A Virtual and a Practiced Neolithic? Material Culture Symbolism, Monumentality and Identities in the Western Baltic Region

Martin Furholt

Abstract

Besides the economic, technical and social innovations most Neolithic societies of the old world are separated from Pre-Neolithic societies by a new stage of the manipulation of material objects and structures as media of symbolic communication. Since the Neolithic, the proportion of intentional production and use of material symbols clearly rises compared to unintentional symbol production. Particularly the extensive symbolism on utilitarian, everyday artefacts like pottery is much more elaborated.

Proceeding from these observations, the early Neolithic period in northern Central Europe / Southern Scandinavia, that is the time from 4100 to 3500 BC, is more or less a time of continuation of Pre-Neolithic behavioural patterns. At this time Neolithic innovations are known and implemented, but not yet in a quantity that would practically change cultural behaviour and thus identity towards what has been defined as Neolithic above. It is probably not earlier than 3500 BC that a real "Neolithic Package" consisting of large-scale monumental buildings storing cultural memories, an extensive and genuine variability in material culture symbolism, especially pottery and stone tool production, appear together with an increase of economic impact and supra-regional contacts. Thus it is possible to speak of a "Virtual Neolithic" preceding the "Realised Neolithic" since 3500 BC.

Zusammenfassung


Als Konsequenz aus dieser Beobachtung können wir sagen, dass die frühneolithische Periode Südskandinaviens und Norddeutschlands (FN I der Trichterbecherkultur) und damit die Zeitspanne von 4100–3500 BC mehr oder weniger als eine Kontinuität von vorneolithischen Verhaltensmustern zu sehen ist. Zwar wurden in dieser Zeit bereits neolithische Innovationen eingeführt und benutzt, jedoch in einem so geringen Ausmaß, dass dadurch noch keine wirksamen Veränderungen kultureller Verhaltenspraxis und somit der Identitäten einhergegangen wären, die in die Richtung dessen gehen, was

**Introduction**

Throughout the history of archaeological thought, concepts of what “the Neolithic” is have concentrated on different aspects. Starting with typological traits of material culture (Lubbock 1865), the focus shifted to economy and technologies (Childe 1941), adaptations to ecological factors (Binford 1968), social structures (Bender 1978), ideological patterns (Hodder 1990; Thomas 1999) and the emphasis on cognitive patterns (Renfrew / Scarre 1998). It has also become clear, especially in a global perspective, that these different aspects of a Neolithic do not necessarily occur in the form of a package, and that it definitely cannot be linked to a single, revolutionary event or even to a short period (Bellwood 2005). The definition of what kind of archaeological assemblages should be qualified as Neolithic does not only differ between regions, but is also based on the archaeologists’ ideological premises. What is, or has been, seen as definitive for the labelling of neolithisation in different regions is heavily determined by research history and available sources. In Western and Northern Europe, the beginning of the Neolithic is more or less connected to the erection of burial monuments, a feature clearly absent in the Danubian or south-eastern European tradition of the Neolithic, where permanent settlements dominate the research. This distinction is all the more interesting as we now know that the very onset of the Neolithic in the Near East seems to have been marked by monumental architecture (Schmidt 2000; Watkins 2008).

This paper has a two-fold purpose. Firstly, it is argued, in accordance with Renfrew (1998) and others (Watkins 2004), that new ways of treating material culture, a new relationship of human agency towards matter, should be considered as a significant innovation characterising the majority of the Neolithic societies in Western Eurasia. This will be discussed in regards to different Neolithic contexts, with a special focus on the area of northern Germany and southern Scandinavia (“The Western Baltic Region” in the following). Secondly, the focal point of this paper will be to evaluate the temporal setting of the impact of Neolithic innovations to social practice and individual identities in the Western Baltic Region. Here, the focus will be on a quantitative perspective, arguing that the mere presence of innovations can not be seen as determinant for the shaping of new, Neolithic identities. Rather the scale of their practical implementation is the critical factor.

**Different modes of communication via material culture**

Like many other (especially German) authors (Veit 1999; Holtorf 1996; Müller 2009) dealing with monumentality I deem the concept of Cultural Memories (Assmann 1988; Assmann 1992) fit to concretise the term towards its character as a medium for communicating socially relevant meanings. I have argued elsewhere (Furholt i. pr.) that
the material characteristics of a monument, namely colossality, visibility, durability and often also uniqueness are to be seen as a means to achieve the aim of an intentional communication of distinct meanings to a distinct group of people. Normally, monuments are defined as structures showing a clear surplus of meaning vs. functionality, as the possibility of a profane, functional explanation of its features normally leads to a rejection of the term monumentality (Furholt i. pr.).

Jan Assmann’s concept of Cultural Memories is an adaptation of Maurice Halbwachs’ thinking, concerned with the social constitution of memories and the significance of a Collective Memory (Assmann 1992, 34 ff.). As two variants of the Collective Memory Assmann distinguishes the Communicative Memory and the Cultural Memory, using the metaphor of the fluid and the solid. The first is constituted in daily-life communicative contexts. It is seen as highly fluid and of a limited duration, normally less than 80–100 years, three to four generations, as it is connected to the oldest living individuals in any given society (Assmann 1992, 50). In contrast to this, the Cultural Memory is durable because it is supported and maintained through rituals, regular collective ceremonies and events and often also connected to monumental buildings. The Cultural Memory is related to fixed points in the distant past and often connected to – and supported by – founding myths linked to the identity of the collective (Assmann 1992, 59).

Thus Assmann defines a concept about stable cultural memories that are closely connected to collective identities. Although he, as an Egyptologist, deduces his model from the early state societies of the Near East, it seems appropriate to generalise it, especially in respect to non-literate societies engaged in monumental activities. Talking about signification in a material world, such a generalisation seems justifiable from the perspective of semiotic pragmatism. If, as Charles Sanders Peirce has put it, meaning is determined by behaviours practical outcome (Peirce 1931–35, 402; Oehler 2000, 14), then surely the quantity of specific behavioural efforts connected to an object is decisive for the contents of meanings signified in a given context. When a structure is judged to be monumental in the sense referred to above, it is – by definition – intentionally created, collective efforts are deliberately concentrated without a functional reason, but rather serving the purpose of creating visible and durable meaning. Whether or not these collective efforts are explicitly intended to be part of the message communicated, following the pragmatic premise, these efforts will in practice inevitably be an integral part of the memories connected to the monument.

From this perspective it seems appropriate to closely link Assmanns Cultural Memory to the concept of Monumentality and we end up with a general model of Monumentality where monumental buildings are seen as media for the creation and maintenance of Cultural Memories, which again serve as means to create and maintain collective Identities. In this way a model emerges that connects the material characteristics of monuments to signification and identities.

And what is more, when we incorporate the Cultural Memory concept to our model, we are on a more general level referring to different modes of social communication, which may help us to get a broader understanding of the role of monuments in social reality. Cultural Memory is not restricted to material monuments, but relate to what Aleida Assmann calls “the Monumental” as a special mode of communication, opposed to the Lifeworld mode of communication (Assmann 1991). It is easy to perceive the distinction of Cultural and Communicative Memory behind these concepts, Aleida Assmann herself refers to Bachtin’s (1979, 229ff.) distinction of “the authoritative word” as opposed to the “dialogic word”, the Monumental communication having normative, if not dogmatic power, being linked to group identity and
The Monumental and the Neolithic mode of communication

This notion of a Monumental mode of communication helps to understand the role of Monumentality in early Neolithic societies. It seems clear today that the early development towards sedentism, the process of neolithisation in the Near East involves a massive increase in the monumental mode of communication, not only expressed through the erection of monuments as such (Schmidt 2000), but in the whole use of material culture (Cauvin 2000). This argument meets the concept of external symbolic storage, put forward by Merlin Donald (1991), Colin Renfrew (1998) and recently Trevor Watkins (2004). To cite the latter:

“…hunter-harvester groups who had become sedentary, discovered the potential of the built environment to embody their ideas of who they were…” (Watkins, unpublished paper, reformulating a similar statement in Watkins 2004, 105).

Interpreting Watkins’ words, a major change in material culture use occurred when the built environment, or more generally, material objects that were initially created without the intention to produce a sign, were intentionally used for signification.

To stick to the terminology applied here, in the early Holocene a new, Neolithic Mode of Communication via material culture is, if not created, clearly gaining higher importance, and this would be a more frequent application of an intentional form of symbolism using material culture. Wiessner (1989) defined such an intentional symbolism as emblemic and assertive style in contrast to Sackett’s isochrestic variation, or unconscious drift style (Sackett 1982, 96; Binford 1963) that is explaining style mostly by the variation of learned behaviour, and thus more or less unintentional choice of different possible ways to reach comparable functional ends.

In addition to the rising scale of intentional symbolism in material culture, its expansion into the realm of utilitarian, everyday artefacts seems to be a key feature characteristic for most early Neolithic societies in western Eurasia. To use Assmann’s concept, we see the expansion of the Monumental mode of communication into realms of the Lifeworld mode of communication. This may be best illustrated by the – albeit rather exceptional – case of Çatal Höyük (Hodder 2006), where the wall paintings, plastic sculptures, and burials below floor platforms clearly point to the incorporation of monumental communication into the daily life domain of the domestic house. More generally speaking, most Middle Eastern and south-eastern European early Neolithic societies are extensively using domestic, utilitarian artefacts, especially pottery to intentionally symbolise social meanings. Additionally, the interment of burials in houses or at least within the settlements is a common feature (Lichter 2001).

In contrast, looking at the pre-Neolithic situation, it is obvious that the style of the great majority of utilitarian artefacts is mainly determined by their raw materials and their functions, the observed variance may be well explained by Sackett’s isochrestic variation. This circumstance is connected to the very slow velocity of formal development in material culture observable in Palaeolithic times.

This is of course not to claim that there was no intentional symbolism in material culture in the Palaeolithic. On the contrary, we know of elaborate art, we know fine ornaments and also decorated artefacts.
But it has to be stated that the great majority of decorated artefacts are non-functional ones, and thus there is still a very marked separation between the Monumental Sphere and the Lifeworld Sphere. What is more, the cases where possible utilitarian, lifeworldly artefacts are decorated, are clustered in time and space. There is definitely an accumulation in the late Magdalenian, especially the Magdalenien-IV-Horizon of Western Europe, in the 12th to 11th Millenium BC, of decorated, possibly functional artefacts that were undecorated in earlier periods (Bosinski 1990, 197 ff.).

This is clearly indicating that the term “Neolithic mode of communication” is of course a simplification, as I am not arguing in an evolutionary way, and it may well be thinkable that comparable behavioural patterns have been present in several contexts before the Neolithic, and indeed as we will see later on are not integral to all Neolithic societies. The important point is, however, that the behavioural pattern defined here as the “Neolithic mode of communication”, the extensive intentional use of material culture, including functionally and lifeworldly artefacts as a means of social symbolic communication, shows a clear increase in practice in the early Neolithic of Western Asia and Europe.

The Early Neolithic in South-Eastern and Central Europe

When we turn to the earliest Neolithic societies in continental Europe, dating from 6500/6400 BC in Thessaly (Reingruber 2008, 317), we meet an elaborate symbolism that has its most marked expression in the highly variable clay figurines (Mina 2008), but what is crucial is the development of a genuine, highly variable and elaborate pottery style (Fig. 1). It seems as if there is a short early period with only monochrome pottery (Reingruber 2008, 262; 291; 303), but after a few generations the new medium of pottery is extensively used to play out a variant-rich language of forms and decorations, that is starting with the Protosesko-Style (from the 63th century in Argissa, Sesklo and Achilleion, see Gimbutas/Winn/ Shimabuku 1989; Reingruber 2008, 317) and then, from the 62nd century BC with the Sesklo-Style (Reingruber 2008, 317, who sees that phase starting later, at 6000 BC). The red-on-light painting may be derived from southwestern Anatolia, but the motifs and newly evolving vessel forms are clearly genuine inventions.

Early Pottery in the Balkans shows a similar elaboration. Again there may be an early monochrome horizon at the start of the devel-
opment (Krauß 2008, 119). Although this horizon is more hypotheti-
cal than actually observable through well-excavated archaeological
stratigraphies, it could again be assumed that the full potential of the
new medium of pottery would have needed some time to be fully
discovered. Nevertheless, after a couple of generations, the presence
of an elaborate symbolism in (Proto) Starčevo-Pottery (Fig. 2; Schu-
bert 1999) or Karanovo I-Pottery (Krauß 2008) can not be denied.
The situation seems to be even clearer in the case of the ear-
ly Neolithic of central Europe, the Linearbandkeramik (LBK, Gro-
nenborn 1999). As the chronology is well established, we clearly
observe a rapid development of a genuine and elaborated pot-
tery style (Kloos 1997), with a broad variability especially regard-
ing the decoration (Fig. 3). Attempts to trace these elements from
south-eastern antetypes are only successful for single elements
(Gronenborn 1999, 148, Fig. 6). It rather seems that more or less
contemporary with the earliest farming activities on the Cen-
tral European loess soils, an elaborate language of signs is estab-
lished on one of the most prominent tool types of the Lifeworld

realm, the items for storing and cooking food. Other function-
al, daily life tools, like axes are not of such a stylistic variability
(Hahn 1993, 286ff.; Raetzel-Fabian 1988), but the polishing char-
acteristic of this group of tools is clearly pointing in the direction
of a more intentional form-giving, where the characteristics of
the material worked on are subdued according to human will.

The Neolithisation of the Western Baltic Region

A stark contrast is found in the Western Baltic Region. In the con-
text of the late Mesolithic Ertebølle complex there are some utilitar-
ian artefacts that are decorated (Andersen 1980; Jensen 2001, 202–
203; 213–218), but the shape and appearance of the great majority
of utilitarian artefacts is clearly determined by their function and
the characteristics of their raw materials (Prangsgaard 1992; Klas-
sen 2004, 109 ff.). There is pottery, but compared to the central Eu-
ropean evidence a very marked difference is to be seen in regards
to symbolic elaboration. Ertebølle pottery is mostly undecorated
(with exceptions, the most marked one being the Scanian Ertebølle
Pottery)\(^1\) and shows very low formal variation and development
through time (Fig. 2a; Prangsgaard 1992), variation that can be very
well explained by isochrestic variation, but surely not by an inten-
tional symbolism.

It is a very significant observation that this situation does not
change in the early Neolithic of the Western Baltic Region. There
are new pottery forms from ca. 4100 BC, but they are still mostly
undeckated and show a very low formal variation (Fig. 5). What
is more, Klassen (2004, 154ff.) has pointed out that almost all forms
may be derived from southern antetypes located in contexts of the
Michelsberg pottery style in the southwest (Fig. 6). Most decoration
present may be explained by functional means, or as representing
supra-regional trends, like plastic bars under the rim (Klassen 2004,
fig. 104) or “Lochbuckel” (Klassen 2004, fig. 106), and even towards
the 37th century, when vertical lines on the belly (Klassen 2004, 204)
become more frequent, this is again representing supra-regional Eu-
ropean trends, especially found in Baden Pottery (Furholt 2009, 236)
or even on the British Isles (Klassen 2004, fig. 127). Thus the decoration
and formal variation is much better explained by a passive re-
cption of supra-regional trends via passive drift style rather than as
a result of an active, intentional use of pottery for the transmission
of meanings.

Even if we turn to the flint axes, as one of the most important tool
types of the early Neolithic, the pointed-butted axes representing
the oldest type seem to be imitations of imported jadeite axes from
the southwest (Klassen 2004, 211) or, to take the alternative explana-
tion, if they are seen as a development from the Ertebølle flint axes
(Madsen 1994), the real innovation, the polishing, is imported from
the south and no real indication for an intentional symbolism. The
development towards four-sided, thin-butted axes may very well be
explained by functional improvements, or as recently put forward by
Klimscha (2007), they may again be seen as imports, this time from
south-eastern Europe.

To sum up, over a period of up to 600 years, from 4100 to 3500 BC,
although we are speaking of “early Neolithic”, we rather see a pre-

\(^1\) In Scania, decoration on Ertebølle pot-
ttery seems to be the rule, very much in contrast to the rest of the Ertebølle
Pottery. Such pottery assemblages are known from several find spots in
Scania (Jennbert i. pr.). The decoration is mostly consisting of a total covering
of the surface by impressions of differ-
ent kinds. It is debatable whether we
are dealing with intentional symbol-
ism, as this kind of decoration is com-
mon within the eastern Eurasian forest
steppe pottery in general (Piezonka i.
pr.). Jennbert (pers. comm.) is pointing
out the variability concerning the im-
pression techniques implied. Whether
or not the Scanian Ertebølle pottery is
showing traits of the “Neolithic Mode
of communication” highlighted here,
surely needs further attention.
neolithic mode of material culture symbolism, where a low range of variability and development point to isochrestic variation with a rather passive reception of supra-regional elements, much more than an intentional use of material culture. There may be a tendency to a more marked symbolism, especially around 3700 BC with the Volling style (Fischer 2002; Klassen 2004, 246) that for the first time shows some genuine stylistic elements, and a rising tendency in formal variation. The real turning point, however, seems to be reached with the Fuchsberg (and Virum) style (Early Neolithic II) since 3500 BC and the following Middle Neolithic pottery styles (Jensen 2001, 301).

Here we really find a genuine style, a high variability of forms and decorative patterns (Fig. 7) that for the first time shows the quality of symbolism that is comparable to the early Neolithic pottery styles of central and southeastern Europe. A witness to this new quality is the narrow phasing of differently classified styles of the Early Neolithic (EN) II and Middle Neolithic (MN) Ia, Ib and II all within a period from 3500 to 3000, whereas EN I has a duration of 600 years (Koch 1998, Madsen 1998).

The Breakthrough at 3500 BC

The earliest appearance of the Fuchsberg style is not clearly fixed; the radiocarbon dates show quite a variability (Furholt et al. 2003), and the structure of the calibration curve makes it very difficult to differentiate within the period of 3520 to 3370 / 50 BC at least until we are able to apply Bayesian modelling to the pottery sequence of the EN II and MN pottery styles. Although it might be possible to narrow the chronology of the Fuchsberg style, with a start nearer to 3400 BC (e.g. Mischka 2010) here, the rather conservative dating of "around 3500 BC" will be applied in a preliminary way.

Although there are still uncertainties with regard to the finer chronology, it seems to be clear that in the period between 3500 and 3300 BC we observe massive changes in the archaeological record of the Western Baltic region, in many ways paralleling the development just outlined for symbolic behaviour (Fig. 8). If we take the monument-building activities, we have to account for the first earthen long barrows at around 3700 BC (Rassmann 2008) – the time when we identified the first signs of an intentional symbolism in the pottery, represented by the Volling style. The real breakthrough in monumental activities is clearly reached after 3500 BC (Persson / Sjögren 1995), where a building boom of previously unknown scale sets in.

Considering Klassen’s (2000, 236, Fig. 11) account of foreign imports into the region (Fig. 4), we again see a parallel development, with a rising tendency since 3700 BC, whereas the real peak is clearly around 3500 to 3300 BC. And with regard to human impact, the first more substantial indications for human economic activities visible in the pollen records, represented especially by the Plantago lanceolata curve and the ratio of Hazel and Birch against the species of a mixed oak forest seem to be visible at around 3800 / 3700 BC, the first massive evidence being dated to the period from 3500 BC onwards (fig. 8; Feeser pers. Comm.).

To summarise, although all Neolithic innovations seem to be present in the period of 4100 to 3500 BC, their realisation in social practice, and thus, their impact on social reality is rather limited. The economy in this early period is in many respects a continuation of Ertebølle patterns (Brinch Petersen / Egeberg 2007), albeit maybe with a rising tendency towards domesticates, but also the...
mode of symbolic use of material culture is more or less pre-Neolithic. It is only after 3500 BC that we see striking evidence for a massive increase in activities in different domains of social reality that are more or less functionally unconnected.

The Package Model

Although the idea of a “Neolithic Package” may have proven useful for the understanding of many early Neolithic contexts (cf. Çilingiroğlu 2005), it does not really seem suitable to describe the neolithisation of the Western Baltic region. At the current state of the art, we are already dealing with sedentary fisher–hunter–gatherers in the Mesolithic period, pottery is used from the 5th millennium BC (Hartz/Lübke 2004), domesticated animals are kept since approx. 4500 BC (Krause–Kyora i. pr.) and domesticated cereals from...
Ertebølle sites are debated (Brinch Petersen / Egeberg 2007, 451), although the same is true for the presence of domesticated cereals in the earliest Neolithic (ibid.). Continuities are visible in house forms and settlement patterns (Madsen 1982; Brinch Petersen / Egeberg 2007), and as pointed out here, in the mode of symbolic behaviour using material culture. What is more, monuments are absent from the Ertebølle period as from the first centuries of the early Neolithic. Thus, a model like Rowley-Conwy and Zvelebil’s (1984) seems more appropriate for the Western Baltic. Nevertheless the terms “Availability Phase”, “Substitution Phase” and “Consolidation Phase” do not really seem adequate to represent the process as it has been outlined above. When we consider the phase of 4100 BC to 3700 BC we are not only talking about the availability of Neolithic innovations, but explicitly about the use of Neolithic artefacts and techniques, albeit in a pre-neolithic mode. When we consider the phase of 3700 BC to 3500 BC, we are seeing an increase in the Neolithic mode of using (Neolithic) artefacts and innovations, but on a smaller scale, a factor that changes significantly after 3500 BC.

So it seems appropriate to maintain the term “package”, if we alter it to a description of the temporal setting of the changes happening (fig. 9), and especially the synchronicity of the scale of behavioural changes in different domains of social reality.

In the four domains represented in Fig. 9 we see, after the so-called “Neolithic Divide”, that does not mean very much practically, a period of low activities (4100 to 3700 BC), then a period of a rising tendency (3700 to 3500 BC) and the breakthrough phase from 3500 to 3300 BC. I believe that the explanation of this synchronous, package-like phasing – which of course should be fixed more precisely as our dating abilities improve - could be found in the concept of identities.

**Neolithic Identities**

From a pragmatist’s perspective, in the same way stated for meanings in general (see above), active individuals or self-identities are shaped and maintained in a dialectic relation to real actions in so-
cial practice (Mead 1934; Peirce 1967), taking place in a meaningfully constituted world. When we think of Neolithic identities, we believe that changing behavioural patterns must inevitably lead to changes in the formation of self-identities and thus lead to altered self-identities in practice. The Neolithic individual is likely to perceive herself as an active creator of material things, acknowledging the human power of disposal over the environment, the human power to shape matter at her own will. In response to this, the Neolithic individual will constantly be confronted with materialised meanings in her domestic lifeworld, in the whole landscape, where she encounters monuments, symbolically loaded tools, gardens and cultivated space.

A clue to an understanding of the changing pace of development in the early Neolithic of the Western Baltic may again lie in a pragmatic approach. If practical behaviour is affecting (collective and individual) identities (Mead 1934), then, from this perspective, it is not the availability or even the actual presence of innovations that really affects identities, but rather the extent to which it is used in social practise that alters the identity. Archaeologists tend to concentrate on the first appearance, the earliest presence of certain tools, features or innovations. The pragmatist’s position taken here would rather suggest a concentration on the quantity in which such innovations may be proved to be part of social practice. The mere presence of new pottery types, polished stone artefacts, domesticated animals and plants did not change Mesolithic identities to a really detectable degree, instead it obviously took five to six centuries before these innovations had reached a quantitative scale which really affected social practice and thus individual and collective identities.

If the quantity of behavioural change is to be seen as the key variable affecting past identities, then the massive building boom of megaliths since 3500 BC, when presumably up to 40.000 such monuments were constructed (Midgley 2008, 31) is surely one of the most marked examples of a creation or transformation of identities in human history. This is even more the case when we look at our current model of chronology. Although we still lack a more precise phasing, comparable to the British evidence (Bayliss / Whittle 2007; one first exception: Mischka 2010) it seems likely from the existing radiocarbon evidence (Persson / Sjögren 1995) and typological estimations (Jensen 2001) that the great majority of all megaliths are constructed in the period of 3500 to 3300 BC, passage graves being younger, whereas after 3100 BC no or very few new megaliths were erected. This points to an enormous monument-building activity in a quite narrow time slice. Considering the model built for Flintbek (Mischka 2010), this period may be even shorter than the 200 years estimated here.

The fact that, as shown above (Fig. 9), this development is clearly paralleled with a massive increase of the Neolithic mode of symbolic behaviour towards material culture, the first enclosures in the north (Andersen 1997; Klatt 2009), a first peak in the indications for human impact and of foreign imports, strongly supports the idea that at this time the scale of behavioural changes reached a level where they for the first time are able to alter individual identities, a process that again supports the assertion of far-reaching changes in behavioural patterns. It is this dialectic of changing behaviour and evolving identities of the human actors, that provide a frame of coherence, that may serve as an explanation for the synchronicity of the developments in different realms of social reality, and maybe also for the different paces referred to in Fig. 9, especially the rapid “breakthrough event” around 3500 BC after a relatively short period of gradual rise from 3700 BC to 3500 BC.
A Virtual and a Practiced Neolithic?

We could also grasp this development in terms of the realisation of innovations in practice. As we have seen, in the Western Baltic region all the ingredients of the "Neolithic Package" are present and implemented in social practice from approx. 4100 BC, although most of them appear at different times. But the extent of their impact (fig. 9) on behavioural patterns and identities is so limited that for a long time, traditional "Mesolithic" behavioural patterns, like hunting, fishing, gathering of wild species, dwelling in light, hut-like structures, a low amount of intentional symbolism in the making and use of utilitarian objects remains the real basis of social reproduction. The Neolithic elements present may be perceived as innovative and appreciated, but they stay – with respect to quantity – in a virtual, largely immaterial state. This does not imply that they are less important for the people in an emic sense, but their effect on social practice and thus on identity formation is, from the etic perspective, rather low.

Seen from a pragmatist’s perspective, meanings are produced and develop through their incorporation into social practice that is taking place in the material world. Simultaneously, meanings structure the material world. Taking this perspective, the period of 4100 to 3500 BC could be labelled a theoretical, or Virtual, Neolithic; in terms of realised practice it should rather be called a "Latest Mesolithic". After these centuries, where the scale of behaviour connected to innovative ideas (like new ways of material culture symbolism, the inscription of meanings and reshaping of the landscape through monuments, fields, more permanent timber buildings, the breeding and reliance on domesticated plants and animals) has been rising, it is after 3500 BC that this innovative behaviour has reached a quantity where it can dominate human behaviour and alter human identity in practice. Now we may speak of a "Practiced Neolithic".

In a general sense the succession from the virtual to the practised stage should always be present when new ideas are entering into any given social context, but there seems to be an obvious difference between the Western Baltic neolithisation process and those of central Europe, south-eastern Europe and Greece, referred to above.
In these regions, such Virtual Neolithic phases have, if present at all, a duration clearly lying beneath the resolution of radiocarbon dates. This has to be explained somehow and one possible model could be a greater number of people already practicing Neolithic identities migrating into the respective regions.

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