

Marzena Szmyt<sup>1</sup>

## Between the seas: Baltic-Pontic contact space in the 3<sup>rd</sup> millennium BC

This paper is devoted to some questions from the prehistory of areas situated between two seas: the Baltic in the north-west and the Black in the south-east. The territory in question is located between two big rivers – the Vistula and Dnieper. Despite many essential differences, in the 3<sup>rd</sup> millennium BC the areas between the Vistula and Dnieper rivers were covered by a network of multi-directional circulation of peoples, cultural patterns and innovations. This particular set of movements gradually commanded an increasingly greater area, where agrarian societies as well as quasi-pastoral and early pastoral ones functioned. The intensity of these relationships justifies using the name Baltic-Pontic contact space.

**Key words:** 3<sup>rd</sup> millennium BC, Vistula - Dnieper interfluvium, circulation of ideas and people, cultural contacts

This paper is devoted to some questions from the prehistory of areas situated between two seas: the Baltic in the north-west and the Black in the south-east. These are territories that are located between two big rivers, namely the Vistula and Dnieper. The so-called *Western Bug-Dniester limes*, one of the most important natural and cultural borders of our continent, run across the areas in question. Despite many essential differences, in the 3<sup>rd</sup> mill. BC the territories between the Vistula and Dnieper rivers were covered by a network of multi-directional circulation of people and ideas. The intensity of these relationships justifies using the name Baltic-Pontic contact space.

### 1. Natural background

Measured in a straight line the distance between the shores of the Baltic and Black seas amounts to 1200 km. The territories stretching between these two bodies of water are varied in respect to their natural environment, markedly emphasizing the climatic and geobotanical divisions of Europe (Fig. 1.A). One of the most marked boundaries, known as the *Western Bug-Dniester limes* (Kośko, 1991), runs from the north-west to the south-east, dividing the western part of the continent, where an Atlantic climate prevails, from its eastern territories characterized by a continental climate (Kondracki, 1969). Other latitudinal physiographic and geobotanical boundaries complement these, marked in territories lying in the west and east from the above *limes*. In the western part these divide the belt of northern lowlands from southern uplands, whereas in the east they

mark out three fundamental geographic zones: Forest, Forest-steppe and Steppe.

Despite the above mentioned differentiation there also exist a series of elements that link these lands and in turn integrate them into one body of natural environment. First and foremost, there is the post-glacial network of waterways, which is one of the most important factors determining a natural means of communication. The rivers belonging to various catchment areas and running either north (to the Baltic), or to the south (to the Black Sea), have neighboring source area and relatively narrow watersheds that lend themselves to communication routes.

Moreover, there exist natural corridors that in addition help the migration of plants and animals (Makohonienko, 2009: 41-42). Further, there are no significant territorial barriers between the Baltic and Black seas. In all, this means that a well formed network of natural routes covers these territories.

The natural ties were made use of and developed by prehistoric communities. In the 4<sup>th</sup> millennium BC this led to the formation of a human-related Baltic-Pontic contact space. This was an area covered by a network of information circulation, where cultural patterns of diverse genesis circulated, where short-distance cultural exchange took place and that of long-distance migration of peoples.

### 2. Beginnings of human-related contact area between the Baltic and Black Seas in the 6<sup>th</sup> and 5<sup>th</sup> mill. BC

In the post-glacial period the oldest markers of links between the Baltic and Black seas relate to

<sup>1</sup> Adam Mickiewicz University in Poznań, Institute of Eastern Studies

hunters and gatherers of the Janisławice-Rudoy Ostrov cultural circle in the 6th mill. BC (Fig. 1.A; Domańska, 1998).

Later on, at the end of the 6th millennium BC, an important role was played by the early agrarian societies of the Linear Pottery culture which stretched from the Vistula basin to the upper Dniester basin and to the areas located between the middle course of the Dniester and the River Prut (Kadrow and Zakościelna, 2000, 190-195; Larina and Okhrimenko, 2007; Dębiec and Saile, 2015). In this way, the Linear Pottery colonization covered the borderland between the Forest-Steppe and Forest zone in the western part of the Volhynia Upland and to some extent encompassed the lands on the upper Dniester (Fig. 1.A).

The continuation of settlement by the post-Linear Pottery complexes, respectively the Malice and Lublin-Volhynian cultures (Fig. 1.A), covered from the 5<sup>th</sup> to the beginnings of the 4<sup>th</sup> millennium BC the area between the Vistula up to the River Horyn in Volhynia and the upper Dniester basin (Kadrow, 2006; Tkachuk, 2007; Zakościelna, 2006; Zakościelna, 2010; Kadrow, 2016).

Probably one of the most important consequences of the Danubian (Linear Pottery and post-Linear Pottery) colonization was the exploitation of local raw materials such as high quality flints (the so-called Volhynian flint) and perhaps also basalt rocks, and pure copper ores in Volhynia (Klochko et al., 2000). As at the last centuries of the 6<sup>th</sup> millennium BC and in the 5<sup>th</sup> millennium BC, the Volhynian flint reached the Vistula basin (Libera and Zakościelna, 2011: 83-89).

### 3. Formation of the Baltic-Pontic contact space in the 4<sup>th</sup> mill. BC

The formation of the Baltic-Pontic contact space as a relatively stable network of cultural information took place in the 4<sup>th</sup> mill. BC thanks to the lively circulation of cultural patterns and peoples between the Baltic and Pontic area. In archaeological terminology this can be linked to the "expansion" of two cultural complexes: the Funnel Beaker culture (FBC) in the south-east direction and the Trypillia culture (TC) in the north-west direction (Fig. 1.B). Both processes have been generally synchronous. Their material representations are identified twofold: as the extension of the spatial range of settlement thanks to movements of human groups and as markers of cultural impact in the form of direct and indirect contacts (Szmyt, 2013a).

Of key importance was the gradual extension of such communities as the south-eastern group of the FBC (Włodarczak, 2006a; Kadrow, 2009; Kadrow, 2016) as well as the western and north-western branches of the TC located in Western Volhynia and on the middle Dniester and in part, the upper

Dniester (Dergachev, 1980). The area in which they were in direct neighborhood laid between the upper sections of the rivers Western Bug and Dniester.

The settlement of the first of these communities (the south-eastern group of the FBC) appeared c. 3700/3600 BC on the upper Western Bug River (Bronicki et al., 2003) and probably at the same time on the upper Dniester (Rybicka, 2017). This is indicated by the chronometry of large upland settlements in Gródek and Zimne on the Western Bug (Bronicki et al., 2003) and in Kotoryny on the Dniester (Hawinskiy et al., 2013). The results of the latest Polish-Ukrainian research carried out by the team of Prof. Małgorzata Rybicka, lead to the conclusion that "the stable settlement of the Funnel Beaker culture encompassed the areas between the (Western) Bug and the Styr [...] and between the (Western) Bug and the upper Dniester" (Rybicka, 2017: 169; cf. Hawinskiy and Pasterkiewicz, 2016). Probably the settlement lasted until the first centuries of the 3<sup>rd</sup> mill. BC (Bronicki et al., 2003; Rybicka, 2017).

The communities of the TC appeared sporadically on the upper Dniester and in western Volhynia in stage BII (Rybicka, 2017), i.e. in the period 4100-3600 BC (absolute chronology after Videiko, 2004). However, a stable settlement on the Dniester is connected only to the late Trypillia stages CI and CII and thus can be dated from 3900 BC onwards (Diachenko and Harper, 2016). Some Trypillia groups are represented above: Shypintsy, Koshylivtsy and Gordinesti/Kasperivtsy (Tkachuk, 2016). Importantly, sites of the TC covered the eastern part of the upper Dniester basin, while in the western part after 3700/3600 BC, settlements of the FBC have been located (Rybicka, 2017). On the other hand, in western Volhynia (on the Horyn and Styr rivers) settlements of the TC began only in stage CII, i.e. from 3500 BC (Diachenko and Harper, 2016; Rybicka, 2017). The very end of the TC in Volhynia and on the Dniester is dated to the first century of the 3<sup>rd</sup> mill. BC (Diachenko and Harper, 2016).

To sum up, from 3700/3600 BC until 3000/2900 BC in the area located between the upper courses of the Western Bug and Dniester there arose a direct proximity of settlement of two great prehistoric cultures, namely the TC and the FBC. Of particular importance it would seem is the fact that whether their respective boundaries ran could be subject to rapid change; a question that no doubt will be the subject of future detailed research.

Material evidence of mutual contacts between communities of the FBC and TC has a significantly wider territorial radius. The set of markers (Rybicka, 2017; here extensive older literature) comes from sources interpreted as "imports" and "imitations"<sup>1</sup>.

<sup>1</sup> See the collection of studies published by Biehl and Rassamakin (eds.), 2008).

They both document the mutual cultural impact and its consequences, above all reception of selected "foreign" cultural traits in the local milieu. Moreover, structures interpreted as syncretic have been identified, those linking the traits of the FBC and TC. In this third instance it is difficult to exclude the presence of a given community arising from "partner" groups.

"Imports" refer to mostly clay vessels, but also stone hammer-axes or raw materials (mainly the so-called Volhynian flint, but also basalt and perhaps pure copper from Volhynia ores), which originated in the "partner" milieu. Convincing examples are: the amphora of the FBC found at the Late Trypillia site, Brynzeny-Cyganka on the Prut River (Rybicka, 2017, Fig. 21 and 24), stone hammer-axes typical for the FBC but found at Trypillia sites in Brynzeny-Cyganka and Kosteshti on the Prut (Rybicka, 2017, Fig. 22: 6-7) as well as near Vinnitsa on the Southern Bug River (Koško and Szmyt, 2011: 212). Of particular importance is the widespread presence of Volhynian flint, identified not only in the south-east group, but also significantly further from the deposits of this raw material, namely, in the two groups of the FBC: eastern and Maławy (Libera and Zakościelna, 2011; Rybicka, 2017). Of exceptional significance are – still rare – human figurines and metal artefacts of Trypillia types, such as a figurine from the Łasin site or a dagger of arsenic bronze found in Kałdus site 2 (both sites, Chełmno Land on the middle Vistula), similar to the Usatovo type (Kirkowski, 1984; Adamczak et al., 2015).

In turn, the second category includes imitation of the style or manner of performing specific objects (form or ornamentation of clay vessels and human figurines, components of ceramic mass, way of flint processing etc.). A record of these finds and arguments for proposed interpretations have been presented in many studies (Koško, 1981; Koško, 1988; Koško, 2003; Koško and Szmyt, 2009; Kadrow 2016). Later these have been presented in summary form (Rybicka, 2017), which has removed the necessity to discuss the mentioned above in detail.

As Rybicka (2017: 170) stated, "Merging of both culture started probably on their peripheries". A good example of syncretic complexes is the Novomalin-Podobanka site on the Horyn River, dated to 3530-3360 BC (Diaczenko et al., 2016; Rybicka, 2017). Here a set of ceramic ware was found, one linking the stylistic and technological traits of the FBC and TC (Brynzeny group). A symbol of the situation recorded here is a typical FBC form of a so-called collared flask, made however, according to technology appropriate for the kitchen ware of the TC – with crushed shells added to the ceramic mass (Rybicka, 2017: Fig. 40: 3 and 42).

The presence of the above-mentioned types of sources, which are interpreted as material evi-

dence of mutual contacts between communities of the FBC and TC, allows delineating the range of Baltic-Pontic territorial contact in the 4th mill. BC. The presence of TC artefacts and their derivatives, as well as the variety of references to TC patterns, was detected not only in the eastern border of the FBC and in its south-eastern group but also in the vast eastern group on the Polish Lowland, and in the local FBC Maławy group in Kujawy. In turn, the FBC artefacts, their derives and references to FBC patterns in the TC milieu were identified in the areas on the upper Western Bug and Dniester as well as from the Styr River up to the middle Dnieper in the east and the middle course of the Prut in the south (Pelisiak, 2007; Rybicka, 2017).

To sum up, the material evidence of mutual contacts is not limited to the zone of direct proximity of both great cultural complexes, but also covers territories at some distance away; reaching as far as the north-west and then the middle part of the Vistula basin (Kujawy and Chełmno Land), to the west along the Oder, to the east along the middle Dnieper, and reaching the River Prut in the south.

#### **4. Stabilization of Baltic-Pontic contact space in the 3<sup>rd</sup> mill. BC**

The 3<sup>rd</sup> millennium BC introduces a new quality into the circulation of people and ideas in the Baltic-Pontic contact space whose borders were at that time rather stable and reached across vast areas between both seas. Three processes then went on to play a crucial role: (4.1) expansion of the Globular Amphora culture (GAC) towards the Steppe and Forest-Steppe; (4.2) limited scale translocations of Steppe and Forest-Steppe communities into the Vistula basin and (4.3) formation of the Corded Ware culture (CWC). The research problem remains in determining the relationship between the above two, primarily in terms of their possible connections or continuity.

##### **4.1. The Globular Amphora communities on the Pontic area**

The multi-faceted and wide-ranging activities of GAC populations encompassed the vast expanses of Eastern Europe (Szmyt, 1999a; Szmyt, 2009; Szmyt, 2013b; Szmyt, 2014; Szmyt, 2016). The GAC settlement spread all across Volhynia, Podolia and the Moldavian Upland, forming agglomerations making up the eastern group of the GAC (with three subgroups: Volhynian, Podolian and Moldavian) and extending east as far as the middle section of the Dnieper (Fig. 1.C).

The chronology of the eastern group is known as to the general facts (3100/3000 – 2400/2350 BC), but still many details are far from clear (Szmyt, 1999a; Mihailescu-Bîrliiba and Szmyt, 2003; Szmyt,

2009). A starting point was the Lublin Upland, where the GAC settlement has flourished from the end of the 4<sup>th</sup> mill. BC until the middle of the 3<sup>rd</sup> mill. BC (Bronicki, 2016; Włodarczak, 2016). From this direction the GAC settlers probably arrived in Volhynia right at the turn of the 4<sup>th</sup> mill. BC. Their movement towards Podolia and the Moldavian Upland was rather quick (Mihailescu-Bîrliiba and Szmyt, 2003; Szmyt, 2009).

Initially, the migrations of GAC populations eastwards copied earlier shifts by FBC groups. However, in the course of two to three centuries, GAC communities penetrated more thoroughly the area between the Carpathians and the Dnieper than any of their Central European predecessors in the 4<sup>th</sup> mill. BC.

In Volhynia, the settlement was concentrated along the southern tributaries of the Pripet River. The GAC settlers included in their territory the drainage areas of the upper courses of the Styr, Horyn and Sluch rivers, as well as eastern Volhynia, namely the basins of the Teterev and Uzh rivers and arrived on the middle Dnieper (Łysenko and Szmyt, 2011; Szmyt, 2013b).

The geographic distance, considered in the context of absolute chronology data (Bronicki et al., 2003; Rybicka, 2017), means that at the beginning of the 3<sup>rd</sup> mill. BC in Volhynia the GAC societies operated not only on the margins of settlement by the FBC and the TC but also entered deep into the territory of the latter, i.e. into regions where its settlement already had existed, e.g. in the last phase of the Zimne site (Bronicki et al., 2003) and Trypillia stage CII (Diachenko and Harper, 2016; Rybicka, 2017).

The Podolia subgroup concentrated mainly in the drainage basins of the northern tributaries of the Dniester (the Strypa, Seret, Zbruch and Smotrych rivers). A coincidence with previous settlement traces by FBC populations is noticeable. At the turn of the 4<sup>th</sup> mill. BC the territories were earlier, and probably in part simultaneously, exploited by TC societies in the decline part of stage CII and only sporadically (FBC) or later (CWC) were they penetrated by the western neighbours of GAC populations. As in Volhynia, in Podolia too, GAC settlers made deep inroads into the decline Trypillia areas, moving around the drainage areas of the middle Dniester and upper Southern Bug rivers (Szmyt, 2009; Łysenko and Szmyt, 2011).

Entirely independent of older experience, the directions of new activity brought about a considerable expansion of areas settled by GAC populations (to include the Moldavian Upland and lands on the middle Dnieper) and a broad dissemination of some GAC cultural patterns across lands not covered by the culture's settlement (partially in Forest-Steppe and Steppe zones).

The appearance of GAC societies on the Moldavian Upland, in the drainage basin of the Seret River and between the Seret and Prut rivers (Szmyt, 1999a; Burtănescu, 2002), meant making inroads into the new territories. In the late 4<sup>th</sup> and early 3<sup>rd</sup> mill. BC, there well may have lived groups of populations representing the decline stage of the TC. With the cultural relations in this area being poorly explored, it is not possible, however, to make any broader comments on the context in which GAC settlement structures appeared.

Also on the middle course of the Dnieper, specifically on its western bank, the presence of GAC populations was a significant new development that interrupted the sequence of local cultural transformations. With radiocarbon measurements lacking, we can only presume that a GAC settlement appeared there towards the end of stage CII of the TC and that after some time it adjoined the areas used by groups of the Yamnaya culture.

In this context what was entirely new was the role of GAC communities that took part in the vast structure of cultural contacts, encompassing populations of the Forest-Steppe and Steppe of the pre-Yamnaya stage and the Yamnaya culture (Szmyt, 1999a; Szmyt, 2000; Szmyt, 2002; Szmyt, 2004).

These contacts must have certainly taken various forms (direct ones as for instance neighbourly contacts, marital exchange, conflicts as well as indirect ones as for instance diffusion of ideas; see Szmyt, 2003). Material evidence of such contacts was recorded outside of territories permanently settled by GAC populations both in the borderland between the Forest-Steppe and Steppe, and deep into the Steppe zones (Szmyt, 1999a; Szmyt, 2000; Szmyt, 2013b). Indicative such relics are known from the whole western part of the Black Sea steppes, from the Dnieper as far as the Prut River. However, their chronology is not clear and relying on typology only, they can be linked to generally the first half of the 3<sup>rd</sup> mill. BC.

GAC communities settling the area between the Carpathians and the Dnieper stayed in contact with their homeland and, which shall be underlined, not only with their kinsmen living on the Lublin Upland but also with groups from distant areas of the Polish Lowland (Szmyt 1999b; Koško et al., 2018).

The very end of the eastern GAC group came in the middle of the 3<sup>rd</sup> mill. BC. Its place was then occupied by communities that combined local patterns with new ideas developed in the Corded Ware and Steppe cultures.

#### **4.2. Intrusions of Steppe and Forest-Steppe communities into the Vistula basin**

Possible references to the presence of Steppe ideas or peoples in the Vistula River basin in the

3<sup>rd</sup> mill. BC (Klochko and Koško, 2009) are – with varying degrees of credibility – identified in various regions (Fig. 1.D): the Małopolska Upland, the Polish Lowland (Kujawy and Chełmno regions) and south-eastern Baltic coasts.

The main cultural elements in respect to the reception of Steppe patterns in the Małopolska Upland are niche (catacomb) grave constructions known from the Złota culture, the Kraków-Sandomierz group of the CWC and the Sokal group (Krzak, 1976; Włodarczak, 2006b; Machnik et al., 2009). These constructions in an above groups differ in terms of form and chronology: Złota culture niche graves are dated from 3000-2800 BC to 2600 BC, whereas analogous constructions of the Kraków-Sandomierz group to that of 2700-2300/2200 BC and the Sokal group features (see part 4.3 below) to the period 2550-2350 BC (Włodarczak, 2006b; Włodarczak, 2008; Machnik et al., 2009).

The origins of such forms in the Złota culture would seem to be related to the influences of the pre-Yamnaya groups (eventually also of the Late Trypillia – Usatovo group), while their subsequent evolution in the Kraków-Sandomierz group was in essence, the result of local changes, which led to a differentiation and transformation from Steppe cultural patterns of the Yamnaya culture (Włodarczak, 2008: 566). Złota culture niche grave constructors typically used ochre and had the custom of deforming (elongating) skulls (Krzak, 1976: 157 Fig. 71).

In turn, among CWC graves in the Małopolska it is possible to find features with good Pontic analogies (Klochko and Koško, 2009; Włodarczak, 2014). Connections to the Steppe milieu are also confirmed by some spectacular finds that come from the Rzeszów Foothills, e.g. a copper axe of possible Caucasian origin in Szczytna site 6 or copper plates from Szczytna site 5 as well as Mirocin site 24 and 27 (Machnik, 2011: 68).

A “Steppe” vessel in Święte on the San River provides evidence of shifts of small Steppe/Forest-Steppe groups into the Vistula drainage also later, ca. 2200-2050 BC (Koško et al., 2012).

As far as ‘spectacular’ confirmations of peoples with Steppe traditions (possibly syncretic) on the Polish Lowland, mention can be made of graves from Bożejewice 8 and Krusza Zamkowa 3 in the Kujawy region (Koško and Kločko, 1991; Koško, 1991; Goslar and Koško, 2011; Koško et al., 2018). The chronology of these far-reaching contacts and translocations in essence can be placed at the first half of the 3<sup>rd</sup> mill. BC, precisely in period from 2880 until 2470 BC.

Some artefacts from the south-eastern Baltic coast can be seen to differ considerably, namely bone hammerhead pins found in Biskupiec (Warmia-Mazury region, Poland) and Gromowo (Kaliningrad

region, Russia). They can be traced to the CWC in the region between the Lower Vistula and the Neman rivers. Their presence around the Baltic reveals a connection foremost with the peoples of the Forest-steppe and only indirectly with the Steppe zone (Koško, 2014).

#### **4.3. The Baltic-Pontic contact space and formation - transformation of the Corded Ware culture**

It is possible that the background to the Steppe intrusions on the Vistula was the circulation of people and ideas thanks to activity of people of the GAC, and a consequence of a repeated (systematically) renewal of direct contacts by these groups from the eastern reaches of Europe with that of ‘ancestral’ areas on the Vistula. This as a result saw the opening of the Vistula drainage basin and its neighboring areas to nomadic peoples migrating from the south-east. In sum, it could create conducive conditions for the formation of the CWC (Włodarczak, 2008).

According to studies completed so far, the origins of the CWC in Volhynia and on the upper Dniester should be linked to groups that represented the early phase of the CWC circle (ca. 2900-2800 BC), which moved across the vast uplands of Central Europe. It should be noted, however, in respect to the Dniester tributary where various cultural traditions - agrarian and quasi-pastoral met – that it could play an important role in the formation of the CWC circle.

From ca. 2700 BC on the Małopolska Upland a regional community was forming, the Kraków-Sandomierz group, with clearly distinctive traits in the whole CWC circle (Włodarczak, 2006b). Communities present around the Dniester River can also be assigned to this group (Fig. 1.D). The maximum range of CWC settlement was attained at the same time with the reduction of the eastern GAC (Włodarczak, 2016).

The ties between the CWC in the upper Vistula area and the steppe cultures – Yamnaya and Catacomb – are also being investigated in far greater detail (Koško, 2000; Włodarczak, 2008; Włodarczak, 2014). The route leading northwest, across Podolia, along the Dniester and to a lesser extent the Southern Bug, has of late in research terms grown in importance. On the middle Dniester, one of the three zones of “close contact” is located between the communities of the Yamnaya and Corded Ware cultures (Włodarczak, 2014).

The CWC patterns identified in the Steppe Budzhak group (the north-western part of the Yamnaya culture) between the Carpathians and the Dniester or Southern Bug rivers were by no means unambiguous. To make matters more difficult, they could have several sources of inspiration: not only the CWC from the Vistula drainage basin, but also

from the Carpathian Basin (Ivanova, 2013; Ivanova and Toschev, 2015).

In the second half of the 3<sup>rd</sup> mill. BC in Volhynia and the region covered by the Bug, San and Dniester rivers, appeared communities that represented the Middle Dnieper culture. Their presence became a catalyst for a transformation in the cultures for the peoples in this area, which led to the formation of a particular cultural group linked to the Dnieper River traditions known as the Sokal group (Machnik, 2009; Machnik et al., 2009). The byways of these infiltrations traversed the Dnieper basin, most probably through Volhynia (Bunyatyan and Samolyuk, 2009). The decline of the Sokal group took place ca. 2350 BC and then the region over the Bug, San and Dniester rivers was integrated into the Epi-Corded Carpathian circle (Machnik et al., 2009).

### 5. Conclusion

To conclude, in the 3<sup>rd</sup> mill. BC the territories between the Vistula and Dnieper rivers were covered by a network of multi-directional circulation of peoples and cultural patterns, ideas and innovations. This particular set of movements gradually

commanded an increasingly greater area, where agrarian societies as well as quasi-pastoral and early pastoral ones functioned. In this context it is possible to identify thanks to their presence, direct and indirect markers that indicate the rise of cultural and social transformations, as well as changes that hitherto stable cultural boundaries underwent. No doubt, this proved to be one of the significant foundation stones at the close of the 3<sup>rd</sup> and 2<sup>nd</sup> mill. BC for the re-organisation of culture as far as the Baltic-Pontic region was concerned.

An especially great challenge, of a Pan-European rank, is posed by the question of relations between Central European and Steppe societies, especially from the point of view of the origins of the CWC circle. For this question, the key area appears to have been located between the Carpathians, the Western Bug and the Dniester or even Southern Bug rivers.

For these reasons, the area of discussion remains open in which the circulation of people and ideas between the Baltic and Pontic areas in the 3<sup>rd</sup> mill. BC must be placed in the broader contexts of territory and time.

### References:

- Adamczak K., Kowalski Ł., Bojarski J., Weinkauff M., Garbacz-Klempka A., 2015, Eneolithic metal objects hoard from Kałdus, Chełmno commune, Kujawsko-Pomorskie voivodeship, *Sprawozdania Archeologiczne* **67**: 199-219.
- Biehl P.F. and Rassamakin Y.Ya. (eds.), 2008, *Import and Imitation in Archaeology*. Schriften des Zentrums für Archäologie und Kulturgeschichte des Schwarzmeeresraumes 11. Langenweißbach.
- Bronicki A., 2016, Obrządek pogrzebowy społeczności kultury amfor kulistych na Wyżynie Lubelskiej, in P. Jarosz, J. Libera, P. Włodarczak (ed.), *Schylek neolitu na Wyżynie Lubelskiej*, 45-256. Kraków.
- Bronicki A., Kadrow S., Zakościelna A., 2003, Radiocarbon Dating of the Neolithic Settlement in Zimne, Volhynia, in Light of the Chronology of the Lublin-Volhynia Culture and the South-Eastern group of the Funnel Beaker Culture, *Baltic-Pontic Studies* **12**: 22-66.
- Bunyatyan K.P., Samolyuk V., 2009, Manifestations of Middle Dnieper culture in the Volyn territory and issues of ancient routes, *Baltic-Pontic Studies* **14**: 252-268.
- Burtănescu, F., 2002, Globular Amphora culture in Moldavia between the Carpathians and Prut. Current state of evidence, *Thraco-Dacica* **23(1-2)**: 119-152.
- Dębiec, M., Saile, T., 2015, Zu den östlichen Siedlungen der frühen Bandkeramik, *Praehistorische Zeitschrift* **90**: 1-19.
- Dergachev V., 1980, *Pamyatniki pozdnego Tripol'ya*. Kishinev.
- Diachenko A., Harper T. K., 2016, The absolute chronology of Late Tripolye sites: a regional approach, *Sprawozdania Archeologiczne* **68**: 81-105.
- Diaczenko A., Król D., Kyrylenko A., Rybicka M., Werteletski D., 2016, *Nowomalin-Podobanka i Kurgany-Dubrowa. Osiedla kultury trypolskiej na zachodnim Wołyniu*. Rzeszów.
- Domańska L., 1998, The initial stage of food-production in the Polish Lowlands – The Dęby 29 Site, in M. Zvelebil, R. Dennell, L. Domańska (eds.), *Harvesting the Sea, Farming the Forest*, 129-133. Sheffield.
- Goslar T., Koško A., 2011, Z badań nad chronologią i topogenezą kujawskich kurhanów starszoznurowych. Krusza Zamkowa, powiat Inowrocław, stanowisko 3, in H. Kowalewska-Marszałek, P. Włodarczak (ed.), *Kurhany i obrządek pogrzebowy w IV – II tysiącleciu p.n.e.*, 407-416. Kraków-Warszawa.
- Hawynskiy A., Pasterkiewicz W., 2016, *Arkheologichni pam'yatki kultury liychastogo posudu na territorii Ukrainy*. L'viv.
- Hawynskiy A., Pasterkiewicz W., Rybicka M., 2013, Kotoryny, rej. Żydacziw, stan.

- Ivanova, S., 2013, Connections between the Budzhak culture and Central European groups of the Corded Ware culture, *Baltic-Pontic Studies* **18**: 86-120.
- Ivanova S. V., Toshev G. N., 2015, The Middle-Dniester cultural contact area of early metal age societies. The frontier of Pontic and Baltic drainage basin in the 4<sup>th</sup>/3<sup>rd</sup>-2<sup>nd</sup> millennium BC, *Baltic-Pontic Studies* **20**: 336-405.
- Kadrow S., 2006, Kultura malicka/The Malice Culture, in M. Kaczanowska (ed), *Dziedzictwo cywilizacji nad-dunajskich: Małopolska na przełomie epoki kamienia i miedzi/The Danubian heritage: Lesser Poland at the turn of the Stone and Copper Age*. Biblioteka Muzeum Archeologicznego w Krakowie I, 63-76. Kraków.
- Kadrow S., 2009, Uwagi o grupie południowo-wschodniej kultury pucharów lejkowatych, in H. Taras, A. Zakościelna (eds.), *Hereditas Praeteriti. Additamenta archaeologica et historica dedicata Ioanni Gurba Octogesimo Anno Nascendi*, 137-144. Lublin.
- Kadrow S., 2016, Exchange of People, Ideas and Things between Cucuteni-Trypillian Complex and Areas of South-Eastern Poland, in C. Preoteasa, C.-D. Nicola (eds.), *Cucuteni Culture Within the European Neo-eneolithic Context. Proceedings of the International Colloquium "Cucuteni – 130", 15-17 October 2014, Piatra-Neamț, Romania*. Bibliotheca Memoriae Antiquitatis XXXVII, 649-677. Piatra-Neamț.
- Kadrow S., Zakościelna A., 2000, An Outline of the Evolution of Danubian Cultures in Małopolska and Western Ukraine, *Baltic-Pontic Studies* **9**: 187-255.
- Kirkowski R., 1984, Z badań nad recepcją tradycji kulturowych strefy nadczarnomorskiej wśród społeczeństw Niżu Polski u schyłku III tysiąclecia p.n.e., *Archeologia Polski* **29**: 57-67.
- Klochko V.I., Koško A., 2009, The societies of Corded Ware Cultures and those of the Black Sea steppes (Yamnaya and Catacomb Grave Cultures) in the route network between the Baltic and Black Seas, *Baltic-Pontic Studies* **14**: 269-301.
- Klochko V.I., Manychev V.I., Kvasnitsa V.N., Kozak S.A., Demchenko L.V., Sokhatskiy M.P., 2000, Issues concerning Tripolye metallurgy and the Virgin Copper of Volhynia. *Baltic-Pontic Studies* **9**: 168-186.
- Kondracki J., 1969, *Podstawy regionalizacji fizyczno-geograficznej*, Warszawa.
- Koško A., 1981, *Udział południowo-wschodnioeuropejskich wzorców kulturowych w rozwoju niżowych społeczeństw kultury pucharów lejkowatych*. Poznań.
- Koško A., 1988, *Osady kultury pucharów lejkowatych w Inowrocławiu-Mątwach, stanowisko 1*. Inowrocław.
- Koško A., 1991, The Vistula – Oder Basins and the North Pontic Region. *The Journal of Indo-European Studies* **19**: 235-258.
- Koško A., 2000, From research into the issue of the development dependencis of the Corded Ware Culture and Yamnaya Culture, in S. Kadrow (ed.), *A Turning of Ages/Im Wandel der Zeiten. Jubilee Book Dedicated to Professor Jan Machnik on His 70<sup>th</sup> Anniversary*, 337-346. Kraków.
- Koško A., 2003, Radiocarbon chronology of the Mątwy Group of Funnel Beaker Culture. The question of the chronological and cultural position of „linear-comb pottery”, *Baltic-Pontic Studies* **12**: 67-81.
- Koško A., 2014, Traits of Early-Bronze Pontic cultures in the development of Lowland and Eastern European forest cultural environments in the Baltic Southern drainage basin. An outline of the state of research, *Baltic-Pontic Studies* **19**: 53-73.
- Koško A., Kločko V.I., 1991, Bożejewice, gm. Strzelno, woj. Bydgoszcz, stanowisko 8. Kurhan z późnego okresu epoki neolitu, *Folia Praehistorica Posnaniensia* **4**: 119-143.
- Koško A., Kločko V.I., Olshevskiy A., 2012, Rytualnyi obiekt naselennia prychnomorskoyi kulturnoyi spilnoty doby rannoyi bronzy na r. Sian, *Arkheolohiya* **2**: 67-75.
- Koško A., Szmyt M., 2009, Central European Lowland Societies and the Pontic Area in the 4<sup>th</sup>-4<sup>th</sup>/3<sup>rd</sup> Millennium BC, *Baltic-Pontic Studies* **14**: 191-213.
- Koško A., Szmyt M., 2011, Udział społeczności Niżu Środkowoeuropejskiego w poznawaniu środowisk biokulturowych Płyty Nadczarnomorskiej: IV – IV/III tys. BC, in M. Ignaczak, A. Koško, M. Szmyt (eds.), *Między Bałtykiem a Morzem Czarnym. Szlaki Międzymorza w IV – I tys. przed Chr.* *Archeologia Bimaris – Dyskusje* 4, 205-221. Poznań.
- Koško A., Szmyt M., Goslar T., 2018, Zespoły typu Bożejewice – Krusza Zamkowa w sekwencji przemian kulturowych na Niżu Polskim w pierwszej połowie III tys. przed Chr., in *Nie tylko krzemienie/Not only flints. Studia ofiarowane prof. Lucynie Domańskiej w 45-lecie pracy naukowo-dydaktycznej i w 70. rocznicę urodzin*, 249-264. Łódź.
- Krzak Z., 1976, *The Złota Culture*. Wrocław-Warszawa-Kraków-Gdańsk.
- Larina O., Okhrimenko G., 2007, Kraynaya vostochnaya periferiya zapadnoy lineynoy keramiki (prostranstvenno-geograficheskiy aspekt), *Revista Arheologica*, serie nouă **3 (1-2)**: 89-109.

- Libera J., Zakościelna A., 2011, Cyrkulacja krzemienia wołyńskiego w okresie neolitu i we wczesnej epoce brązu na ziemiach polskich, in M. Ignaczak, A. Koško, M. Szmyt (eds.), *Między Bałtykiem a Morzem Czarnym. Szlaki Międzymorza w IV – I tys. przed Chr.* Archaeologia Bimaris – Dyskusje 4, 83-115. Poznań.
- Łysenko S., Szmyt M., 2011, Środkowe Naddnieprze jako graniczny areał osadnictwa ludności kultury amfor kulistych, in M. Ignaczak, A. Koško, M. Szmyt (eds.), *Między Bałtykiem a Morzem Czarnym. Szlaki Międzymorza w IV – I tys. przed Chr.* Archaeologia Bimaris – Dyskusje 4, 293-246. Poznań.
- Machnik J., Bagińska J., Koman W., 2009, *Neolityczne kurhany na Grzędzie Sokalskiej w świetle badań archeologicznych w latach 1988-2006.* Kraków.
- Machnik J., 2009, Short and long-distance pastoral journeys along ancient upland routes in Europe in the 3<sup>rd</sup> millennium BC, *Baltic-Pontic Studies* **14**: 214-222.
- Machnik J., 2011, Znaczenie archeologicznych badań ratowniczych na trasie planowanej budowy autostrady A4 na odcinku Przeworski-Radymno dla znajomości problematyki schyłku neolitu i początków epoki brązu, in S. Czopek (ed.), *Autostradą w przeszłość*, 61-78. Rzeszów.
- Makohonienko M., 2009, Natural aspects of prehistoric and early historic transit routes in the Baltic-Pontic cultural area, *Baltic-Pontic Studies* **14**: 19-71.
- Mihailescu-Birliba V., Szmyt M., 2003, Radiocarbon Chronology of the Moldavian (Siret) Subgroup of the Globular Amphora Culture, *Baltic-Pontic Studies* **12**: 82-123.
- Pelisiak A., 2007, The Funnel Beaker Culture Settlements Compared with Other Neolithic Cultures in the Upper and Middle Part of the Dnister Basin. Selected Issues. State of the Research / Osadnictwo ludności kultury pucharów lejkowatych na tle innych kultur neolitycznych na obszarze górnej i środkowej części dorzecza Dniestru. Wybrane zagadnienia. Stan badań, *Analecta Archaeologica Ressoviensia* **2**: 23-56.
- Rybicka M., 2017, *Kultura trypolska – kultura pucharów lejkowatych. Natężenie kontaktów i ich chronologia.* Collectio Archaeologica Ressoviensis XXXVII. Rzeszów.
- Szmyt M., 1999a, *Between West and East. People of the Globular Amphora Culture in Eastern Europe.* Baltic-Pontic Studies **8**. Poznań.
- Szmyt M., 1999b, Tripolye Traits in the Material of Central (Polish) Group of the Globular Amphora Culture – a Radiocarbon Perspective, *Baltic-Pontic Studies* **7**: 211-220.
- Szmyt M., 2000, In the Far Reaches of Two Worlds. On the study of contacts between the societies of the Globular Amphora and Yamnaya cultures, in S. Kadrow (ed.), *A Turning of Ages / Im Wandel der Zeiten. Jubilee Book Dedicated to Professor Jan Machnik on His 70th Anniversary*, 443-466. Kraków.
- Szmyt M., 2002, Ze studiów nad kontaktami społeczeństw środkowoeuropejskich i stepowych. Relacje ludności kultury amfor kulistych i kultury jamowej, in *Drevnejshe obshchnosti zemledelcev i skotovodov Severnogo Prichernomorya (IV tys. do n.e. – IV v. n.e.)*, 111-114. Tiraspol.
- Szmyt M., 2003, Ein Blick auf die polykulturelle Peripherien. Bemerkungen zur Verbreitung der Kugelamphorenkultur, *Germania* **81**: 399-440.
- Szmyt M., 2004, Iz issledovaniy kontaktov mezhdu kulturami sharovidnykh amfor i pozdnego Tripolya, *Stratum plus* **2**: 246-259.
- Szmyt M., 2009, Eastern Destinations of Central European Cultural Patterns. The case of Globular Amphora Culture (end of the 4<sup>th</sup> – middle of the 3<sup>rd</sup> millennium BC), *Baltic-Pontic Studies* **14**: 232-251.
- Szmyt M., 2013a, The Circulation of People and Ideas in the Baltic and Pontic Areas during 3<sup>rd</sup> Millennium BC, in Kadrow S., Włodarczak P. (eds.), *Environment and Subsistence – forty years after Janusz Kruk's "Settlement studies"*. Studien zur Archäologie in Ostmitteleuropa **11**, 441-458. Rzeszów.
- Szmyt M., 2013b, View from the Northwest: Interaction Network in the Dnieper-Carpathian Area and the People of the Globular Amphora Culture in the Third Millennium BC, in Heyd V., Kulcsár G., Szeverényi V. (eds.), *Transitions to the Bronze Age. Interregional Interaction and Socio-Cultural Change in the Third Millennium BC. Carpathian Basin and Neighbouring Regions*, 93-111. Budapest.
- Szmyt M., 2014, Fourth-third millennium BC stone cist graves between the Carpathians and Crimea. An outline of issues. *Baltic-Pontic Studies* **19**: 08-147.
- Szmyt M., 2016, Distant East Destinations of Globular Amphora Culture People: Creation and re-Creation of Identity in Peripheral Landscapes, in M. Furholt, R. Großmann, M. Szmyt (eds.), *Transitional Landscapes? The 3<sup>rd</sup> Millennium BC in Europe.* Human Development in Landscapes 9. Universitätsforschungen zur Prähistorischen Archäologie 292, 21-34. Bonn.
- Tkachuk T., 2007, Malice ceramic "imports" in the context of the Tripolye and steppe cultures, in J.K. Kozłowski, P. Raczyk (eds.), *The Lengyel, Polgár and related cultures in the Middle/Late Neolithic in Central Europe*, 249-258. Kraków.



- Tkachuk T., 2016, Osada z Białego Potoku w kontekście regionalnych ugrupowań kultury trypillijskiej / The Biały Potok Settlement in the Context of Regional Trypillia Culture Groups, in M. Szmyt (ed.), *Biały Potok. Materiały z badań Józefa Kostrzewskiego na Podolu / Materials from Józef Kostrzewski's Podolia Excavations*. Bibliotheca Fontes Archaeologici Posnanienses 19, 423-442. Poznań.
- Videiko M., 2004, Nova hronologiya Kukuteni-Tripillia, in *Tripil'ska tsivilizatsiya u spadshchiny Ukraini*, 106-117. Kyiv.
- Włodarczak P., 2006a, Chronologia grupy południowo-wschodniej kultury pucharów lejkwatych w świetle dat radiowęglowych, in J. Libera, K. Tunia (eds.), *Idea megalityczna w obrządku pogrzebowym kultury pucharów lejkwatych*, 27-66. Lublin-Kraków.
- Włodarczak P., 2006b, *Kultura ceramiki sznurowej na Wyżynie Małopolskiej*. Kraków.
- Włodarczak P., 2008, Kultura złocka i problem genezy kultury ceramiki sznurowej w Małopolsce, in Bednarczyk J., Czebreszuk J., Makarowicz P., Szmyt M. (eds.), *Na pograniczu światów. Studia z pradziejów międzymorza bałtycko-pontyjskiego ofiarowane Profesorowi Aleksandrowi Koško w 60. rocznicę urodzin*, 555-576. Poznań.
- Włodarczak P., 2014, The traits of Early-Bronze Pontic cultures in the development of old Upland Corded Ware (Małopolska groups) and Złota culture communities, *Baltic-Pontic Studies* 19: 7-52.
- Włodarczak P., 2016, Chronologia absolutna cmentarzysk późno- i schyłkoweoneolitycznych na Wyżynie Lubelskiej, in P. Jarosz, J. Libera, P. Włodarczak (ed.), *Schyłek neolitu na Wyżynie Lubelskiej*, 537-548. Kraków.
- Zakościelna A., 2006, Kultura lubelsko-wołyńska. Zagadnienie jej genezy, periodyzacji i chronologii / The Lublin-Volhynian Culture. The problems of its origin, periodization and chronology, in M. Kaczanowska (ed.), *Dziedzictwo cywilizacji naddunajskich: Małopolska na przełomie epoki kamienia i miedzi/The Danubian heritage: Lesser Poland at the turn of the Stone and Copper Age*. Biblioteka Muzeum Archeologicznego w Krakowie I, 77-94. Kraków.
- Zakościelna A., 2010, *Studium obrządku pogrzebowego kultury lubelsko-wołyńskiej*. Lublin.

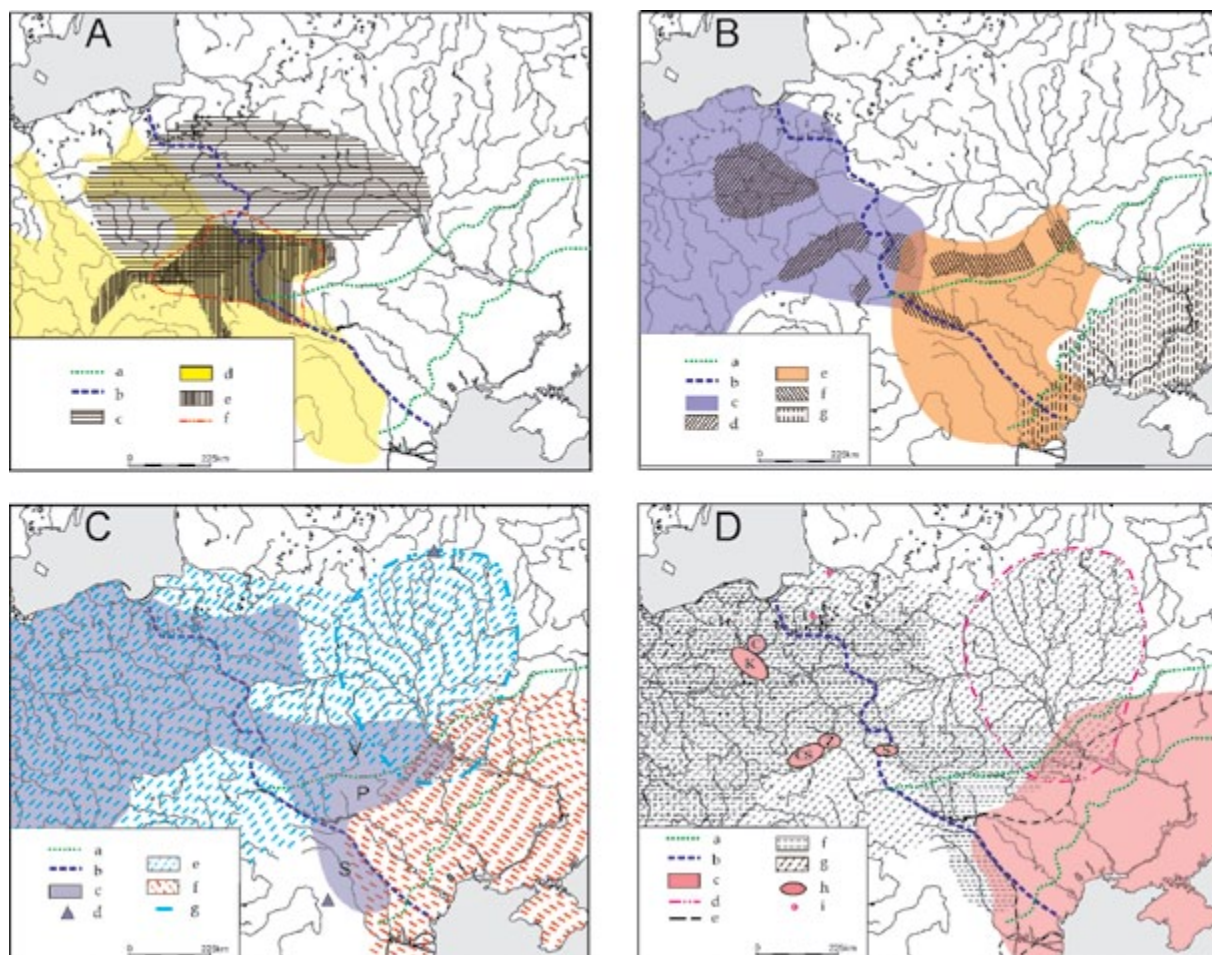
Мажена Шміт

### Між морями: балтійсько-чорноморський контактний простір у 3-му тисячолітті до н.е.

Ця стаття присвячена окремим питанням первісної історії територій, розташованих між двома морями: Балтійським на північному заході і Чорним на південному сході. Досліджувана територія розташована у межиріччі двох великих річкових систем – Вісли та Дніпра. По ній проходить так званий західнобузько-дністровський лімес – один з найважливіших природних і культурних кордонів нашого континенту. Незважаючи на безліч істотних відмінностей, у 3-му тисячолітті до н.е. райони між Віслою та Дніпром були вкриті мережею різноспрямованого кругообігу народів, культурних паттернів та інновацій. Цей рух поступово охоплював все ширшу територію, на якій функціонували як аграрні, так і квазі-скотарські та ранньоскотарські суспільства. Пізніше вирішальну роль відігравали три процеси: експансія культури кулястих амфор у степ та лісостеп; обмежені масштаби пересування степових та лісостепових груп до басейну Вісли і формування культури шнурової кераміки. Проблема дослідження залишається у визначенні відносин між двома вищезгаданими культурами, насамперед з точки зору їх можливих зв'язків або безперервності розвитку.

У цьому контексті можна виявити прямі та непрямі маркери, які вказують на зростання культурних та соціальних трансформацій. Особливо важливим питанням пан-європейського рівня є проблеми відносин між центральноєвропейським і степовим суспільствами, особливо з точки зору витоків культурного кола шнурової кераміки. Ключовою територією для з'ясування цього питання є регіон між Карпатами, Західним Бугом і Дністром, або навіть Південним Бугом. З цих причин досліджувану область між Балтійським та Чорним морями, в якій відбувалась циркуляція ідей та людей в 3-му тисячолітті до н.е., слід розглядати в більш широкому територіальному та часовому контексті. Інтенсивність зв'язків між різними суспільствами виправдовує використання терміну Балтійсько-Понтійського контактного простору.

**Ключові слова:** 3-є тисячоліття до н.е., Вісло-Дніпровське межиріччя, кругообіг ідей та народів, культурні контакти, контактний простір



**Fig. 1.** Baltic-Pontic contact space in the 6<sup>th</sup> – 3<sup>rd</sup> mill. BC.

**A.** 6<sup>th</sup> and 5<sup>th</sup> mill. BC. Foll. Kadrow, Zakościelna 2000; Larina, Okhrimenko 2007; Koško/Szmyt 2009.

Key: a – borders of east European ecological zones; b – Western Bug-Dniester limes; c – range of Janisławice–Rudoy Ostrov cultural circle; d – range of Linear Pottery culture settlement; e – range of Malice culture settlement; f – range of Lublin-Volhynia culture settlement.

**B.** 4<sup>th</sup> mill. BC. Foll. Szmyt 1999a; Pelisiak 2007; Koško, Szmyt 2009; Rybicka 2017; Szmyt 2013a.

Key: a – borders of east European ecological zones; b – Western Bug-Dniester limes; c – range of FBC settlement; d – areas of reception of “Trypillian” patterns by FBC populations; e – range of late TC settlement; f – areas of reception of FBC patterns by TC populations; g – range of Pre-Yamnaya groups.

**C.** 3<sup>rd</sup> mill. BC. Foll. Szmyt 1999a; Koško, Szmyt 2009; Szmyt 2013a.

Key: a – borders of east European ecological zones; b – Western Bug-Dniester limes; c – range of GAC settlement (eastern group: V – Volhynian subgroup; P – Podolian subgroup; S – Moldavian subgroup); d – isolated sites of GAC; e – range of CWC circle; f – range of Yamnaya culture; g – range of Middle Dnieper culture.

**D.** Pontic impact in the 3<sup>rd</sup> mill. BC. Foll. Włodarczak 2006b; Koško, Szmyt 2009; Machnik 2009; Szmyt 2013a.

Key: a – borders of east European ecological zones; b – Western Bug-Dniester limes; c – range of Yamnaya culture; d – range of Middle Dnieper culture; e – range of Catacomb culture; f – range of GAC; g – range of CWC circle; h – areas of reception of Pontic patterns (ZC = Złota culture; CS = Cracow-Sandomierz CWC group; SG = Sokal group; K = Kujawy; C – Chełmno land); i – finds of Pontic origin on the Baltic.