6

Research Article

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Do We Finally Know What the Neolithic Is?

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Abstract: Over 20 years ago, an inspiring text by Lech Czerniak (*The Neolithic – What's That?*) on understanding the concept of the Neolithic was published. For the present author, the Lech Czerniak's discourse on the Neolithic was for many years and, to a large extent still is, a conceptual basis for understanding and presenting this issue. This contribution is an examination of the current relevance of Lech Czerniak's theses. Furthermore, starting from this basis, a subjective attempt will be made to put the topic in some order, since a lack of clarity as to what the Neolithic is and what is not hampers and complicates research activities. Particularly, perhaps a fundamental issue will be assessed whether the concept of Neolithic in any measure reflects the past reality or reflects only our perceptions of that past. Conclusions resulted of the argumentation assume that there were indeed different and real Neolithics in the past. However, these Neolithics had a common denominator, in the form of "new" socio-organizational, ideological, mental, and consequently also meaning structures. They were a prerequisite for the existence of the Neolithic formation. Situations that can be labelled as the Neolithic are reflected archaeologically by the predominance of elements of the "Neolithic package" within a given sector of the cultural system.

Keywords: Neolithic, definition, Neolithic package, society, ideology

1 Introduction

Many doubts about the reliability of today's interpretative constructions of the more or less distant past apply in full force to the term "Neolithic." As is well known, this term has been widely used in archaeological literature and in popularising publications since 1865 (Lubbock, 1865). However, archaeologists and prehistorians, specialising in those fragments of the past, which in given territories are associated with the Neolithic and with epochs "adjacent" to it, know very well that its understanding is far from unambiguous and universal. Paradoxically, the unbelievable quantitative growth of factual studies on the Neolithic and interpretative approaches, directly and indirectly touching upon the matter of defining the Neolithic, complicates rather than clarifies this issue. Therefore, it is difficult to avoid the impression that everyone knows very well what the Neolithic was, except for the experts.

Over 20 years ago, a relatively short but important and inspiring text by Lech Czerniak (*The Neolithic – What's That?*) on understanding the concept of the Neolithic was published (Czerniak, 1998). It referred, in a measure, to the earlier considerations contained in his fundamental monograph of the Kuyavian Neolithic, published in 1994 (Czerniak, 1994, pp. 24–30). For the author of these words, the Lech Czerniak's discourse on the Neolithic has been a conceptual basis for understanding and presenting this issue for many years.

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The Lech Czerniak's text from 1998 contains, among other things, the idea that it is difficult to speak of a single, veracious, and universal definition of the Neolithic, resulting, e.g., from the deterministic theory of progress and the dominance of material determinants. By the latter, he had in mind mainly subsistence (cf. also Czerniak, 1994, p. 27). Probably, according to the quoted author, there was also no single, universal Neolithic in the past. This is because the Neolithic is a concept derived from specific, scientific traditions and schools in which particular researchers have formed and operated. This notion is therefore the result of different, entrenched, modern worldviews, which de facto are not subject to empirical verification (cf. also Czerniak, 1994, pp. 26–27). Let us add, independently of the cited works of L. Czerniak, that it is a peculiar paradox that we study past human societies by means of modern conceptual apparatus. Coming back to the main theme, according to L. Czerniak, one should also be aware of what circumstances contribute to particular definitions of the Neolithic. This may be both the result of the synthesis of facts, as well as the formulation of new concepts, to which facts are sought or even adjusted (cf. also Czerniak, 1994, pp. 25–26). As can be judged from the cited author's arguments (and additionally interpreting them a bit), the practical lack of a universal, compulsory definition of the Neolithic is, objectively speaking, a positive situation, since, as has already been pointed out, the search for such a definition is a pipe dream, just like in case of concepts like para-Neolithic or sub-Neolithic. Perhaps, in his opinion, it would be more appropriate to limit the term Neolithic only to specific territories and times (cf. also Czerniak, 1994, p. 28). But, on the other hand, he seems to claim that general classifications are nevertheless necessary (let us again add – to obtain general visions and constructs), otherwise specializations and research fragmentations would progress to the level of absurdity (cf. also Czerniak, 1994, p. 30). Lech Czerniak also rightly notes that the dominance of some definitions results from purely practical issues. It is relatively easy, for example, to point to the presence of agriculture or other, material elements of the Neolithic package, as opposed, for example, to immaterial ideological factors (Czerniak, 1994, p. 27, Footnote 38).

Many discussions of this kind, very lively and even emotional ones, were held in the last two decades of the twentieth century and at the beginning of the twenty-first century (e.g. Bailey, 2005; Bogucki, 1988, p. 13; 1999; Çilingiroğlu, 2005; Pluciennik, 1998; Rimantienė, 1998; Thomas, 1999, 2003; Werbart, 1998; Whittle, 1996, pp. 8, 355; 2003; Zvelebil, 2002; Zvelebil & Lillie, 2000). However, in the opinion of the present author (of course subjective and perhaps unsound), in the last 10/15 years, this topic has been a bit less frequently analysed and debated. For instance, it seems quite remarkable that in the recent, monumental (nearly 1,200 pages) monograph, which aspires to be a synthesis of the European Neolithic (Fowler, Harding, & Hofman, 2015a), the topic of the Neolithic definition has been treated rather terse. Without going into individual chapters, let us note that in Section 1, there is only a brief (less than two pages) reminder of the most important directions in exploring the term "Neolithic" (Fowler, Harding, & Hoffman, 2015b, pp. 4, 6). Besides, one of the final concluding articles, by Thomas (2015), deals with the issue of interest.

Could it be the result of a certain discouragement, caused by the inability to reach a consensus? Or perhaps it is the consequence of a progressive specialisation and, let us say openly, progressive influence of the "publish or perish" rule, resulting in a lack of interest in constructing general, (pre)historic patterns.¹ Consequently, this situation exacerbates the long-noted separation between practice and theory in prehistoric research, including the question of Neolithic definition. It was this subjective feeling that became one of the reasons for writing this paper. It will not be an in-depth study but rather an attempt to make the foregoing issue perhaps a bit neater and tidier, made by an archaeologist who deals with the Neolithic (with varying success) and who, in his research endeavours, has been increasingly hampered by a lack of clarity as to what is and what is not Neolithic.

¹ The present author happened to hear at a conference very characteristic statement, which may remain anonymous: "I do not want the historical pattern to influence my conclusions."

2 Many Different Neolithics?

If we analyse the relevant archaeological literature, we will inevitably conclude that there are in fact many parallel definitions of the Neolithic, although not all researchers are necessarily aware of this. Nothing has changed in this matter since the year 1998.

It is probably no great exaggeration to state that the concept of the Neolithic as a period in which human societies were characterised by the simultaneous and consistent presence of such attributes as cultivation, animal husbandry, pottery, permanent settlement, spinning, weaving, and polished stone tools formally dominates the literature (e.g. McCarter, 2007; Shennan, 2018). Conceived in this way, the Neolithic is simply an epoch characterised by the presence of the aforementioned co-occurring elements, collectively referred to as the "Neolithic package." However, in practice, usually somewhat unconsciously, the primary rank among these elements is attributed to agriculture or, to put it slightly differently, agriculture is viewed as a kind of base on which were built, and from which are dependent, the remaining components of the package as well as other phenomena/processes, such as i.a. population increase. It is a kind of axiomatic tradition, supported for instance by the authority of V. G. Childe (e.g. Childe, 1947, p. 15), one of the founding fathers of modern Neolithic archaeology. Despite criticism (e.g. Catapoti & Relaki, 2020, pp. 290-291; Thomas, 1999, pp. 13-17, 222-223 and citations therein), one may risk a statement that such an approach is observed to date by a majority of archaeologists belonging to the "continental" tradition (e.g. Bogucki, 1988, p. 13; Pavlů & Zápotocká, 2013, pp. 9-14; Włodarczak, 2017; Zvelebil, 2002; Zvelebil & Lillie, 2000, p. 59). This causes, among other things, that such terms as "Neolithic"/"Neolithisation" and "agriculture"/"origins of agriculture" are synonymous in everyday circulation of scientific information. What is more, it is colloquially taken for granted that groupings with domesticated plants and animals are Neolithic, without even considering whether other elements of the "Neolithic package" are present.

Perhaps, it is worth noting at this point that there appear (provocative?) views that food needs were not the direct cause of the "invention" and spread of agriculture. For example, as maintained by I. Gilligan, "agriculture is not just food production, and it never was" (Gilligan, 2019, p. 189). The reason for its emergence was said to be desire for secondary products, specifically textiles and clothing (Gilligan, 2019, pp. 119–217). Consequently, according to this opinion, the remains of textiles would essentially be the marker of the Neolithic.

There are also approaches that consciously consider as Neolithic those units and phenomena in the context of which only some elements or even only one element of the "Neolithic package," other than plant and animal husbandry, can be discerned, with the possible symbolic presence of the others. In the following sections, examples of such approaches are discussed.

Let us begin with manifestations of stable settlement, which are sometimes emphasised as markers of the Neolithic. Perhaps, indicators of sedentariness as the most evident Neolithic feature that justifies the use of the term under consideration have been especially highlighted for the initial stages of the Neolithic in the Middle East (e.g. Watkins, 2006a, 2010, 2018).

There are also views that capture the Neolithic, primarily, as a "new" state of material culture. In fact, they do not differ much from the most original way of defining the Neolithic, by Lubbock (1865). Ceramics are most often taken as such "novelty," determining the "neolithicness" of a given unit. The approach of this kind is particularly common in the countries that were once part of the Soviet Union (e.g. Karmanov, Zaretskaya, & Lychagina, 2012; Mazurkevich & Dolbunova, 2012; Piezonka, 2015).

It is not uncommon to consider as separate approaches the concepts created in a processual or post-processual spirit. In the light of the former, the Neolithic is above all a new way of adapting to "new" environmental conditions (e.g. Bar-Yosef & Belfer-Cohen, 2002; Bar-Yosef & Meadow, 1995; Rosen & Rosen, 2017, and citations therein). To tell the truth, this approach is not reserved exclusively for processually aware archaeologists; consciously or unconsciously, this principle has been applied by others as well (e.g. Weninger & Clare, 2017; Weninger et al., 2009).

In the light of the latter, the Neolithic is above all a new mental, worldview, and ideological attitude to the surrounding reality (and unreality). In other words, it is a new way of thinking, resulting in changes in various spheres of functioning of human communities. In yet another words, the neolithisation is a process of change, taking place primarily in people's minds (e.g. Hodder, 1990; Lewis-Wiliams & Pearce, 2005), while cultivation and animal husbandry, or other elements of the "Neolithic package," were secondary effects of these changes, and not vice versa. As Whittle wrote years ago "becoming Neolithic may have been much more a spiritual conversion than a matter of changing diets" (Whittle, 1996, p. 8). Again, it is not necessarily only declared post-processualists who define the Neolithic in this way but also those who correlate the beginning of the Neolithic with a revolution of symbols and ideology (e.g. Cauvin, 2000; Watkins, 2006b).

In a somewhat similar vein, hypotheses have been proposed that foreground the organisational transformations of communities standing at the dawn of the Neolithic, or undergoing neolithisation, resulting from new relationships with things, animals, and/or plants (e.g. Robb, 2013; Thomas, 2013, 2015).

In essence, however, these last three groups of hypotheses are attempts to describe, explain, and justify, or to put it another way, to find the very prime reasons for the appearance of elements that are considered to be markers of the Neolithic in a particular place and time. These are actually not separate streams of thought, but more contextual and causal constructs. However, the more traditional (continental?) approaches, if they can be called in such a way, do not search so intensively for underlying factors and mechanisms. Consequently, the relationship between these three lastly discussed attempts to define the Neolithic, and the more traditional one is not so much exclusionary but complementary.

All this means that we are *de facto* dealing with many Neolithics in the archaeological literature or, to put it in more detail, with interpretations of not necessarily the same data and premises that have led to formally the same conclusion (i.e. to labelling these data and premises as Neolithic). A rather fundamental doubt arises at this point. Namely, does this multiplicity of the Neolithic correspond to the past reality? In other words, does it mean that there were many phenomena and formations, which we call collectively the Neolithic? Or is this only an apparent knowledge, which is the result of our disunity, and in the past reality, the Neolithic consisted of one and the same thing, always, and everywhere.

Undoubtedly, resolving this doubt is not easy. Certainly, there is an interpretative school that explicitly argues that the search for an absolute, only valid definition of the Neolithic is wrong by design, as there were in fact many different Neolithics in the past (Lewis-Wiliams & Pearce, 2005, p. 283; Pluciennik, 1998; Thomas, 1999, p. 17). Perhaps, the only common feature was a difference from the Epipalaeolithic/Mesolithic (Fowler et al., 2015b, p. 6). Thus, in some areas, the Neolithic would have been represented as a complete "package" with predominance of agriculture in subsistence economy; elsewhere as a "package," perhaps not even quite complete, with varying importance of its elements. In other territories, on the other hand, the Neolithic change would have been of an inventory nature – consisting only of the appearance of, for example, pottery, "new" stone industries, "new" architectural structures. In some territories, organisational, social, and/or mental or even ideological transformations played the role of an "ignition," whereas in some others, environmental transformations were such "ignition," and in still others, cultural interactions and acculturation processes constituted causes of neolithisation.

3 One Neolithic?

The thesis of the multiplicity of the Neolithic, however, is not without flaws. First, we must again accentuate that different interpretations and definitions of the Neolithic result at least as much from different research traditions and accepted theories of cultural development as from analyses and explanations of "hard" archaeological and other data. To put it bluntly, these are still OUR concepts and definitions and OUR ways and models of conceiving human societies living several thousand years ago. Do they correspond to THEIR concepts, and THEIR self-definitions?

In that case, one may wonder whether discussing the definition of the Neolithic (including the one that assumes multiple Neolithics) is not purely academic, intellectual play. Is it not the case that the Neolithic is a concept created solely for our classification convenience, while it does not reflect any real prehistoric phenomenon, as probably many other archaeological, prehistoric, and historic concepts do.

We are entering here the difficult ground of debates about the objective, i.e. existing not only in the imagination of today's researchers, the occurrence of long-term trends, processes, formations, and developmental stages in the history of mankind, to which perhaps it is justified to apply the "Braudelian" notion of the long term (*longue durée*). We have absolutely no ambition to solve this fundamental problem unequivocally and categorically, which is not only of a (pre)historic nature but also of deeply anthropological, cultural, and philosophical ones. Instead, we dare express our own point of view, as one of the many possibilities to be proposed.

Namely, it is worth emphasising that visions of human development, which are characterised by the interdependence and mutual outcome of all components of human existence, have been commonly raised and accepted. In their light, individual and general events (long-term structures) are interdependent (Hodder, 1999, pp. 130–145; 2016, 2018; Knapp, 1992; Olsen, 2013; Renfrew, 2001). Thus, long-term trends emerge from individual events and *vice versa*. This means that something like general tendencies, rules, structures, and the corresponding human *mentalité* nevertheless existed and exist, even if they are anchored only in the human subconsciousness (Kuna, 1995, pp. 46–49; Neustupný, 1998; Renfrew, 2001, p. 125). Otherwise, one should have to reject the thesis that humans are shaped by their general cultural environment (or "ontological space" to use the more philosophical expression).

It should be noted that these relatively distinct long-term and general trends were characteristic especially of those areas that remained within the main system/s of circulation of information, i.e. which were governed by *Le temps du monde* or lived within *Le temps du monde*, as Braudel put it (1992, p. 6). This wide-spread circulation of information did not necessarily concern the entirety of existence in a given epoch. It could be connected only with certain aspects, perhaps specific, but nevertheless important for the functioning of a given system. Within the communities living in "the time of the world," there were meanings and mental structures relevant to it (and thus commonly read, consciously or subconsciously). Areas outside of "the time of the world" were peripheral to it or completely beyond its reach, or lay within a transition zone (Braudel, 1992, pp. 16–33), *ergo* in these cases, it is difficult to assume a general unity as regards system of meanings and mental structures.

Happily, like few other fields of the humanities and social sciences, archaeology is in a unique position, which made it possible to search for and identify such long-term trends, because of the long-term temporal perspective on human societies when finding and linking comparable phenomena in the past. Consequently, we may be able to identify general, global patterns. Besides, with such comparisons, made over a considerable temporal space, it may be possible to see which factors intensified change, and it led to the transformation of the whole system, and which did not.

It obviously does not follow from the existence of long-term trends and corresponding mental structures that the communities concerned were always aware of them. Such tendencies or processes usually were too extended in time to be consciously perceived by particular people. This applies especially to the beginnings of such phenomena. Who among us, just for example, would have realised that we are probably living at the time of the IT revolution had we not read or heard about it in the media, or who in England in the second half of the 18th century realised that they were witnessing the beginnings of the industrial revolution.

However, this issue does not seem to be the most important one. For another example, the term "Byzantium" did not appear in historical literature until the seventeenth century, *ergo* people living in "our" Byzantium did not know that they lived in a country with such a name (they would have been surprised and even offended by it). But it does not mean that objectively in the past there was not something that WE could call the Byzantine Empire, Byzantine civilization, or Byzantine cultural circle. Only ("our") adjective itself is inadequate here because the people in question mostly called themselves Romans. On the same principle, human unawareness of the origins and existence of the Neolithic did not have to mean that the Neolithic objectively did not exist. For there is no doubt that there appeared at a certain time certain changes and novelties in human culture, and which, importantly, triggered even more intense, further transformations, with consequences reaching, in all seriousness, into the present day. Obviously, the appearance of these changes and novelties took on different forms, proceeded at different speeds (usually slowly), with different intensities; hence, it is not surprising that there were transitional stages and variations.

We can, by the way, let our imagination run wild and risk a guess that if THEY (Neolithic people) perceived some elements of the phenomenon WE call Neolithic (especially in confrontation with peoples WE would not classify as Neolithic), THEY saw and perceived them quite differently from us. Something that WE consider very scientifically and rationally, and otherwise also Eurocentrically, THEY saw, e.g. as a gift of gods, a supernatural phenomenon (Bouzek, 2010, p. 579; Rowlands & Fuller, 2018, p. 174), or in any case THEY "would have described what was happening [...] in the context of their own understanding of causality, their religion and system of symbols" (Lewis-Wiliams & Pearce, 2005, p. 288). Undoubtedly equally interesting and intriguing is the question of how Neolithic groupings (if we use OUR language) were seen and defined by (in OUR view) non-Neolithic groups? Was it really as Gernigon (2016, p. 174) wrote that "for Mesolithic communities in northern Europe, the Linear Pottery culture was certainly the archetype of Neolithic society." Our and Mesolithic viewpoints would then be identical. This, however, is such a prodigious and complex issue that it is beyond the scope of this article.

Be that as it may, all the innovations that we consider Neolithic, functioning even not necessarily together but above all in significant intensity, may have been linked to some economic, social, or ideological behaviours. In other words, these innovations were elements of a system of similar meta-material meanings. Thus, if we would like to speak of a specific, Neolithic mentalité, it was precisely such mentalité that was associated with widespread, predominant functioning of all or some Neolithic attributes. This dominant functioning was both constitutive for the Neolithic worldview and was also an effect of the Neolithic worldview. In other words, these two situations were linked by a feedback system. The latter construction is somewhat reminiscent of engagement theory (Renfrew, 2001, 2004), which sees the emergence of new mental concepts/states as the result of interaction with the changing material sphere of reality. In our case, this material sphere can be treated very broadly, as extended to economic realities.

Therefore, we have expressed the belief that the Neolithic was a significant intensification of novelties, material, and immaterial. It was a complex conglomerate of changes in human behaviour, whether people realised it or not. These were various changes, and they may concern the economic, settlement, organisational, social, as well as ideological and mental sphere. These novelties/changes created and signalled (and still signal archaeologically) a new *longue durée*. They also constituted a difference from the Epipalaeolithic or Mesolithic.

Initially, they might occur either separately or together. In the former case, however, further elements were virtually always added over time. Essentially, we attribute equal weight to socio-organisational, ideological, and mental as well as economic, settlement, and material factors. In short, agriculture could become a basic element of the food economy in communities whose socio-organisational and ideological structures made it possible. We strongly agree with J. Thomas that "it is difficult to see how Mesolithic groups could have assimilated livestock or cereals without first undergoing fundamental organizational changes" (Thomas, 2015, p. 1087). For example, such a change could have been a shift from the sharing custom, typical of classical hunter-gatherers, to the ownership, present among agricultural peoples, in situations of initial agricultural experimentations and behaviours. This, in turn, intensified existing and enabled further transformations in the aforementioned spheres/factors. Consequently, in such a context, agriculture was able to develop further towards achieving dominance in the subsistence. Such a pattern also applies to other elements of the Neolithic package.

Undoubtedly, the ultimately widespread reliance of alimentation on plant and animal husbandry unavoidably imposed certain general convergences in human behaviours, as did the emergence of certain similarities in material culture and settlement (cf. e.g. Catapoti & Relaki, 2020). These convergences therefore determined "the Neolithic time of the world."

It follows from the above that both socio-organisational and ideological novelties/changes were not the outcome of economic and technological developments, nor did they emerge by themselves. They began to form together with the initial, cooperative, or otherwise appearance (either by independent invention or because of contacts) of the elements of the "Neolithic package." New and complex human-plants, humananimals, and human-things interactions (cf. Hodder, 2018; Thomas, 2015), and consequently also other, new and complex human-human relationships, could start to be shaped when new plants/animals/things were already present, at least in the initial degree. Subsequent, interdependent developments in the socioorganisational, ideological, mental, economic, settlement, material, etc. spheres made it possible to achieve

the dominance of behaviours to which we would attribute the term "Neolithic." On the other hand, if these socio-organisational, ideological, and mental novelties/changes did not appear and did not develop, despite the appearance of some elements of the "Neolithic package," and even their attainment of significant importance, then one cannot speak of a "Neolithic."

The aforementioned argumentation is an attempt to find common features of Neolithic phenomena. Consequently, one can say that, on the one hand, there were different Neolithics, but on the other hand, they had a kind of common denominator. This somewhat relates to the idea by Robb (2013), who sees a universal feature of the Neolithic in changing relationships between people and things, and to a version of this idea elaborated by Thomas, where such a common denominator is "socialization" of a wider range of non-human entities, including animals, artefacts, and architecture (Thomas, 2015, p. 1087; cf. also Catapoti & Relaki, 2020; Hodder, 2018). These relationships with living or non-living, "Neolithic" non-humans were indeed something of a novelty, since they could not have taken place in the Epipalaeolithic/Mesolithic.

The common denominators, i.e. the "Neolithic" features of new socio-organisational and ideological structures could be, among others: (i) a new concept of ownership and wealth economy (Bradley, 2004; Thomas, 2015), (ii) a sense of human separateness from the natural world, unknown to Palaeolithic and Mesolithic hunter-gatherers (Bradley, 1998; Helms, 2004; Hodder, 1990), (iii) a change in the temporal and spatial organisation of life and work (Helms, 2004; Robb, 2004), (iv) a sense of connection to a particular place (Bailey, 2000, p. 41), and (v) the emergence of new concepts of time (Bouzek, 2010; Bradley, 2004).

Undoubtedly, a fundamental question arises, how the aforementioned approach to the definition of the Neolithic can be transferred to the archaeological, i.e. material realities? By what is it archaeologically reflected?

Because of the already expressed idea, the following response comes to mind. Namely, in situations where the proportion of Neolithic attributes seems to be significant – e.g. more than 50% share of "domesticated" food in the *consolidation phase* in M. Zvelebil and P. Rowley-Conwy's scheme (Zvelebil, 1986, p. 12; Zvelebil & Rowley-Conwy, 1984) – we are entitled to conjecture the occurrence of such mental, social, ideological, and economic structures that had little to do with the Epipalaeolithic/Mesolithic ones. This is even more likely if the whole set of predominating and consistently co-occurring attributes, considered to be indicators of the "Neolithic," are involved. Despite reservations expressed against such a material approach (Catapoti & Relaki, 2020, p. 297), only in such archaeological situations, we can conjecture the existence of a new complex of meanings into which such attributes were entangled. If we consider, based on the sources available to us rather than based on models or theories, that the probability of such a situation is high, we are then entitled to isolate the beginning of a new epoch, i.e. the Neolithic.

Consequently, the presence of indicators of agriculture, and also of other elements considered to be Neolithic, not only incidentally but also to a small extent, does not allow us to demarcate a new epoch. If we have only single traces of plant cultivation and/or animal husbandry, if we have only modest remnants of "Neolithic" material culture, e.g. pottery, if there are insignificant indications of the permanence of spatial functioning, etc., this does not imply a new quality, even when it comes to units that are traditionally classified as Neolithic in the archaeological literature.

Let us repeat once again that only the consistent occurrence of archaeological facts characteristic of the Neolithic in a significant intensity gives the right to separate the beginnings of a new epoch. It is essential to remember that this is only an archaeological reflection of a complex situation in which new interrelationships were generated that redefined "the modes of being in the world by providing the conditions under which new 'objects' become possible" (Catapoti & Relaki, 2020, p. 298) or of new synergies, as quoted authors described. This is so because complex systems are not just a list of discrete components, as Clarke aptly wrote years ago (2015 [1968], pp. xvi–xvii, 101).

In our opinion, this also applies to the situation when a significant presence of only one such "object" has been recorded. This need by no means be agriculture. However, in such a case, distinguishing the dawn of a new epoch is justified when this element causes after some (not extremely long) time further transformations and taking over, accepting, and adapting other components of the "Neolithic package." In practice, almost always one of such "later" elements will be agriculture, which will irrevocably gain a dominant position in providing food. It is through the availability of a long-term perspective in archaeology that it is possible to assess the significance and impact of the emergence of such a single element.

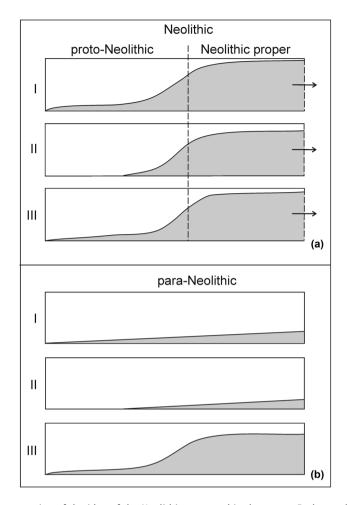


Figure 1: A schematic representation of the idea of the Neolithic proposed in the paper. Perhaps, this scheme looks a bit childish, but on the other hand, its simplicity contributes (hopefully) to the correct perception of this idea. (a) The Neolithic proper and phenomena of a preliminary/precursory nature; (b) alternative phenomena to the Neolithic, in the context of which some elements of the Neolithic package are present; (I) the participation and significance of meta-material socio-organisational, ideological, mental and - consequently - meaning structures; (II) the participation and significance of agriculture in the food economy, (III) the participation and significance of pottery in the container sector and container-related symbols. Of course, agriculture and pottery were only used as examples. There are more other material indicators of the Neolithic.

For example, if the appearance of pottery did not cause other effects on the cultural system for several/a dozen or so thousand years (as e.g. in the Far East or in the Eastern European forest zone) or did not find continuity (e.g. Lepenski Vir or Franchti), it is difficult to correlate it with the beginning of a new epoch, even contrary to the established traditions. On the other hand, if the appearance of pottery (e.g. Ertebølle) or permanent settlement (e.g. PPN A) is relatively clearly connected with the enrichment and intensification of cultural development and the appearance, after several hundred years, of other Neolithic elements, then this will be a justified procedure. However, it will also be justified to introduce for such an initial setting the "weakened" term "proto-Neolithic." On the other hand, for the formerly described situation, the term "para-Neolithic" may be appropriate.

4 Conclusions

As a result of the argumentation carried out, we should assume the occurrence of (Figure 1):

- 1) The varied, real Neolithics, determined archaeologically by different elements of the "Neolithic package," in different configurations (although certainly the agro-pastoral economy will be the element most frequently represented). These elements were of a substantial importance within a given sector of a given community. Thus, different definitions in the specialist literature are most justifiable.
- 2) Hidden for us, "new" socio-organizational, ideological, and mental structures, and consequently also meaning ones, characteristic for the aforementioned Neolithics, different from the Epipaleolithic/ Mesolithic structures, which were a prerequisite for the existence of the Neolithic formation. Their creators (THEY) were not aware of them, or at least in such a descriptive form which WE have developed and used.
- 3) Transitional periods between the Epipaleolithic/Mesolithic and the Neolithic (proto-Neolithic).
- 4) Mosaics/chessboards, composed of Neolithic groupings, groupings in which Neolithic attributes were becoming more important and groupings in which their presence is negligible or nil.
- 5) Areas "peripheral" to the Neolithic, where the presence of Neolithic elements was either insignificant or even significant, but there were no meta-material transformations leading towards the Neolithic (para-Neolithic).

From all this, it follows that we cannot assume a priori, on the basis of research tradition, that a given archaeological unit is Neolithic, and that this is an unquestionable approach, sanctioned once and for all. The term Neolithic should be used after careful analysis of characteristics of a given unit, including comparative analysis of earlier and later entities. Of course, this applies first to unclear, controversial situations in transition, which are frequently defined and labelled differently in specialist contributions.

As can be seen (Figure 1), it is our belief that distinguishing of such terms as "proto-Neolithic" and "para-Neolithic" is most reasonable. It should only be remembered that one cannot attribute a pejorative meaning to such terms; these were not faulty or immature Neolithics. They were phenomena, on the one hand (proto-Neolithic) foreshadowing or precursory to the Neolithic proper, and on the other hand (para-Neolithic) simply different from the Neolithic, specific and proper to themselves. Perhaps, like the term "peripheral" area, the aforementioned terms are simply imperfect and more appropriate ones should be invented.

As a result of the described approach, a "heretical" situation may arise, when an entity customarily associated with the Neolithic will not be recognised as Neolithic, and *vice versa*.

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References

Bailey, D. W. (2000). Balkan Prehistory. Exclusion, incorporation and identity. London, New York: Routledge.

Bailey, D. W. (2005). Unsettling the Neolithic: Breaking down concepts, boundaries and origins. In D. Bailey, A. Whittle & V. Cummings (Eds.), (*Un*)settling the Neolithic (pp. 1–8). Oxford: Oxbow.

Bar-Yosef, O., & Belfer-Cohen, A. (2002). Facing environmental crisis: Societal and cultural changes at the transition from the Younger Dryas to the Holocene in the Levant. In R. T. J. Cappers & S. Bottema (Eds.), *The Dawn of farming in the Near East* (pp. 55–66). Berlin: Ex Oriente.

Bar-Yosef, O., & Meadow, R. H. (1995). The origins of agriculture in the Near East. In T. D. Price & A. B. Gebauer (Eds.), *New perspectives on the Prehistoric transition to agriculture* (pp. 39–94). Santa Fe: School of American Research Press.

Bogucki, P. (1988). Forest frmers and stockherders. Early Agriculture and its consequences in North-Central Europe. Cambridge: Cambridge University Press.

Bogucki, P. (1999). The origins of human society. Malden, Oxford: Blackwell.

- Bouzek, J. (2010). The Neolithic mind. In J. Šuteková, P. Pavúk, P. Kalábková, & B. Kovár (Eds.), PANTA RHEI. Studies on the chronology and cultural development of South-Eastern and Central Europe in Earlier Prehistory presented to Juraj Pavúk on the occasion of his 75th birthday (pp. 577-580). Bratislava: Comenius University in Bratislava & Archaeological Centre, Olomouc.
- Braudel, F. (1992). Kultura materialna, gospodarka i kapitalizm XV–XVIII wiek, tom III: Czas świata [Civilization and capitalism 15th-18th Century, Vol. 3: The perspective of the world]. Warszawa: Państwowy Instytut Wydawniczy.
- Bradley, R. (1998). The significance of monuments. London, New York: Routledge.
- Bradley, R. (2004). Domestication, sedentism, property and time: Materiality and the beginnings of agriculture in Northern Europe. In E. DeMarrais, Ch. Gosden, & C. Renfrew (Eds.), Rethinking materiality: The engagement of mind with the material world (pp. 107-116). Cambridge: McDonald Institute for Archaeological Research.
- Catapoti, D., & Relaki, M. (2020). Why the Neolithic is (r)evolutionary. Journal of Material Culture, 25(3), 289-308. doi: 10.1177/ 1359183519894012.
- Cauvin, J. (2000). The birth of the gods and the origins of agriculture. Cambridge: Cambridge University Press.
- Childe, V. G. (1947). The dawn of European civilization (4th ed.), London: Kegan Paul, Trench, Trubner & Co.
- Czerniak, L. (1994). Wczesny i środkowy okres neolitu na Kujawach 5400-3650 p.n.e. Poznań: Instytut Archeologii i Etnologii Polskiej Akademii Nauk.
- Czerniak, L. (1998). The Neolithic what's that. In M. Zvelebil, R. Dennel, & L. Domańska (Eds.), Harvesting the sea, farming the forest. The emergence of Neolithic societies in the Baltic Region (pp. 29-30). Sheffield: Sheffield Academic Press.
- Çilingiroğlu, Ç. (2005). The concept of "Neolithic package": Considering its meaning and applicability. Documenta Praehistorica, 32, 1-14. doi: 10.4312/dp.32.1.
- Clarke, D. L. (1968). Analytical archaeology (3rd ed., 2015). London, New York: Routledge.
- Fowler, Ch., Harding, J., & Hofman, D. (Eds.). (2015a). The oxford handbook of Neolithic Europe. Oxford: Oxford University Press.
- Fowler, Ch., Harding, J., & Hoffman, D. (2015b). The oxford handbook of Neolithic Europe: An introduction. In Ch. Fowler, J. Harding, & D. Hofman (Eds.), The oxford handbook of Neolithic Europe (pp. 3-23). Oxford: Oxford University Press.
- Gernigon, K. (2016). Villages before Houses? The Neolithization of Europe reconsidered through the concept of the household. In C. Chapdelaine, A. Burke, & K. Gernigon (Eds.), Household archaeology – A transatlantic comparative approach, Proceedings of the international Symposium, October 24-25 2014, Université de Montréal, P@lethnology (Vol. 8, pp. 147-181).
- Gilligan, I. (2019). Climate, clothing, and agriculture in Prehistory. Linking evidence, causes, and effects. Cambridge: Cambridge University Press.
- Helms, M. (2004). Tangible materiality and cosmological others in the development of sedentism. In E. DeMarrais, Ch. Gosden, & C. Renfrew (Eds.), Rethinking materiality: The engagement of mind with the material world (pp. 117-130). Cambridge: McDonald Institute for Archaeological Research.
- Hodder, I. (1990). The domestication of Europe. Oxford: Blackwell.
- Hodder, I. (1999). The archaeological process. An introduction. Oxford: Blackwell.
- Hodder, I. (2016). Studies in human-thing entanglement. http://www.ian-hodder.com/s/Hodder_2016_Studies_in_Human_ Thing_Entanglement.pdf.
- Hodder, I. (2018). Things and the Slow Neolithic: The Middle Eastern transformation. Journal of Archaeological Method and Theory, 25, 155-177. doi: 10.1007/s10816-017-9336-0.
- Karmanov, V. N., Zaretskaya, N. E., & Lychagina, E. L. (2012). Neolithic dispersal in far Northeast Europe: Ways and chronology. Radiocarbon, 54(3-4), 331-338. doi: 10.1017/S0033822200047111.
- Knapp, A. B. (1992). Archaeology and annales: Time, space, and change. In A. B. Knapp (Ed.), Archaeology, annales, and ethnohistory (pp. 1-23). Cambridge: Cambridge University Press.
- Kuna, M. (1995). Pre-historic prehistory. In M. Kuna & N. Venclová (Eds.), Whither archaeology? Papers in honour of Evžen Neustupný (pp. 43-51). Praha: Institute of Archaeology, Academy of Sciences of the Czech Republic.
- Lewis-Wiliams, D., & Pearce, D. (2005). Inside the Neolithic mind: Consciousness, cosmos and the realm of the gods. London: Thames & Hudson.
- Lubbock, J. (1865). Pre-historic times, as illustrated by ancient remains, and the manners and customs of modern savages. London-Edinburgh: Williams & Norgate.
- Mazurkevich, A., & Dolbunova, E. (2012). The oldest pottery in hunter-gatherer communities and models of Neolithisation of Eastern Europe. Documenta Praehistorica, 42, 13-66. doi: 10.4312/dp.42.2.
- McCarter, S. F. (2007). Neolithic. New York, London: Routledge.
- Neustupný, E. (1998). Concept building in archaeology. In S. Tabaczyński (Ed.), Theory and practice of archaeological research. Volume III. Dialogue with the data: The archaeology of complex societies and its context in the '90s (pp. 21-31). Warszawa: Institute of Archaeology and Ethnology & Committee of Pre- and Protohistoric Sciences, Polish Academy of Sciences.
- Olsen, B. (2013). W obronie rzeczy. Archeologia i ontologia przedmiotów [In defense of things. Archaeology and the ontology of objects]. Warszawa: Instytut Badań Literackich Polskiej Akademii Nauk.
- Pavlů, I., & Zápotocká, M. (Ed.). (2013). The Prehistory of Bohemia 2. The Neolithic. Praha: Archeologický ústav Akademie věd České republiky.

- Piezonka, H. (2015). Jäger, Fischer, Töpfer. Wildbeutergruppen mit früher Keramik in Nordosteuropa im 6. und 5. Jahrtausend v. Chr. Bonn: Deutsches Archäologisches Institut/Habelt.
- Pluciennik, M. (1998). Deconstructing "the Neolithic" in the Mesolithic-Neolithic transition. In M. Edmonds & C. Richards (Eds.), *Understanding the Neolithic of North-Western Europe* (pp. 61–83). Glasgow: Cruithne Press.
- Rimantienė, R. (1998). The first Narva culture farmers in Lithuania. In M. Zvelebil, R. Dennel, & L. Domańska (Eds.), *Harvesting the sea, farming the forest. The emergence of Neolithic societies in the Baltic region* (pp. 213–219). Sheffield: Sheffield Academic Press.
- Renfrew, C. (2001). Symbol before concept. Material engagement and the early development of society. In I. Hodder (Ed.), *Archaeological theory today* (pp. 122–140). Cambridge: Polity.
- Renfrew, C. (2004). Towards a theory of material engagement. In E. DeMarrais, Ch. Gosden, & C. Renfrew (Eds.), Rethinking materiality: The engagement of mind with the material world (pp. 23–32). Cambridge: McDonald Institute for Archaeological Research.
- Robb, J. (2004). The extended artefact and the monumental economy: A methodology for material agency. In E. DeMarrais, Ch. Gosden, & C. Renfrew (Eds.), *Rethinking materiality: The engagement of mind with the material world* (pp. 131–140). Cambridge: McDonald Institute for Archaeological Research.
- Robb, J. (2013). Material culture, landscapes of action, and emergent causation: A new model for the origins of the European Neolithic. *Current Anthropology*, *54*(6), 657–683. doi: 10.1086/673859.
- Rosen, A. M., & Rosen, S. A. (2017). Environmental change and society in Holocene prehistory. In Y. Enzel & O. Bar-Yosef (Eds.), *Quaternary of the levant. Environments, climate change, and humans* (pp. 761–766). Cambridge, New York, Melbourne, Delhi, Singapore: Cambridge University Press.
- Rowlands, M., & Fuller, D. Q. (2018). Deconstructing civilisation: A 'Neolithic' alternative. In K. Kristiansen, T. Lindkvist, & J. Myrdal (Eds.), *Trade and civilisation: Economic networks and cultural ties from Prehistory to the Early modern era* (pp. 172–194). New York: Cambridge University Press.
- Shennan, S. (2018). The first farmers of Europe. An evolutionary perspective. Cambridge: Cambridge University Press.
- Thomas, J. (1999). Understanding the Neolithic. London, New York: Routledge.
- Thomas, J. (2003). Thoughts on the 'Repacked' Neolithic revolution. *Antiquity*, 77(295), 67–74. doi: 10.1017/S0003598X00061354.
- Thomas, J. (2013). The birth of Neolithic Britain. An interpretive account. Oxford: Oxford University Press.
- Thomas, J. (2015). Commentary: What do we mean by 'Neolithic Societies'? In Ch. Fowler, J. Harding, & D. Hofman (Eds.), *The oxford handbook of Neolithic Europe* (pp. 1073–1091). Oxford: Oxford University Press.
- Watkins, T. (2006a). Architecture and the symbolic construction of new world. In E. B. Banning & M. Chazan (Eds.), *Domesticating* space construction, community, and cosmology in the Late Prehistoric Near East (pp. 15–24). Berlin: Ex Oriente.
- Watkins, T. (2006b). Neolithisation in southwest Asia The path to modernity. *Documenta Praehistorica*, *33*, 71–88. doi: 10.4312/dp.33.9.
- Watkins, T. (2010). New light on Neolithic revolution in south-west Asia. Antiquity, 84(325), 621–634. doi: 10.1017/S0003598X00100122.
- Watkins, T. (2018). The Epipalaeolithic-Neolithic as the pivotal transformation of human history. *Documenta Praehistorica*, 45, 14–29. doi: 10.4312/dp.45.2.
- Weninger, B., Clare, L., Rohling, E. J., Bar-Yosef, O., Böhner, U., Budja, M., ... Zielhofer, C. (2009). The impact of rapid climate change on prehistoric societies during the Holocene in the Eastern Mediterranean. *Documenta Praehistorica*, 36, 7–59. doi: 10.4312/dp.36.2.
- Weninger, B., & Clare, L. (2017). 6600–6000 cal BC abrupt climate change and Neolithic dispersal from West Asia. In H. Weiss (Ed.), Megadrought and collapse: From Early agriculture to Angkor (pp. 69–92). New York: Oxford University Press.
- Werbart, B. (1998). Subneolithic: What is it? 'Subneolithic' societies and the conservative economies of the Circum-Baltic region. In M. Zvelebil, R. Dennel, & L. Domańska (Eds.), *Harvesting the sea, farming the forest. The emergence of Neolithic societies in the Baltic region* (pp. 37–44). Sheffield: Sheffield Academic Press.
- Whittle, A. (1996). Europe in the Neolithic: The creation of the new worlds. Cambridge: Cambridge University Press.
- Whittle, A. (2003). The archaeology of people: Dimensions of Neolithic life. London, New York: Routledge.
- Włodarczak, P. (2017). Preface. In P. Włodarczak (Ed.), *The past societies. Polish lands from the first evidence of human Presence to the Early Middle ages, Vol. 2: 5500–2000 BC* (pp. 11–20). Warszawa: Institute of Archaeology and Ethnology, Polish Academy of Sciences.
- Zvelebil, M. (1986). Mesolithic prelude and neolithic revolution. In M. Zvelebil (Ed.), *Hunters in transition. Mesolithic societies* of *Temperate Eurasia and their transition to farming* (pp. 5–15). Cambridge, New York: Cambridge University Press.
- Zvelebil, M. (2002). Demography and dispersal of early farming populations at the Mesolithic-Neolithic transition: Linguistic and genetic implications. In P. Bellwood & C. Renfrew (Eds.), *Examining the farming/language dispersal hypothesis* (pp. 379–394). Cambridge: McDonald Institute of Archaeological Research.
- Zvelebil, M., & Lillie, M. (2000). Transition to agriculture in Eastern Europe. In T. D. Price (Ed.), *Europe's first farmers* (pp. 57–93). Cambridge: Cambridge University Press.
- Zvelebil, M., & Rowley-Conwy, P. (1984). Transition to farming in Northern Europe: a hunter-gatherer perspective. *Norwegian Archaeological Review*, 17(2): 104–128. doi: 10.1080/00293652.1984.9965402.