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# The State of Current Knowledge of the Eastern European Sub-Neolithic in Poland

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The article contains an assessment of the current state of recognition of the phenomenon present in the Neolithic of Polish lands, and referred to as the Eastern European sub-Neolithic. The picture it represents is does not provide grounds for optimism. The causes of the bad situation are outlined. The paper presents recent achievements and basic gaps in the evidence, among which the most important is the lack of research at potentially homogeneous sites. This make impossible to undertake the discussion of the problem of the local genesis of the phenomenon, the chronology and dynamics of its transformations or broader considerations on the character and the scope of interactions between pottery-producing hunter-gatherers and early agricultural communities. Interwoven into the narratives have become the views of Jan Kowalczyk (1969), in which the sub-Neolithic had an important role in the processes ongoing in the Neolithic period. The purpose of references to texts from half a century ago is not the desire to return to the general concepts of this researcher, but rather to consider the accurate and still valid specific observations of J. Kowalczyk and about the conviction expressed by him that a better understanding of the sub-Neolithic is important for discovering and comprehension of the processes occurring in the Neolithic of Polish territories (understood as a period).

KEY-WORDS: sub-Neolithic, para-Neolithic, Pottery Mesolithic, Neolithic, Poland.

#### INTRODUCTION

In the Neolithic and at the beginning of the Bronze Age, hunter-gatherer groups lived in the Polish territories alongside agricultural groups. In our research tradition, we used to separate their relics into aceramic – classified as the Mesolithic – and ceramic ones – labeled the sub-Neolithic. In the milieu of Warsaw archaeologists for the latter, the term "para-Neolithic" is more popular, while Jan Kowalczyk (1969: 14)

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introduced the term "Pottery Mesolithic" (used until now). There are also several other names for this phenomenon to be found in the literature (cf. Kukawka 2010). If behind the quoted terms is hidden their similar understanding in terms of content, so all theoretical and linguistic considerations that justify the choice of one of them over another can be treated as barren cognitively. I have used the term "sub-Neolithic" consistently for years; so it is in this text.

The focus of my attention will be on the area of north-eastern Poland (approximately the Vistula's right-bank Mazovia, Podlasia, Warmia, Masuria), where the discussed phenomenon is most fully legible. I will mention other areas only in order to show the importance of the north-eastern Polish sub-Nolithic for understanding the processes taking place in the Neolithic period.

### THE RESEARCH IMPLICATIONS OF STUDIES OF THE EASTERN EUROPEAN SUB-NEOLITHIC IN THE TERRITORY OF POLAND

In 1924, Leon Kozłowski assessed the state of research as follows: *The area of north-eastern Poland* [within the pre-World War II borders – SK] *is the least systemati-cally researched and elaborated, although cultural relations in the Neolithic are extremely interesting and important here, for understanding the totality of the Stone Age, not only of Poland, but the whole of north-eastern Europe* (Kozłowski L. 1924: 70).

In turn, Jan Kowalczyk in his assessment of the archaeological evidence linked to the Pit-and-Comb Pottery culture wrote: *Unfortunately, in the Polish territories, the state of research on this culture is the worst* [in comparison to that of other cultures of the Polish Neolithic – SK] and for over 40 years actually nothing has changed in this *situation.* In the footnote to this opinion he says that *The main reason for this is the lack* of sites of this culture which have been examined in a systematic way (which also has its reasons) and the lack of material from Mazovia and Podlasia. A little further on, he says that we are only in the preliminary phase of research (Kowalczyk 1969: 29). These findings had an impact on the scope of the inquiries contained in the elaboration referred to. After a few years, Elżbieta Kempisty fulfilled the postulate of the need to study material from Masovia and Podlasia (Kempisty 1972; 1973). Therefore it is worth considering the reasons for the unflattering opinions of J. Kowalczyk about the state of research in his time, as well as to consider, where we are now in this regard.

The state of research on the Neolithic and sub-Neolithic has been influenced by historical factors.

During the period of Partitions of Poland [the 18th and 19th centuries], the territories in which we are interested were located within two separate empires. It was the time of crystallisation of archaeology as a separate scientific discipline. Although numerous artefacts related to the Neolithic were gained at that time, their proper assessment was still far away. The interwar period, from the perspective of knowledge about the sub-Neolithic, could have given rise to new positive insights into the problem. The eastern borderlands of the Second Polish Republic at that time offered good opportunities for fieldwork. The time, however, was not conducive to the emerging institutional structure of archaeology with the main center in Warsaw and the second centered around the University of Vilnius. It was also difficult to undertake significant cognitive research work in the relatively short time (about 20 years) between World Wars. In the areas most important for understanding the sub-Neolithic phenomena – situated in hostile Soviet Russia – there was also no progress in studying the problem. The situation was slightly different in the Baltic countries. The greatest progress in research took place then in the area of East Prussia, in this milieu many publications were published by German researchers at that time (e.g. Stadie 1921; Gaerte 1927; La Baume and Langenheim 1933; Richthofen 1934; Engel 1935).

The period of World War II, for obvious reasons, did not contribute anything new, and was a great setback regarding the cognitive possibilities. The war losses that particularly affected East Prussia almost completely deprived us of material and documentation. These losses make it impossible to re-analyse the results of pre-war research (cf. Kempisty 1969; Kukawka 1999).

After World War II, the issue of the sub-Neolithic was marginalised in Poland. The pre-war "borderlands" had been included within the borders of the USSR, but part of Eastern Prussia was now within the borders of Poland. Sub-Neolithic issues were somewhat territorially reduced. The "border of friendship", contrary to this denotation, was not conducive to contacts between researchers from Poland and the Soviet Union. This fact, as well as the loss of Prussian collections, limited the possibility of direct contact with archaeological finds, and without this, any serious development of knowledge was hindered. Referring our findings to the wider Eastern European background, one can use almost exclusively the published reports (often rather vague). Although the knowledge of the literature on neighbouring countries is invaluable, the lack of the opportunity to learn about the artefacts and research documentation as well as the limitations of contacts between researchers and lack direct discussions is a severe handicap. Only the last decades have significantly improved the situation.

The historical conditions were not the only reason for a limitation in acquiring knowledge about the ceramic-using hunter-gatherer peoples. Several other factors contributed also to this.

In Polish archaeology, a specific division of researchers took place along chronological lines. From the perspective of the issues discussed here, one should indicate the rather "sharp" border between Neolithic and Mesolithic specialists. This was noted by J. Kowalczyk (1969: 56), pointing to the negative effects of such diversification of competence. Mesolithic researchers, flint specialists, dealt with hunters and gatherers, and (consciously or unconsciously) ousting the phenomena of ceramics from their interests. In turn, for Neolithic researchers, it was more important to recognise fullyagricultural cultural structures. The main issues addressed by these members of the discipline included the nodal problems of Neolithisation, and thus its beginnings (the Danubian cultures, mainly the Linear Pottery culture) and the formation of the local Neolithic (especially the Funnel Beaker culture). To put it in a simplied way, the sub-Neolithic has become nobody's problem. A similar remark can also be applied to researchers in Western Europe (except Scandinavia).

The mentality of the archaeologists themselves has also a significant impact on the relatively weak state of knowledge of the Polish sub-Neolithic. Researchers of the "full" European Neolithic, also the Polish ones, isolated archaeological cultures based primarily on the diversity of pottery (cf. considerations on archaeological culture in J. Kowalczyk 1969). We are used to the existence of a significant diversity between cultures. From this perspective, the world of the Eastern European sub-Neolithic looks quite uniform, especially due to the simplicity of the form of the vessels. The "West" appeared and appears to be subject in the Neolithic period to dynamic cultural changes, while the "East" looks like something stable and uniform. Even today, one can find Polish archaeologists, less oriented in current knowledge, who are inclined merely to combine all pottery from the "East" with the Comb Pottery or Pit-and-Comb Pottery culture. Of course, in 1969, J. Kowalczyk was not the first who noticed the greater complexity of this problem. This was already perceived by German researchers (in reference to the present Polish territories), in works referred to by him. Archaeologists who were dealing with the areas for which ceramic-using hunter-gatherer groups were the only ones in the Neolithic time also clearly understood it.

The problem of the mentality of archaeologists, regardless of the period they deal with, is also the need, or perhaps the expectation, of spectacular discoveries. Simplifying the matter a bit, it must be remembered that the Polish sub-Neolithic sites occur in two geological environments: in peats or in sands. From the perspective of the interpretive complexity, both are difficult. In the case of peat sites, although geological stratigraphy is legible there, the linking of artefacts with it is ambiguous, for example due to the principles of the action of gravity. In turn, sand sites have the disadvantage that their monolayer character makes it difficult to difersify the heterochronous artefacts (this was noted by various researchers, J. Kowalczyk as well). However, peats give a chance for a greater variety of the explored cultural remains, especially of organic raw materials. So they are desirable if only for this reason, but also extremely difficult to discover. At the same time, the methodology of their research at the stage of excavations and analysis of the results is complicated and expensive. Due to these problems, there are very few studies of peat sites in Poland. In turn, sandy sites, although easier to discover and to research, have their limitations as to the number and quality of artefacts found. Of course, this does not exclusively apply to the Neolithic. A good knowledge of the "sand" sub-Neolithic would require the study of a significant number

of sites. Perhaps then, by tracking the contexts of pottery and other artefacts (especially made of flint) found along with it, it would be possible to isolate potential homogeneous collections. Such a method, it seems, has proved to be excellent in the research of the "sand" Neolithic in the Chełmno Land [Kuyavian-Pomeranian voivodeship]. Examination of dozens of small settlement points in the region with documented surface finds of ceramics of the Funnel Beaker culture has allowed interesting conclusions to be reached. In this region, ceramics with the characteristics of the Northeastern European sub-Neolithic never occur independently, but are always associated with artefacts of the Funnel Beaker culture. In turn, both types of pottery found jointly are not correlating with flint finds that can be assigned to the Late Paleolithic or the Mesolithic. The weakness of these studies was the lack of spectacular discoveries that could excite the archaeological milieu, and their time absorbing character. They took us over twenty years. So it is easy to understand the researchers of the "sand" sub-Neolithic, both old and present ones, that they were rarely willing to become engaged in long-term field research projects. The need for success, especially when it should be fast, can effectively discourage research on rather unattractive sand sites, poor in artefacts.

Finally, one should note one more ailment of archaeologists, namely their feeling of "territoriality". Researchers from particular archaeological centres maintain (consciously or not) the right to research certain territories. Although positive justifications can be found for such attitudes, this is not always conducive to the development of our knowledge. From the perspective of understanding the Eastern European sub-Neolithic in Poland, such a centre was and still is Warsaw, with powerful archaeological institutions (the largest institution of the Polish Academy of Sciences, university units and the archaeological museum) gathering the largest number of archaeologists in Poland. Indeed, the main works devoted to this issue originated thanks to researchers from this centre (Gardawski 1958; Kowalczyk 1969; Kempisty 1972; 1973). Studies made by the authors referred to, coming from the times when they were working at the State Archaeological Museum, disregarded the former East Prussia territories. What is important, their sources bases were limited to ceramics, almost entirely recovered from surface survey. This narrowed the outlook of the research and is reflected in the poor level of credibility of the final conclusions. For Prussian territories, one can indicate the studies of Jerzy Okulicz (1973), but this, having been based on data from literature, in the area of formulating conclusions could not go beyond the findings of German researchers. The article by E. Kempisty from 1983 had a similar character, although also included references to the current findings of scientists from the former Soviet Union.

All of the above-mentioned authors postulated intensification of research on the problems of Eastern European cultural phenomena in Polish territories. Systematic studies of sub-Neolithic sites were undertaken in the 1970s by E. Kempisty with a team

(e.g. Sulgostowska 1978; Kempisty and Wieckowska 1983; Kempisty 1988; Kempisty and Sulgostowska 1991). Her untimely death (in 1985) interrupted this research project. Excavations at sites related to the Eastern European sub-Neolithic were also undertaken by other researchers (e.g. Burek 1976; Gumiński and Fiedorczuk 1988; Gumiński 1999; 2011; Manasterski 2009; Wawrusiewicz et al. 2017). Some summaries of current knowledge have also appeared (e.g. Józwiak and Domaradzka 2011; Wawrusiewicz 2011). Nevertheless, after half a century from the summary made by J. Kowalczyk, it is still true what he said. He stated that, in the context of knowledge of the Polish Neolithic, the state of research on the sub-Neolithic "presents itself the worst" and we are still "in the preliminary phase of research" (Kowalczyk 1969: 29). This remark concerns not only the study on the sub-Neolithic, but also other phenomena of the Neolithic in the area of north-eastern Poland. For example, I derive my knowledge about the Linear Pottery culture from the summary by Anna Kulczycka-Leciejewiczowa (1979), and that about the Funnel Beaker culture basically from a study by Konrad Jażdżewski (1936). For the sub-Neolithic of these areas, the summaries still applicable are works by E. Kempisty and J. Okulicz, from almost half a century ago. I omit the not very successful synthesis by Tadeusz Wiślański from 1979 (Wiślański 1979a: Kempisty 1981).

# THE CURRENT STATE OF KNOWLEDGE UNDERSTANDING OF THE SUB-NEOLITHIC IN NORTHEASTERN POLAND

At this point, attention should be paid to the study of the Eastern European sub-Neolithic outside the zone of its potentially "pure" occurrence. I would point here to two trends in study on the issue. On the one hand, it is represented by the monographic study by Bartosz Józwiak regarding the sub-Neolithic in the region between the Vistula and the Odra rivers (Józwiak 2003), and on the other publications resulting from research on the Funnel Beaker culture in the Chełmno Land (Kukawka 1991; 2010; 2011).

In the first case, material close to that from Mazovia have been analysed. The main point of reference was the results of research by E. Kempisty (from thirty years ago: Kempisty 1973) and current knowledge developed by Belarusian researchers. The poor state of research in Mazovia had an impact on interpretative limitations, such as the chronology of events or the interactions between the "two worlds" – that of huntergatherers and of farmers-stockherders.

The situation of the Chełmno Land is more complex. We are dealing here with the material evidence of the relationship of these "two worlds" (massively occurring elements of the north-eastern sub-Neolithic at the sites of the Funnel Beaker culture). The losses of material from the former East Prussia adjacent to the Chełmno Land in the Second World War and the marginal interest of Polish and Russian archaeologists

in this area after the War significantly hinder the proper understanding of these interactions, which would have occurred in the direct contact zone of farmers with ceramicusing hunter-gatherers. Meanwhile, archaeological identifications of the latter (from the Narva and possibly the Comb culture's circle) in the area of East Prussia are extremely modest. Findings from the Chełmno Land related to the sub-Neolithic, also undermined the generally accepted view of the essentially unilateral impact of farmers on hunter-gatherers. They revealed the scale of reverse influences, a concept which – at least initially – did not meet with universal acceptance (e.g. Kośko 1988: 109–114). Besides pottery, the existence of relations between the Funnel Beaker culture with the northeastern sub-Neolithic is evidenced also by the occurrence of characteristic projectile points made from flint (Małecka-Kukawka and Kukawka 1984; Kukawka 2010: Fig. 11)

The critical assessment of the knowledge of the sub-Neolithic of north-eastern Poland presented above does not mean that during the last half-century, nothing has changed in our knowledge about it. But although there have been new discoveries and studies on material from this area, a lot of the changes that have taken place in our perception of the dynamics of the transformations of "ceramic" hunter-gatherers, the progress of research in neighbouring areas has been of greater importance.

We know increasingly more about the sub-Neolithic sites in the areas of Belarus, Ukraine, Lithuania, Latvia, Estonia and Russia. Here the success in differentiating and ordering of the ceramic material is significantly better than before, which is reflected in the distinguished taxonomic (cultural) units. Although these divisions are still not fully satisfactory, they allow the better differentiation of related ceramics from Polish territory: Pripyat-Niemen culture, Volhynian, Niemen culture, circle of the Narva and the Combed ceramic culture, Zedmar culture, North Belarussian culture and surely also others.

The area of north-eastern Poland is a transition zone of the permeation of settlement and interactions between the sub-Neolithic population groups and the world of the farming-breeding Neolithic peoples: of the Danubian cultures, the Funnel Beaker culture, the Globular Amphora culture, the Corded Ware culture or the cultures of the Early Bronze Age. Progress in the diagnosis of the latter is significant, although this refers to the discussed areas only to a small extent. This allows a proper classification of artefacts associated with them, occurring on sites of this zone, alone or in sub-Neolithic contexts. It also enables investigation aimed at identifying their impacts, which are readable in sub-Neolithic ceramics. A better understanding of the chronology of cultural phenomena of the Neolithic and the beginning of the Bronze Age is supported by the establishment of a chronological framework for finds, which, given the scarcity of radiocarbon dates for north-eastern Poland, is extremely valuable. In addition, we can increasingly better identify ceramics with sub-Neolithic features in Neolithic and Early Bronze contexts. This also brings us closer to a better

understanding of the interactions between the "two worlds". They were bilateral, which means that if we want to talk about the "Neolithisation" of hunter-gatherers, then at the same time, we must recognize reciprocity, that is, the "sub-Neolithisation" of farming and breeding communities. Therefore, the possibility should be allowed that we should consider our sharp archaeological divisions of the economics of former communities into the two mentioned "worlds" - of hunter-gatherers and farmers-stock herders – as not so significant. In the wide zone of the borderland, for groups entering into mutual relations, the fact that different methods of gaining food were practiced was not so important. At the same time, from the perspective of the sub-Neolithic groups, by no means was their aim to adopt the "cultural achievements" of their neighbours (which for us, archaeologists, are land cultivation and animal breeding), considering that intensive contacts lasted about 2000 years and at that time we do not find any evidence of economic transformations in the hunter-gatherer societies. Unfortunately, information on this subject is very poor and generally limited to the analysis of the ecological niches settled by various groups, or supported by findings from neighbouring countries, though only exceptionally in a more unambiguous manner.

Intensification of the discussed interactions came about during the Funnel Beaker culture (not later than about 4000 years BC – Kukawka 2010; 2011), which some researchers have already noted (e.g. Jażdżewski 1932; Gardawski 1958; Kempisty 1973). In later times, in this zone appeared unequivocal traces of the settlements of the Globular Amphora culture, the circle of the Corded Ware culture, the Bell Beaker culture or the Iwno culture. It is widely believed that the disappearance of ceramic-using hunter-gatherer groups in north-eastern Poland occurred together with the emergence of the Trzciniec culture (Gardawski 1958; Kempisty 1973; Józwiak 2003). All these units left their mark on the culture of the sub-Neolithic groups (hence the aforementioned 2000 years of mutual relations). However, it should be remembered that these relationships are readable almost exclusively in the context of the ceramic evidence, which, due to the inability to establish their homogeneity, is not always unambiguous (e.g. the latest unpublished work by Sylwia Domaradzka from 2014).

It cannot be ruled out that these interactions had a slightly earlier chronology than the one presented above. I will point here to the views on the genesis of the Zedmar culture (Timofeev 1998; Gumiński 1999). They are fostered, among others, by the discovery of material of the Late Linear Pottery culture at Równina Dolna (Rybicka and Wysocki 2003) or the findings on the chronology of the Zedmar culture (Kozicka 2017). One can also indicate the potential early inspirations of ceramic ornamentation in the eastern sub-Neolithic (single pottery fragments from the Brześć-Kujawski group/ culture).

Unfortunately, we are still unable to solve many important problems. We do not know the chronology of the beginnings of the sub-Neolithic in north-eastern Poland. From the perspective of research in neighbouring countries, they could reach back even to the time of the Linear Pottery culture. About materials occurring in Masovia and Podlasia that refer to the Pripyat-Niemen culture (previously the Dubičaj phase of the Niemen culture) one can say that they may be older than the Funnel Beaker culture (i.e. than 4200/4100 BC). Other material that may also be older than the Funnel Beaker culture could be finds of sub-Neolithic pottery from Dzikowo, located in the Dobrzyń Land [Kuyavian-Pomeranian voivodeship] (Kukawka 2010) or from Barkweda in the Olsztyn Lake District (Józwiak and Domaradzka 2011). Both sites have radiocarbon dates (for ceramics and carbon deposits on ceramics). In the first case, however, there is a significant standard error, in the second – a difficult to explain contradiction with the findings of researchers from the Baltic countries regarding the chronology of decoration of the typical Comb ceramic. The hypothesis of the emergence of the sub-Neolithic in the north before the beginnings of the Funnel Beaker culture results mainly from theoretical premises and the approximately determined beginnings of the Zedmar culture.

We have practically no knowledge about the genesis of the sub-Neolithic in our territories. This is about an impossibility of verifying one of the two models: the acculturative (sub-Neolithisation/"ceramisation" of local Mesolithic communities) or the migrational one (migration of sub-Neolithic peoples from the east or north-east). This results both from the scarcity (lack?) of homogeneous collections of artefacts, as well as from the difficulty in investigating the process of its genesis (the lack of reliable information on the contexts of flint artefacts). It is possible that this is a deeper problem, related to the impossibility of archaeology in determining the origins of phenomena classified on the basis only of ceramic evidence. Although we have become acquinted in part with the characteristics of the ceramics from individual sites, we are still not able to create satisfactory systematisation of potentially homogeneous collections. Therefore, it is impossible to understand the dynamics and chronology of the transformation of manufacturing of ceramics, and as a consequence of this, other categories of artefacts, the forms of settlement, the settlement of individual ecological niches, etc. Without such knowledge it is impossible to undertake any study of culturalgenetic problems.

This thread inevitably leads to the analysis of the Neolithic – sub-Neolithic interactions at all cultural and chronological levels. Although these relations can be perceived as "Neolithic pressure to the east", the lack of signs of the "progress of civilisation" (the economic one) in this sub-Neolithic period makes the problem more complex. We do not know, therefore, what these mutual relationships consisted of and to what extent they modified both sides. These problems are not easy for archaeology to study, and in the current state of knowledge of the Polish sub-Neolithic impossible to undertake, except at the level of the identification of the material evidence.

The key to the resolution of the issues referred to here, if can be resolved at all, lies in archaeology of north-eastern Poland and with researchers of the Later Stone Age – the Neolithic understood as a period. In my opinion, formulated hypotheses must be examined archaeologically. This, in turn, requires a better knowledge of the Neolithic phenomena in the area in question, and this is – to put it mildly – highly unsatisfactory. It is worth recalling here, among other archaeological surprises from recent years, the discovery of the site of the Late Linear Pottery culture in Równina Dolna (Rybicka and Wysocki 2003), "assemblages of Ząbie-Szestno type" (Manasterski 2009) or materials of the Waldburg type (Zalcman 2010). We should expect in future years many more such surprises.

# JAN KOWALCZYK'S "CERAMIC MESOLITHIC" – A FEW REMARKS AFTER HALF A CENTURY

The unquestionable merit of J. Kowalczyk was his perception of the phenomenon of the presence of ceramic-using hunter-gatherers as essential one for understanding the Neolithic. In his work from 1969, besides the Linear Pottery culture, Funnel Beaker and Globular Amphora cultures, he presented the Pit-and-Comb Pottery culture, accentuating its importance in the Neolithisation process. This resulted from his processual vision of the beginnings of the Neolithic period in the territory of Poland. In a broader sense, this is the issue of the participation of hunter-gatherers in the Neolithisation process. Although researchers have willingly indicated their significant role, e.g. in the genesis of the Funnel Beaker culture (e.g. Wiślański 1979b; Kośko 1981; Nowak 2009), a lack of significant progress in research on this problem is still visible, and the effects of such research are far from being satisfactory. Such views therefore still remain more in the sphere of intuition than well founded argumentation.

The problem of the sub-Neolithic can be described in a similar way. J. Kowalczyk (1969) was aware of the complexity of taxonomic, genetic and chronological problems related to artefacts associated with the "Pit-and-Comb Pottery" cultures. It is easy to find the reasons for the neglect of his views in later works. It may be noted that the lack of confirmation or incorrect character of some of his ideas became clear. It cannot be forgotten that four years later, his deliberations were supplemented by a study by E. Kempisty (1973) devoted to this phenomenon (though almost exclusively to aspects of the cultural and chronological ordering of the ceramic artefacts). For some researchers it was unacceptable that J. Kowalczyk situated as equivalents peoples that were, in the belief of some of the archaeologists, very different from each other in terms of their development – "savage" alongside "civilised" ones.

J. Kowalczyk did not treat the Pit-and-Comb culture as a monolith. It was not even an archaeological culture for him. This concept was rather a "generalinterpretation" in the sense of a "cultural cycle". This view found full confirmation in later years. Already before, researchers noted the connections of the "Polish" subNeolithic with various Neolithic phenomena, starting with the Funnel Beaker culture, and ending with the Trzciniec culture (e.g. Jażdżewski 1932, Gardawski 1958). This was also unambiguously confirmed by E. Kempisty (1973). This view, however, was treated by archaeologists quite one-sidedly, which resulted from the evolutionist approach, suggesting that the "more developed" culture (here: Neolithic) positively influenced the "more primitive" (here: Mesolithic or sub-Neolithic) one. These were hunter--gatherers who had to undergo the acculturation processes, to eventually, even as late as at the beginning of the Bronze Age, shift to the higher economic level of development. That's how the problem was understood by J. Kowalczyk. In his general model of the beginnings of the Polish Neolithic, the new economy played a leading role. The second element was the knowledge of pottery vessels, which until recently had still been regarded as an invention of the farming and breeding communities. It was supposed to exemplify the dissemination of land cultivation, including in particular greater stability of settlement in relation to hunter-gatherer groups (from the perspective of the Polish lands - Mesolithic societies), which was also confirmed by other data (e.g. traces of houses traces of houses and pits, numbers of artefacts, size of sites etc.), or finally logical reasoning, according to which the complexity of agriculture forced durability of settlement. The third element was people – a population substrate of the beginnings of the new economy in Polish lands. They could be migrants or the indigenous population of the Mesolithic. Questions about the fate of the latter bothered archaeologists for a long time and still occupy them at present. J. Kowalczyk assumed that it was the Mesolithic population that was the population and cultural substrate of the local Neolithic, and possible migrations were of marginal importance, although they played a culture-forming role, acting as "donors" of new cultural achievements. He distinguished several territorial and chronological stages of the spread of knowledge of agriculture. Knowledge of agriculture, as the first wave of influences from the south-east, was originally very seriously ahead of the production of ceramics. The further it penetrated to the north, the more its extent decreased. In some areas, the knowledge of agriculture was probably contemporary with ceramics, and further in the forest zone, it was even accepted as a later influence (Kowalczyk 1969: 47). It is not my goal to discuss this model more widely. Here, it will only be important to say that the sub-Neolihic ("ceramic Mesolithic") has been treated as a stage limited to a certain territory where the knowledge of pottery arrived ahead of the adoption of new economic models.

Jan Kowalczyk treated his model as a proposal. He took into account the existing concepts, and recognized gaps and contradictions in them. In many places he emphasised the deficiencies or shortcomings of credible material evidence as foundations for interpretations. He presented his own theoretical model, postulating testing it by gaining new information and indicating critical research problems, the solution of which would allow the verification of individual elements of the model. This was also true for the sub-Neolithic ("ceramic Mesolithic"), where he clearly noticed the fragile nature of the available empirical data.

Although many of the research hypotheses of this researcher have not survived the test of time, his theoretical considerations on many problems, essential for our discipline, still remain valid. It is regrettable that after fifty years, with a large number of new publications that have appeared in that time and with the narrowing/specialisation of our individual knowledge, we too often overlook the problems of archaeology that were raised by him, forgetting their existence and – often – their primary importance. This is even the case when it concerns the question of the homogeneity of assemblages of finds, the understanding of the so-called archaeological culture and, generally speaking, the theoretical, methodological and methodical basis of our discipline, at all stages of its practising. Too often we forget our implication in our own views and superstitions about the past, too often we unjustifiably objectify our knowledge-building about the past. J. Kowalczyk understood and revealed the cognitive implications of archaeology. It is a pity, therefore, that the lack of confirmation and, consequently, the rejection of his detailed views (even about the Aceramic Neolithic or the sequence of Funnel Beaker culture phases) had the effect that the work Początki neolitu na ziemiach polskich [The Origins of the Neolithic Age on Polish Territories] fell into oblivion. Today, we consider this work, and other publications of this researcher, almost exclusively from the perspective of the history of the discipline. This state of affairs is also due to the lack of acceptance of J. Kowalczyk's views by his contemporaries among the Neolithic researchers, reflected in the published texts (e.g. Kempisty and Gurba 1971, Kozłowski J. K. 1971). Criticism of his detailed views omitted the assessment of the theoretical layer underlying them. For example, Janusz K. Kozłowski assessed this in just one sentence in the summary of his review: However, I must say with pleasure that a series of theoretical considerations contained in this thesis made me think about many problems, which will undoubtedly be reflected in further analytical formalisations of the complex problems of the beginnings of the Neolithic (Kozłowski J. K. 1971: 49). Elsewhere in this review we will find a second opinion: We have to say clearly that the problems of the beginnings of the Neolithic will not be solved in the study room exclusively among books. This issue can, in my opinion, be solved only on the basis of a thorough analysis of materials using all available methods, and above all with the most accessible typological method (Kozłowski J. K. 1971: 44–45). I believe that these sentences expressed the views of the majority of researchers of that time.

The shape of interpretative models is conditioned by **our convictions** about the cultural past, about the current knowledge, the meaningfulness of questions asked and on how to answer them, about the understanding of archaeological sources (e.g. the issue of the creation of the archaeological evidence, essentials of their analysis, argumentative power, etc.). In this approach, the application of the source-creative typological method postulated by J. K. Kozłowski has two dimensions: as an

inspiration and the its application to the verification of posed hypotheses. This happens regardless of our awareness or acceptance. In the context of Polish archaeology, Jan Kowalczyk, aware of the entanglement of prehistory in such issues, was a pioneer of a new narrative of the Neolithic, unappreciated not only by his contemporaries, but also by many of today's archaeologists.

The work *Początki neolitu na ziemiach polskich* [*The Origins of the Neolithic Age on Polish Territories*] was published half a century ago. Since then, our knowledge of the Neolithic has grown enormously. This applies to both the source data and interpretation concepts. From such a perspective, J. Kowalczyk's work might be seen to belong to the "prehistory" of archaeology, especially since we will not find any modern analyses of the material culture there. From the point of view of the theoretical layer, the situation is different. In this respect, reading the work of J. Kowalczyk can still provide many reflections and inspirations.

In summary, one should recall the apt opinion of L. Kozłowski that better knowledge of the Neolithic of north-eastern Poland is important for understanding the totality of the Stone Age, not only in Poland, but also in the whole of North-Eastern Europe (Kozłowski L. 1924: 70). The idea of J. Kowalczyk (1969) on the entanglement of the hunter-gatherer and early-agricultural communities in the cultural processes taking place in these areas should also be accepted. Without a significantly better archaeological understanding of phenomena occurring in the areas of interpenetration of these "two worlds", we will not understand the relations between them. They played a significant role in history, too often seen unilaterally as Neolithisation of the "savage", and too seldom – as also the sub-Neolithisation of the "civilised". Today we know that they were two-sided processes that lasted for a very long time. Without better understanding of the archaeology of this period in north-eastern Poland, we would not be able to understand the Neolithic of Polish lands in general. We can also contribute a lot to the archaeological knowledge of the past of our eastern neighbours.

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### 76 Stanisław Kukawka

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