the LBK and was actively deployed in creating new identities.

Houses may have been particularly important because they established homologies between aspects of human society and cosmological principles, as in many ethnographic examples (e.g. Hugh-Jones 1979, 236; Waterson 1990, ch. 5). Their orientation may have referenced a deep history based on a sense of shared origins (Bradley 2001), even though **(p. 276)** local chronologies and the general lack of evidence for repair and renovation indicate that individual buildings had relatively short lifespans. Thus, in the Merzbachtal area of the Rhineland, some 15 phases fit into a period of roughly 300 years (Stehli 1994). This suggests analogies between the lives of houses and people, with buildings possibly abandoned on the death of the household head (Bradley 1996; Zimmermann et al. 2005, 16).

However, abandoned houses also had an afterlife. The scarcity of intersecting ground-plans at most sites shows they survived as visible ruins which were not built over, and their significance was sometimes remembered for many generations, for example, at Bozejewice in Poland, where a late Lengyel house was directly superimposed on an LBK one (Midgley 2006, 9). Houses may therefore have established links between the different temporalities of everyday life and the world of the ancestors (Marciniak 2004, 131). Some practices varied regionally, however: rebuilding houses on the same spot seems more common in east-central Europe (e.g. Pavúk 1994; Grygiel and Bogucki 1997), which perhaps reflects principles prevailing on tell sites.

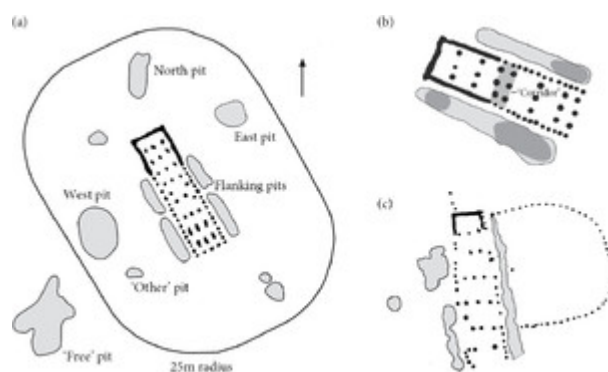
The differences between early and later houses can shed some light on symbolic meanings. For instance, the more open central space in the early stage suggests that the proliferation of post-rows in later houses had no structural necessity (Cladders and Stäuble 2003, 495; Whittle 2003, 138). Perhaps the conspicuous consumption of timber and the

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increased labour reflected a need for larger social networks in the context of settlement expansion and forest clearance. Internal posts often play an important symbolic role (e.g. among the Toraja of Sulawesi: Waterson 1990, 89), and for Stäuble (2005b) the deep post-row at the rear of the central part of early LBK houses was the conceptual and structural axis of the building, perhaps continued by the 'corridor' of two closely set post-rows commonly found in the equivalent place within later longhouses.

Following the break-up of the LBK, the MN cultures incorporated a mixture of Danubian and exotic influences (e.g. Hauzeur and van Berg 2005). House forms were accordingly more regionalized, though longhouses still formed a key part of group identity and maintained some core principles, such as the cross-rows of three posts. Only in the Lengyel culture, within the area of Balkan influence, was this replaced by internal divisions of five postholes (Pavúk 2003). Within an overall context of greater diversity 'select tendencies of LBK architecture are isolated and magnified' in the MN (Hofmann 2006, 105), this selectivity demonstrating the complexity of meanings which the longhouse continued to embody.

## Frameworks for Living



*Fig. 14.2.* Different models of household space in the LBK: (a) layout of pits within the *Hofplatz* in the Merzbachtal (after Boelicke 1982, 24f); (b) discard patterns in the flanking pits at Cuiry-lès-Chaudardes (after Hachem 2000, fig. 1; heavier shading marks finds concentrations); (c) fenced enclosure attached to an SBK longhouse at Atting-Rinkam

(after Riedhammer 2003, fig. 2). Not to scale.

Turning to the role of the longhouse as the architectural framework for daily life, the location of the entrance(s) is a key point for analysing household space. It is generally believed that the main door was in the narrow gable wall at the south/east end (Coudart 1998, 71), implying that access to the house reflected its linear principles. However, (p. 277) lateral openings have been suggested on the basis of phosphate analysis (Stäuble and Lüning 1999) and recurrent patterning of finds in the flanking pits on some sites (e.g. Hachem 2000, 310) (Fig. 14.2b), suggesting more flexible patterns of movement.

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The orthodox functional interpretation of the three parts of the LBK house also relies on circumstantial evidence. The ever-present central part is seen as the main living/working room, burnt material in post-holes sometimes suggesting a hearth at the rear (e.g. Modderman 1988, 96; Kirleis and Willerding 2008, 143). The north/west part, often enclosed with a wall-trench in later phases, is considered a secluded living/sleeping room: Coudart (1998, 105) talks about the ‘banality’ of its spatial arrangements. The south/east part, frequently with rows of doubled posts, is interpreted as a raised area for grain storage: the Merzbachtal excavations revealed more chaff near houses with this section (Lüning 2000, 158) and its disappearance in later phases at Štúrovo coincides with the presence of large storage pits (Pavúk 1994, 245–247). However, whilst the early LBK houses demonstrate the fundamental importance of the central part, their shorter southern parts might suggest different interpretations (Stäuble 2005a, 191–194). And although geochemical analyses remain rare, they have generally failed to corroborate clear functional differences between the three parts (Lienemann 1998; Stäuble and Lüning 1999). This suggests we should move away from static, unifunctional interpretations: the ‘granaries’, for instance, could perhaps be rethought in terms of a ‘versatile structure’, like the Karo rice barns of south-east Asia (Waterson 1990, 59), which serve multiple functions without losing their sacred aspect.

MN houses often have fewer internal posts and lack a clear modular arrangement; direct clues to the functions of different parts remain sparse, though one exception is the consistent placement of hearth-pits within the Großgartach houses at Jülich-Welldorf in the Rhineland (Dohrn-Ihmig 1983). Most likely, entrances were still at the south/east end (Hampel 1989, 71), which was often widened as structures became more trapezoidal in plan, or elaborated with a porch (Fig. 14.1c); there may therefore be a greater symbolic focus on the threshold. The Lengyel houses of Slovakia diverge most from the Danubian tradition, with a bipartite division and evidence for an upper storey, again suggesting south-eastern influences (Pavúk 2003); in contrast, late Lengyel houses in the Kujavia region of Poland are trapezoidal structures in the Danubian tradition, lacking internal partitions (e.g. Grygiel and Bogucki 1997).

Understanding the domestic domain requires ‘a focus on all venues of domestic life’ (Robin 2002, 261) many of which would have lain outside the house (Pavúk 1994, 254; Whittle 2003, 141). External household space was structured by various features, most notably the flanking pits, which are usually interpreted as constructional features supplying daub for the walls and then re-used for refuse disposal (see below). By mirroring the internal structure of the buildings, they served to make the segmentation of external space comparable to that of house interiors (Bradley 2001, 52; see Fig. 14.1). Apart from these, certain features, such as pit-ovens, are more commonly found outside than inside houses (e.g. Lenneis 1995, 18), though there is much regional variation in their occurrence (Lüning 2004). Ancillary structures are rare (but see Wüstehube 1993), so activities requiring shelter must generally have taken place inside the longhouse (Lüning (p. 278) 2000, 157). Fences may indicate garden areas or stock enclosures, though their relationships to individual houses are often unclear (Pavúk 1994, 253f).

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The most influential model for understanding the organization of household space is the concept of the *Hofplatz*, devised for the Merzbachtal settlements. This denotes a 'farm-yard' area with a radius of 25m around the house, marked by pits in specific locations (Boelicke 1982) (Fig. 14.2a). However, its applicability elsewhere is doubtful, even for nearby sites (e.g. Bernhardt 1986; van de Velde 2007a), let alone those further afield (Pavúk 1994). Many settlements, such as Ulm-Eggingen in Baden-Württemberg (Kind 1989) or Cuiry-lès-Chaudardes in the Paris Basin (Ilett and Hachem 2001), have far fewer pits away from the longhouses than the Merzbachtal sites. Elsewhere, features were arranged differently, for example the semi-circle of pits around some houses at Brunn-Wolfholz (Lenneis et al. 1996, 102). Though it has generated plausible settlement models for the Merzbachtal, the *Hofplatz* concept can also be criticized for simplistic assumptions about the succession of houses and the fill mechanisms of pits (Claßen 2005, 118; Frirdich 2005, 94f).

In the MN, the model of extended household space—however it was organized—generally breaks down, with flanking pits less common and large communal pit complexes more in evidence. Exceptions include the early Stichbandkeramik (SBK) in Bavaria, where continuity of settlement and even individual *Hofplätze* is suggested (Herren 2003), and Villedeneuve-Saint-Germain (VSG) settlements in northern France, which retain a layout akin to local late LBK sites (Bostyn 2003). A similar spatial structure reappears in the 'household clusters' of late Lengyel Poland (Grygiel 1986). Meanwhile, fenced enclosures directly attached to longhouses seem more common in the MN, especially the SBK (Riedhammer 2003), indicating that formal division of external household space was sometimes appropriate.

## The Social Household

Whatever spatial models are developed, it is hard to make sense of how houses were occupied without some understanding of social structures. Unfortunately, inferences are difficult and even estimates of household size vary widely (Pavúk 1994, 256–258; Sommer 2001, 259). Usually households are seen as fairly small: the mass grave at Talheim has been taken to suggest the presence of nuclear families (Bentley et al. 2008), although such a group may not represent a complete household, whilst Lüning (1982) has suggested that it was only with the large Rössen longhouses that multi-family dwellings appeared.

The number of inhabitants should to some extent be reflected in the quantities of material associated with a house, along with the duration of occupation. The latter is generally not thought to exceed 25–30 years, although in principle houses could have stood much longer (Sommer 2001, 259) and there are arguments for longer lifespans in the early LBK (Lenneis and Stadler 2002, 200; Stäuble 2005a, 204f). The size of (p. 279) household ceramic inventories seems to vary widely, however (cf. Pavúk 1994, 174–180; Lanchon 2003; van de Velde 2007b, 120f), suggesting large differences in numbers of occupants, the use of pottery, or site formation processes (see below). Perhaps the intensity of occupation

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varied over the lifespan of a house: Whittle (1996, 162f; 2003, 141) has suggested that LBK longhouses were compatible with mobility in people's lifestyles and fluidity in the composition of social groups, an idea supported by recent evidence for transhumance (Bentley and Knipper 2005). In any case, we must confront the assumption that houses which looked the same were inhabited in the same way.

Social models of the LBK household have principally been derived from the associated ceramic assemblages, with the distribution of different motifs seen as evidence for exogamous virilocal residence patterns (e.g. van de Velde 1979; Krahn 2003). Support for virilocality has also come from isotope studies of sites in south-west Germany, with suggestions of non-local (possibly forager) women marrying into the resident group (Bentley 2007; Bentley et al. 2008; but see Bickle and Hofmann 2007). A moiety system has been suggested for settlements showing structured distributions of specific decorative motifs on pottery (van de Velde 1979; 2007b). Although affiliations of this type were rarely marked in domestic architecture or spatial organization, buildings in different parts of the site at Vaihingen-Enz in Baden-Württemberg were differently organized (Krause 1998, 15), and houses with particular features (wall trenches) may correlate with specific ceramic traits (Strien 2005, 195).

Of course, residential groups and descent groups were probably not the same, but whilst lineages might have been distributed across contemporary houses at different sites, the location of new buildings seems to reflect hereditary principles. The arrangement of successive houses at Schwanfeld and Langweiler 8, for example, shows how genealogical connections were made symbolically visible through the construction of longhouses in particular spatial relationships to their predecessors (Lüning 2005).

Danubian societies are usually seen as egalitarian (but see Jeunesse 1997), though specialized roles may have existed. At the VSG site of Poses, material culture distributions suggest houses had different functions, but no true specializations (Bostyn 2003, 212) whilst at late LBK Cuiry-lès-Chaudardes, Hachem (2000, 310f) argues for a relationship between house size and the relative importance of hunting and herding (on family 'occupations', see also Bentley et al. 2008, 301). The distinctive type 1a LBK buildings with a continuous wall trench (Modderman 1970, fig. 12) are sometimes considered to be chiefly or elite dwellings because there are usually only one or two per phase (van de Velde 2007c, 237-238), and their associated finds do not suggest a communal function (van de Velde 1979, 140f; but see Milisauskas 1986). However, the idea that bigger houses imply higher status can be criticized (Sommer 2001, 258f). It may be more productive to consider house size and form as related to ebbs and flows in household composition, or the social network a household could draw on during construction. On the other hand, type 1a houses were sometimes treated differently on abandonment: although evidence for deliberate burning is rare in the LBK compared to south-east Europe, burnt houses of this type are known from several sites (e.g. van de Velde 2007d), suggesting a special significance.

### (p. 280) Life in the Longhouse

For Whittle (2003, 138f), longhouses encouraged certain ways of moving. In part, we can get at these routines through phenomenological approaches (Hofmann 2006, 88–91), but fuller understanding depends on the finds associated with each building. The surface of a Danubian settlement no doubt resembled the Maya farmsteads analysed by Robin (2002, fig. 2 and 257), with their palimpsests of pathways, work and refuse areas marking ‘people’s diverse and often entwined lifeways’. Unfortunately, very few LBK sites have preserved surfaces, and it has even been suggested that the houses had raised floors (Rück 2007). However, at the unusual site of Hanau-Klein-Auheim hearths were found inside and outside houses, with finds distributions suggesting activity in front of house entrances (Sommer 2006). This contrasts with the MN site of Jablines in northern France, where there is evidence for activities within and behind two buildings, but few finds from the presumed entrance areas (Hachem 2000, 308f). These scanty data at least confirm that external areas were used as intensively as the houses themselves. Similarly, in Stäuble and Lüning’s (1999) phosphate study of early LBK houses the highest values came from areas behind the houses.

Otherwise, we are dependent on pit assemblages for evidence of the cumulative patterns of domestic life—though as secondary refuse deposits these are hard to interpret (Last 1995, 1998). The *Hofplatz* model of household space requires various assumptions about the locations of activities and associated discard practices—but if households were small and work collaborative, refuse patterning could be independent of the *Hofplätze* (Friedrich 2005, 94f). The contents of the flanking pits therefore most likely reflect activities associated with specific houses and are usually assumed to have filled gradually during the lifetime of the adjacent longhouse (Coudart 1998, 73). However, based on stratigraphic relationships between the flanking pits and the outer trenches of early LBK houses, Stäuble (1997, 2005a) argues that pits may have been filled during house construction, their contents presumably deriving from middens already present in the settlement. Similarly for Birkenhagen (2003, 148), the low quantities of finds and homogeneous fills in many flanking pits (notably on the Merzbachtal sites) contradict assertions that they were open for the entire lifespan of a house. On the other hand, persistent patterning in the distribution of finds within these pits at other sites, such as Cuiry-lès-Chaudardes (Hachem 2000, 310) and Poses (Bostyn 2003) (Fig. 14.2b), would be unlikely to occur if pits had been backfilled. At Cuiry there was also a tendency for each household to discard faunal material on one side rather than the other, suggesting that social or cosmological aspects of longhouse architecture could have influenced discard. At Olszanica in Poland, certain types of lithic artefact were mainly on one or the other side of the house, which is tentatively interpreted as indicating male and female areas (Milisauskas 1986).

Pit contents—like other aspects of external space—therefore provide a far more varied scenario than the architecture. Even for the early LBK, Stäuble’s (1997) interpretation (p. 281) may not apply at Neckenmarkt and Strögen in Austria, which showed more varied patterning in the distributions of different materials, suggesting activity zones in front (south) of the houses (Lenneis and Lüning 2001). Examples of spatial patterning of mate-



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rials from later LBK sites include pottery (Boelicke 1988), lithics (de Grooth 2003), animal bone (e.g. Marciniak 2004), and charcoal (Lüning 2000, 158), though in other cases it is harder to identify clear trends (e.g. Kvetina 2007). Untangling patterning in longhouse routines becomes even harder for the MN, when—with the exceptions of the early SBK and VSG cultures—flanking pits are frequently absent (Coudart 1998, 52).

We also need to consider other modes of deposition beyond generalized discard. For instance, Bostyn (2003, 208) suggests the homogeneity of some groups of lithics at Poses reflects specific events; similarly, Allard (2005) has studied concentrations of knapping waste in pits at Verlaine in Belgium. Some finds from flanking pits may represent deliberately placed deposits, a comparatively under-researched area (Hofmann 2006, 84–86). Examples include a complete inverted early LBK pot from Enkingen (Reuter 1991) and a deposit of grindstones from the late LBK site of Irchonwelz (Constantin et al. 1978); human burials from settlements should also be considered here (e.g. Veit 1993; Schmotz 2002). In the MN, especially the SBK and Lengyel, placed deposits also occur within buildings, such as at Postoloprty in Bohemia (Soudsky 1969).

We should not, however, draw too rigid a distinction between structured deposition and ‘normal’ refuse. The latter would have had its own symbolic qualities and connotations, not necessarily negative (Douny 2007). For Marciniak (2004, 137), LBK pit-digging and filling can be seen as an intervention into the ancestral past, whilst Hodder (1990, 127) points out the conceptual significance of changes in the MN, when the use of communal pit complexes for refuse disposal meant that discard practice no longer marked out each house as an independent unit.

## No House is an Island

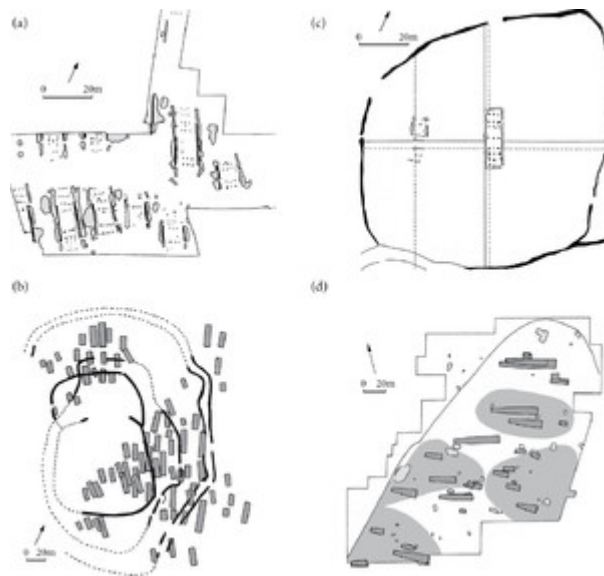


Fig. 14.3. Examples of settlement layouts: (a) rows of successive early LBK houses at Schwanfeld (after Gronenborn 1999, fig. 11a); (b) houses and enclosures at Erkelenz-Kückhoven (after Lehmann 2004); (c) related geometry of selected houses and the northern enclosure at Köln-Lindenthal (after van Berg 1989, fig. 4); (d) Rössen longhouses with suggested *Hofplätze* (shaded) and communal structures at Inden

(after Lüning 1982, fig. 12).

Individual longhouses were linked, physically and socially, within wider settlements and landscapes. Settlements varied in size from ‘farmsteads’ with a single house (e.g. Pavlů 1998) to ‘villages’ with 20 or more contemporary houses (e.g. van de Velde 2007c, 233) (Fig. 14.3). Site structure could influence architecture, with the standardization of house form greater at more isolated sites and in less densely populated areas (Coudart 1998, 96), but in general the longhouse principles took precedence: building orientation, for instance, is the same regardless of settlement layout or topography, hindering the creation of communal space (Zimmermann et al. 2005, 31). Even where open areas (Pavúk 1994) or enclosures (e.g. Krause 1998) created a concentrically ordered space, the orientation of individual houses conformed to the standard model. Only in the Lengyel culture was house orientation sometimes subordinated to settlement structure, notably at the rondels of Polgár-Csószhalom and Svodín (Pasztor et al. 2008), again emphasizing the non-Danubian aspects of Lengyel houses.

(p. 282) Although rows of houses on sites like Schwanfeld (Lüning 2005) and Cuiry-lès-Chaudardes (Ilett and Hachem 2001) seem to represent sequences of building rather than planned settlements (but see Rück 2007), there is some evidence for higher-level organization. At Geleen-Janskamperveld, two ‘wards’ divided by a central space may represent different lineage groups (van de Velde 2007c, 237–238) whilst at Bylany in Bohemia

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small (type 3) houses were concentrated in one part of the site (Coolen 2004, 79), as were the houses associated with high numbers of wild animal remains at Cuiry-lès-Chaudardes (Ilett and Hachem 2001, 182). The distribution of finds and features at Landshut-Sallmannsberg in Bavaria suggests an ordered village (Brink-Kloke 1992) but the different layouts of other Bavarian sites show that the community-household dialectic played out differently even within one region.

**(p. 283)** Most sites contain pits that cannot be assigned to individual houses, whilst other communal features include wells, as at Erkelenz-Kückhoven (Weiner 1995), and groups of ovens, as at Olszanica (Milisauskas 1986). Also significant are the enclosures (see Petrasch, this volume), which could reflect or establish relationships of inequality between ostensibly similar households, because they were either laid out with specific reference to particular houses (van Berg 1989) or marked out certain houses as ‘central’ or ‘peripheral’ (Lehmann 2004, 295–298).

Finally, we need to acknowledge links between houses on different sites. For Whittle (2003, 143), LBK society was constituted by multiple identities, alliances, and exchange networks (as well as more violent interactions), whilst Bogucki (2003) envisages a web of kinship ties and exchange relationships between households. A key result of the Merzbachtal excavations is the evidence for differential participation of settlements in lithic exchange networks, with the relative quantities of debitage and tools at different sites suggesting only a few had direct access to flint sources and then supplied their neighbours (Zimmermann et al. 2005, 30f). No doubt the uniformity of the longhouse played a role in broader cultural integration, although the nature of household social networks changed over time. For the Merzbachtal sites, Frirdich (1994) noted a change in settlement patterns related to the transition from Flomborn pottery to more variable late LBK styles. This is interpreted as a shift from a homogeneous material culture, aiding the integration of people from other regions, to an emphasis on local identities, also reflected in features like enclosures. But notably, compared to the transition between early LBK and Flomborn, house form itself changed relatively little.

## Conclusions

Neolithic longhouses were constructed and abandoned according to a series of architectural, social, and cosmological principles which may have been articulated discursively, but they were also inhabited and used in routinized ways which must have been understood tacitly. LBK architectural practice is remarkably uniform, but that does not necessarily mean all houses were used in the same way. Normative approaches to architecture must be tempered by an understanding that each building was differentially ‘enmeshed in a multitude of social relations’ (Hofmann 2006, 59).

Recent work on the LBK has revived discussion of social organization, but alongside the human remains we need to investigate the living body through the evidence for how people inhabited settlements and houses. What remains unchallenged is the consistent presence of the longhouse (Sommer 2001, 256). Though there were communal features to

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LBK life, the disposal of refuse in the flanking pits (whatever their temporality) emphasized the household as a bounded entity and the key unit of consumption. The idea that LBK homogeneity was a response to the risks of dispersed settlement, a kind of cultural *lingua franca* for building networks beyond individual settlements, is supported by evidence (p. 284) for multi-ethnic or ‘multi-tradition’ villages (Gronenborn 2007). But the codified building practice bringing different ideas and people together (Whittle 2003, 138) or locating and activating social memories (Jones 2007, ch. 5; Morton 2007, 177) may not be matched in other practices of inhabitation, such as the arrangement of houses within settlements, the distribution of pits, and the discard practices which reflect household routines. Some of these are structured regionally whilst others vary locally. Because conceptual principles would have been only partially activated in practice, and most people would not have known all the rules governing spatial arrangements (Waterson 1990, 73 and 100), we should not expect the same degree of consistency in daily practice as in architecture.

Whilst the MN sites briefly considered here show that longhouse culture did not end with the LBK, the observable relaxation of building ‘rules’ provided flexibility in the use of internal space, and different trajectories appeared—from continuity in the early SBK and the VSG to the extremely large Rössen culture houses, which may reflect changes in residential groups and a melding of Danubian ideas with Balkan house concepts in the Lengyel culture. Though there are different opinions on the ‘crisis’ at the end of the LBK (Farruggia 2002; Hofmann 2006, 12f), perhaps defining local identities became more important than large-scale networks, whilst the community gradually took precedence over the individual household.

The nature of archaeological evidence means Neolithic longhouses can be reconstructed in diverse ways, often reflecting our own preconceptions (Müller 2001, 148), though no doubt the people who once inhabited them held similarly diverse understandings. By attending to the full potential of the evidence we can still trace some of the threads of those longhouse lives.

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### Notes:

(<sup>1</sup>.) This paper was first submitted in late 2009 and reflects the state of research at this time.

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