УДК 902

ОТКАПЫВАЕМ ЛИ МЫ РАННЕНЕОЛИТИЧЕСКИЙ ПАКЕТ?

Т. Джанфезова, д-р, преподаватель кафедры археологии факультета истории
Университет «Святых Кирилла и Методия», Велико Тырново (Болгария)
К. Дохърти, ученый-исследователь
Университет Оксфорд, Оксфорд (Великобритания)
Н. Еленски, исследователь доисторического периода
Региональный музей истории в Велико Тырново, Велико Тырново (Болгария)

Аннотация. Ранненеолитическая керамика Северной Болгарии и более конкретно характеристики сырья и специфики декорации сосудов до сих пор не были предметом интердисциплинарного исследования. Согласно предварительным результатам наших исследваний (микроскопический и химический анализ керамики из с. Джулюница, Великотырновского региона), многие из ожиданий, по отношению одного из самого раннего керамического комплекса в районе, не подтвердились. Это дает возможность пересмотреть некоторые из традиционных становищ, ставить множество новых вопросов и дискуссий, связанных с определенными неолитическими моделями. Данная работа сосредоточена на ангобе – один из элементов, обычно рассматриваемый как характерный для неолитного пакета и распространение неолитного способа жизни. Удивительно, но оказалось, что традиционно рассматриваемая как полностью ангобированная керамика в действительности показывает значительное разнообразие: отсутствие какой-либо ангобы на коричневой посуде (а только отшлифовка поверхности) или наличие ангобы на двух поверхностях посудины (как внешней, так и внутренней стороне при посуде белого и кремового цвета). Что касается конкретнее сосудов с красным ангобом, которые обычно рассматриваются как модель для передачи неолитической технологии в новых территориях, результаты тоже были неожиданными. Оказывается, что у большой части фрагментов только красная поверхность, которая является результатом условий выпечки или добавления охры, а не преднамеренного добавления ангоба. Это вызывает вопрос, в какой мере характерные элементы ранней керамики, которые мы рассматриваем в качестве доказательства о распространении данной технологии, вообще сопоставимы. Кроме этого, констатирование местного происхождения сосудов, о которых полагалось, что сделаны в другом месте, а также и вывод о местном происхождении стилистически более особой керамики, о которой полагалось, что происхождение чужое, тоже выявили хрупкость некоторых установленных неолитических моделей. Даже на этом этапе предварительных исследований выявляется необходимость внимательного исследования местного сырья и рассмотрение специфик каждого объекта отдельно до возникновения стабильных и всеохватывающих неолитических моделей, которые охватывали бы обширные территории.

Ключевые слова: керамика; ранненеолитические модели; Болгария.

Introduction

The *Neolithic package* which actually signals the advent of major changes in the Neolithic way of life includes, among the rest, a number of material culture features based on the characteristics of the early pottery. Thus, the presence of an additional slip or engobe on pottery from Early Neolithic Balkan sites has, as a rule, been considered among the key evidence that implicates the Neolithization processes, and furthermore has often been described as a marker of the relation between the Balkan areas and the Anatolian regions, located to the south/southeast of the peninsula[1]. Our analysis of pottery from one of the earliest Early Neolithic sites in Northern Bulgaria, however, yielded surprising results in this regard. The findings shed light on some traditional, widespread perceptions, which establish the presence of an additional thin film or engobe (that usually has different colour compared to the body) as typical and common Early Neolithic features. Pointing towards more complex issues, the observations thus question for a first time certain traditional descriptions of the Early Neolithic ceramic material in the country. They allow for the possibility to actually distinguish between 1) genuine engobe, 2) 'engobe-like' appearance of the vessels and 3) technologically distinguishable slips, perceived as having non-local provenance and related to rather distant lands. Due to the importance of such technological and cultural features in the current studies on the topic, the present work is concentrated on the identification and characteristics of this very surface treatment.

Brief characteristics of the site

The Early Neolithic site of Dzhulyunitsa is located on a natural prominence, a plateau-like terrace above the Zlatarish¬ka River, near the village of Dzhulyunitsa in the Veliko Tarnovo region, North Central Bulgaria (fig.1). The area consists of a loess-filled depression with a number of freshwater sources available in the immediate vicinity. Considered as part of the so-called Koprivets cultural group of sites, the earliest known in Northern

1 Dark burnished vessels, red-slipped ware and the introduc¬tion of the painted pottery are seen by many researchers as correspond¬ing to the pulses of the Neolithization process [1; 2; 3]. The dark burnished ware (related to the monochrome horizon) has also been associ¬ated with the advent of the earliest 'prepainted pottery stages' in the region [4].

Bulgaria [5; 6; 7][2], it represents a number of phases and thus covers the entire Early Neolithic sequence. The settlement has been compared to the early sites in the Aegean Sea region and West Anatolia [10; 11] and is seen as containing a set of technological and stylistic elements known from a number of Anatolian sites. These include specific surface treatment, presence of 'engobe', organic temper and very early painted decoration [10; 12][3].

A number of surface decorative styles is es¬tablished in the two earliest Dzhulyunitsa horizons (fig. 2). Dark-painted (1), red slipped (2) and dark or black burnished ware (3) are known from the two earliest Early Neolithic layers, whereas fragments with creamy (4) or white slip (5) and white-on-red painted pottery (6) appear in the second Early Neolithic layer.

As for the general characteristics of this material, from the earliest phase onwards it has traditionally been described as made of levigated clay, and showing diligent final surface treatment, especially with regard to the finer pottery. Many thin-walled vessels from the earliest horizon, Dzhulyunitsa 1, are traditionally described as not only coated with brown clay slip, but sometimes even having both en¬gobe and fine dark-brown paint that covers the entire surface.

The pottery from consecutive Early Neolithic layers at the site (the second and third Dzhulyunitsa horizons) has quite similar characteristics, showing the same technological groups and shapes. In many cases the recognition of a number of surface colours (black, brown, red polished and lustrous to yellowish) could actually be due mainly to the firing conditions (and should not necessarily be always regarded as a specific cultural feature), as evident from better preserved vessels with greater dimensions that have a number of differently coloured spots and stripes.

Along with the advance of the white-painted decoration, a new feature in the second layer, there are also some Dzhulyunitsa 2 fragments showing a more peculiar surface treatment – the addition of completely white or creamy engobe. These have often been considered as non-local element, compared to the brownish sherds with engobe, coating or paint, perceived as local.

Before taking into account the more specific light-coloured slips (creamy and white), we will shortly discuss the brownish surfaces thought to represent a genuine engobe.

Dark colour 'slips' from Dzhulyunitsa

The majority of studied fragmented vessels from the earliest Early Neolithic layers in Dzhulyunitsa do not actually show the presence of real additional film, slip or engobe. They rather point towards a simple burnish of the surfaces – treatment which in this case does not imply great efforts, given the characteristics of the local loessic clay used as raw-material. The observation refers to various nuances of the studied sherds – very dark to light brown, yellowish, orangey, greyish, or even black. There is neither compositional nor textural difference between the body and the surface of the studied vessels, which was confirmed by optical and chemical examination (fig. 3). And if these are to be seen as dark-faced burnished ware[4], it would be interesting to also consider the natural characteristics of the local clays.

The above observations raise the following question: in this case, are there any true slips after all? And the results are quite surprising in terms of both the quantity and the quality of the registered examples.

True slip pottery – creamy and white engobe

A few Dzhulyunitsa Layer 2 sherds that have creamy engobe belong to three or four vessels, whereas the white-slip sherds are associated with two ceramic shapes. Despite the trench-based excavations and the yet unknown greater part of the site, the abundance of materials, and also the presence of early painted pottery, implies at this stage that pottery with white and creamy engobe (having such a limited percentage) cannot be considered common to the site and the region in general. However, there is not a single exception among these as regards the presence of engobe, and what is more, all the fragments have their both sides covered with a true white or creamy slip.

Creamy engobe.

The bigger bowl from Dzhulyunitsa (fig. 4: *6*) has a more specific, somewhat biconical shape, which is uncommon for the studied region (and in present-day Bulgaria in general) during the Early Neolithic period. Apart from the few other sherds with such engobe known from Dzhulyunitsa, we are familiar to just two other creamy fragments. The one is from the Early Neolithic site Orlovets located in the same Veliko Tarnovo region (fig. 4: *2*), but it represents a common shape, characteristic for the early pottery typology in the area. The same refers to the other, a fragment found in the Emenska cave in the same North Central Bulgarian area, which however belongs to a decorated vessel[5]. It should be reminded that creamy engobe has been traditionally considered as a non-local feature, and in North Central Bulgaria there obviously are examples for both typical, standard shapes and 'foreign'/unfamiliar ones.

So what would this mean in terms of the possible transfer of technology, ideas, movement of people, migrations or other views on the spread of the Neolithic

2 According to some the group is designated as Orlovets group [8; 9].

3 Since our interest is directed towards some of the most signalling Early Neolithic markers, on the basis of the material from Dzhulyunitsa we discuss the characteristics of the different engobes. There is another study focused on the painted decoration of vessels form this site [see 13].

4 The fragments are usually considered as local ware, which is confirmed by our analyses.

5 There is no information about the stratigraphic position and the context of the more peculiar reddish-brown painted fragment with creamy engobe from the Emen cave [15, рис.2: 1]. The find has been compared to a fragment from Gura Baciului which was seen as analogous to the material from the Thessalian region (for the site of Gura Baciului see [16; 17]). According to N. Elenski, the actual parallels are known from Southwestern Anatolian sites [15, с.69]

way of life, marked by such 'technological innovations'?

If we are to consider creamy-slip pottery as a 'style', data from neighbouring regions represent quite interesting example: whereas painted pottery from the northern Giannitsa basin is related to the broader Balkan style of *white-paint*-on-red-slip decoration, the southern part of the region is stylistically closer to the Thessalian red-paint-on-*white/cream*-surface decoration [14]. The above mentioned Balkan areas show that the typical decorative approach – the painting on a creamy/white surface (a practice known in Anatolia when painted decoration first appeared as red-painted motives on a creamy engobe/'background'), is well known in Northern Greece as well, but does not spread further to the northern Balkan areas (or at least not as a rule).

Interestingly, along with the more unusual creamy-engobe biconical vessel (fig.4: 8) and the few other ceramic fragments from Dzhulyunitsa, in this site there are also *various categories of objects* covered with the same 'cream' slip. These include a 'bead', one fragment of a ceramic 'bracelet' and a loom weight[6] (fig. 4: *3*; fig. 4: *4*; fig. 4: *5*) – objects which have a quite specific finish and, according to the published data, have not been recorded elsewhere in the region. Although few in number, the particular creamy fragments rise quite interesting questions as regards the slightly later Early Neolithic Dzhulyunitsa 2 stage. Given their low number, it is striking that the site does not contain just a single pottery shape or ceramic object with such engobe – there rather is a set of extraordinary finds, which are usually expected to have non-local provenance. And given that in other regions the creamy-engobe fragments are usually decorated by different colour painted motives, a curious exception is, again, registered in Dzhulyunitsa, where this surface treatment is not combined with painted decoration.

Since the otherwise variable raw-materials applied for the making of creamy engobe can easily be discerned by microscopic analysis, the body paste and the surfaces of two such fragments were analysed microscopically and chemically. One of them belongs to the specific conical vessel with thicker walls and the other – to a thinner pot.

The *thicker fragment*, 11 mm (fig. 5) has polished, lighter-coloured, 'creamy' light beige surface (2.5 Y 8/2, see [18]), with some pinkish nuances (7.5 YR 7/6). The engobe on the outer surface is thicker and the 7 mm dark grey core contains both lots of organics and white minerals, including bigger grains. The analysis shows a potassium-rich body (due to the high mica content), which is considerably less calcareous compared to the surface. The creamy slip – among the few and best examples of the real engobe, shows a concentration of calcite particles.

The *thinner fragment*, 4 mm (fig. 6) has a very smooth surface, possibly showing some traces of a polishing tool. The colour has beige nuances (2.5 Y 7/4 and 2.5 Y 7/6). The cut reveals neither organics nor macroscopically distinguishable mineral inclusions. Again, the microscopic analysis confirms a distinct slip at both sides, which contains conspicuous microfossils and calcite crystals, suggesting a marl-based nature. Since the limestone naturally varies, the different nuances of the creamy engobe could possibly be explained by this natural variation of the raw material.

It is worth mentioning that the body and the surface of both fragments do not contain non-local material. The chemical analysis indicates that the raw material is highly calcareous clay, i.e. the slip is made of marl (which is widespread in the area). And this is in no way surprising, given that the raw material used for the making of the typical white-painted decoration is the same (see [13]).

What is actually curious is that, technologically speaking, the perfect loessic clay in the region does not really necessitate the addition of any kind of engobe. As for the extent of similarity between the creamy and the white engobe, it will be discussed below.

White engobe

The surface of the few such fragments is white (5 Y 9/2), polished and very fine (fig. 4: *1*; fig. 7). Despite the thickness of just 5 mm, some fragments belong to one reconstructed short-neck spherical vessel which actually is expected to have considerable dimensions. The beige-orange cut of the analysed fragment does not indicate different firing and contains no organics, just small mineral inclusions. The microscopic analysis confirms the presence of a 50- to 150-microns-thick slip, showing very high percentage of calcium. The grains are exceptionally fine and the composition of this material points again towards the use of marl as raw-material.

As for a comparison between this white and the creamy engobe fragments, it can be concluded that the basic raw material is practically the same, but in the case of the creamy slip it is less pure (i.e. the content ratios between the fragments are a result of its natural variability).

The known white-engobe fragments with very small dimensions from Dzhulyunitsa do not show an addition of painted decoration. The origin of the earliest known white- and creamy-slip examples, however, is, curiously, sometimes related to the experimental stage of making pottery in some of the earliest Anatolian Neolithic sites[7].

So far we have mentioned the darker thought-to-represent-engobe brownish ware assumed to be local and the creamy and white real slips so far considered as imported vessels. Both expectations were not supported, given the actual lack of brown slip or paint, and the local pattern suggested for the raw materials used for the white and creamy engobe fragments.

What we will discuss below is the presence of red slip – another key feature, usually interpreted as a marker

6 There is a number of analogous shapes of loom-weights from the site, but these other finds are not covered with creamy engobe.

7 The earliest experiments that imply the use of limestone or plaster during the pre-pottery Neolithic stage refer to the so-called white-ware group (for details about the group and the earliest vessels see [19, p.24], also [20, p.23]). A curious suggestion refers to the possible similarities (or a continuation) between the vaiselle blanche group and the creamy-engobe wares.

for the spread of certain Neolithic technologies.

Red engobe

The presence of red engobe registered on fragments from North Central Bulgaria has not been questioned so far. Quite many sherds described as having typical red slip were also found in both the earliest and the second Early Neolithic layer of Dzhulyunitsa. A comparison between their surface finish, the characteristics of the clay and the presence of organics shows considerable variability among the registered combinations – from complete absence to the presence of lots of organics in the body of fragments with fine red surfaces, similar dimensions and thickness of the walls.

Surprisingly, however, the actual appearance of these red-surface fragments results from a) oxidation only, or b) the additional rubbing of red ochre onto the surface. Among the fragments studied so far these are the predominant variations and, given the lack of an additional slip, they actually indicate quite different approach for the surface finish (fig. 8)[8].

Discussion

Contrary to what has already been accepted, all studied *brownish*, *grayish and lighter colour* sherds from the first Dzhulyunitsa layer seen to represent engobe, actually show a burnished-only surface and lack any additional film or paint on the entire surface. In some cases this refers even to some of the 'decorated' vessels, commonly described as having 'dark-painted decoration'. Microscopic analysis confirms that these were only burnished, and it was not difficult to achieve a glossy effect of these surfaces.

Speaking of the burnished surface of the earliest pottery at the site, another key factor should also be mentioned. This burnish is actually rather easy to achieve, given the use of the typical for the region loessic clay. The latter, containing lots of mica, results in an easily achievable glossy surface, not necessarily related to the greater efforts necessary for the dark-burnished pottery known in other regions.

Even at this initial stage, our observations explain why certain pottery styles, which are thought to represent key Neolithic features, should be considered in greater detail, and furthermore, studied site per site. It is evident that the true engobe is represented by only some of the red and all of the white and creamy coloured surfaces of the Early Neolithic Dzhulyunitsa wares. First of all, the *creamy surface* vessels appear to be locally made, which does not correspond to the expectations for their imperative non-local, Anatolian provenance; and the same refers to the specific *white-slip* fragments. It should be reminded that these come from the second Dzhulyunitsa layer and do not belong to the very early pottery assemblage in the region. However, interestingly, these fragments take part in the second Dzhulyunitsa layer assemblage which also contains the first registered white-on-red non-local pottery as well. Thus, should the local origin of the commented fragments be considered as controversial observation, showing a discrepancy? Perhaps it should not, because nothing suggests that it would be impossible to register finished, imported non-local ware along with the very specific and technologically different from the mass material white- and cream-slip vessels, which however were made by local raw-materials. Thus the presence of suggested *direct imports* does not challenge the possible production on the spot of such specific, otherwise technologically different wares. Again, is should be reminded that there are also other finds from the second Dzhulyunitsa layer (bracelets, beads, loom-weights) which are covered with creamy engobe – a phenomenon more typical of the southern/south-eastern regions. Whether their presence in Dzhulyunitsa is related to an earlier, homeland style of pottery production by some of the arriving groups and it represents items with particular meaning traditional for the former territories is an interesting question. Other options may also envisage the manifestation of an experimental stage characterised by the making of earlier style pottery by the different local, but very suitable raw-materials. And furthermore, whether this 'style' could also indicate possible longer-distance contacts and technological transfers, or it is related to a particular group of people that is present or just visits the settlement of Dzhulyunitsa – these and many other questions are yet to be discussed.

In any case, the presence of technologically different, real thick slip with specific colour, which covers both sides of the vessels[9], is registered namely in the second Dzhulyunitsa layer and is known from the creamy- and white-slip fragments only.

As for the *red engobe*, another key feature seen to signal the Neolithization processes, it actually appears somewhat risky to compare technologically different approaches that otherwise look similar – the true red-slip surfaces and the simple red-surface vessels. The simpler red colour results from oxidation or, in some cases, from the additional rubbing of red ochre. Both are technologically different form the actual red-slip cover of the vessels and despite the fact that we do not know whether this was important for the potters, it certainly represents a considerably more complex picture compared to the current models of interpretation.

These observations are expected to provoke discussion on a number of issues. On the one hand, the following question arises: 'do we compare the same things'? And bearing in mind the suggested gradual spread of some technological approaches, such question would be crucial. With this regard, could a linear or any other strict pattern which envisages certain trajectories, modes and pace of the territorial advance towards the northern

8 For more details on the preliminary study on this question see [13].

9 As seen above, the rest of the pottery, including Layer 1 materials, usually does not have real engobe and if it does at all, the slip covers only the outer surface of the vessels. With this regard, the actual purpose of these white- and creamy-engobe vessels is yet to be established. The question is even more intriguing when we add those specimens (from Emen cave for example), that have both inner and outer surfaces decorated with motives painted on the creamy 'background'.

Balkan areas, be really applied? When we think about such features as the engobe, and the red one specifically, could these really be considered a stable, universal basis for interpretations? Does the lack of true slip in most of the cases mean that it was not needed, due to the different characteristics of the perfect local material in some of the new territories? Is the presence of red ochre the final desired outcome, resulting from the conscious preference of the potter, is it just another way to achieve the same colour and finish of the vessels, or it reveals some lack of knowledge of how to make true slips? Are there different potters behind the different real red slips, slip-like surfaces and simple red-colour surfaces? And does this differentiation actually have a significant meaning, if the goal is after all to achieve just the red surface of the vessels? Even if the answers of some questions are difficult to guess, and the analysis actually indicates a more complex picture, such detailed studies of the available material represent promising results.

We should agree that if we are to compare something considered as evidence of technological transfer of practical skills and approaches, such as the presence of red engobe, to a more simple and perhaps sometimes accidental result (or at least not a consistent pursuit of red colour, such as the red surface resulting from an oxidation effect only), we cannot actually build stable models. And the same refers to the white and cream engobe as well. It is obvious that expectations made on stylistic grounds only, despite the specific appearance of some vessels (and objects), are not sufficient and cannot necessarily be confirmed by closer analyses. And this especially holds true when we do not take into account the characteristics of the local materials and certain specifics of the *chaîne opératoire*.

The preliminary results of our ongoing project point towards consideration of the actual fragility of some models and the need for greater attention to both the details and their possible interpretation. This necessitates careful observations made site per site, which then, eventually, could be followed by broader generalisations. What is suggested here is not that all the existing models are entirely wrong; it rather is argued that observations based on simple similarities are not sufficient for accurate interpretations.

At least in the case of Dzhulyunitsa, some of the features that usually are considered as markers of transfer can actually result from the characteristics of the local clay, and not necessarily from the introduction of certain technological approaches. Whether the registered differences, on the other hand, should be considered fundamental, or they simply show a similar practice implemented by the new local materials with their own specifics, is something to be discussed in our future work.

REFERENCE LIST

1. Özdogan M. Archaeological Evidence on the Westward Expansion of Farming Com¬munities from Eastern Anatolia to the Aegean and the Balkans // Current Anthropology, 2011. 52 (S4). P. 415–430.

2. Çilingiroğlu Ç. Neolithic red slipped and burnished wares: recognizing their broad distribution/ edited by Sağlamtimur, H., Abay E., Aylin, Ü., Batmaz, A., Dedeoğlu, F., Erdakıran, M., Baştürk, M., Konakçı, E. // Studies in Honour of Altan Çilingiroğlu. A life dedicated to Urartu on the shores of the Upper Sea. Galatasaray: Arkeoloji ve Sanat Yayınları, 2009. P. 203–216.

3. Krauß R., Elenski N., Weninger B., Clare L., Çakırlar C., Zidarov P. Beginnings of the Neolithic in Southeast Europe: the Early Neolithic sequence and absolute dates from Džuljunica-Smărdeš (Bulgaria)// Documenta Praehistorica 41, 2014. DOI:10.4312/dp.41.3

4. Özdoğan M. Northwestern Turkey: Neolithic Cultures in Between the Balkans and Anatolia // Neolithic in Turkey, Arkeoloji ve Sanat Yay. Istanbul, 1999. P. 171–194, 203–224.

5. Тодорова Х., Вайсов И. Новокаменната епоха в България. София: Издателство наука и изкуство, 1993.

6. Попов В. Периодизация и хронология на неолитните и халколитните култури от поречието на река Русенски Лом. Русе: Авангард Принт ООД, 1996.

7. Еленски Н. Културни контакти през ранния неолит на централна Северна България с Тракия и района на Мраморно море/ Николов, В., Бъчваров, Кр., Калчев, П. Праисторическа Тракия. София-Стара Загора: НАИМ-БАН, 2004. С. 67–79.

8. Станев П. Неолитни култури в басейните на реките Банински и Черни Лом. Попово в миналото. 1. Варна: ‘Зограф’, 1994. С. 8–12.

9. Станев П. Орловец: Неолитен комплекс. Велико Търново: Фабер, 2008.

10. Еленски Н. Най-ранните фази на неолита в басейните на реките Янтра и Русенски Лом – проблеми на културната идентичност / Гюрова, М. Праисторически проучвания в България: новите предизвикателства. София: НАИМ-БАН, 2008. С.96–105.

11. Еленски Н. Участието на източния «коридор» в неолитизацията на Балканския полуостров. Българско е-списание за археология, под печат. София.

12. Еленски Н. Сондажни проучвания на ранно-неолитното селище Джулюница-Смърдеш, Великотърновско (предварително съобщение) // Археология. 47. 2006. С.96–117.

13. Dzhanfezova T., Doherty C., Elenski N. Shaping a future of painting: the early Neolithic pottery from Dzhulyunitsa, North Central Bulgaria. Bulgarian e-Journal of Archaeology. 4–2. 2014. P.137–159 (http://be-ja.org/article/shaping-a-future-of-painting-the-early-neolithic-pottery-from-dzhulyunitsa-north-central-bulgaria/).

14. Urem-Kotsou D., Papaioannou A., Papadakou T., Saridaki N., Intze Z. Pottery and stylistic boundaries. Early and middle neolithic pottery in Macedonia / Edited by Stefani E., Merousis N., Dimoula A. A century of research in Prehistoric Macedonia 1912–2012 International Conference Proceedings (Archaeological Museum of Thessaloniki 22-24 November 2012). P. 505–517.

15. Еленски Н. Материали от ранния неолит, открити в Еменската пещера, Великотърновско / Известия на Регионален Исторически Музей Велико Търново XXIV-XXV. 2009–2010. С. 61–74.

16. Vlassa N. Neoliticul Transilvaniei / Biblioteca Musei Napocensis. 3. Cluj-Napoca. 1976.

17. Lazarovici G., Maxim Z. Gura Baciului. Monografie arheologici. Biblioteca Musei Napocensis, II, Cluj-Napoca. 1995.

18. Munsell Soil Color Charts. 1994 Edition.

19. Özdoğan M. Earliest use of pottery in Anatolia / edited by Gheorghiu, D. Early Farmers, Late Foragers and Ceramic Traditions: On the Beginning of Pottery in the Near East and Europe. Cambridge: Cambridge Scholars Publishing. 2009. P. 22–43.

20. Özdogan M. The expansion of the neolithic way of life: What we know and what we do not know/ edited by C. Lichter. How did farming reach Europe? BYZAS. 2005. 2. P.13–27.

ИЛЛЮСТРАЦИИ

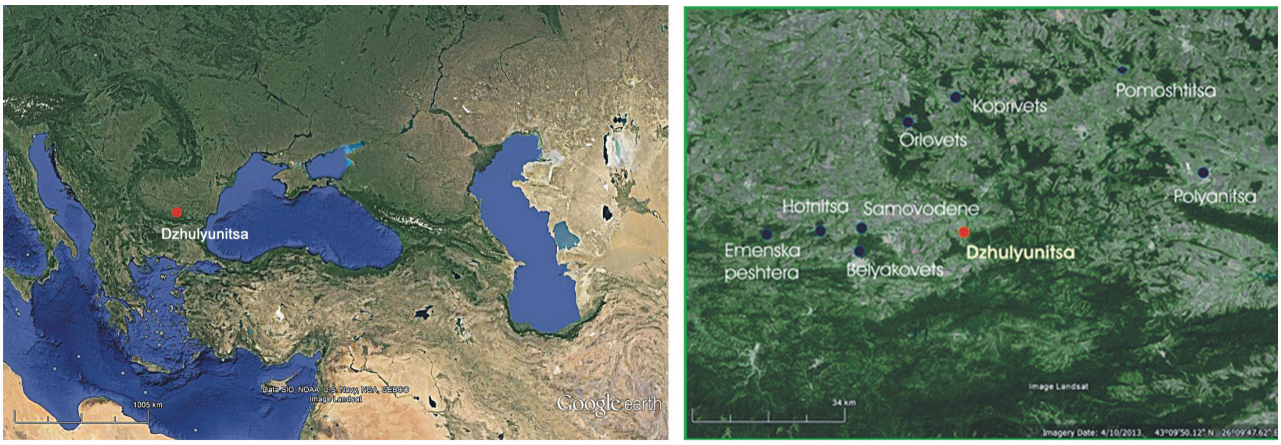

Figure 1 – The Early Neolithic sites near the village of Dzhulyunitsa.

Figure 2 – The number of the surface decorative styles es¬tablished in the two earliest Dzhulyunitsa horizons.

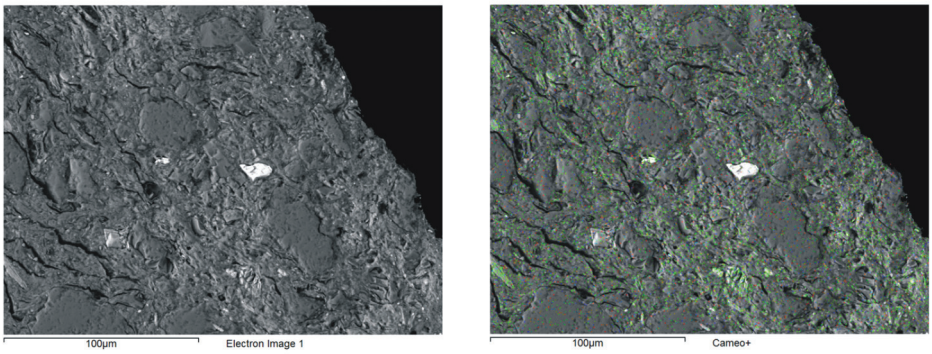

Figure 3 – The results of optical and chemical examination of the vessels.

Figure 4 – Ceramics with the «cream engobe».

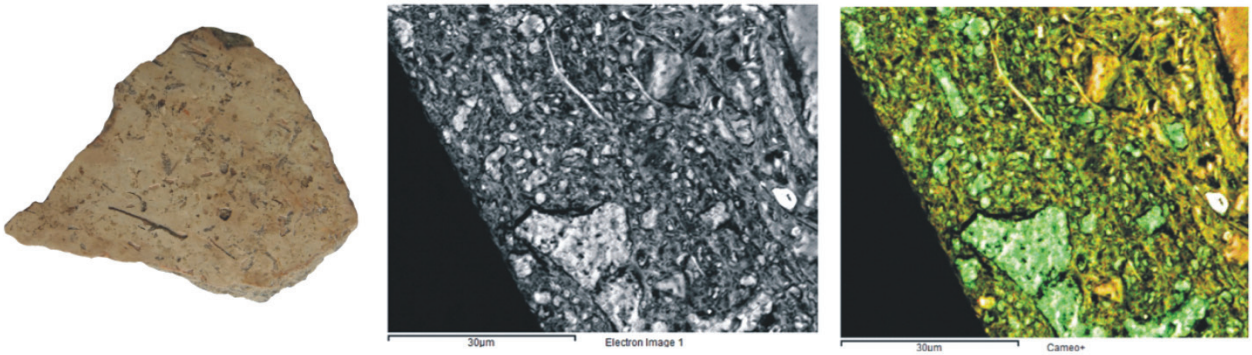

Figure 5 – The results of the microscopic analysis of the conical vessel with thicker walls.

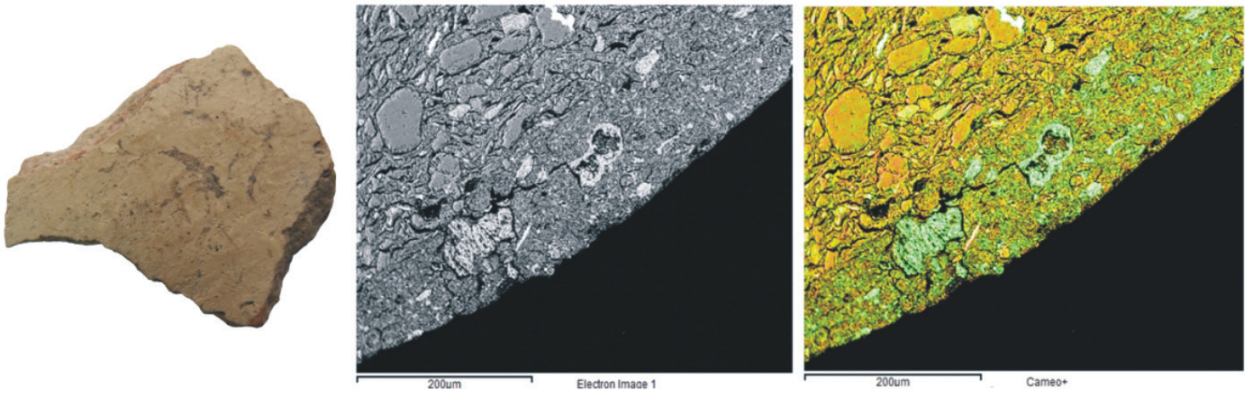

Figure 6 – The results of the microscopic analysis of the thinner pot.

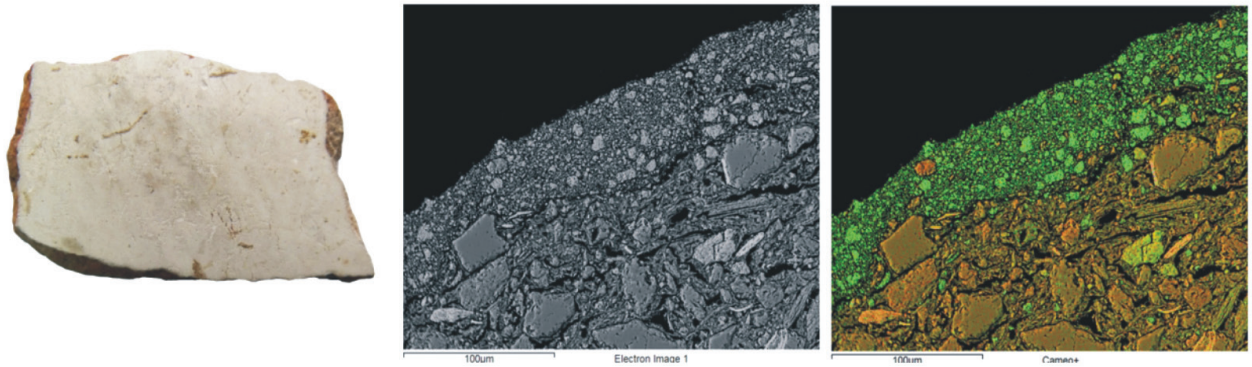

Figure 7 – The results of the microscopic analysis of the vessel with a white surface.

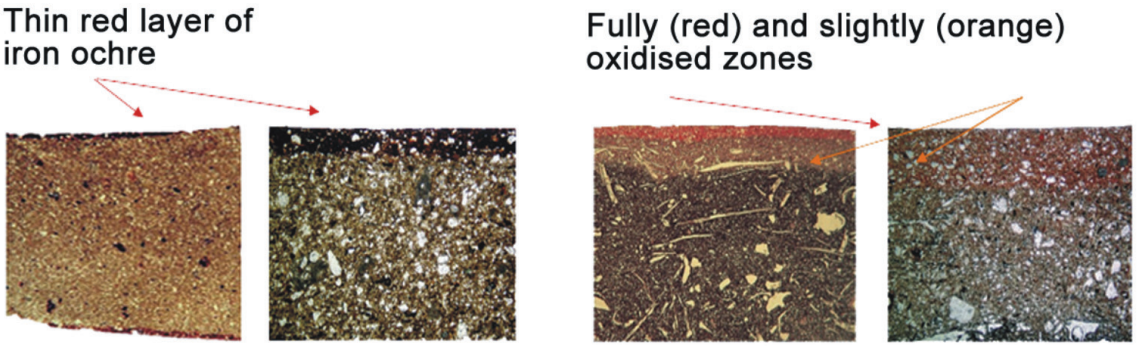

Figure 8 – The results of the microscopic analysis of the vessel with a red surface.

UNPACKING THE EARLY NEOLITHIC?

T. Dzhanfezova, PhD, Lecturer, Department of Archaeology, Faculty of History
St Cyril and St Methodius University of Veliko Tarnovo, Veliko Turnovo (Bulgaria)
Ch. Doherty, Scientific researcher
Oxford University, Dyson Perrins Building, Oxford (Great Britain)
N. Elenski, prehistorian
Regional Museum of History, Veliko Tarnovo (Bulgaria)

Abstract. The preliminary analysis of Early Neolithic pottery from North Central Bulgaria, and the site of Dzhulyunitsa specifically, yielded surprising results which affect a number of aspects related to the study of the Neolithisation processes. Not all characteristic features traditionally considered as key signal of the Neolithisation processes were confirmed by our mineralogical and chemical analysis. A number of specifics related to the presence of engobe for instance, indicate a considerably more complex picture. In some cases the observations show no additional slip, just a simple burnish of the brownish ware, whereas in others a true slip covers both the inner and the outer surface of the vessels (white or cream-slip ware). With regard to the red engobe specifically, the majority of studied fragments actually have just red-colour surface that results from the oxidation or the rubbing of ochre, and not from the addition of a true slip. These observations raise the following question: do we actually compare same technological approaches, traditionally seen as signal for the spread of the Neolithic way of life? Furthermore, as regards the provenance of the vessels, materials expected to have local origin proved to be imported whereas others, seen as more specific and coming from distant territories were actually made on the spot by local row-materials. Even at this stage the preliminary results do not confirm some of the traditional views on this early material, raise a series of new questions and represent a ground for further interpretations and discussions regarding an eventual fragility of some models suggested for the Neolithisation processes in this part of South-East Europe.

Keywords: Early Neolithic; pottery; Bulgaria.