Review of: Kabaciński, J., Hartz, S., Raemaekers, D. C. M., & Terberger, Th. (Hrsg.) (2015). Der Fundplatz Dąbki in Pommern und die Neolithisierung der nordeuropäischen Tiefebene (ca. 5000 - 3000 cal B.C.). The Dąbki Site in Pomerania and the Neolithisation of the North European Lowlands (c. 5000-3000 cal°B.C.). (Archäologie und Geschichte im Ostseeraum 8). Rahden/Westf.: Verlag M. Leidorf. – 574 Seiten, 396 Abbildungen, 43 Tabellen. Deutsch und englisch. Hardcover. ISBN 978-3-89646-468-2.

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Introductory remarks

The Dąbki site (near Koszalin/Köslin) in northern Poland was excavated during 1978-1985 by Jolanta Ilkiewicz of the *Muzeum w Koszalinie* (Koszalin Museum), with the findings being published shortly afterwards (ILKIEWICZ, 1989). However, further work was carried out during 2004-2014 by a multidisciplinary German-Polish team, led by Jacek Kabaciński and Thomas Terberger, that produced results which rendered Dąbki comparable to sites such as Hüde, Boberg, Siggeneben Süd, Wangels and others of crucial significance to examine the neolithisation process in Northern Central Europe.

This book brings together papers presented at an international workshop held in Greifswald on 14-15 December 2012, reporting on the findings of research into Dąbki 9/10. The publication is divided into two parts. Part one - The Dabki site Results of interdisciplinary studies - presents the results of excavation and a broad range of postexcavation analyses. Part two - The Neolithisation of the North European lowlands - New research and insights, presents the broader context of research into neolithisation within the circum-Baltic region. The book summarises and concludes an important stage of research into the Dabki site. However, it is difficult to ignore the fact that it does not include any new articles, but simply collates various earlier works produced by the authors. This is true both of the site's excavators and of the contributors invited to discuss the wider context of 'neolithisation'.

Indeed, it is this aspect of the publication that draws my first criticism. It can be argued that the nature of the site broadly justifies focusing on the context of cultures such as the Ertebølle, the Zedmar, the Narva, the northern TRB and even the Swifterbant. However, the settlers at Dąbki also co-existed and cooperated with Danubian and eastern TRB farming communities living in the Lower Oder and Vistula regions. Unfortunately, among the contributors there is a glaring absence of archaeologists specialising in the Brześć Kujawski culture and the eastern TRB. The inclusion of a report by Czekaj-Zastawny on imports of 'Danubian pottery' and of an article co-authored with Kabaciński concerning contacts with the eastern TRB does little to improve this situation. This is why I shall continue my critique by attempting to comment on the interpretations presented in this book from the perspective of 'the South'.

Dąbki (sites 9 and 10) and the origins of the TRB in Pomerania

The dating determined for Mesolithic pottery and for the appearance of TRB pottery at Dąbki, based on 33 AMS dates derived from analysis of adhesions on pottery (KOTULA ET AL., in this volume pp. 113-136), is particularly interesting. The authors believe that Mesolithic pottery (in my opinion, of the Ertebølle culture – hereafter EC) appeared at Dąbki at around 4900 cal°BC, remaining in use until 4090 cal°BC, which coincides with the earliest dates attributed to the TRB presence at this site: c. 4200–4100 cal°BC.

Dates obtained for TRB pottery extend even as far back as 5200 cal°BC. However, the authors reject all dates earlier than 4200 cal°BC on account of *"some samples probably being slightly affected by reservoir effects"*. I believe that the problem is more likely to stem from the fact that the TRB pottery was not always correctly identified. Imported wares of the Stroke-Ornamented Pottery culture (SBK), the Brześć Kujawski culture (BKC) and the Rössen culture (RC) were also recorded at this site. Distinguishing between vessels made by these various cultures when they are represented by highly fragmented sherds altered by their deposition in peatland requires a great deal of experience and can result in errors.

Examining the production of EC and TRB pottery, the authors conclude that the principal differences between these two methods were in vessel forming techniques, whereas "the composition of clay mass for pot manufacture did not change significantly in both periods crushed granite temper predominates. The only visible differences are the admixture of very fine-grained mica (in most cases) and a more careful preparation of clay in the FBC" (CZEKAJ-ZASTAWNY & KABACIŃSKI, in this volume p. 212). However, this description of TRB pottery technology could just as easily apply to the SBK and the BKC (e.g. CZERNIAK, 1994). This has important

Received: 12 June 2017 accepted: 20 June 2017 published online: 10 July 2017 implications for assessing how reliably flat bases of SBK or BKC vessels were differentiated from those of TRB vessels. All the more so, given that at a site which features such unstable sequences of peat deposits, the stratigraphic position of finds cannot be used to verify typological dating.

Hence, the reconstructed forms of flat-based TRB beakers presented in this study (CZEKAJ-ZASTAWNY & KABACIŃSKI, in this volume p. 210, Fig. 7), which do not include a single example of a base fitted to a body sherd, are difficult to regard as reliable, to say nothing about their precise attribution to the vessel typology of the northern TRB.

This is why I cannot agree with the authors' assertion that the chronological attributions in this study are based exclusively on the results of stratigraphic analysis, typological analysis and radiocarbon dating. I believe that the 'filtering' of this data through the existing typochronological model for northern TRB pottery also played a significant role. As the authors state elsewhere: "we are arguing that the pointed bottom ware was replaced by Funnel Beaker pottery around 4100 calBC, in accordance with results from northern Germany" (KOTULA ET AL., in this volume p. 133).

The above findings are used as the basis for a discussion about the origins of the TRB, leading the authors to state that: "we can also observe at Dąbki [...] a process of a smooth and gradual transition (evolution) of Late Mesolithic vessel forms to early beakers typical of the Northern group of the FBC. From this perspective Dąbki is a unique site, where several vessels combining features characteristic for the Late Mesolithic on one hand and early FBC on the other occurred" (CZEKAJ-ZASTAWNY & KABACIŃSKI, in this volume p. 207).

I am not convinced by a hypothesis which draws on the similarity between pots with pointed bases and funnel beakers. After all, the changes that can be deemed to indicate the 'origins of TRB pottery' were not merely limited to the introduction of flat bases in place of pointed ones. The range of vessels which appeared during the early TRB represented a comprehensive array of forms and functions (funnel beakers, amphorae, pots, bowls, plates and spoons), demonstrating that a radical change had taken place in the way that food was being cooked, served and stored. Thus, looking at early TRB assemblages as a whole, more likely prototypes can be found among the pottery of the Michelsberg Culture (MC), whose impact on areas of northern Germany and southern Scandinavia is obvious (e.g. Klassen, 2004; Sørensen, 2012).

It is worth considering why the range of vessels typical of the early TRB was so modest at Dąbki, where it is represented exclusively by funnel beakers. The answer might be provided by another question: how would the presence of funnel beakers at Dabki have differed from the presence of 'imported' SBK, RC and BKC vessels in earlier centuries? In my opinion, there would have been no difference at all because the latter were also just simple ceramic containers for storing foodstuffs and not the remains of a functionally cohesive set of vessels used by Danubian farmers. The only exception to this are imports from 'the Bodrokeresztur culture' (BC), to which I will return later. All in all, I believe that the funnel beakers at Dąbki, even if some of them were made by this site's inhabitants, represent the replacement or supplementation of exchange with Danubian farmers, for exchange with MC farmers (via the northern TRB), and later with eastern TRB farmers, rather than local evolution. Another indication is the fact that up until the end of their time at this site, the inhabitants of Dąbki did not change their way of life and remained being hunter-gatherers.

The Dabki site lies in an area that was not suitable for farming. Therefore, we can hardly expect to find evidence of transformation into the TRB in its fullest sense (i.e. social, economic and religious) as an agrarian culture. This is one of the problems with earlier research into the origins of the northern TRB. Preconceptions about this culture's local roots meant that only sites with Mesolithic contexts were selected for excavation. This created the false impression that there had been a several-hundred-year period of contacts with farming communities and a gradual local evolution that must have led to an agrarian way of life. This is also the view put forward by the authors of the analysed article. At this juncture, I would like to point out that the rejection of the 'availability model' (ROWLEY-CONWY, 2004; 2011) opened up a new phase in discussions about the origins of the northern TRB, offering a significantly different perspective on the interpretation of the Dąbki site (cf. also: Sørensen, 2012; Larsson, 2015; Czerniak & RZEPECKI, 2016; CZERNIAK, 2017 in press).

In this context, the discovery at Dąbki "of the (imported) earliest pottery of the Eastern group" (CZEKAJ-ZASTAWNY & KABACIŃSKI, in this volume p. 215) is of particular interest. Feature 38 at Dąbki 10 was found to contain: "sherds of pointed bottom pots, Funnel Beaker pottery imported from Kujawia and remains of amber processing. Here, a sample of charcoal glued to a piece of (non-diagnostic) pottery provided a date of 4090. It is possible that late pointed bottom pottery production and early Funnel Beaker influence were contemporaneous. According to this information and pottery typology we expect the start of funnel beaker production around 4100/4000 calBC" (KOTULA ET AL., in this volume p. 123). If we accept that pottery of 'the Sarnowo Phase' was accurately identified, this would represent the earliest context in which TRB pottery has been found at Dąbki, with obvious consequences for interpreting the origins of this culture. Sadly, any potential theories on this subject must be put on hold following a statement made on behalf of this article's authors by Jacek Kabaciński during a conference held in Łódź in 2016, asserting that this pottery had been 'reattributed' to 'the northern TRB'.

It is worth adding that Eastern TRB pottery is very easily recognised by its distinctive grog (chamotte) temper, sometimes featuring fine sand. The presence of this type of temper in pottery from Dąbki had already been noted by Jolanta Ilkiewicz, based on petrographic analysis (ILKIEWICZ, 1989, 28). Therefore, it would be good to verify these findings and to discuss the differences in methodology used for analysing pottery of the northern and eastern TRB. The fact that this pottery study did not identify grog temper in the Dąbki ceramic assemblage may be because of a lack of relevant experience and not knowing what to look for. Interesting comparative data in this respect is provided by the contribution of MISCHKA ET AL. in this volume (pp. 465-477).

Imported Danubian pottery in the Late Mesolithic context in Dąbki

All in all, "approximately 90 imported vessels have been discovered". Interestingly, only 80 'Mesolithic' vessels were recorded in the same area (CZEKAJ-ZASTAWNY, in this volume p. 221). Comparing the quantities of sherds recovered, it would appear that the number of Mesolithic vessels has been substantially underestimated. This should prompt a reassessment of the method used for calculating the minimum number of vessels.

The majority of vessels (82 in all) were attributed to the BKC, though it is difficult to draw any conclusions from this, as it is questionable whether the distinction between SBK and BKC wares has been made accurately. The examples of BKC pottery shown in Figs. 78 represent either SBK vessels or (mostly) forms common to both the SBK and the BKC. Thus, it is all the more surprising that they are so precisely ascribed to the early phase of the BKC. As a side note, it is worth adding that the closest analogies to BKC wares in terms of technology and decoration (incisions along the top of the rim) found at Dabki are 'lamps' regarded as typical 'Mesolithic' vessels. There is also a pressing need for a fundamental chronological adjustment. Dating the BKC to 4600-4300 cal°BC is poorly substantiated (the authors cite the dates proposed by GRYGIEL, 2008; see also BOGUCKI, 2008). Recent radiocarbon analysis provides grounds for dating the BKC to 4350-4000/3900 cal°BC (CZERNIAK ET AL., 2016). This means that the culture which would have co-existed with the BKC for the longest period of time would have been the SBK (4800-4350 cal°BC). Moreover, it is SBK vessels that we should expect to be most abundant, given that these communities were the most mobile and actively expanded into the northern fringes of the Danubian world (CZERNIAK, 2007).

The most controversial part of this study is the suggested picture of long-distance contacts supplying farmers with goods such as "furs, antler and bone tools" as well as "amber artefacts (figurines, pendants or just raw nodules)". The main support for this theory is provided by eight sherds of pottery attributed to the BC, which are taken as evidence of people interested in exchanging goods with local hunters and foragers coming "from as far away as the Hungarian Plain". This leads to the conclusion that "Dabki seems to be a place (a meeting point, expected but difficult to record by archaeological methods) where hunter gatherers and farmers performed exchange of goods and ideas. It must have been a place of a very long tradition, transmitted through generations" (CZEKAJ-ZASTAWNY, in this volume p. 229).

Thus, the validity of this theory largely relies on the BC pottery having been correctly identified. In my opinion this is doubtful. As I have stated elsewhere when commenting on this issue: "I would argue that at least three out of four fragments attributed to Bodrogkeresztúr in fact represent the post-Rössen tradition, probably Schwieberdingen. The fourth seems to remind of Bodrogkeresztúr but can also be of western provenience. I want to stress, however, that an unquestionable attribution of pottery decoration from such small fragments is inevitably limited and will remain unclear until the provenience of its raw material is in*vestigated.* [...] *Contacts of the Ertebølle culture to the* Rössen, SBK, LBPC and BKK cultures are straightforward and unquestionable. In this context, a presence of pottery of the post-Rössen tradition in this setting is certainly more probable than that of Bodrogkeresztúr" (CZERNIAK 2012, 168, footnote 65).

I will add that in an earlier article published in Antiquity (CZEKAJ-ZASTAWNY ET AL., 2011), the 'BC imports' in question were unequivocally attributed to the TRB phase at Dąbki and to potential BC activities connected with the distribution of copper goods. However, this theory was later shied away from because it was not supported by chronological evidence (the dating of the BC) and not as a result of a critical reassessment of the system of exchange, its social context and available empirical evidence.

Amber-working was clearly attested at Dąbki (p. 152: "several amber beads were found accompanied by some unworked amber fragments"). However, might this not have represented domestic production? And where is the evidence for amber use in the BC? It is very rare, even in the neighbouring BKC. The solitary Tiszapolgar culture find cited by the authors may have reached this site by chance or via an indirect route, for example, through the Lublin-Volhyn culture or the BKC, which had operated within 'the Late Lengvel interaction sphere' for centuries. After all, BKC communities would not have travelled to the Aegean Sea for Spondylus shells or to Bohemia for calcite, but would have acquired them through a long chain of gift exchange among neighbouring communities.

The idea of lengthy expeditions from the Carpathian Basin to Pomerania to acquire furs and antlers seems even less likely. Naturally, it is difficult to find confirmation of fur trading, but the fact that mass hunting of beavers took place does not necessarily mean that it was done for their pelts. Beaver fur could have been a by-product of local populations procuring valuable meat and fat supplies. And how can there be any certainty that the pelts were not used by locals, or that they were so sought after by farming communities that they would have undertaken such long journeys to get them?

By contrast, in the case of antler we should expect to find artefacts attesting a strong demand for products made from this raw material in the BC. We would also need some indication of it having been difficult to acquire locally. However, antler appears to have been relatively significant in the Carpathian Basin (as demonstrated by grave goods) during the first half of the fifth millennium cal^oBC rather than towards its end (e.g. PATAY, 1978; ZALAI-GAÁL ET AL., 2012). In the latter half of the fifth millennium, it is BKC communities that were notable in this respect; they may well have got the idea of T-shaped antler axes from the north, but they undoubtedly made their own (examples of workshops have been recorded in Kuyavia: Grygiel, 1986; Bogucki, 2008; Kabaciński ET AL., 2014) and used them in their own idiosyncratic way. I am also certain that they had adequate access to this raw material in their immediate surroundings. Thus, the problem is that we have evidence of Danubian pottery having been acquired, but we do not know what it was exchanged for. However, instead of formulating a hypothesis based on reasoning, the authors have resorted to rely on the stereotype of hunters as possessors of furs, antler and amber.

Would these types of goods have enticed farmers to make the effort required to cover the 130-200 km separating Dąbki from the nearest Danubian settlements? Naturally, this is assuming that their contacts would only have extended this far. There is also the question of whether it was the pottery itself that was exchanged for whatever it was that the locals had to offer. Attractive objects do not appear to have been the focus of this exchange, as there are not many of the finely made and ornately decorated vessels common in the SBK and the RC and few polished stone tools. Instead, we have only the most modest set of Danubian vessels, mostly kitchenware. It is more likely that they were containers for foodstuffs that were exotic to the local population (cereal crops, butter, yogurt, beer?) rather than 'gifts' in their own right.

Fur trappers, fishers and traders in Dąbki?

This is the title which the authors use in summarising the reviewed publication. However, I can find no reason for their having chosen fur and trade as the defining features of Dąbki's inhabitants. In my opinion, presenting Dąbki as a Mesolithic trading post whose inhabitants were involved in exchange with farmers does not give an accurate picture of this settlement. Dabki is rather an example of a site on the southern Baltic coast inhabited by an average, small hunter-gatherer community of the fifth and early fourth millennium cal°BC. These societies had sporadic contact with farmers, but despite the fact that these contacts were maintained for over 1000 years, the inhabitants of Dąbki made no changes to their way of life throughout their occupation of this site. Radical changes did not occur until around 3700 cal^oBC, when farmers appeared in the immediate vicinity and Dabki was abandoned.

To correctly interpret the contacts between hunter-gatherers and Danubian farmers we have to acknowledge that these farmers lived in areas far away from Dąbki (130 km to the lower Vistula; 200 km to the lower Oder) and were not interested in colonising habitats of this type. Thus, in this part of Pomerania there were no farmers within close range of the community living at Dąbki, and it is only if this had been the case that we could expect frequent contact and exchange of small items of everyday use between these groups. As it is, in order to meet they would have had to cover long distances over poorly accessible terrain. Hence, they must have been drawn by something that was far more valuable and difficult for them to obtain than furs, antler and amber.

In this context, the latest results of DNA analysis carried out on a series of BKC skeletons from Kuyavia offer an interesting insight, as they indicate that marriages were made between BKC men and women from hunter-gatherer communities (see Lorkiewicz et al., 2015). The women may have been inhabitants of sites such as Dabki. We know that during the LBK period Danubian societies were already characterised by a patrilocal kinship system, which meant that they were open to the inclusion of women from other communities (e.g. BENTLEY ET AL., 2012). Archaeological confirmation of this phenomenon comes from the influences of hunter-gatherer cultures evident among post-LBK societies. These are mainly reflected in BKC dress (e.g. in the form of wild animal tooth necklaces worn by women) and in BKC ceramic technology, which became similar to that used in the EC (e.g. CZERNIAK, 2007; 2012). This far-reaching search may have been driven by a higher mortality rate among women in farming communities and by competition between individual households, in which having as many children as possible was probably very important.

What happened to the inhabitants of Dąbki?

The coincidence between the abandonment of the Dąbki settlement and the appearance of cereal crop pollen in the site's stratigraphic sequence is significant. Since this fact is not elaborated on, we can assume that when the inhabitants of Dąbki had 'become TRB' around 300 years earlier, like most northern TRB communities, they switched to a farming economy and moved to a more favourable environment. However, the situation at this time was far more complex, which the authors of this study seem to overlook.

By around 3800/3700 cal^oBC, northern TRB farming communities of the Łupawa Group (WIERZBICKI, 1999) were already living relatively nearby (c. 80 km), and areas previously settled by Danubian groups were now occupied by eastern TRB farming villages (CZERNIAK & RZEPECKI, 2016; CZERNIAK, 2017 in press). The discovery of

Koszalin-Dzierżęcino 7 (ILKIEWICZ, 1997), a site contemporaneous with the TRB phase at Dąbki, alters the context in which we should evaluate Dąbki's existence. Koszalin-Dzierżęcino 7 is located barely 20 km west of Dąbki, in an area suitable for farming, and features traits of both the northern and the eastern TRB. Therefore, it cannot be ruled out that eastern TRB settlers may have played an important role in the neolithisation of the Dąbki community. Given that the eastern TRB succeeded the BKC (for more on this see: CZER-NIAK, 2017 in press), this would suggest not only a continuation of earlier contacts, but also a return of the descendants of women who had come from local hunter-gatherer groups.

In concluding these remarks, I would like to emphasize that my polemic has focused solely on a handful of subjectively chosen key topics in the debate concerning the interpretation of excavation results from Dąbki. The reviewed publication is undoubtedly a very robust, multi-faceted archaeological analysis of one of the most comprehensively studied sites that demonstrate the processes of neolithisation in Northern Europe. Its value is further enhanced by the inclusion of articles which provide the broader context in which this phenomenon should be examined.

References

Bentley, R. A., Bickle, P., Fibiger, L., Nowell, G, M., Dale, CH. W., Hedges, R. E. M., Hamilton, J., Wahl, J., Francken, M., Grupe, G., Lenneis, E., Teschler-Nicola, M., Arbogast, R.-M., Hofmann, D., Whittle, A. (2012). Community differentiation and kinship among Europe's first farmers. *PNAS, June 12, vol. 109, no. 24*, 9326–9330.

Bogucki, P. (2008). The Danubian-Baltic Borderland: Northern Poland in the fifth millennium BC. *Analecta Praehistorica Leidensia* 40, 51–65.

Czekaj-Zastawny, A., Kabaciński, J. & Terberger, Th. (2011). Long distance exchange in the Central European Neolithic: Hungary to the Baltic. *Antiquity 85* (327), 43–58.

Czerniak, L. (1994). Differenzierung der postlinearen Kulturen aufgrund der Forschung über Technologie der Keramik. In *Internationales Symposium über die Lengyel-Kultur 1888-1988.* (p. 15-17). Brno – Łódź: Masarykova univerzita Brno.

Czerniak, L. (2007). The North-East frontier of the post-LBK culture. In J. K. Kozłowski & P. Raczky (eds.), *The Lengyel, Polgar and related cultures in the Middle/Late Neolithic in Central Europe.* (p. 231-248). Kraków: Archeobooks. Czerniak, L. (2012). After the LBK. Communities of the 5th Millennium BC in North-Central Europe. In R. Gleser & V. Becker (eds.), *Mitteleuropa im 5. Jahrtausend vor Christus. Beiträge zur Internationalen Konferenz in Münster 2010* (Neolithikum und ältere Metallzeiten. Studien und Materialien 1) (p. 151-174). Berlin: Lit Verlag.

Czerniak, L. (2017, in press). The emergence of the TRB communities in Pomerania. *Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi, seria archeologiczna*.

Czerniak, L., Marciniak, A., Bronk Ramsey, Ch., Dunbar, E., Goslar, T., Barclay, A., Bayliss, A. & Whittle, A. (2016a). House time: Neolithic settlement development at Racot during the 5th millennium cal B.C. in the Polish lowlands. *Journal of Field Archaeology*, 41/5, 618-640.

Czerniak, L. & Rzepecki, S. (2016). Research on the origin of the TRB culture in east Pomerania. Pottery from Bielawki, site 5, Pelplin commune. *Gdańskie Studia Archeologiczne*, *5*, 40-57.

Grygiel, R. (1986). The household cluster as a fundamental social unit of the Lengyel Culture in the Polish Lowlands. *Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi, seria archeologiczna 31* (1984), 43-334.

Grygiel, R. (2008). Neolit i początki epoki brązu w rejonie Brześcia Kujawskiego i Osłonek 2(3). Środkowyneolit. Grupa brzesko-kujawska kultury lendzielskiej. Łódź: ODK.

Ilkiewicz, J. (1989). From studies on cultures of the 4th millennium B.C. in the central part of the Polish coastal area. *Przegląd Archeologiczny 36*, 17-56.

Ilkiewicz, J. (1997). From Studies on Ertebølle Type Cultures in the Koszalinian Coastal Area (Dąbki 9, Koszalin-Dzierżęcino 7). In D. Król (ed.), *The Built Environment of Coast Areas During the Stone Age* (p. 5-65). Gdańsk: Regional Centre for Studies and Preservation of Built Environment.

Kabaciński, J., Sobkowiak-Tabaka, I., David, E., Osypińska, M., Terberger, Th. & Winiarska-Kabacińska, M. (2014). The chronology of T-shaped axes in the Polish Lowland. *Sprawozdania Archeologiczne 66*, 29–56.

Klassen, L. (2004). Jade und Kupfer. Untersuchungen zum Neolithisierungsprozess im westlichen Ostseeraum unter besonderer Berücksichtigung der Kulturentwicklung Europas 5500–3500 BC (Jutland Arch. Soc. Publ. 47). Aarhus: Aarhus Universitetsforlag.

Larsson, M. (2015). Agency, creolization and the transformation of tradition in the constitution of the earliest Neolithic in southern Scandinavia. In Brink, K., Hydén, S., Jennbert, K., Larsson, L., & Olausson, D. (eds). *Neolithic Diversities: Perspectives from a conference in Lund, Sweden* (Acta Archaeologica Lundensia, ser.8° vol. 65). (p. 75-79). Lund: Department of Archaeology and Ancient History.

Lorkiewicz, W., Płoszaj, T., Jędrychowska-Dańska, K., Żądzińska, E., Strapagiel, D., Haduch, E., Szczepanek, A., Grygiel, R. & Witas, H. W. (2015). Between the Baltic and Danubian Worlds: The Genetic Affinities of a Middle Neolithic Population from Central Poland. *PLOS ONE*, February 25, 2015. DOI:10.1371/journal. pone.0118316

Patay, P. (1978). Das kupferzeitliche Gräberfeld von Tiszavalk-Kenderföld. Budapest: Akadémiai Kiadó.

Rowley-Conwy, P. (2004). How the West was lost. A reconsideration of agricultural origins in Britain, Ireland, and Southern Scandinavia. *Current Anthropology*, 45 (Supplement, August–October 2004), 83-113.

Rowley-Conwy, P. (2011). Westward Ho! The spread of agriculture from Central Europe to the Atlantic. *Current Anthropology*, *52*/4, 431–451.

Sørensen, L. (2012). Pioneering farmers cultivating new lands in the North. The expansion of agrarian societies during the Neolithic and Bronze Age in Scandinavia. In H. C. Gulløv, P. A. Toft & C. P. Hansgaard (eds.), *Northern worlds – challenges and solutions. Report from workshop 2 at the National Museum* (87-124). Copenhagen: National Museum.

Wierzbicki, J. (1999). Łupawski mikroregion osadniczy ludności kultury pucharów lejkowatych. Poznań: ODK.

Zalai-Gaál I., Gál, E., Köhler, K., Osztás, A. & Szilágyi, K. (2012). Präliminarien zur Sozialarchäologie des lengyelzeitlichen Gräberfeldes von Alsónyék-Bátaszék, Südtransdanubien. *Praehistorische Zeitschrift 87*(1), 58–82.

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