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ANCIENT HISTORY

ORIGINS AND MIGRATIONS OF THE THRACIANS

Abstract: Origins of people speaking Indo-European languages is one of the most discussed issues in archeology and linguistics. One theory suggests their spread from the Near East. The Balkans are a key region for solving the problem as it is located at the crossroads between Asia Minor, Central Europe and the Eurasian steppe. The Thracians were the largest ancient people of the region, and their origin was associated with different areas. The presence of Thracian place-names from Hungary to Greece and Asia Minor does not allow us to reliably localize their homeland. But analysis of cultural processes in the region demonstrates that after the appearance of the Near Eastern cultural complex in the Neolithic, further development in the Northern Balkans had local roots. The most significant event was the Early/Middle Bronze Age transition at the beginning of the 2nd millennium BC, when people with chariots came from the Near East, which lead to the appearance of a series of new cultures in the Carpathian Basin. Only at the end of the Late Bronze Age (last centuries of the 2nd millennium BC), did the culture of this area spread to Southern Thrace, which resulted in the occupation by the Thracians of the entire area known from written sources.

Keywords: Bronze Age, Northern Balkans, Thracians, ethnic genesis, Indo-European origins.

INTRODUCTION

hracian belongs to the family of the Indo-European languages, and its early history cannot be considered separately from the Indo-European problem. The latter has been debated for decades, and the most accepted is the theory about the IE¹ origins in the Ponto-Caspian steppes, from where these peoples migrated to Europe, Anatolia, Iran, and India². There is also the Anatolian theory, that associates their origins with the spread of Neolithic cultures from the Near East³. The third theory localizes the IE homeland on the Armenian Highlands⁴. If to look at the problem broader, cultures, languages and genes spread during the Neolithic and the Bronze Age only from the Near East, and migrations from the steppes to areas inhabited by the IE people were almost absent. A single exception was the well-known migration of the Yamnaya tribes in the early 3rd millennium BC, but it had been preceded by cultural impulses and the spread of genes from Transcaucasia to the steppe in the Eneolithic⁵.

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¹ Abbreviations used in the text: IE – Indo-European; EBA – Early Bronze Age, MBA – Middle Bronze Age, LBA – Late Bronze Age, EIA – Early Iron Age; EH – Early Helladic, MH – Middle Helladic, LH – Late Helladic.

² MALLORY 1989; GIMBUTAS 1994; ANTHONY 2007.

³ RENFREW 1987.

⁴ GAMKRELIDZE/IVANOV 1995; GRIGORIEV 2002.

 $^{^{\}scriptscriptstyle 5}\,$ GRIGORIEV 2021a. See also about the early IE place names in Anatolia, Syria and the Levant,

The localization of the IE homeland in the Near East allows problems of the origins of individual IE languages to be solved, as has been demonstrated for Greek, Venetic, Hittite, and Luwian⁶. The task of this article is to solve the problem of the Thracian origin. As any such reconstruction, it can be done on the basis of both linguistics and archaeology. A spread of some archeological complex does not always mean a change of language. However, Indo-European studies have established general schemes for the origins of the IE languages, their relationships, possible contacts and sequence of language layers in many areas. As a result, we have a complicated system of knowledge. Therefore, the task of archaeologists is to create a scheme of development of archeological cultures, their sequence and relationships, which makes it possible to compare it with the linguistic system. If these systems coincide, we will be able to draw conclusions about ethnic processes. Thus, our task is to systematize relatively reliable facts.

THEORIES OF THE THRACIAN ORIGIN

There are several approaches to the solution of the problem, which is connected with the fact that the Northern Balkans are situated on the crossroad between Anatolia, the Eurasian steppes, and Central Europe, so the Thracian origin was being explained by different migrations from the Neolithic to the Early Iron Age. The earliest their appearance was suggested by C. Renfrew, who connected it with the Neolithization of Europe from Anatolia and supposed that bearers of the North Balkan cultures Starčevo, Körös and Karanovo in the 6th–5th millennia BC spoke Proto-Thracian and Proto-Illyrian⁷.

The Steppe theory suggests a later migration of the Yamnaya tribes in the early 3rd millennium BC, and this migration created a basis for all of the Paleo-Balkan languages⁸. It is believed that an earlier IE language layer was absent in the area, so the formation of the Thracians began after this migration⁹. There are variations in reconstructing this movement from the North, and it is supposed that the Paleo-Balkan groups (Proto-Thracian/Proto-Macedonian/ Proto-Phrygian) migrated after the Greeks¹⁰. As a result, the conventional opinion is that the basis of the Thracians was the local EBA people and pastoral tribes who came from the north¹¹.

A combination of these two approaches is the S. Paliga's opinion that there was an early PIE substratum in the Balkans appeared from the Near East, but the Greeks, Hittites, Thracians and Illyrians came from the steppe¹². I suggested a similar opinion about the coming of Thracians

and Greeks from the steppe, but understood the earlier PIE substratum as people who spoke Anatolian dialects¹³. In this case all the EBA people in the Northern Balkans might have spoken Proto-Thracian, and the later Thracian. But the specific identification differs. R.F. Hoddinott believed that already MBA cultures had been Thracian: Otomani, Wietenberg and Monteoru¹⁴. M. Oppermann for the MBA suggested another list (Monteoru, Wietenberg, Tei, Verbicioara), and for the LBA – Cîrla Mare and Dubovac-Žuto Brdo. Besides, in the LBA, the steppe impulses influenced the formation of Noua culture, and later Coslogeni in the north-east¹⁵. In many respects, all of these approaches are meaningful, as the MBA and LBA traditions continued into the EIA when the Thracian presence in the area is undoubted. But in this case we may assume that just this late Sabatinovka influence could have brought the Thracian language from the steppe. There is also an opinion that the Balkan peoples (Illyrians, Thracians и Moesians) came even later, at the time of the spread of Urnfield traditions associated with the Lausitz culture¹⁶. It corresponds to the idea that along the Dniester, the change of Noua culture by cultures of the Hallstatt type in the 11th-10th centuries BC means the coming of Thracians¹⁷.

Because of the Mycenaean ornaments I believed that the Wietenberg culture was left by the Greeks¹⁸, but Monteoru, Hatvan and later Noua and Sabatinovka were regarded as Thracian, as well as later Belozerka, that had been formed on the Sabatinovka basis, and the Hallstatt cultures of the area¹⁹. But there is no basis to see the roots of Sabatinovka culture in the Balkans. It originated from different Srubnaya and Babino groups²⁰. Besides, the Thracian river names have been found only in the westernmost part of the North Pontic area, and Sabatinovka sites are present even around the Sea of Azov and far to the north.

However, all these approaches had their reasons, and we have many possibilities from the 6th to the last third of the 2nd millennium BC. In each case the main reason was the presence of these cultures in the Northern Balkans. But in order to examine their possible connections with the people who spoke Thracian we have to begin with the characteristics of this language.

THRACIAN LANGUAGE

Thracian among the Balkan languages

Thracian was spoken until the 5^{th} century AD or the first third of the 6^{th} century AD, and only the upper part of society had been partly romanized. The language disappeared after the mass migration of Slavs into the area²¹.

²⁰ CHERNIENKO 2014.

that predate Anatolian ones (Hittite, Luwian, and Palaic), but the names in the earliest written records of these regions are Semitic and Hurrian. Accordingly, these place names preceded the end of the 3^{rd} millennium BC (WOUDHUIZEN 2018, 63, 64, 68, 69).

⁶ GRIGORIEV 2021a; GRIGORIEV 2022a; GRIGORIEV 2022b.

⁷ RENFREW 1987, 159–161.

⁸ OPPERMANN 1984, 29; MALLORY 1989, 235; ANTHONY 2007, 361, 367; HAJNAL 2003, 131, 132.

⁹ YANAKIEVA 2018a, 28.

¹⁰ SOWA 2020, 790.

¹¹ e.g. HODDINOTT 1989, 52.

¹² PALIGA 2014, 38; PALIGA 2018, 148.

¹³ GRIGORIEV 2002, 153, 349; GRIGORIEV 2021a, 217, 218.

¹⁴ HODDINOTT 1981.

¹⁵ OPPERMANN 1984, 32, 37–39, 47.

¹⁶ COLES/HARDING 1979, 443, 448, 449.

¹⁷ LAPUSHNYAN 1979, 121–124.

¹⁸ The Greek colonization had been carried out from Asia Minor in EH IIb, and ornaments of this type were brought into Greece from the Carpathian basin along with chariots much later (GRIGORIEV 2021a; GRIGORIEV 2021b; GRIGORIEV 2022a; GRIGORIEV 2023a).

¹⁹ GRIGORIEV 2002, 282, 283, 295, 398.

²¹ YANAKIEVA 2009, 330, 331; YANAKIEVA 2018a, 60, 61; YANAKIEVA 2018b, 135–138; SOWA 2020, 791.

It is even assumed that under the pressure of Slavs a part of the Thracians penetrated the area of the romanized Illyrians, influencing the formation of the Albanian language²². Despite the fact that the process of early state formation started in the Thracian area already in the 6th century BC, in the 5th century BC the Odrysian Kingdom was founded in Southern Thrace and at the end of the 4th century BC the Dacians and Getae united in the north²³, there was no Thracian writing. There are many Greek and Latin inscriptions with many place names, tribal and personal names and some names of gods (ca. 3000). The latter are accompanied by epithets, but their etymology is usually unclear²⁴. Therefore, the use of all this names especially if they are transmitted through speakers of other languages provokes a lot of problems²⁵.

Thus, most of the sources belong to the 5th century BC – 5th century AD. An earlier Thracian presence in the area is reflected in Homer's poems describing the realities of the late 2^{nd} – early 1^{st} millennia BC. But there are their earlier traces found in personal and tribal names in Linear B, which indicates existence of Thracian in the Mycenaean period, in particular "Treke-wi-ja" ("Thracian") in the Cretan Linear B and "O-du-ru-wi-jo" ("Odrysian") in Thebes before 1350 BC²⁶. K. Porozhanov believes that the Thracians existed already in the $18^{\rm th}\text{--}16^{\rm th}$ century BC and in the $15^{\rm th}\text{--}12^{\rm th}$ centuries BC they were well familiar to the Greeks, because there are Thracian names in Linear A and he adduces an extensive list of Thracian words and names in Linear B (from Crete, Thebes, Pylos and Mycenae)²⁷. But Linear A has not yet been deciphered, and the extensive list of names in Linear B might also be doubtful, since some of the interpretations seems to be unreliable. But there is no doubt that the Mycenaeans were familiar with the Thracians, which is confirmed by archaeological data.

The problem is complicated by the fact that, with the exception of Greek, there are few and contradictory data for all other Balkan languages. Greek, Phrygian and Armenian are considered the closest, but Greek and Phrygian belong to the *centum* group, and Armenian to the *satem* one²⁸. Besides, Thracian and Phrygian were probably not related, though there were contacts between their speakers²⁹. There is another opinion about the affinity of Thracian and Phrygian, and it is assumed that the Thracians migrated to Asia Minor, where their language transformed into Phrygian. It is also assumed that the Thracian and Illyrian languages were related³⁰. But there is no epigraphic evidence on the Illyrian languages, and their reconstruction is based on names from Classical sources. There is not even a guarantee that it was a single language. Three onomastic provinces are distinguished for Illyria, but it is possible that in the northern part people spoke Venetic. Place names are different compared to the Thracian ones, but

²⁹ OBRADOR-CURSACH 2019.

river names are more comparable. Paeonians, who lived in Macedonia, are regarded as Thracians, Illyrians or Phrygians. To the northeast in Dardania, there are Illyrian names in the west and Thracian in the east. As a result, the languages of these areas are unclear, as is the language of Pannonia³¹.

The Thracian onomastics has some similarities, but differs from the Illyrian and Messapic ones. It is also assumed that Thracian was closer to Greek than to Phrygian. But it is most likely that Greek, Phrygian and Macedonian originated from the same root³², and it is difficult to say something about other Balkan languages. It is supposed that there was the "Balkan Indo-European" continuum (Ancient Greek, Phrygian, Macedonian, Armenian, Albanian, Thracian, Illyrian and Messapian), and some similarities in these languages were the results of contacts³³. However, if we build an archaeological model of the distribution of these languages, then in the case of Steppe homeland we must demonstrate the migration to Asia of the Thracians, Phrygians, Armenians and Aeolic Greeks. In the case of the Near Eastern homeland we must show only the Thracian migration (migrations of the Greeks and the Illyrians has already been discussed³⁴), since the attempts to find the Armenians in the Balkans belong to historical mythology.

Thracian dialects

Many Thracian tribes are mentioned in the classical sources: Thraco-Dacians to the north of the Danube and in the Carpathians, Carpi and Costoboci to the north of them, and Odrysians, Moesi, Triballi, Bessi in the south³⁵ (fig. 1). There is an idea of two Thracian languages: Thracian in the south and Dacian-Moesian (Geto-Dacian) in the north, but evidences of their difference are limited, it was rather a single language with some dialects³⁶. This conclusion can be drawn from classical sources. Strabo wrote that the Dacians spoke the same language as the Getae, and the latter the same as the Thracians, and confirmation can be found in writings of Ovid³⁷. The main reason for this idea of two languages is the presence of two territorial groups of suffixes in the names of settlements, which is not sufficient. The suffix -dava (with variants -daba, -deva, -deba, -dova) is present in the names of Northern Thrace (rare inclusions on the southern bank of the Danube, Sarmatia, Germany, and Albania), whereas in Southern Thrace more typical are the suffixes -bara, - para, -bria, -diza, and in Scythia Minor (Dobruja) -dina / -deina³⁸ (fig. 1). The suffixes of the northern group have correspondences in Kartvelian. Besides, there are some Kartvelian borrowings

²² PALIGA 2014, 40.

²³ OPPERMANN 1984, 79, 81, 173.

²⁴ YANAKIEVA 2018a, 29, 35–39; SOWA 2020, 808.

²⁵ FALILEYEV 2020, 888–890.

²⁶ OPPERMANN 1984, 7; WOUDHUIZEN 2013, 6, 11; POROZHANOV 2017, 17; SOWA 2020, 790.

²⁷ POROZHANOV 2017, 56–58.

²⁸ HAJNAL 2003, 134, 141.

³⁰ PALIGA 2018, 140, 147.

³¹ FALILEYEV 2020, 897, 899–905, 914.

³² Sometimes, the Macedonians are regarded as the Hellenized Thracians and their language as non-Greek (POROZHANOV 2017, 75–77). There is no reason for this conclusion, as Macedonian was Northwestern Doric (DOSUNA 2012, 133, 134, 141), which does not exclude that previously this area was inhabited by the Thracians; there are Thracian, Illyrian and Phrygian toponyms in the Macedonian area (KATIČIĆ 1976, 101–114).

³³ SOWA 2020, 804, 810, 811.

³⁴ GRIGORIEV 2022a.

³⁵ PALIGA 2017, 226, 227.

³⁶ YANAKIEVA 2018a, 27, 55, 56; SOWA 2020, 796, 797.

³⁷ OPPERMANN 1984, 113; YANAKIEVA 2009, 220; PALIGA 2017, 226; YANAKIEVA 2018b. 135.

³⁸ YANAKIEVA 2009, 220; PALIGA 2017, 225, 227, 228; BERZOVAN 2020, 100, 103; SOWA 2020, 797, 805, 806.

in Romanian. We can add to this the well-known Greek-Kartvelian parallels. However, the author did not explain this paradox, since he did not allow the idea that the IE homeland was in the Near East³⁹. Thus, the Greek-Thracian relations and the Greek migrations from Anatolia indicate the Near Eastern origin of the Thracians, especially since the IE languages, genes and culture spread from the Near East⁴⁰. But in this case this territorial difference indicates an earlier Thracian presence in the north (in the area of the suffixes *-dava*) than in the south. At first glance, it may confirm the version of migration that was previously discussed: Eneolithic migrations from the south to the steppe and then to the Balkans as a part of the Yamnaya wave. But in this case we are faced with the problem of demonstrating the migrations of many "Balkan" peoples back to Asia.

Area of the Thracian language

The Thracian area is defined on the base of river names. It covers a vast space from the Carpathian basin (with Carpathian Ukraine and the Dniester basin) in the north to the Aegean Sea in the south, and from the Black Sea in the east to the Vardar and Morava rivers (more precisely to the Tisza river), Vojvodina, Dardania and Dalmatia in the west. In addition to this, it includes the northwest of Asia Minor (Bithynia, and partly Mysia). According to Herodotus, the Thracians were the largest people after the Sindi⁴¹. There is also a series of river names that are present in this area, but distributed wider. These correspondences are rare, and their area includes the western Balkans (Dalmatia, Illyria, Paeonia, Epirus, and Liburnia), Northern and Central Greece (Thessaly, Boeotia, Phocis, but also to the south in Arcadia), the Aegean (the islands of Cyprus, Lesbos, Crete, Thera and Kos), the west of Asia Minor (Troad, Mysia, Caria, Lycia, Lydia, Pisidia, Paphlagonia, and Phrygia), and Cilicia in the southeast of Asia Minor. If to consider only the Thracian river names in the northeast of the Balkans and in Bithynia, their most numerous parallels are found in Asia Minor, in other areas they are rare⁴² (fig. 1).

Frequently it is hard to determine which language these river names refer to. It is supposed that due to their wide distribution and the presence of names formed from the same root but with different suffixes, it may be explained by an earlier common language substratum. The parallels to some Thracian onomastics (including those with the suffix elements $\sigma\sigma$ - and $\nu\theta$ -) are known in the pre-Greek onomastics in the south of the Balkans, in the western Balkans and in the west of Asia Minor, and they may reflect some common early Palaeo-Balkan linguistic space⁴³. These toponyms a present throughout Southwestern Anatolia, and they were determined as Luwian. The suffixes $\sigma\sigma$ - and $-\nu\theta$ - are found in the Greek cultural lexicon, and this language layer

had preceded Greek in the south of the Balkans⁴⁴. L. Gindin assumed that the appearance of the Greeks was preceded by two successive strata: 1) non-IE, 2) IE Anatolian, although the existence of a third Pelasgian stratum was not excluded, which meant the Phrygians⁴⁵. It is indicative that there are no grounds for assuming a pre-IE substratum in Thrace. K. Porozhanov supposes that the Pelasgians spoke Thracian, and (referring to L. Gindin) he suggests two successive language layers in the Balkans and in northwestern Asia Minor: Thracian-Hittite-Luwian (although L. Gindin did not write about it) and Thracian-Pelasgian. But since Thracian and Pelasgian are equal for him, he proposes to use the first part of the term, i.e. 'Thracian'. This identification of the Thracians and Pelasgians makes it possible to expand the Thracian area to the Peloponnese, Crete and many areas of Asia Minor⁴⁶. But the early Thracian area in the south of the Balkans is limited to Northern Greece. In Aetolia, the MH culture survived fragmentarily during LH I; in Thessaly, the Mycenaean kingdoms appeared only in LH IIIA - LH IIIB, and it is supposed that it were the Thracians who had lived there earlier. In the 'Catalogue of Ships' of the Iliad, these areas were occupied by the Mycenaean kingdoms, and the kingdom of Achilles was located in the Spercheios valley in Phthiotis. The names of previous kings and tribes of this area might have been Thracian⁴⁷.

Thus, there was the Anatolian substratum in the Balkans, but in the south an earlier pre-IE substratum could have been, which has not been found in the Northern Balkans. In the north, the Hittite-Luwian substratum was changed by the Thracian language layer, whereas in the south by the Greek one. Which archaeological complex reflects the Anatolian substratum? In this case the answer is obvious, since at the beginning of the EBA the impulse from the Northern Balkans formed the EBA cultures of Greece and northwestern Asia Minor⁴⁸. This, as well as the absence of the pre-IE substrate in Thrace, indicates that the Anatolian languages formed there already in the Eneolithic. The second question is more complicated: if the Thracians came to the Balkans before the Greeks49, which archaeological complexes reflect this or that migration? F. Woudhuizen believes that the Thracians along with the Luwians were the pre-Greek population of Greece. But initially the Luwians (Pelasgians) came to the Balkans from Anatolia ca. 3100 BC. The Thracians and Phrygians came from Asia Minor along with the Minyan ware ca. 2300 BC (i.e. EH IIb), and then ca. 1600 BC from Crete, Egypt and Phoenicia came the Greeks, who formed the elite of Mycenaean society. It is admitted that the Greek language formed from the mixing of their Near Eastern languages with Phrygian and Thracian. These ideas are based on some legendary Greek genealogies, on the presence of Thracian and Phrygian names in the Mycenaean and Theban royal genealogies, on the mention of some tribes

³⁹ BERZOVAN 2020, 110–113, 116–119.

⁴⁰ GAMKRELIDZE/IVANOV 1995, 798, 799; GRIGORIEV 2021a; GRIGORIEV 2022a, 25–28.

⁴¹ OPPERMANN 1984, 7, 8; YANAKIEVA 2009, 220; PALIGA 2017, 226; PALIGA 2018, 142–147; YANAKIEVA 2018a, 28; SOWA 2020, 788, 789.

⁴² YANAKIEVA 2009, 142, 177–182, 199, 220, 228.

⁴³ YANAKIEVA 2009, 182, 183, 229; YANAKIEVA 2018a, 55, 56.

⁴⁴ PALMER 1958; GINDIN 1967, 57, 60–64, 71–74; KATIČIĆ 1976, 40–55; FINKELBERG 1997, 14; FINKELBERG 2005, 5, 6, 42–48, 51.

⁵ GINDIN 1967, 82, 94, 165–170.

⁴⁶ POROZHANOV 2017, 64, 68, 73, 74, 107, 110–113, 116, 118.

⁴⁷ SMITH 1989, 175–180.

⁴⁸ See in details GRIGORIEV 2022a.

 $^{^{\}rm 49}\,$ It is also assumed that the Thracians migrated together with the Greeks and settled in Northern and Central Greece (SOWA 2020, 788).

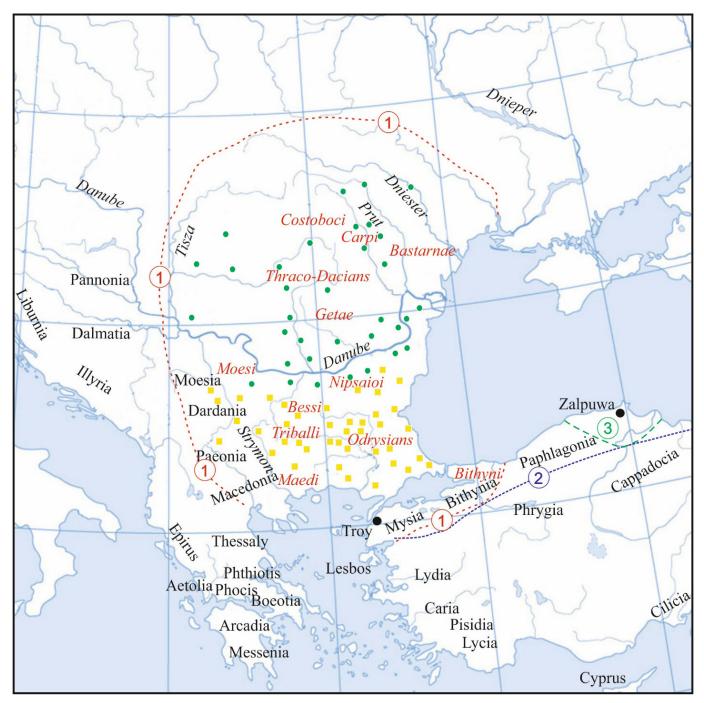


Fig. 1. Map of historical areas in the Balkans and in Anatolia mentioned in the text, Thracian tribes of the (red italics), 1 – area of Thracian river names (after YANAKIEVA 2009), 2 – supposed Thracian area in Asia Minor (after POROZHANOV 2017), areas of the early Thracian and Phrygian onomastics in Asia Minor (after WOUDHUIZEN 2018), green circles – Thracian place names with suffixes -dava, yellow squares – Thracian place names with suffixes -bara, - para, -bria, -diza (after SOWA 2020).

with possible Thracian identification, and participations of the Thracians in wars between Greek kingdoms⁵⁰. However, other scholars think that the Phrygians are absent in the Greek genealogies⁵¹.

In my opinion, the legends should not be interpreted so directly. It is senseless to discuss the linguistic part of the problem, but there are also discrepancies in the archeological model. In the late 4^{th} – early 3^{rd} millennia BC, Greece was influenced from the Northern Balkans, not from Anatolia; and after the coming of people with the Proto-Minyan ware from Asia Minor in EH IIb, there was no mass introduction of new cultural elements, although there were Minoan influences in the late MH stimulated cultural changes in the Peloponnese. But this migration in EH IIb reflects the coming of Greeks, who came into the area inhabited by the Luwians (Pelasgians). As for Northern Greece, in Phthiotis and coastal Thessaly first the Lefkandi I ware had appeared (showing the coming of Greeks), and then during the EH III and MH the ware typical of Southern Greece was widely adopted, which can be interpreted as new intensive waves

⁵⁰ WOUDHUIZEN 1989, 191–201; WOUDHUIZEN 2013, 5, 6, 11–13; WOUDHUIZEN 2018, 30, 34, 35.

⁵¹ FINKELBERG 2005, 31, 39.

of the Greek colonization⁵². Therefore, the appearance of the Mycenaean tradition does not reflect the first coming of Greeks. But at the transition to the Thessalian EBA (contemporary to EH III) some settlements were destroyed, the Lefkandi I ware disappeared, and relations with the Aegean increased⁵³. It was contemporary to the beginning of the Br A1 phase in Central Europe, and was caused by impulses from Asia Minor⁵⁴. Therefore, hypothetically we may assume the coming of some Thracian elements to Northern Greece.

It is indicative that Thracian loanwords in Greek are very limited: only the words for '(a sort of) barley beer', 'wine', 'large, broad sword', 'sword, knife', '(a sort of) pot'55. As a matter of fact, these are words for feasts and warfare, which corresponds to the presence of the Thracian names in the Mycenaean royal genealogies and their participation in wars. The inheritance of royal power in Mycenaean Greece was carried out along the female line, and the kings were of different origins. A part of the Thracian elite could be incorporated into the Mycenaean elite⁵⁶. But it does not prove a previous Thracian substratum. The Anatolian substratum was common in the Balkans, and we have no evidence on the chronological relationship of Greek and Thracian. The presence of individual kings and even small tribal groups may be explained by episodic migrations and dynastic marriages.

An important part of this problem is the presence of Thracians in northwestern Asia Minor (Bithynia and part of Mysia), which is confirmed by onomastics and mentions of ancient authors about their migration⁵⁷ (fig. 1). The earliest data are provided by the L. Gindin's analysis of the Iliad, that demonstrated a large list of personal and place names, which are neither Greek nor Hittite-Luwian, but have parallels in the Thracian area, although some toponyms can be connected with the Anatolian languages. The most interesting is the terminology connected with Troy and the Troad (T $\rho o i \alpha$ and $I\lambda\iota o\varsigma$). It is assumed that the ethnonym Tgauoí could designate a large Thracian tribe. These terms correspond to Hittite terms *Taruiša* and *Wiluša*, so the variants Τgoία, Τρώες and Taruiša are independent words for the same toponym. In Hittite documents it is recorded for the end of the 14th century BC, but there is one mention in the reign of Labarna I, so the Thracians lived there at least by the beginning of the 17th century BC, and people of Troy VI spoke Thracian. But before that, starting from Troy I (first quarter of the 3rd millennium BC) this area had been inhabited by the Luwians⁵⁸. There are ideas that the Thracians lived along the entire Pontic coast of Asia Minor, from the Sea of Marmara to Sinop, the mouth of the Yeşilırmak river near modern Samsun and up to Giresun (west of Trebzon)⁵⁹ (fig. 1). In my

⁵⁶ FINKELBERG 2005, 87, 98; GRIGORIEV 2021a, 31.

opinion, the evidence is not sufficiently substantiated. We may assume the Thracian presence in northwestern Anatolia, but even the royal names in Paphlagonia can indicate dynastic marriages. However, there is evidence (personal names and toponyms) of the presence of the Thracians and Phrygians in North-central Anatolia in the area of ancient city of Zalpuwa (near modern Sinop). It is supposed that in ancient sources they are mentioned as Kaskians, and they appeared in this area ca. $16^{th}-15^{th}$ centuries BC, and before this people of Paphlagonia spoke Palaic⁶⁰ (fig. 1).

Thus, the Thracian presence in the Balkans and Asia Minor means that they came to one of these regions from another. But the Thracians had also other relations to Asia Minor. They (like the Greeks) had a Cabiri cult created by people who spoke Anatolian languages⁶¹. In the Thracian area, there are many toponyms and names of gods and tribes with Anatolian parallels, as well as a series of Thracian personal names with an Anatolian theophoric basis⁶². The cults of Ares and Dionysus are Thracian, as well as the mythological characters Orpheus, Tamiris and Eumolpus⁶³. But the cult of Dionysus was widespread in the northwest of Asia Minor, and one of his epithets, *Priapos*, has an Anatolian basis⁶⁴.

Thus, there are many Asia Minor inclusions in the Thracian language, culture and toponimy, which suggests their origin in Asia Minor. However, if we recall the previous Luwian substrate in the Balkans, as well as migrations of the Hittite-Luwian tribes from the northeast of the Balkans to Asia Minor at the beginning of the EBA⁶⁵, we can explain this by a common Anatolian basis. But there are some Thracian names, which indicate a migration from Asia Minor. These are $E\pi\tau\eta$ - $\pi\sigma\nu\varsigma$ (female) and $E\pi\tau\alpha$ - $\pi\sigma\varsigma$ (male), which go back to the Anatolian goddess with the spelling Μήτης Eίπτα, which is the late Anatolian version of the Hurrian goddess *Hebat*. Indicative is the mother goddess *Ma*, whose cult was characteristic of the eastern regions of Asia Minor, especially Cappadocia. The names with the theophoric base Tarhu, corresponding to the Hittite god of weather and thunderstorms, are also noteworthy. Parallels to the name are known in the Apennines, where they are common as the names of Etruscan cities (Tarquini), whose founder, according to ancient tradition, was the Lydian hero Tarkov⁶⁶. There is an ancient tradition of the Asia Minor origin of the Etruscans, an opinion about the possible belonging of their language to the North Caucasian, and paleogenetic data indicating links with the Near East⁶⁷. Kartvelian suffixes in the northern Thracian area, discussed above, belong to this group of parallels.

As a result, the linguistic evidence does not demonstrate unambiguously the Thracian origin, but evidence of their Asian origin is more abundant. It is evident that by the 17^{th} century BC they lived in the Troad, and by the 16^{th} - 15^{th} centuries BC in the north of Central Anatolia.

⁶² GINDIN 1981, 33-40, 52, 66, 72, 81-84, 89-96, 99-105.

⁶⁵ GRIGORIEV 2002, 352–354, 356; GRIGORIEV 2021a.
⁶⁶ GINDIN 1981, 36–40, 52, 64.

⁵² GRIGORIEV 2022a, 15, 28.

⁵³ MARAN 1998, 47, 48, 54.

⁵⁴ See in details GRIGORIEV 2023b.

⁵⁵ ORESHKO 2018, 98.

⁵⁷ YANAKIEVA 2018a, 28.

⁵⁸ GINDIN 1967, 32; GINDIN 1981, 63, 106–110, 117, 130, 132, 138–165, 184; GINDIN 1993, 16, 18–20, 32, 33, 38, 70, 71.

⁵⁹ POROZHANOV 2017, 107, 108, 123–125, 154, 167, 168, 178, 182, 190, 195.

⁶⁰ WOUDHUIZEN 2018, 44–46.

⁶¹ GINDIN 1981, 53, 54.

⁶³ KATIČIĆ 1976, 129; SOWA 2020, 789.

⁶⁴ GINDIN 1981, 57–61.

⁶⁷ IVANOV 1988; VERNESI et alii 2004; ACHILLI et alii 2007.

Mycenaean records indicate their presence in the Balkans since the 16th-15th centuries BC. But in all these regions (or nearby) they could have lived earlier. Besides, all these data reflect different processes, we may not consider them as a result of a single migration. Historical information about such migrations is present in all works on this problem, but it is controversial and very limited.

THRACIAN MIGRATIONS IN HISTORICAL RECORDS

Based on classical sources, scholars are convinced that the Thracians came to Asia from the Balkans⁶⁸. Russian linguists, demonstrating broad Thracian-Anatolian relations, were inclined to interpret them based on the IE-homeland in the steppe. They believed that these relations originated in the Northeastern Balkans. By the beginning of the Trojan war, the Thracians lived on the both coasts of the Hellespont, and, in the last year of the siege, the Thracian king $P\eta\sigma\sigma\varsigma$ came to Troy from the Strimon valley in modern Bulgaria⁶⁹. Correspondently, by the beginning of the 12th century BC, the Thracians should have lived in Southern Thrace. F. Woudhuizen supposes that the Greeks, who came with chariots ca. 1600 BC, forced out part of the Thracians and Phrygians to the north of Asia Minor⁷⁰. But they appeared in the Troad at least 100 years earlier, and the Greeks borrowed the chariots from the Thracian area.

Based on the Greek tradition, the Trojan war can be placed between 1334 and 1184 BC, but different layers of Troy have traces of destructions and fire from the end of the 14^{th} to the end of the 10^{th} centuries BC. It is obvious that the Trojan war preceded the destruction of the Mycenaean palaces, and the most accepted date is 1190/1180 BC, i.e. the end of Troy VIIa (the date of the layer is 1300-1190/80 BC)⁷¹. Ceramics of this layer is indistinguishable from those in Troy VI, which indicates the continuation of the tradition and population⁷². This supports the linguistic hypothesis about the early Thracian presence in the Troad. However, in the later layer VIIb1 the channeled ware with knobs from Thrace is present, more common in phase VIIb2, although local forms dominated. It corresponds to LH IIIC (12^{th} century BC), and is explained by the movement of "Sea People" or migration of the Thracians and Phrygians⁷³. But taking into account the earlier dates of the Thracian presence in the Troad, usually this event is connected with the coming of Phrygians from the Balkans⁷⁴. Sometimes the Phrygian migration is dated after 1000 BC, and it is assumed that the Armenians took part in it⁷⁵. However, it is necessary to take into account that some Balkan objects are only found in Troy. They are absent in other settlements⁷⁶. Therefore,

it is very difficult to use them to prove migrations of several peoples from the Balkans. Moreover, in the Near Eastern written sources, the Phrygian are probably mentioned as Mushkis, and the Assirians met them in the 8th century BC, and in the late 12^{th} – early 11^{th} century BC they had a battle against them on the upper Tigris⁷⁷. Before the Trojan War, Priam helped his Phrygian allies somewhere in Asia Minor. It is also assumed that the Phrygians (Meshnech) and Thracians from Northeastern Asia Minor (Derdni -Dardanians and Mes - Moesians) took part in the battle of Kadesh in 1274 BC⁷⁸. Thus, although the Phrygians became a mighty power in Asia Minor only in the 8th century BC, they had been lived in the region in the 13^{th} - 11^{th} centuries BC, and probably since the 16th-15th centuries BC, if we accept the discussed above Phrygian onomastics in the north of Central Anatolia. Therefore, the connection between the Thracian and Phrygian appearance in Asia and this episode of the presence of Balkan objects in Troy VIIb is exaggerated.

Thus, the Thracians should have appeared in their main areas by the first quarter of the 2^{nd} millennium BC, which must be reflected in archaeological sources.

Discussing classical sources, we must keep in mind three things:

- The Greeks had been familiar with the Balkan Thracians as early as the Mycenaean period, so when they met the Thracians in Asia Minor they must have thought about the Thracian migration from the Balkans.
- 2. We cannot consider two different sources, for example Herodotus and Strabo, as absolutely independent, because all Greek authors based on the existing tradition.
- 3. These sources are contradictory and were divided from described events. Therefore, it would be recklessly to interpret them literally.

In the context of the Thracian and Phrygian migrations from the Balkans to Asia, scholars discuss very often the *Briges* (Βρύγες). Herodotus thought they spoke Phrygian. But classical authors placed them along the North Adriatic coast, sometimes in Macedonia. In an Illyrian cemetery near the Greek colony of Dyrrhachium in present-day Albania, a series of names have been found on steles, among which there are 'Breigos' and 'Brykos'. Appian describes them in Epidamnus in Illyria. Therefore, they were rather Illyrians⁷⁹. The piece of the Herodotus text describing the Persian army (VII, 73), which is commonly used does not allow us to think that they came from the Balkans: «The Phrygian equipment was most like to the Paphlagonian, with but small difference. By what the Macedonians say, these Phrygians were called Briges as long as they dwelt in Europe, where they were neighbours of the Macedonians; but when they changed their home to Asia they changed their name also and were called Phrygians. The Armenians, who are settlers from Phrygia, were armed like the Phrygians». Certainly, it is about the Asia Minor Phrygians, and the Armenians could have migrated from some Anatolian area. The story about

⁶⁸ YANAKIEVA 2009, 220; POROZHANOV 2017, 16.

⁶⁹ GINDIN 1981, 25, 29, 119, 122–125, 169, 185–187; GINDIN 1993, 17, 140, 144, 165; GINDIN/TSYMBURSKY 1995, 33.

⁷⁰ WOUDHUIZEN 2018, 45.

⁷¹ BENZI 2002, 343–347; PAVEL 2014, 11, 34–46.

⁷² PAVÚK/RIGTER 2006, 236, 237.

 ⁷³ OPPERMANN 1984, 46–51; HODDINOTT 1989, 67; GINDIN/
TSYMBURSKY 1995; BENZI 2002, 410; PAVÚK 2002, 61; PAVEL 2014, 30, 38.
⁷⁴ WOUDHUIZEN 2018, 46; SOWA 2020, 791.

 ⁷⁵ HAJNAL 2003, 132, 133.

⁷⁶ ROSE 2008, 411.

⁷⁷ BRIXHE 2004, 777.

⁷⁸ POROZHANOV 2017, 63.

⁷⁹ KATIČIĆ 1976, 116–119, 130; WILKES 1992, 72, 112.

the Briges we may interpret as follows: it was a Balkan tribe that moved to the Phrygian land in Asia Minor, and it was assimilated by the Phrygians. There is no certainty here, as well as a full confidence in the source. Equally, we may not believe that ethnonyms strictly correspond to ethnicity, and the latter was stable. For example, the Russians and French obtained their self-names from Germanic, but they saved their languages. It did not happen to the Normans in Northwestern France. And we have no reason to think that the British and Bretons speak the same language, and both of them have not retained a language of their common ethnonym. Therefore, it is difficult to say which language was used by these ethnic groups mentioned in the classical sources.

Herodotus described the Paeoians on the Strymon, i.e. in the Thracian area, and they were descendants of the Teukras from Troy⁸⁰, but Strabo thought they were either the Thracians or Phrygians, and scholars also assume they were the Greeks or Illyrians. Their ancestors, the Teukras, came from the Troad together with Moesians, conquered Thrace (or a land where the Thracians lived in the Classical period?), and reached the Ionian Sea. Their leader was Il, who gave the name to Ilion. Moreover, Teukr (Τευκρος) was the first Trojan king. His daughter Βατίεια (Illyrian name) was married to $\Delta \acute{\alpha} \rho \delta \alpha \nu o \varsigma$, the head of a Thracian tribe. This corresponds to the historical area $\Delta \alpha \rho \delta \alpha \nu (\alpha, located in the$ upper reaches of the river Axios in Moesia, between Thrace and Illyria, i.e. Macedonia of the classical period. But this also corresponds to the name of the Dardanelles and the later city in this area. In Balkan Dardinia, onomastics indicate both Thracian and Illyrian presences. Later, the Moesians lived along the Danube, in some instances together with the Dacians, and in the northwest of Asia Minor⁸¹. Herodotus describes also a Thracian migration to Asia, where they became Bithynians, although they used to call themselves Strymonians (not Thracians), because they lived on the Strymon⁸².

In general, we see the following picture. The only really large-scale migration that covered Thrace to the Adriatic was the first, from the Troad to the Balkans. Later we see movements of individual groups from the Balkans to the original area. Therefore, K. Porozhanov is probably right with his supposition that all these movements were within the Thracian area, and Southeastern Europe and Northwestern Anatolia were occupied by related peoples⁸³. Different ethnic groups could participate in these migrations, but the first and the largest could bring the Thracian language into Europe.

⁸³ POROZHANOV 2017, 120, 121, 123, 126.

Before turning to archaeological sources we must state the following. In the case of discussing the migrations of the Balkan peoples from Asia to Europe, we must show the migrations of the Greeks, Thracians and Illyrians, but in the case of the reverse migration, the task is more difficult: it is necessary to show the migration of the Aeolian Greeks, Thracians, Phrygians, Armenians and, possibly, the Kartvelians. I have already discussed the complexity of the latter option, as well as the Greek migration from Asia Minor and the appearance of the Illyrians in the western Balkans⁸⁴. Therefore, if we proceed from the idea of the Asian origins, then it remains to show only the Thracian migration.

ARCHAEOLOGY OF SOUTHEASTERN EUROPE Eneolithic

It is a well-established fact that the formation of the Neolithic in Southeastern Europe was associated with migrations from Anatolia. On this Neolithic basis several Eneolithic cultures formed: Cucuteni-Trypillia from the North-eastern Carpathians to the Middle Dnieper, Gumelnita-Karanovo IV south of the Carpathians and the Danube delta to Turkish Thrace, Sălcuța-Krivodol-Bubanj in the center of the Northern Balkans, and Tiszapolgár-Bodrogkeresztúr in the Carpathian basin, which transformed into Baden-Coțofeni. An interesting feature is that there were several waves of migrations from the Near East, and there were groups who migrated to Bulgaria not from Asia Minor, but from Eastern Anatolia and Upper Mesopotamia⁸⁵. This has allowed a conclusion to be drawn that the migrations from Asia Minor brought the Dene-Caucasian languages to Europe and Proto-IE languages to the Northeastern Balkans, where separation of the Anatolian (Hittite-Luwian) languages began. Recently it has been confirmed by paleogenetic studies⁸⁶. This early separation and long isolation explains specificity of these languages⁸⁷.

This isolation was caused by the fact that with the beginning of the Neolithic, the Balkan-Anatolian relations were broken, and the Eneolithic cultures in Southeastern Europe formed on the local Neolithic basis. Changes occurred at the beginning of the EBA, when the North Balkan cultural complex spread to Greece and Anatolia, which is evidence of the Hittite-Luwian migration⁸⁸. This model explains the

 $^{^{\}rm 80}\,$ «the towns of Paeonia were on the Strymon, a river not far from the Hellespont; and that they were colonists from the Teucrians of Troy» (Hdt. V 13).

⁸¹ KATIČIĆ 1976, 130, 131, 149, 150,181; WILKES 1992, 85, 86, 144, 145; GINDIN 1993, 18–21, 37.

⁸² «The Thracians in the army wore fox-skin caps on their heads, and tunics on their bodies; mantles of divers colours were their covering; they had shoes of fawnskin on their feet and legs, carrying withal javelins and little shields and daggers. These took the name of Bithynians after they crossed over to Asia; before that they were called (as they themselves say) Strymonians, as dwelling by the Strymon; they say that they were driven from their homes by Teucrians and Mysians» (Hdt. VII 75).

⁸⁴ GRIGORIEV 2022a.

⁸⁵ NIKOLOV 1984, 7, 17–19; NIKOLOV 1989, 192, 193; PERNICHEVA 1995, 104; GRIGORIEV 2002, 326–328.

⁸⁶ Genes comparable with those in Northwestern Anatolia spread throughout Southeastern Europe in the Neolithic. But in the Peloponnese and in Bulgaria the CHG-related ancestors (Caucasian hunter-gatherers) have been identified. They were connected with more eastern areas, although this genetic type increased during the Eneolithic and Bronze Age in some areas of Central and Western Anatolia. This corresponds to the localization of the IE homeland on the Armenian Highlands. However, there is a problem with the reverse movement of the Proto-Hittite-Luwian tribes from the Balkans to Asia Minor, where genes of neither eastern hunter-gatherers (EHG) nor western ones (WHG) have been identified in the EBA. The absence of the WHG-admixture distinguishes the Neolithic Balkan and Hungarian populations from people in other parts of Europe. In the Eneolithic, this admixture appeared in the Balkans, but it remained insignificant and was present in rare groups (MATHIESON *et alii* 2018, 4, 6, 7, Extended Data Figure 2; FREILICH *et alii* 2021, 4, 5).

⁸⁷ GRIGORIEV 2021a; GRIGORIEV 2022b, 71.

⁸⁸ MARAN 1998, 157, 428; ALRAM-STERN 2004, 154, 155; GRIGORIEV 2021a, 9.

presence of the pre-IE substratum in most of Europe and in Greece, its absence in the Northeastern Balkans, and the distribution of toponyms of the Luwian type throughout the Balkans and Southwestern Anatolia⁸⁹. But at the end of the Eneolithic, in the Northern Balkans (up to Vojvodina on the Serbian-Croatian border) and in Hungary, steppe kurgan groups appeared, which can be associated with the Zhivatilovka-Volchanskoe group of Ukraine, and this groups started interactions with local Baden-Cotofeni people. However, in the early $3^{\mbox{\tiny rd}}$ millennium BC, under the pressure of the Yamnaya tribes, this tradition spread to the north and north-west, forming the Corded Ware Cultures, as a result of which the Venetic languages spread in Europe. It has been supposed that since Venetic and Illyrian were related languages, the pre-Yamnaya steppe tribes, who came to the Danube-Carpathian basin, spoke dialects of the Veneto-Illyrian group, and migrations of the Illyrians and Messapians can be demonstrated by the spread of the Cetina culture from the northwest of the Balkans in the period EH III⁹⁰. This culture is represented by cemeteries with stone mounds, there are no settlements, it is difficult to date it precisely, but it probably existed during the 3rd millennium BC. Its first penetration into Albania, Bosnia and Central Italy occurred after the middle of the 3rd millennium BC, and the penetration to western Greece and Apulia indeed corresponds to the EH III period⁹¹. Paleogenetic evidence is very indicative. The Neolithic of eastern Croatia (Popova zemlja) as in many other areas of the Balkans, was characterized by a genetic profile inherited from the Anatolian farmers, with very limited inclusions of the WHG-ancestors (Western hunter-gatherers). In the Eneolithic, admixtures of the steppe pre-Yamnaya ancestors appeared, and the Cetina culture inherited just this genetic profile. In addition to this, a noticeable admixture of the WHG-ancestors appeared in eastern Croatia (Jagodnjak), which had been previously typical of the Danube cultures: Encrusted Pottery, Vatya, Makó-Kosihy-Čaka. In Dalmatia, a flow of Yamnaya genes has been revealed, although they are very similar to the Pre-Yamnaya ones⁹². All this demonstrates that at the end of the Eneolithic, the Danube-Carpathian basin and Northwestern Balkans were inhabited by the Veneto-Illyrian tribes, whereas in the northeast we may assume the preservation of Anatolian dialects, and it is possible that in some small areas people who spoke the Dene-Caucasian languages lived. Therefore, the appearance of the Thracians in the region can only be associated with the events of the Bronze Age.

Early Bronze Age

In Western Hungary and Croatia, Vučedol culture formed on the basis of local Eneolithic substrates. There are signs of influence from the Central and Southern Balkans at the beginning of the EBA, but in general Vučedol was the basis for the formation of the Somogyvár–Vinkovci culture, and Makó-Kosihy-Čaka in the east. Even in the east, where Yamnaya mounds are known, the rite of cremation is typical of Makó, and it is difficult to find any Yamnaya features in it. There were also some Corded Ware and Bell Beaker influences in the west and Glina III–Schneckenberg influences in the east⁹³. In Transylvania, scholars attribute the Baden-Cotofeni culture to the Eneolithic and to the EBA, and it is really difficult to draw an unambiguous conclusion, since it was a smooth development of the former tradition⁹⁴. The Bronze Age in Bulgaria is poorly studied; between it and the Eneolithic there is a gap with rare sites of the proto-Bronze Age. To the north of the Balkan Mountains, the EBA is presented by the late phase of the Cernavodă culture in Northeastern Bulgaria, and the Cotofeny culture in Northwestern Bulgaria and Romania. At the end of the EBA, Cotofeny was replaced by the Glina-Schneckenberg culture. A single alien element was presented by the Yamnaya kurgans⁹⁵.

This Yamnaya penetration covered the north of Bulgaria, a part of Serbia and Hungary. It is reflected in a series of kurgans (about 500) with single burials and local ware. Because this process was long (about 500 years), the newcomers were not numerous and they could not change the culture of local agricultural communities. As a result, new regional cultures formed on a local basis: late Vučedol, Somogyvár-Vinkovci, Glina-Schnekenberg, Livezile, Makó-Kosihy-Čaka, and Ezero B. The culture of newcomers was transformed and assimilated by local traditions⁹⁶. Paleogenetic samples of the Bulgarian EBA demonstrate their intermediate position between Early Neolithic farmers and Late Neolithic-Bronze Age steppe pastoralists. But the steppe contribution was very insignificant⁹⁷. One buried in the Yamnaya kurgan had both steppe and northwestern Anatolian genes, which indicates mixing with local people⁹⁸. As a result, cultural complexes in Northern Bulgaria continued the local Eneolithic traditions, and ideas about a mass migration of people from the Steppe are exaggerated⁹⁹.

The cultural development in Southern Bulgaria was different. The local EBA began ca. 3200/3100 BC, and it is divided into three phases: Ezero, Michalič and Sv. Kirilovo¹⁰⁰. The first phase is characterized by the appearance of fortified settlements, and the spread of this tradition to the east resulted in a similarity between the cultures in Thrace and Northwestern Anatolia. The following Michalič phase formed as a result of smooth evolution, and Southern Thrace was included into trade relations with the Troad¹⁰¹. We have discussed above that this movement to Asia at the beginning of the EBA was associated with the Hittite-Luwian migration, and these relations, as well as the Balkan roots of the culture in the Troad, demonstrate the preservation of this ethnic group in the Balkans.

⁹⁶ KAISER 2016, 32, 35–37, 39, 40.

⁹⁸ MATHIESON *et alii* 2018, 3.

¹⁰⁰ LEŠTAKOV 2015, 13; ALEXANDROV 2018, 89, 91.

 ⁸⁹ VENNEMANN 1994; GRIGORIEV 2022a, 11; GRIGORIEV 2022b, 71, 72.
⁹⁰ GRIGORIEV 2022b, 75, 76.

⁹¹ MARAN 1998, 315, 325–327; GORI/RECCHIA/TOMAS 2018, 198–203.

⁹² FREILICH *et alii* 2021, 6–9.

⁹³ KULCSÁR 2003, 141, 142; KULCSÁR 2009, 89, 171, 173, 347, 353; ALEXANDROV 2018, 93.

⁹⁴ BĂJENARU 2010.

⁹⁵ KRAUß 2006, 3, 4, 6.

⁹⁷ MODI *et alii* 2019.

⁹⁹ LESHCHAKOV 2002, 155, 156, 168.

¹⁰¹ LESHCHAKOV 2002, 165, 173, 176; LESHTAKOV 2009, 60.

The third phase, Sv. Kirilovo, began ca. 2500/2400 BC. The cultural changes were significant: adjoining dwellings, walls on a stone socle, wheel-made pottery, ceramic forms with parallels in Anatolia (above all in Inner Anatolia) and Greece (Lefkandi I/Kastri), such a specific form as *depas*, growth of metal production, bronze objects, intensive contacts with the Aegean and Anatolia. However, in many respects it was a development of local traditions; even on the settlement of Kanlıgeçit, closest to Anatolia, the alien ware comprises ca. 20%¹⁰². This process was identical to that in Greece in EH IIb, when the Greeks began move there from Asia Minor. But it began with some delay, as it can be synchronized with the later layers of Troy IIc1-c3, whereas the earliest Lefkandi I/Kastri complexes in Greece appeared before the Troy IIc layer. It is also indicative that the *depas* vessels were found only in the later part of these complexes, whereas in Thrace they were present from the very beginning¹⁰³. Due to the similarity with the process in Greece, we may suspect the coming of the Greeks, but it would be more cautiously to state the arrival of some groups from Asia Minor to a limited area in the south-east of Thrace. There is no direct presence of this complex to the north, although it influenced the situation up to the Middle Danube, where cultures of the A0 phase were formed (Bell Beaker, Epi-Corded, Oggau-Ragelsdorf, Chłopice-Veselé, Proto-Únětice, etc.), and in Romania it was contemporary to the EBA I/EBA II transition. Transformations in Hungary began a little earlier than the Br A0 formation, cultures of the EBA 2 appeared there (Somogyvár–Vinkovci and Makó-Kosihy-Čaka continued to exist; proto and early Nagyrév, proto Kisapostag, Nyírség, and early Mureş appeared). All these cultures had local roots, although sometimes impulses and even movements of people from the south are $assumed^{104}$.

In 2150–2135 BC (the interval is based on the Bayesian statistics and historical chronology), Central Europe was influenced from Anatolia, which had been triggered by natural disaster and climate changes. A series of new cultures of the EBA III phase was formed in the Carpathian basin (Kisapostag, Gáta-Wieselburg I, Late Nagyrév, Hatvan, Nyírség/Szaniszló, Otomani I, Mureş), and the Br A1 cultures in the west (Unterwölbing, Straubing, Singen μ Adlerberg). Anatolian impulses are supposed for Hungary¹⁰⁵. This is strange, but there were no significant cultural changes in Bulgaria. These processes were not contemporary; in particular, the formation of the Kisapostag and Gáta–Wieselburg cultures probably belongs to the phase Br A1b¹⁰⁶. But despite the Anatolian influences, all these cultures were formed on the local basis.

Middle Bronze Age

Significant changes began in Southeastern Europe in the MBA, ca. 2000 BC, 2050-1900 BC or 2200/2100 BC¹⁰⁷. A sharp transition between the EBA 2 and MBA has been revealed in the layer 3 of Galabovo and in some other places (fig. 2). In general, the Galabovo 1a-3 layers correspond to the MBA in Anatolia and the Aegean. These materials have many parallels in Northern and Central Anatolia and on the island of Samothrace, and there are almost no Trojan parallels. Based on these parallels, the MBA of the area is dated to the 18^{th} – mid- 16^{th} centuries BC within the Near Eastern Middle chronology¹⁰⁸. It is not contrary to the radiocarbon dates mentioned above, since these dating systems usually show different results¹⁰⁹. There were no noticeable changes in Northern Bulgaria, although there is rare ware from the south, and there are some sites of the western cultures Tei I-III, Verbicioara I-III and Vatina in the western and central parts¹¹⁰.

It is interesting that the earliest in Bulgaria rodshaped cheek-pieces occurred in Galabovo 3. It is explained by relations with the Carpathians. But later, in the MBA and until the late part of the LBA there were no cheek-pieces in Bulgaria¹¹¹. However, their borrowing from the Carpathians is doubtful, as the first cheek-pieces appeared there also at this time. A rod-shaped cheek-piece from the first half of the 2nd millennium BC is probably discovered in Karahoyuk in Anatolia, which corresponds to the evidence of invention of chariots in the Near East and their appearance in the Carpathian basin before the first chariots in the steppe¹¹². In addition to this, a new type of rhombic spearheads, dated to the 18th-17th centuries BC, came to Bulgaria from the Near East¹¹³. It was accompanied by the increase in metal production, bronze objects and imports from the Aegean and Anatolia. The latter were known in the EBA 1 and EBA 2, but their quantity was insignificant compared to the EBA 3 and the EBA3/MBA transition¹¹⁴. It is remarkable that in the MBA, the evidence of the Troy-Thrace interrelations disappeared, the relations were interrupted, and they began to reappear only after the middle of the 2^{nd} millennium BC. It is also indicative that relations of Troy VI in the north were limited to the Gallipoli peninsula. Southern Thrace was rather a barrier for northern contacts until the last third of the 2^{nd} millennium BC¹¹⁵. As a possible ethnic reconstruction we may assume an arrival of people with chariots from Asia Minor, who maintained initially close relations with the original area. But then they were assimilated by local people and the relations have been interrupted.

Changes in the Carpathians were more significant. Two cultures formed east of the Carpathians: Monteoru in

¹¹³ LESHTAKOV 2011, 42.

 ¹⁰² LESHCHAKOV 2002, 152, 166, 177, 181; LESHTAKOV 2014, 321–
324, 326–329, 332; HEYD/AYDINGÜN/GÜLDOĞAN 2016, 192, 193;
ÖZDOĞAN 2016, 201, 206; ALEXANDROV 2018, 91, 92.

¹⁰³ GRIGORIEV 2022a, 22.

¹⁰⁴ KISS 2003, 148; POROSZLAI 2003a, 142; KISS 2012, 196; FISCHL *et alii* 2015, 506, 507, Fig. 1a–b; GRIGORIEV 2022a, 22. In historical chronology these processes are dated within the 24th century BC (GRIGORIEV 2023b, 30, 31).

¹⁰⁵ METZNER-NEBELSICK 2013, 332; FISCHL *et alii* 2015, 504, 508, Fig. 1a–b; GRIGORIEV 2023b, 32.

¹⁰⁶ KISS 2012, 199, 201.

¹⁰⁷ Correspondently KRAUß 2006, 23, LESHTAKOV 2009, 61; ALEXANDROV 2018, 91.

¹⁰⁸ LESHCHAKOV 2002, 152, 182; LESHTAKOV 2009, 61; LEŠTAKOV 2015, 6.

¹⁰⁹ See in detail GRIGORIEV 2023b.

¹¹⁰ KRAUß 2006, 8, 10, 14, 23; ALEXANDROV 2018, 94.

¹¹¹ MINKOV 2023.

¹¹² GÜNERI 2016; GRIGORIEV 2021b; GRIGORIEV 2023a.

¹¹⁴ LESHCHAKOV 2002, 208; ALEXANDROV 2018, 91.

¹¹⁵ HODDINOTT 1989, 66; LESHTAKOV 2009, 63; LESHTAKOV 2014, 333.

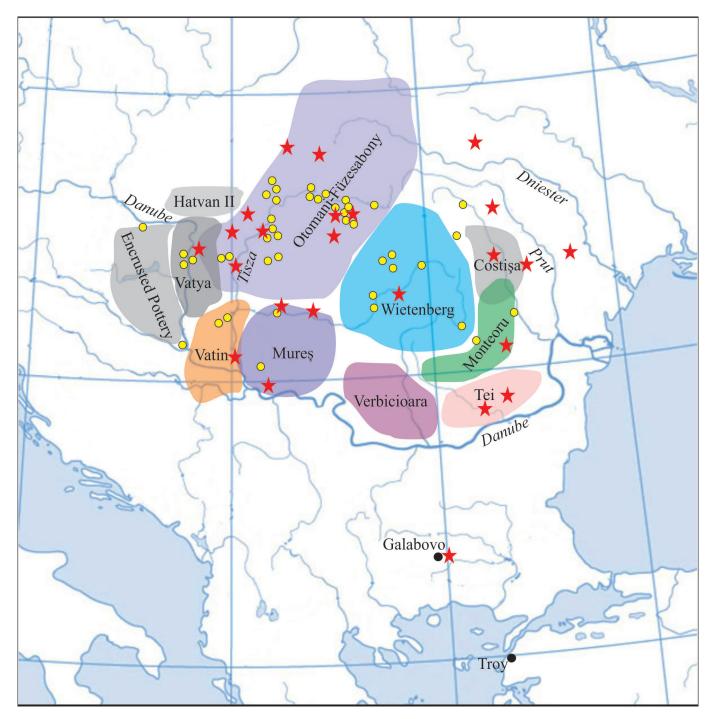


Fig. 2. Middle Bronze Age cultures in the Northern Balkans discussed in the text, finds of early cheek-pieces (red stars) and metal of the Hajdúsámson-Apa type (yellow circles).

the south and Costişa in the north (fig. 2). The latter is dated from the mid-20th century to the mid-18th century BC. It was formed partly on a local basis with influences of early Monteoru, but mainly its formation was influenced from Transylvania and the Middle Danube area, as well as from an area of the post-Corded Ware cultures. It is visible in many ceramic forms and Central European metal ornaments. As a result, this culture can be included into the "Epicorded Ware Cultural Circle"¹¹⁶. Another situation was in the west and in the south, where a series of cultures with spiral, circular and wave decorations appeared, and existed for a long time until the Koszider horizon: Monteoru, Mureş, Tei, Wietenberg and Otomani-Füzesabony. These cultures are provided by a different number of radiocarbon dates and their quality differs. However, the formation of the Wietenberg, Tei, Mureş and Otomani-Füzesabony cultures can be placed from 2200 BC to 2000 BC. It is impossible to clarify this without Bayesian statistics of a large series of dates for all these cultures. But the relative chronology shows a direction of the process. The early Monteoru Ic4 and Ic3 occurred first south-east of the Carpathians, but soon after that the Wietenberg culture formed within the Carpathian basin. Its early phase is contemporary also to Monteoru Ic2-1, Otomani-Füzesabony, Mureş / Periam Pecica Ib, Hatvan II.

¹¹⁶ MUNTEANU 2010, 225; BOLOHAN/ASĂNDULESEI 2013, 339, 350–353.



Fig. 3. Ornaments of the Carpatho-Mycenaean style on bone objects in Syro-Anatolia (1–7), the Carpathians (8–15) and Greece (16–20): 1, 3 – Boğazköy; 2, 4, 5 – Kültepe; 6 – Tel Achana (Alalakh), 7 – Beyjesultan; 8 – Costişa; 9, 11 – Tiszafüred; 10, 14, 15 – Vatin; 12 – Pecica; 13 – Derşida; 16 – Mycenae, III; 17, 18, 20 – Mycenae, Acropolis; 19 – Mycenae IV.

The beginning of these cultures corresponds to the latest part of the Central European Br A1 phase and the beginning of the MH period in Greece. In general, it can be synchronized with the transition to the MBA in Southern Thrace. By the beginning of the Reinecke's Br A2 all these cultures have already existed¹¹⁷. Thus, their formation started in the southeast, in the Monteoru area.

A very important feature of all these cultures is the presence of chariots, cheek-pieces and bone objects decorated in the Anatolian-Carpatho-Mycenaean style (figs. 2, 3). A bone cylinder from Costişa is dated to 1745–1680 BC (67.4%)¹¹⁸. A similarity of the ornaments in the Otomani-Füzesabony and Wietenberg cultures with those in the Mycenaean Shaft Graves is evident. There were ideas that it might be explained by common European Eneolithic roots¹¹⁹. There was another opinion that these ornaments on cheekpieces had been connected with chariots and the roots of these phenomena should be searched in the Near East, despite the lack of evidence¹²⁰. Then, it has been demonstrated that these decorative style came to the Carpathians from Anatolia and it must be called "Carpatho-Eastern-Mediterranean"¹²¹. This can be confirmed by the appearance of chariots of the Near Eastern type in the Carpathians. It is indicative that the area of these cultures corresponds to the area of early cheek-pieces, the area of Thracian river names, and the area of early Thracians toponyms with suffixes -dava. Later this ornamentation is present on metal objects of hoards of the Hajdúsámson-Apa horizon, and they occupy the same area, but are absent in Walachia, between the Carpathians and the Danube¹²² (fig. 2). By the way, according to the Iliad, which reflects the legendary Greek tradition, the Thracians were associated with horses and chariots¹²³.

A very important feature is the presence of specific ornamentation on pottery, which was developed from the ornaments on the bone objects (fig. 4/1-4). An analysis of the "meandroid" and "spiraloid" ornaments of the Wietenberg culture, in which this style is more expressed, has demonstrated that these are, in fact, not spiral-shaped figures, but rows of hook patterns, which are abstract zoomorphic motifs reflecting the necks and heads of horses. It is a dynamic ornamentation reflecting movement¹²⁴, which is quite consistent with its presence on cheek-pieces in a wide area up to the Urals. Changes in this ornamentation in the Wietenberg culture is very indicative. In the early period just these rows of hook patterns (or recumbent S-es) were typical, in the next stage they developed into spirals and meanders. In addition to the features of early Monteoru, the ware has features of earlier cultures of the Carpathian basin: Mako, Nyirśeg, Nagyŕev, Sanislău group, Otomani I. In the second phase, the white paste incrustation appeared,

which indicates western relations with the Encrusted pottery culture¹²⁵. But there are not many changes in the burial rite of the area. Inhumations were characteristic of Monteoru culture, but in Wietenberg culture in Transylvania cremations in urns or pits dominated (92%), which had earlier parallels in the Nagyrev and Nyirseg cultures¹²⁶.

The Middle Bronze Age in Hungary (Otomani-Füzesabony, Encrusted pottery and Vatya cultures) is dated to 2000-1600/1500 BC or 1950/1900-1500/1450 BC, but these intervals are unreliable. However, the transition to this period occurred later than it happened in Romania, and it can be synchronized with the Br A1/A2 transition¹²⁷. It was a period of social changes; fortified settlements spread in the Vatya and Otomani-Füzesabony cultures, and in the Otomani-Füzesabony settlements there are features of the Aegean-Anatolian architecture, absent in Vatya. Another feature is the appearance of cheek-pieces and chariots¹²⁸.

In this period, the territory of Hungary can be divided into two distinct areas in the east and west with a border in the interfluve of the Danube and Tisza. The first area includes the Tisza basin, a significant part of Transylvania, the Eastern Slovak Lowland, a part of the Carpathian Ukraine. It was occupied by the Otomani-Füzesabony culture¹²⁹. A part of ceramic forms of the culture had prototypes in previous local traditions (Hatvan and Košťany). But its main feature is the ornamentation in form of spirals and garlands, channeled and applied decorations, especially knobs with multiple fluting. A part of this pottery is very elegant and served probably as feasting ware¹³⁰. Inhumations dominated: in a crouched position, men on their right side, with their head to S/SW, and women on their left side, oriented to N/NE. Cremations appeared late, in the Koszider period, ca. 1600-1450 BC131. Thus, the formation of Otomani-Füzesabony culture was a continuation of the process that began in Romania with the appearance of Monteoru and Wietenberg.

The situation in the west was different. The MBA cultures inherited the EBA traditions there. The eastward movement of the Kisapostag people and their contact with the bearers of Nagyrév culture (and in the early phase with the bearers of the contemporary Encrusted Pottery culture) resulted in the formation of Vatya culture along the Danube, whose main area was the right bank of the river (fig. 2). The Vatya people inherited the urn cremations from the Kisapostag and Nagyrév rites¹³². West of the Danube, the Encrusted Pottery culture formed on the Kisapostag basis, which was also the source of urn cremations which coexisted with inhumations. The culture occupied western Hungary, up to the Drava river in the south-west, bordering with the Gáta–Wieselburg culture. Its formation was synchronous to

¹¹⁷ GOGÂLTAN 2015, 54, 55, 73-76, 78; BĂLAN/QUINN/HODGINS 2016, 79, 80, 87; MOTZOI-CHICIDEANU/SANDOR-CHICIDEANU 2015; BOLOHAN 2003, 195, 196; and a generalization in GRIGORIEV 2021b, 154-156; GRIGORIEV 2023b, 33, 34.

¹¹⁸ POPESCU/BĂJENARU 2015, 35, 36.

¹¹⁹ HARDING 1984, 209, 215; HODDINOTT 1989, 53, 55, 57, 60.

¹²⁰ MATTHÄUS 1989, 90, 91.

¹²¹ DAVID 2001, 66, 68, 69, 73, 74; DAVID 2007, 415.

¹²² GRIGORIEV 2021b, fig. 1; DAVID 2002, Karte 1.

¹²³ OPPERMANN 1984, 45; SOWA 2020, 789.

¹²⁴ DIETRICH/OLIVER 2011, 67, 70, 75–77.

¹²⁵ BĂLAN/QUINN/HODGINS 2016, 71, 72, 78, 80.

¹²⁶ MUNTEANU 2010, 222; MOTZOI-CHICIDEANU 2011, 100; MARC 2015, 61-65; BĂLAN/QUINN/HODGINS 2016, 79.

¹²⁷ KISS 2012, 196, 201; FISCHL et alii 2015, Fig. 1a-b; SZEVERÉNYI et alii 2021, 49.

¹²⁸ JAEGER 2016, 103, 132.

¹²⁹ SZATHMÁRI 2003, 156; BÁTORA 2018, 70, 116, 118, obr. 65.

¹³⁰ CSÁNYI/TÁRNOKI 2003; SZATHMÁRI 2003, 156; SZEVERÉNYI et alii 2021, 53-55, 61.

¹³¹ SZEVERÉNYI et alii 2021, 52.

¹³² POROSZLAI 2003b, 151, 152; VICZE 2003, 155; KISS 2012, 23; JAEGER 2016, 93.

those of Vatya, early Vatina, and Otomani-Füzesabony (the beginning of Br A2, ca. 2000 BC), and the culture existed until the Koszider horizon. It is indicative that there are no traces of use of horses and chariots in the Encrusted Pottery culture. At the beginning of the LBA, a similar material spread south and south-east: groups Dalj–Bjelo Brdo in Croatia, Dubovác–Žuto Brdo in Serbia, Cîrla-Mare–Cârna in Romania, and Balej–Orsoja in Bulgaria¹³³.

Thus, Vatya and Encrusted Pottery cultures demonstrate local line of development, different from the processes in the Carpathian basin. An approximate border between these two cultural blocs was the Danube-Tisza interfluve, which corresponds to the border of Thracian river names. Accordingly, these cultures were not included in the process of Thracian ethnogenesis.

We discussed above that within the Near Eastern chronology, the beginning of the Bulgarian MBA is dated since the 18th century BC, although a part of the 19th century is also probable. In Anatolia, bone objects decorated with this style have been revealed in the layer Ib on Kültepe (Kanesh), dated since 1835–1832 or even 1852–1843 BC. The previous layer has traces of destruction caused by the attack of king Uhna of Zalpuwa. Around 1730 BC, the Hittite king Anitta organized campaigns against Hattuša and its allies, including Zalpuwa. Until the middle of the 18th century BC, the Near Eastern chariots had wheels with four spokes, and then during some time with four and eight spokes. Chariots with four spokes were brought to the Balkans¹³⁴. The town of Zalpuwa was located in the north of Central Anatolia, where at least since the 18th century BC the Thracian presence is assumed. Therefore, the Anitta's campaigns could force a part of this people to migrate from the region, although it could be caused by other events. However, the date within the 18th century BC seems to be realistic.

Thus, at the beginning of the MBA, we see a powerful impulse from Anatolia to Thrace that brought chariots and ornaments of the Carpatho-Mycenaean style into the region. In Southern Thrace this tradition ceased rather soon, unlike the north. This corresponds to the linguistic evidence that the Thracians came from Asia Minor, and in the Balkans their ethnogenesis began in the area north of the Danube. But it does not mean that their language spread immediately. During a long time, local people could speak different languages, and the adaptation of Thracian began first of all among the elite. It is indicative that it is the ornamentation of the elite complex, associated with charioteers, became gradually typical of pottery for feasting and offering rituals, and later many its elements have been transferred to other ware of Otomani and Wietenberg¹³⁵. Another evidence of this model is the fact that in Anatolia this ornamentation was not present on the domestic ware, but on the metal ware (Alaca Hüyük, Horoztepe, and Troy II)¹³⁶. Thereby, the style of military elite, that had been present on the cheekpieces and feasting ware, became expressed on the domestic

ware in the Carpathian basin. Thus, a social aspect of this ethnogenesis was very important. Judging from the burial rites, a proportion of local component in this process was very high. But the arrival of new Asia Minor migrants to the Balkans is recorded by the paleogenetic studies, which demonstrate constant flows of the CHG-related ancestries from the Neolithic to the Bronze Age¹³⁷, and that might be a marker of the Indo-European migrants.

Thraco-Mycenaean relations are very important for our reconstruction. They are evident in the similarity of Carpatho-Mycenaean ornaments and cheek-pieces (fig. 3). But there is an important detail: in Carpathians, these ornaments are found in graves and settlements, but in the Peloponnese exclusively in graves of people with a high social status¹³⁸. It is also obvious that this ornamental style spread in Greece from the Carpathians along with chariots, and not in the form of a mass migration, but as a result of the penetration of small elite groups¹³⁹. This corresponds to chronology: if within the historical chronology the beginning of the MBA in the Carpathian can be dated to the 18th century BC, the LH I period with its Shaft Graves of the Circle A is dated since 1630/1610 BC¹⁴⁰. Long-distance relations were very typical for the Carpathian cultures of this period. Scholars reconstruct a very wide trading network up to Scandinavia, that included gold, copper and amber. There are finds of Baltic and local ambers in the Carpathian settlements. It is believed that Mycenae was supplied with amber from this region¹⁴¹. But careful studies of the Mycenaean trading relations with the north demonstrate that many Mycenaean rapiers and daggers found in the Carpathians had been manufactured by local craftsmen; the ornaments are very similar but have differences; amber in Greece is present at that time only in the context of elite tombs and mapping of its finds in Southeastern Europe does not allow trade routes to be shown. This does not create an impression of active trade relations; these were rather the elite relations¹⁴². The ware made of precious metals, especially gold, is very indicative. Initially, it appeared in Anatolia, and the Balkan ware has parallels in Troy II (we mentioned above the presence of the Carpatho-Mycenaean ornaments on this ware). Then the metal ware appeared in Northern Greece and the Carpathians, where it was manufactured by local craftsmen who imitated local ceramic forms in cultures of Monteoru, Tei and Costişa, for example kantharos (although this type had been invented in Anatolia). This ware reached Southern Greece only in the Shaft Graves period. Since that time there are many Mycenaean parallels with objects in hoards of the Hajdúsámson-Apa horizon in the Carpathians. These hoards contain both the locally produced metalware and that made by the Mycenaean-Minoan craftsmen, and some author even assume the arrival of Mycenaean craftsmen to Transylvania. In any case, this evidence demonstrates the elite relations, since in Monteoru, ceramic counterparts of this metalware

¹³³ KISS 2012, 11, 18, 20, 41, 56, 74, 192, 201, 203, 205, 225–244, 263.

¹³⁴ BARJAMOVIC/HERTEL/LARSEN 2012, 29, 34, 40, Fig. 11, 13; GRIGORIEV 2021b, 181, 182.

¹³⁵ DIETRICH 2015, 169.

¹³⁶ AVILOVA 2008, Fig. 16, I.

¹³⁷ MATHIESON *et alii* 2018, 6.

¹³⁸ DAVID 2007, 412.

¹³⁹ GRIGORIEV 2021b, 170-173, 178, 179; GRIGORIEV 2022a, 24, 25.

¹⁴⁰ WIENER 2020, 279.

¹⁴¹ JAEGER 2016, 135, 145, 146; KISS 2012, 183.

¹⁴² HARDING 1984, 68–70, 73, 80–82, 107, 117, 155, 157, 159, 213–215;

HODDINOTT 1989, 60; DIETRICH/OLIVER 2011, 68, 78-82.

are found in the burials of warriors, i.e. it was the ware for feasts. Thus, we see the close Mycenaean relations with Transylvania, but they had an elite character, and the most intensive relations were in the 16^{th} – 15^{th} centuries BC¹⁴³. In contrast, Southern Thrace was not involved in the relations with the Mycenaean World in the Shaft Graves period¹⁴⁴. We have discussed above that the Thracian loanwords in Greek are limited by words for feastings and warfare, which corresponds to the elite relations with the Carpathian basin, but not with people who lived in Southern Thrace. We can assume that some Thracian groups had come to Northern Greece earlier, which can be indicated by the destruction of settlements at the transition to the Thessalian MBA and some evidence from Greek legends. But these groups were assimilated by the Greeks and the main Mycenaean relations were with the Thracians in the Carpathians.

An intriguing question: why these relations started? What could make some elite Thracian groups come to Mycenae? It is interesting that it was not the only episode of the movement of elite groups from the Carpathian basin in this period. Approximately at this time, the Pokrovsk-Abashevo culture began its formation in the Middle Don area. The main role in this formation was played by the Abashevo tribes from the Urals. There are burials of charioteers with cheek-pieces decorated with the Carpathians but not in Mycenae. Other Carpathian features are absent in this culture, therefore an arrival of a small elite group has been assumed, and that happened during the phase Br A2b before the beginning of LH I. Before this, at the Br A2a/ A2b transition (ca. the middle of the 17th century BC in the Alpine dendrochronology), the Seima-Turbino tradition had penetrated into the Carpathians. It has been supposed that the movement with the Carpathian ornaments to the Don was a reverse impulse after this process¹⁴⁵. But such reverse impulses, even though only elite groups were involved, should have had significant reasons, especially since this situation was repeated in Mycenae. Studies of ice cores from Greenland and Antarctica and tree rings reveal three power volcanic eruptions of that time, that caused short but sharp climate crises: 1654 BC (Aniakchak II), 1628 BC (unknown volcano) and 1560 (Santorini). In terms of sulfur emission, the first two events were the largest in the Holocene¹⁴⁶. The first event strictly corresponds to the penetration of the Seima-Turbino bronzes in Europe, the second one to the beginning of LH I. So, it is not excluded that the second eruption caused a crisis in the Carpathians, which made some groups migrate to the Middle Don and Greece, where the Shaft Graves of Circle A, with the Carpatho-Mycenaean ornaments and cheek-pieces, appeared since 1630/1610 BC.

Late Bronze Age

At the beginning of the LBA, which coincides with the beginning of Br B, there were the western influences of Tumulus culture. Previously, the beginning of the Koszider period with its metal hoards was understood as an arrival of

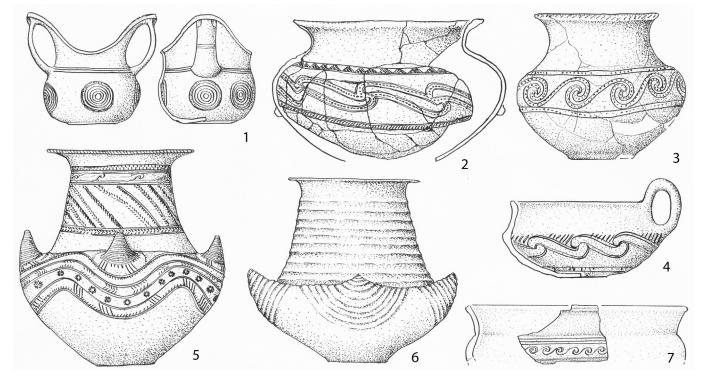


Fig. 4. Pottery of the Thracian cultures: 1 – early Monteoru (1 – Cârlomănești, after MOTZOI-CHICIDEANU/ŞANDOR-CHICIDEANU 2015), 2–4 – early Wietenberg (2 – Păuleni, 3, 4 - Oarța de Sus; after BALAN *et alii* 2016, Pl II/5,9, III/16), 5, 6 – Gava (5 – Lăpuș, 6 – Gávavencsellő, after METZNER-NEBELSICK 2012, fig. 1, 3), 7 – LBA pottery of Southern Thrace (Ada Tepe, after NIKOV 2016, fig. 1) (modified by Oksana Orlova).

¹⁴⁴ HODDINOTT 1989, 52, 53.

¹⁴³ MATTHÄUS 1989, 87–93, 99; SHERRATT/TAYLOR 1989, 107–112, 126–130.

¹⁴⁵ GRIGORIEV 2021b, 163, 164, 168, 174, 176, 180, 181.

¹⁴⁶ PEARSON *et alii* 2022, 1.

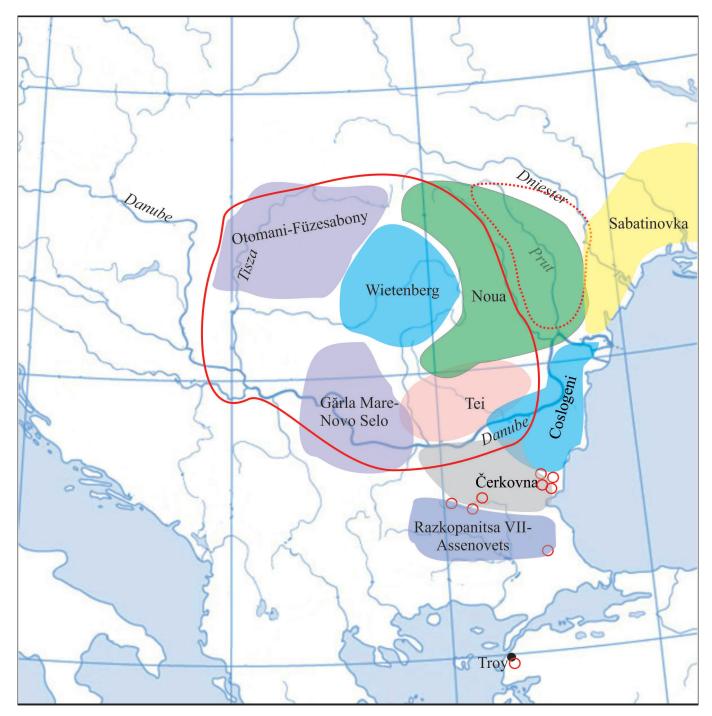


Fig. 5. Cultures of the beginning of the Late Bronze Age in Thrace and the spread of the tradition at the end of the Bronze Age: Gáva culture (red line) and channelled ware with horn-like knobs (red circles), Chișinău-Corlăteni culture and Halstattization of the Siret-Dniester interfluve (red dotted line).

the Tumulus people in the Carpathian basin. But the pottery of this period demonstrates the succession from Vatya culture to the early and late Koszider. In the east, many ceramic forms of the Otomani-Füzesabony and Wietenberg cultures persisted until 1400–1300 BC. But in Slovakia and Northern Hungary, the Otomani-Füzesabony culture was replaced by the Piliny culture with northern roots. So, the ceramic complex reflects rather preservation of local populations, although the Tumulus influence is undoubted. There were significant social changes and distribution of finer and more decorated vessels¹⁴⁷. These changes are dated within 1600–1500 BC, but it was a large-scale process throughout Eurasia, that was probably connected with the climate crisis provoked by the Santorini eruption in 1560 BC¹⁴⁸. For example, in the Mureș valley, the tell-settlements were abandoned at this time, and their reoccupation began later, with the building of mega-forts, development of craft, trade and social stratification¹⁴⁹. In Transylvania, the late phase of the Wietenberg culture continued to exist, but in the west the area was influenced by the Tumulus culture,

^{258, 281.} ¹⁴⁸ GRIGORIEV 2022c.

¹⁴⁹ SAVA 2020, 253–256, 288.

as a result of which the Suciu de Sus ware appeared. At the same time, the Sabatinovka culture was formed in the North Pontic area, whose influence reached the Balkans and lead to the formation of the Coslogeni culture on the Lower Danube and Noua culture in Moldova and the south-eastern part of Transylvania (fig. 5). This process brought also some late Monteoru features there¹⁵⁰.

South of the Danube, the LBA is weakly studied, there are different opinions even about the names of cultures. The period is dated to $1600/1500-1200/1100 \text{ BC}^{151}$. In the first part of the LBA, in the north, several cultures appeared: Žuto Brdo-Gărla Mare-Novo Selo (Encrusted Pottery), with spiral decorations on spherical kantharoi, which first appeared in the MBA in the Verbicioara culture; Čerkovna (Plovdiv-Zimnicea) and Coslogeni, that originated in Romania. In the north-east, the Ezerovo IB culture continued to exist, but Coslogeni III penetrated there, and the Noua impulses are assumed. In Southern Thrace, the Razkopanitsa VII-Assenovets culture existed, but in the second part of the LBA, the entire region, including the south, was penetrated by the Čerkovna-Zimnicea-Plovdiv culture, and impulses of Verbicioara and Tei were felt in the north¹⁵². Thus, for the north-west we can suppose an impulse from the Carpathian basin, whereas the north-east was somewhat later influenced by cultures of the eastern part of the Carpathians, which had been earlier influenced from the steppe. This is also reflected in burial rites: there are some kurgans in the east and cremations in the south-west¹⁵³. In general, at the beginning of the LBA, the main impulses were from the Carpathian basin, initially north of the Danube, but gradually they crossed the river. It is reflected in cultural and trading relations: Northern Thrace had relations with the Únětice area, but until the last third of the 2^{nd} millennium BC its influence in Southern Thrace was absent¹⁵⁴.

New changes began by the beginning of the Ha 1 period between 1300 and 1200 BC. This was influenced by the Urnfield culture that appeared in the western part of the Danube-Tisza interfluve. At the same time the Lausitz influence on the local Piliny substrate lead to the formation of Kyjatice culture. East of the Tisza, the Gáva culture formed¹⁵⁵. Already in the Pre/Proto-Gáva period in Eastern Hungary, the Band-Cugir group penetrated into Transylvania from the north-west, and it coexisted there with small local groups (Suciu de Sus, late Noua, etc.). These processes formed the Gáva culture¹⁵⁶ (fig. 4/5,6). This culture spread over the whole of Transylvania and the area north of the Danube during the 12th-11th centuries BC, its influence in the Dniester-Siret interfluve resulted in the disappearance of the Noua and the formation of the Chișinău-Corlăteni culture. The latter is regarded as a marker of the Thracian penetration in the area. The Gáva culture existed until the Ha B2-B3 period, i.e. 9th- $8^{\rm th}$ centuries BC, which allows us to regard it as a Thracian

¹⁵³ GERGOVA 1989, 231–233.

¹⁵⁵ SZABÓ 2003, 163.

culture. In the south-west of Transylvania, elements of the relative Basarabi culture are recorded¹⁵⁷. The Gáva culture is distinguished by the presence of channeled decorations and horn-like channeled knobs. This channeled ornamentation had been known in Transylvania in the 16th century BC, but in this period its use increased, and it remains typical even in the 7th century BC¹⁵⁸. This ceramic style originated in Eastern Hungary, Northwestern Transylvania and the Carpathian Ukraine in the Otomani-Füzesabony area; and from this area it spread in the 12th–10th centuries BC¹⁵⁹. It is assumed that the origin and spread of this pottery was provoked by social changes, and this wonderful ware served for feastings and rituals. Besides, the horn-like channeled knobs were images of animal protomes¹⁶⁰. Thus, this feasting ware reflects the same idea that we already met discussing the Wietenberg ornamentation.

At the end of the Bronze Age, similar pottery spread south of the Danube, and it became typical of the Early Iron Age cultures. Episodically, some Carpathian ornaments (concentric circles with tangents and S-shaped spirals, and some other) were present in the Bulgarian LBA, but since the IEA they also became typical (fig. 4/7). The quantity of this ware is less than in the north and many local cultural features were inherited, so some scholars believe that it was not a mass invasion. However, cremations appeared, trading relations with the north and north-west increased, and only from that time (i.e. after 1200 BC) the Baltic amber appeared in Southern Thrace. Some cultural unification occurred to the south of the Balkan Mountains, and Eastern Macedonia can be also included in this cultural area. Trading relations with Greece arose, marked by imports of the LH IIIC period. Similar ware is revealed in Troy VIIb2, and there are some other imports, indicating a resumption of relations with this region inhabited by the Thracians, that had arisen at the beginning of the MBA but soon were interrupted. The relationship of this cultural complex with the following Thracian cultures leaves no doubt that since this time Southern Thrace was inhabited by the Thracians¹⁶¹. This means that the formation of Thracian cultures in this area was influenced from the north.

This process was accompanied by some other cultural features. Above we discussed the discovery in Southern Thrace of a rod-shaped cheek-piece dated to the beginning of the MBA. But this tradition ceased. The use of chariots came to the region again from the Carpathians, rod-shaped and grooved cheek-pieces have been found in settlements of Belokopitovo (LBA) and Assenovets (12th century BC). In the western areas, there are models of chariots pulled by swans¹⁶². Thus, after a short episode at the beginning of the MBA, chariotry returned to this region. In the 14th-12th centuries BC, spearheads of the Carpathian types

 ¹⁵⁰ DERGACHYOV 1997, 44, 49, 50; CIUGUDEAN 2010, 158, 159, 162, 163, 172; BÅLAN 2016, 67, 87; SAVA 2020, 258.

¹⁵¹ DZHANFEZOVA 2018, 309, 315; 317–325; ALEXANDROV 2018, 91.

¹⁵² KRAUß 2006, 14, 16–20; DZHANFEZOVA 2018, 321, 323, 324, 325.

¹⁵⁴ HODDINOTT 1989, 52.

¹⁵⁶ CIUGUDEAN 2010, 164–167, 172; SAVA 2020, 258.

¹⁵⁷ DERGACHYOV 1997, 52–56; CIUGUDEAN 2010, 169–173; CIUGUDEAN 2012, 238.

¹⁵⁸ SAVA 2020, 258, 259, 270, 272, 281–283.

¹⁵⁹ METZNER-NEBELSICK 2012, 65–72; DIETRICH 2015, 165–168.

¹⁶⁰ METZNER-NEBELSICK 2012, 67, 71.

¹⁶¹ LESHCHAKOV 2002, 194, fig. 32; LESHTAKOV 2009, 63–66; METZNER-NEBELSICK 2012, 72; NIKOV 2016, 457, 458; DZHANFEZOVA 2018, 309, 315.

¹⁶² GERGOVA 1989, 232; MINKOV 2023.

appeared, some of them are decorated, other inherited the Seima-Turbino tradition that had penetrated earlier in the Carpathian basin $^{163}\!$

Judging from the classical sources, the islands of Thasos, Samothrace and Lemnos in the Northern Aegean were partly inhabited by the Thracians. The most significant changes took place there at the end of the LBA, when the pottery appeared that was close to that in Thrace, and this situation is regarded as similar to that in Troy VIIb2. New changes happened in the 8^{th} century BC with the coming of the Tyrrhenians to the Lemnos Island and the Greeks to the others¹⁶⁴. Taking into account the fact that by the Trojan war the Troad was inhabited by the Thracians, the episode with the appearance of the so called 'Buckelkeramik' or Knobbed ware in Troy VIIb2 is especially interesting. This layer was later that the Trojan war, but some quantity of the Thracian hand-made ware as well as small finds is present in Troy VIIa, and changes in the pottery correspond to those in the Balkans. This indicates the presence of people who came from Thrace, who were incorporated in the local society, and who saved relations with their homeland. It is also indicative that this ware was produced in Troy, it was not imported, but initially these forms had appeared in Gáva¹⁶⁵. But if we recall the analysis of the Iliad, Troy was inhabited by the Thracians before this, for sure in the period of Troy VIIa and probably since Troy VI. Therefore, these were movements within the Thracian area, which corresponds to the descriptions of Thracian troops came to Troy from Europe.

At the beginning of the Early Iron Age, these processes continued in Southern Thrace. Urn cremations spread wider, but they coexisted with inhumations, which according to Herodotus was typical of the Thracians; the presence of the Gáva pottery indicates influences from the Carpatho-Danube region¹⁶⁶. The Besarabi culture (late 9th – early 6th centuries BC) in Banat and Vojvodina, whose ware was decorated with waves, meanders and channels, was probably created by the Thracians too¹⁶⁷.

It is indicative: if Mycenaean Greece had earlier relations only with Northern Thrace, after the Gáva culture crossed the Danube the relations between Greece and Southern Thrace appeared¹⁶⁸. About 1200 BC, spearheads, daggers and swords of European types appeared in Greece, but they were manufactured by local craftsmen. The barbarized hand-made pottery (late LH IIIB-early LH IIIC) was produced also in Greece. There are many question around it, since typical Thracian forms did not appear, but there are some parallels to the applied ornamentation of the Sabatinovka culture¹⁶⁹.

DISCUSSION

The data discussed above can be placed into a unified system. The spread of the Neolithic tribes from Anatolia to

Europe (and the Eneolithic tribes that formed on their basis) resulted in the appearance in the Balkans of two groups of the Near Eastern origins. The people of the Dene-Caucasian group occupied the most part of Europe, including Greece and the west of the Balkans. In Asia Minor, their language evolved towards the North Caucasian languages. The first PIE tribes came to the Northeastern Balkans, and their separation resulted in the formation of Anatolian (Hittite-Luwian) languages. Therefore, archaeology shows their parallels with more eastern Anatolian areas, and genetic studies reveal (in addition to the standard for Europe genes of the Anatolian farmers) the CHG-ancestors, whose core area was also located in the east. The following spread of these tribes is reflected in the distribution area of Luwian suffixes $-\sigma\sigma$ - and $-\nu\theta$ -.

In the last third of the 4th millennium BC, the north of the region was penetrated by the steppe kurgan tribes, who mixed with local people. The subsequent Yamnaya invasion in the early 3rd millennium BC made a part of this people move north and north-west, which formed the Corded Ware cultures. Another part was slightly displaced southwest, where the Cetina culture formed later. Based on the following distribution of these tribes we can suppose that they were speakers of the Veneto-Illyrian languages. We may assume that the Yamnaya people spoke some IE language, but we have no strict evidence for any conclusions, since the Yamnaya culture was not the basis for further cultural development anywhere in Europe, including the Balkans. Nevertheless, it was probably the appearance of Yamnaya people at the beginning of the EBA that provoked a part of the North Balkan tribes to migrate south to Greece and east to Anatolia, which resulted in the coming of people spoke Anatolian languages to both these regions. This is well expressed in the distribution of the abovementioned suffixes and culture, but is weakly visible in genes, since the Balkan Neolithic inherited the Anatolian genetic pool, and in the Balkans, unlike the rest of Europe, the Anatolian migrants did not almost mix with the local Mesolithic hunters and gatherers. As a result, for the Balkan EBA we can assume the preservation of the Hittite-Luwian population in the north-east and in Greece and the appearance of the Illyrians in the north-west. Probably, proto-Venetic groups lived in some areas of the Danube-Carpathian basin, and somewhere the Dene-Caucasian enclaves could exist. But the Thracian language cannot be associated with any of these groups.

Despite the deficit of linguistic data, we can assume that in the 3rd millennium BC the Thracian homeland was situated in North-Central Asia Minor, where the later Thracian presence is revealed. Migration from Anatolia to the Balkans took place ca. 2500/2400 BC within the radiocarbon chronology or ca. 24th century BC in historical dates. It resulted in the appearance of Greeks in the south of the Balkans in EH IIb. Somewhat later, a migration of people with a similar cultural complex reached Southeastern Thrace, which probably reflects the Greek colonization that was not successful in this area. But we are not able to reconstruct ethnic processes in this case since they had no continuation. Nevertheless, they influenced cultural changes

¹⁶³ LESHTAKOV 2011, 32–34, 44–46.

¹⁶⁴ ILIEVA 2017, 266, 267.

¹⁶⁵ LESHTAKOV 2009, 64; METZNER-NEBELSICK 2012, 70.

¹⁶⁶ GERGOVA 1989, 233–240.

¹⁶⁷ OPPERMANN 1984, 69, 70.

¹⁶⁸ HODDINOTT 1989, 52, 53, 62–64.

¹⁶⁹ HARDING 1984, 169, 180, 213, 215–223, 226.

in Southeastern Europe, and cultures of the Br A0 period began to form along the Danube, but on the local basis.

The next Anatolian impulse occurred ca. 2200 BC (ca. 2150 in historical chronology). It resulted in the changes of the Br A1 period in the Danube basin. We can assume the coming of the Thracians at that time, but there were no significant changes in Bulgaria and Romania. However, in the Western Balkans, we see the spread of Cetina culture from the north to the south, and similar complexes appeared in Apulia, which reflects migrations of the Illyrians and the Messapians.

Migration of the Thracians occurred at the transition to the Middle Bronze Age. It was caused by the destabilization of political situation in Central Anatolia, provoked by the Hittite activities. As a result, by the 17th century BC (perhaps earlier), the Thracians appeared in the north-west of Asia Minor, although their earlier migrations in the 22nd century BC are not excluded. Some groups could penetrate to Northern Greece, which is marked by the destruction of settlements at the transition to the Thessalian MBA and fragmentary data of Greek legends. But later they were assimilated there by the Greeks. Besides, we will not have enough data for reliable judgments until the Anatolian context of these events is studied.

In the 18th century BC (the beginning of the MBA and the final part of the Central European Phase Br A1), the Thracians penetrated into the Balkans, and this event is reflected in legends about the migration of the Teukras and Moesians from Troy. There is archaeological evidence of this in the early MBA complexes in Southern Thrace: significant cultural changes, the first chariots, intensive contacts with Northwestern Anatolia. The further Thracian ethnogenesis was carrying out in Northern Thrace, where first the cultures of Monteoru and Wietenberg arose, and soon Tei, Mures and Otomani-Füzesabony. This probably partly influenced the formation of the Costișa, Vatina and Periam Pecica Ib cultures, as well as the transformation of Hatvan culture. But in the case of the latter cultures we have no reason to believe that their bearers spoke Thracian, although their populations could include some Thracian components. On the other hand, the cultures of the first list could be created by bi-lingual populations, as the process of assimilations was very long. There is no possibility for a meaningful discussion. Judging from the distribution of Thracian hydronyms, the western border of the main Thracian area was in the Danube-Tisza interfluve, although episodic penetrations in neighboring areas cannot be excluded.

Probably, due to the alien component that brought such a novelty as chariots, a social stratification started to increase, as well as economic development. Long-distant relations up to Scandinavia and Greece arose, especially with the beginning of LH I, when the close elite relations between the Carpathians and Mycenaean Greece are clearly visible. But south of the Danube, the Thracian ethnogenesis did not occurred at this stage. There are several reasons for this conclusion: 1) the Troad was inhabited by the Thracians at that time, and initially the relations with this region were very intense, but soon they were interrupted, and Southern Thrace was rather a barrier to the European relations of the Troad; 2) signs of chariots appeared and soon disappeared; 3) during a long time, relations with Mycenaean Greece were absent, despite the fact that the Mycenaean elite had close relations with the Thracians; 4) suffixes *-dava* with the Kartvelian parallels are present in the names of settlements only north of the Danube.

The Thracian assimilation of areas south of the Danube began probably in the LBA, but more intensively after the formation of Gáva culture in the former Otomani-Füzesabony area ca. 1300/1200 BC. Then, the Thracians spread to the Dniester basin and Southern Thrace, where chariots appeared again, relations with Mycenaean Greece arose, but, which is even more indicative, with the Troad, where groups of the Balkans Thracians soon took part in the Trojan war. Some groups probably moved to Anatolia, which is described by Herodotus and is reflected in the presence of Balkan pottery in Troy. Thus, since the 12th century BC, the Thracians occupied the whole area of their hydronyms distribution.

CONCLUSIONS

The origin of Thracians, as well as that of any other Balkan peoples, can be reasonably demonstrated only from the position of IE homeland in the Near East. It seems probable that the Thracians came from Asia Minor at the beginning of the MBA. In addition to the facts discussed above, it may be indicated by a possibility to trace from this event the gradual evolution of their culture in the Balkans until the period when the Thracian presence is reliably confirmed there by written sources. Certainly, this article has suggested only the most general approach to the solution of the problem. A huge work is necessary to compare Balkan and Anatolian materials within three disciplines: archaeology, linguistics, and genetics. It seems to me that an important aspect of the future studies should be understanding that the assimilation of local people could be a long process, and during a long time groups with different languages could coexist within a single archaeological culture. It is not excluded that some types of archaeological data are able to reveal these complex relationships, but this can hardly be established with certainty. Another important aspect is that the formation of the Thracians, like any other ethnos, was carrying out within certain socio-economic processes, that could differ significantly even in neighboring areas and within a single ethnic group. Therefore, the suggested here approach to the solution of the problem of the Thracian origin is very far from its real solution.

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REFERENCES

ACHILLI et alii 2007

Achilli, A./Olivieri, A./Pala, M./Metspalu, E./Fornarino, S./ Battaglia, V./Accetturo, M./Kutuev, I./Khusnutdinova, E./ Pennarun, E./Cerutti, N./Di Gaetano, C./Crobu, F./Palli, D., Matullo, G./Santachiara-Benerecetti, A. S./Cavalli-Sforza, L. L./Semino, O./Villems, R./Bandelt, H.-J./Piazza, A./Torroni, A., Mitochondrial DNA Variation of Modern Tuscans Supports the Near Eastern Origin of Etruscans, *American Journal of Human Genetetics* 80, 759–768.

ALEXANDROV 2018

Alexandrov, S., The Early and Middle Bronze Age in Bulgaria: Chronology, Periodization, Cultural Contacts and Precious Metal Finds. In: Alexandrov, S./Dimitrova, Y./Popov, H./Horejs, B./Chukalev, K. (eds.), *Gold & Bronze. Metals, technologies and Interregional Contacts in the Eastern Balkans during the Bronze Age* (Sofia: National Archaeological Institute and Museum), 85–96.

ALRAM-STERN 2004

Alram-Stern, E., Die Ägäische Frühzeit, 2. Serie, Forschungsbericht 1975-2003, Die Frühbronzezeit in Griechenland mit Ausnahme von Kreta, Veröffentlichungen der Mykenischen Kommission 21 (Wien: Österreichische Akademie der Wissenschaften).

ANTHONY 2007

Anthony, D.W., *The horse, the wheel and language* (Princeton: University Press).

AVILOVA 2008

Avilova, L.I., Metall Blizhnego Vostoka: modeli proizvodstva v eneolite, rannem i srednem bronzovom veke [Metal of the Middle East: Models of Production in the Chalcolithic, Early and Middle Bronze Age]. (Moscow: Pamyatniki istoricheskoj mysli).

BĂJENARU 2010

Băjenaru, R. About the terminology and periodization of the Early Bronze Age in the Carpathian-Danube area. In: Bolohan, *N./*Mățău, F./Tencariu, F.A. (eds.), *Signa praehistorica. Studia in honorem magistri Attila László septuagesimo anno* (Iași: Editura Universității Alexandru Ioan Cuza din Iași), 203–212.

BĂLAN/QUINN/HODGINS 2016

Bălan, G./Quinn, C.P./Hodgins, G., The Wietenberg culture: periodization and chronology, *Dacia N. S.* 60, 67–92.

BARJAMOVIC/HERTEL/LARSEN 2012

Barjamovic, G./Hertel, Th./Larsen, M.T., Ups and Downs at Kanesh. Chronology, History and Society in the Old Assyrian Period. Chronology, History and Society in the Old Assyrian Period. Old Assyrian Archives Studies 5 (Leiden: PIHANS).

BÁTORA 2018

Bátora, J., *Slovensko v staršej dobe bronzovej* (Bratislava: KO & KA).

BENZI 2002

Benzi, M., Anatolia and Eastern Aegean at the time of the Trojan War. In: Montanari, F./Ascheri, P. (eds.), *Omero 3000 anni dopo. Atti del Congresso di Genova 6-8 Luglio 2000* [Storia e Letteratura. Raccolta di Studi e Testi 210] (Roma: Edizioni di storia e letteratura), 343–405.

BERZOVAN 2020

Berzovan, A., Considerations Regarding the Etymology of the Dacian Term dava / deva / daba. A Historical and

Linguistic Journey from the Lower Danube to Anatolia and Transcaucasia. In: Cândea, I. (ed.), *The Thracians and their neighbours in antiquity. Archaeology and history. Studies in honor of Valeriu Sîrbu at his 70th anniversary* (Brăila: Editura Istros), 97–132.

BOLOHAN 2003

Bolohan, N., Recent discoveries belonging to Early/Middle Bronze Age in Central Moldova, *Arheologia Moldovei* 26, 195–206.

BOLOHAN/ASĂNDULESEI 2013

Bolohan, N./Asăndulesei, A., Middle Bronze Age Beyond the Eastern Fringe of the Carpathian Basin. In: Heyd, V./ Kulcsar, G./Szeverenyi, V. (eds.), *Transitions to the Bronze Age. Interregional Interaction and Socio-Cultural Change in the Third Millennium BC Carpathian Basin and Neighboring Regions* (Budapest: Archaeolingua), 339–357.

BRIXHE 2004

Brixhe, C., Phrygian. In: Woodard, R. (ed.), *The Cambridge encyclopedia of the World's Ancient Languages* (Cambridge: University Press), 777–788.

CHERNIENKO 2014

Chernienko, Yu.A., Sabatinovskaya kul'tura v sisteme drevnostej bronzovogo veka yuga Vostochnoj Evropy [Sabatinovka culture in the system of antiquities of the Bronze Age in the south of Eastern Europe], *Stratum plus* 2, 15–112.

COLES/HARDING 1979

Coles, J.M./Harding, A.F., *The Bronze Age in Europe* (London: Methue and Co LTD).

CSÁNYI/TÁRNOKI 2003

Csányi, M./Tárnoki, J., The Middle Bronze Age population of the Berettyó–Körös region: the Gyulavarsánd culture. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 158–160.

DAVID 2001

David, W., Zu den Beziehungen zwischen Donau-Karpatenraum, osteuropäischen Steppengebieten und ägäisch-anatolischem Raum zur Zeit der mykenischen Schachtgräber unter Berücksichtigung neuerer Funde aus Südbayern. In: The Mediterranean and Central Europe in contacts and confrontations (from the Bronze Age until the End of Antique). Proceedings of the International Conference, Modra-Harmónia, 23.-25.11.2000. ANOΔOΣ. Studies of Ancient World 1 (Trnava), 51-80.

DAVID 2002

David, W., Studien zu Ornamentik und Datierung der bronzezeitlichen Depotfundgruppe Hajdúsámson-Apa-Ighiel-Zajta. Biblioteca Musei Apulensis XVIII (Alba Iulia: ALTIP S.A.).

DAVID 2007

David, W., Gold and Bone Artefacts as Evidence of Mutual Contact between the Aegean, the Carpathian Basin and Southern Germany in the Second Millennium BC. In: Galanaki, I./Tomas, H./Galanakis, Y./Laffineur, R. (eds.), Between the Aegean and the Baltic Seas. Prehistory Across Borders. Proceedings of the International Conference Bronze and Iron Age Interconnections and Contemporary Developments between the Aegean and the Regions of the Balkan Peninsula, Central and Northern Europe. University of Zagreb, 14–11 April 2005 (Liège: Université de Liège) 411–420.

DERGACHYOV 1997

Dergachyov, V.A., Metallicheskie izdeliya k probleme genezisa kul'tur rannego gal'shtata Karpato-Danubio-Nordpontijskogo regiona [Metal objects to the problem of genesis of the early Hallstatt cultures in the Carpatho-Danubio-Northpontian region] (Chişinău: Academy of Sciences of the Republic of Moldova).

DIETRICH 2015

Dietrich, L., A new world order: The spread of channelled ware in the Bronze Age and early Iron Age Transylvania. In: Suchowska-Ducke, P./Scott Reiter, S./Vandkilde H. (eds.), *Forging Identities. The Mobility of Culture in Bronze Age Europe* (Oxford: BAR,) 165–173.

DIETRICH/DIETRICH 2011

Dietrich, L./Dietrich, O. Wietenberg ohne Mykene? Gedanken zu Herkunft und Bedeutung der Keramikverzierung der Wietenberg-Kultur, *Praehistorische Zeitschrift* 86, 67–84.

DOSUNA 2012

Dosuna, J.M., Ancient Macedonian as a Greek dialect: A critical survey on recent work. In: Giannakis, G.K. (ed.), *Ancient Macedonia: Language, History, Culture* (Thessaloniki: Centre for the Greek Language), 133–146.

DZHANFEZOVA 2018

Dzhanfezova, T. The Making of Late Bronze Age Archaeological Cultures in Bulgaria. In: Gimatzidis, S./ Pieniążek, M./Mangaloğlu-Votruba, S. (eds.), Archaeology Across Frontiers and Borderlands. Fragmentation and Connectivity in the North Aegean and the Central Balkans from the Bronze Age to the Iron Age (Wien: Österreichischen Akademie der Wissenschaften), 307–332.

FALILEYEV 2020

Falileyev, A. The Silent Europe, *Palaeohispanica*. *Revista sobre lenguas y culturas de la Hispania Antigua* 20/2, 887–919.

FINKELBERG 1997

Finkelberg, M. Anatolian Languages and Indo-European Migrations to Greece, *The Classical World* 91(1), 3–20.

FINKELBERG 2005

Finkelberg, M. *Greeks and pre-Greeks. Aegean Prehistory and Greek Heroic Tradition* (Cambridge: University Press).

FISCHL et alii 2015

Fischl, K.P./Kiss, V./Kulcsár, G./Szeverényi, V., Old and new narratives for Hungary around 2200 BC. In: Risch, R./Meller, H./Arz, H.W./Jung, R. (eds.), 2200 BC – A climatic breakdown as a cause for the collapse of the old world? 7th Archaeological Conference of Central Germany. October 23–26, 2014 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte Halle 12/I (Halle: Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt, Landesmuseum für Vorgeschichte), 503–523.

FREILICH et alii 2021

Freilich, S./Ringbauer, H./Los, D./Novak, M./Tresić Pavičić, D./Schiffels, S./Pinhasi, R., Reconstructing genetic histories and social organisation in Neolithic and Bronze Age Croatia, *Scientific Reports* 11, 16729. https://doi. org/10.1038/s41598-021-94932-9.

GAMKRELIDZE/IVANOV 1995

Gamkrelidze, T.V./Ivanov, V.V., *Indo-European and the Indo-Europeans: A Reconstruction and Historical Analysis of a Proto-Language and Proto-Culture* (Berlin: Moutin de Gruyter).

GERGOVA 1989

Gergova, D., Thracian burial rites of Late Bronze and early Iron Age. In: Best J.G.P./ de Vries, N.M.W. (eds.), *Thracians* and Mycenaeans, Proceedings of the Fourth International Congress of Thracology, Rotterdam 24-26 September 1984 (Leiden: Brill), 231–240.

GIMBUTAS 1994

Gimbutas, M., Das Ende Alteuropas. Der Einfall von Steppennomaden aus Südrußland und die Indogermanisierung Mitteleuropas (Budapest: Archaeologia).

GINDIN 1967

Gindin, L.A., Yazyk drevnejshego naseleniya yuga Balkanskogo poluostrova [Language of the most ancient population of the south of the Balkan Peninsula] (Moscow: Nauka).

GINDIN 1981

Gindin, L.A., Drevnejshaya onomastika vostochnyh Balkan (Frako-hetto-luvijskie i frako-maloazijskie izoglossy) [The most ancient onomastics of the Eastern Balkans. (Fraco-Hittite-Luwian and Thraco-Asia Minor isoglosses)] (Sofia: Akademy of Sciences).

GINDIN 1993

Gindin, L.A., Naselenie gomerovskoj Troi: Istorikofilologicheskie issledovaniya po etnologii drevnej Anatolii [The Population of Homeric Troy: Historical and Philological Studies in the Ethnology of Ancient Anatolia] (Moscow: Nauka).

GINDIN/TSYMBURSKY 1995

Gindin, L.A./Tsymbursky, V.L. Troya i pra-Ahhiyawa, *Journal of Ancient History* 3, 14–37.

GOGÂLTAN 2015

Gogâltan, F., The Early and Middle Bronze Age Chronology on the Eastern Frontier of the Carpathian Basin. Revisited after 15 Years. In: Nemeth, R., Rezi, B. (eds.), *Bronze Age Chronology in the Carpathian Basin. Proceedings of the International Colloquium from Târgu Mureş, 2-4 October 2014* (Cluj-Napoca: Mega), 53–96.

GORI/RECCHIA/TOMAS 2018

Gori, M./Recchia, G./Tomas, H. The Cetina phenomenon across the Adriatic during the 2nd half of the 3rd millennium BC: new data and research perspectives. In: Gravina, A. (ed.). *Il 38° Convegno Nazionale sulla Preistoria, Protostoria, Storia della Daunia* (San Severo), 197-216.

GRIGORIEV 2002

Grigoriev, S.A., *Ancient Indo-Europeans* (Chelyabinsk: Rifei).

GRIGORIEV 2021a

Grigoriev, S.A., Archeology, language and genes: the Indo-European perspective, *Journal of Indo-European studies* 1/2, 187–230.

GRIGORIEV 2021b

Grigoriev, S.A., The evolution of antler and bone cheekpieces from the Balkan-Carpathian region to Central Kazakhstan: chronology of "chariot" cultures and Mycenaean Greece, *Journal of Ancient History and Archaeology* 8.2, 148–189.

GRIGORIEV 2022a

Grigoriev, S., Origins of the Greeks and Greek dialects, Journal of Ancient History and Archaeology 1, 5–46.

GRIGORIEV 2022b

Grigoriev, S., Cultural genesis and ethnic processes in Central and Eastern Europe in the 3rd millennium bc: Yamnaya, Corded Ware, Fatyanovo and Abashevo cultures, *Journal of Ancient History and Archaeology* 9.3, 43–84.

GRIGORIEV 2022c

Grigoriev, S., Hronologiya sejminsko-turbinskikh bronz na osnovanii blizhnevostochnykh i kitajskikh istochnikov i datirovki izverzheniya Santorina [Chronology of the Seima-Turbino bronzes based on Near Eastern and Chinese sources and the dating of the Santorini eruption], *Arheologiya Evrazijskih stepej* [Archaeology of the Eurasian steppes] 6, 186–200.

GRIGORIEV 2023a

Grigoriev, S., Horse and Chariot: Critical Reflections on one Theory, *Archaeologia Austriaca* 107, I–XXXII.

GRIGORIEV 2023b

Grigoriev, S.A., Absolute chronology of the Early Bronze Age in Central Europe, Middle Bronze Age in Eastern Europe, and the "2200 event", *Journal of Ancient History and Archaeology* 10.1, 22–46.

CIUGUDEAN 2010

Ciugudean, H. The Late Bronze Age in Transylvania (With primary focus on the central and Southern areas). In: Marta, L./Virag, C./Kádas, Z. (eds.), *Satu Mare Studii* și *Comunicări* XXVI/I (Satu Mare: Liviu Marta), 157–202.

CIUGUDEAN 2012

Ciugudean, H. The chronology of the Gava culture in Transylvania. In: Blajer, W. (ed.), *Peregrinationes archaeologicae in Asia et Europa Joanni Chochorowski dedicatae* (Kraków: Wydziału Historycznego Uniwersytetu Jagiellońskiego), 229–244.

GÜNERI 2016

Güneri, S., An antler 'cheek piece' from Konya Karahoyuk, Turkey: some remarks on horse and horse-drawn vehicle. In: Derevyanko, A.P./Molodin V.I. (eds.), *Altaj v krugu evrazijskih drevnostej* [*Altai in the circle of Eurasian antiquities*] (Novosibirsk: IAET SO RAS), 152–167.

HAJNAL 2003

Hajnal, I., Methodische Vorbemerkungen zu einer Palaeolinguistik des Balkanraums. In: Bammesberger, A./Vennemann, T. (eds.), *Languages in Prehistoric Europe* (Heidelberg: De Gruyter), 117–145.

HARDING 1984

Harding, A.F., *Myceneans and Europe* (London: Academic Press Inc.).

HEYD/AYDINGÜN/GÜLDOĞAN 2016

Heyd, V./Aydıngün, Ş./Güldoğan, E., Kanlıgeçit – Selimpaşa – Mikhalich and the Question of Anatolian Colonies in Early Bronze Age Southeast Europe. In: Molloy, B.P.C. (ed.), *Of Odysseys and Oddities. Scales and modes of interaction between prehistoric Aegean societies and their neighbours* (Oxford&Philadelphia: Oxbow Books), 169–202.

HODDINOTT 1981

Hoddinott, R.F., *The Thracians* (London: Thames and Hudson).

HODDINOTT 1989

Hoddinott, R.F., Thracians, Myceneans and 'The Trojan question'. In: Best, J.G.P./de Vries, N.M.W. (eds.) *Thracians* and Mycenaeans, Proceedings of the Fourth International Congress of Thracology, Rotterdam 24-26 September 1984 (Leiden: Brill), 52-67.

ILIEVA 2017

Ilieva, P. Thracians on the Northern Aegean islands: written testimonia and current archaeological evidence, *Thracia* XXII, 253–275.

IVANOV 1988

Ivanov, V.V., Drevnevostochnye svyazi etrusskogo yazyka [Near Eastern relations of the Etruscan language]. In: Bongard-Levin, G.M./Ardzinba, V.G. (eds.), *Drevnij Vostok: etnokul'turnye svyazi* [Ancient East: ethnocultural relations] (Moscow: Nauka), 215–216.

JAEGER 2016

Jaeger, M., *Bronze Age Fortified Settlements in Central Europe* (Poznac: Wydanwnictwo Nauka i Innowacjep).

KAISER 2016

Kaiser, E. Migrationen von Ost nach West. Die Archäologie von Wanderungsbewegungen im 3. Jahrtausend v. Chr., *Mitteilungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte* 37, 31–44.

KATIČIĆ 1976

Katičić, R., *Ancient Languages of the Balkans* (The Hague, Paris: De Gruyter Mouton).

KISS 2003

Kiss, V., Central European economies: agriculturalists in Transdanubia. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 148–149.

KISS 2012

Kiss, V., *Middle Bronze Age Encrusted Pottery in Western Hungary* (Budapest: Archaeolingua).

KRAUß 2006

Krauß, R., Indizien für eine Mittelbronzezeit in Nordbulgarien, *Archaeologia Bulgarica* 10, 3–26.

KULCSÁR 2003

Kulcsár, G., The Early Bronze Age. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 141–142.

KULCSÁR 2009

Kulcsár, G., The Beginnings of the Bronze Age in the Carpathian Basin. The Makó-Kosihy-Čaka and the Somogyvár-Vinkovci cultures in Hungary (Budapest: Archaeolingua).

LAPUSHNYAN 1979

Lapushnyan, V.L., Rannie frakijcy X – nachala IV v. do n.e. v lesostepnoj Moldavii [Early Thracians of the 10th - early 4th centuries BC in forest-steppe Moldova] (Chişinău: Shtiintsa).

LESHCHAKOV 2002

Leshchakov, K., Bronzovata epoha v Gornotrakijskata nizina [Bronze Epoch in Thracian Lowland], Godishnik na Sofijskiya universitet «Sv. Kliment Ohridski» [Yearbook for Sofia University "St. Kliment Ohridski"] 3, 141–216.

LESHTAKOV 2009

Leshtakov, K., The second millennium BC in the Northern Aegean and the adjacent Balkan lands: main dynamics of cultural interaction. In: Bonias, Z./Perreault, J. (eds.), *Greeks and Thracians: Acts of the International Symposium "Greeks and Thracians along the Coast and in the Hinterland of Thrace during the Years before and after the Great Colonization", Thasos, 26-27 September 2009* (Thasos), 53–82.

LESHTAKOV 2011

Leshtakov, L., Late Bronze and Early Iron Age Bronze Spear- and Javelinheads in Bulgaria in the Context of Southeastern Europe, *Archaeologia Bulgarica* XV, 2, 25–52.

LESHTAKOV 2014

Leshtakov, K.P., Troy and Upper Thrace: What Happened in the EBA 3? (Interrelations Based on Pottery Evidence). In:

Pernicka, E./Ünlüsoy, S./Blum, S.W.E. (eds.), *Early Bronze Age Troy: Chronology, Cultural Development, and Interregional Contacts. An international conference held at the University of Tübingen May 8–10, 2009. Studia Troica Monographien 8.* (Bonn: Dr. Rudolph Habelt), 321–337.

LEŠTAKOV 2015

Leštakov, K., Klassiikation und Chronologie der mittelbronzezeitlichen Keramik aus Gălăbovo (Südostbulgarien) im Vergleich zu anatolischen Siedlungsfunden. Teil 1 [Studia Archaeologica Universitatis Serdicensis 5] (Sofia: St. Kliment Ohridski University Press), 5–114.

MALLORY 1989

Mallory, J.P., *In Search of the Indo-Europeans. Language, Archaeology and Myth* (London: Thames & Hudson).

MARAN 1998

Maran, J., Kulturwandel auf dem griechischen Festland und den Kykladen im späten 3. Jahrtausend v. Chr.: Studien zu den kulturellen Verhältnissen in Südosteuropa und dem zentralen sowie östlichen Mittelmeerraum in der späten Kupfer- und frühen Bronzezeit (Bonn: Habelt).

MARC 2016

Marc, A.T., Mortuary Practices in the Wietenberg Culture from Transylvania. In: Sîrbu, V./Jevtić, M./Dmitrović, K./ Ljuština, M. (eds.), Funerary Practices during the Bronze and Iron Ages in Central and Southeast Europe: Proceedings of the 14th International Colloquium of Funerary Archaeology in Čačak, Serbia, 24th-27th September 2015 (Belgrade: University of Belgrade), 53–73.

MATHIESON et alii 2018

Mathieson, I., Alpaslan-Roodenberg, S., Posth, C. *et al*. The genomic history of southeastern Europe, *Nature* 555, 197–203.

MATTHÄUS 1989

Matthäus, H., Mykenai, der Mittlere Donauraum, wärend des Hajdusamson-Horizontes und der Schatz von Vălčitrăn. In: Best, J.G.P./ de Vries, N.M.W. (eds.), *Thracians and Mycenaeans, Proceedings of the Fourth International Congress* of *Thracology, Rotterdam 24-26 September 1984* (Leiden: Brill), 86–105.

METZNER-NEBELSICK 2012

Metzner-Nebelsick, C. Channelled pottery in Transylvania and beyond – ritual and chronological aspects, *Satu Mare – Studii și Comunicări* 28/1, 65–82.

METZNER-NEBELSICK 2013

Metzner-Nebelsick, C., Gedanken zur Frage des kulturellen Wandels in der Zeit um 1600 v. chr. in Nordwest-Rumänien und Nordost-Ungarn. In: Meller, H. (ed.), 1600 – Kultureller Umbruch im Schatten des Thera-Ausbruchs? 1600 – Cultural change in the shadow of the Thera-Eruption? 4. Mitteldeutscher Archäologentag vom 14. bis 16. Oktober 2011 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte Halle 9 (Hale: Landesmuseum für Vorgeschichte), 327–354.

MINKOV 2023

Minkov, P., Filling the Gap. Cheekpieces from the Presentday Bulgarian Lands, *Archaeologia Austriaca* 107, I–XIV.

MODI et alii 2019

Modi, A./Nesheva, D./Sarno, S./Vai, S./Karachanak-Yankova, S./Luiselli, D./Pilli, E./Lari, M./Vergata, Ch./ Yordanov, Y./Dimitrova, D./Kalcev, P./Staneva, R./ Antonova, O./Hadjidekova, S./Galabov, A./Toncheva, D./ Caramelli, D., Ancient human mitochondrial genomes from Bronze Age Bulgaria: new insights into the genetic history of Thracians, *Scientific Reports* 9:5412, DOI: <u>https://doi.</u> org/10.1038/s41598-019-41945-0.

MOTZOI-CHICIDEANU 2011

Motzoi-Chicideanu, I., Bronze Age Burial Customs in the Middle and Lower Danube Basin [*Obiceiuri funerare în epoca bronzului la Dunărea Mijlocie și Inferioară*] vol. I (București: Editura Academiei Române).

MOTZOI-CHICIDEANU/ŞANDOR-CHICIDEANU 2015

Motzoi-Chicideanu, I./Şandor-Chicideanu, M. Câteva date noi privind cronologia culturii Monteoru, *Mousaios* 20, 9–53.

MUNTEANU 2010

Munteanu, R., Începutul bronzului mijlociu în depresiunile marginale ale Carpaților Orientali [Bibliotheca Memoriae Antiquitatis 24] (Piatra Neamț: Editura "Constantin Matasă").

NIKOLOV 1984

Nikolov, V., Ranneneoliticheskie kul'tury v Zapadnoi Bolgarii [Early Neolithic cultures in West Bulgaria], *Sovetskaya arkheologiya* 2, 5–21.

NIKOLOV 1989

Nikolov, V., Das Flußtal der Strumna als Teil der Straße von Anatolien nach Mitteleuropa. In: Bökönyi, S. (ed.), *Neolithic of Southeastern Europe and its Near Eastern connections. Varia Archaeologica Hungarica II* (Budapest: Institute of Archaeology of the Hungarian Academy of Sciences).

NIKOV 2016

Nikov, K., The origin of the Early Iron Age pottery decoration in Southern Thrace. In: Bacvarov, K./Gleser, R. (eds.), *Southeast Europe and Anatolia in prehistory. Essays in honor of Vassil Nikolov on his 65th anniversary* (Bonn: Dr. Rudolf Habelt GmbH), 457–464.

OBRADOR-CURSACH 2019

Obrador-Cursach, B., On the place of Phrygian among the Indo-European languages, *Journal of Language Relationship* 17/3, 233–245.

OPPERMANN 1984

Oppermann, M., *Thraker zwischen Karpatenbogen und Ägäis* (Leipzig, Jena, Berlin: Urania).

ORESHKO 2018

Oreshko, R., Anatolian linguistic influences in Early Greek (1500–800 BC)? Critical observations against sociolinguistic and areal background, *Journal of Language Relationship* 16/2, 93–118.

ÖZDOĞAN 2016

Özdoğan, E., Kanlıgeçit – an Anatolian Model of an Urban Center in Eastern Thrace: An Overview. In: Pernicka, E./ Ünlüsoy, S.S./Blum, W.E. (eds.), *Early Bronze Age Troy: Chronology, Cultural Development and Interregional Contacts* (Bonn: Dr. Rudolf Habelt), 197–207.

RENFREW 1987

Renfrew, C.A. *Archaeology and language: The puzzle of Indo-European origins* (London: Penguin Books).

PALIGA 2014

ŝ

Paliga S. Ethnic and Linguistic Distinctions in the Ancient Balkan Area. How Many Languages Were There in the

Antiquity? In: Asenova, P./Stančeva, R.L./Aleksova, V./ Bejleri, R. (eds.). Balkanskite ezici, literaturi I kulturi. Divergencija i konvergenicja. Meždunarodna konferencija, posvetena na 20-godišninata ot săzdavaneto na specialnost Balkanistika, Sofia, 30–31 maj 2014 g. (Sofija: Universitetsko izdatelstvo "Sv. Kliment Ohridski"), 37–43.

PALIGA 2017

Paliga, S., Thracian v. Dacian (Daco-Moesian). How many "Thracian languages' were there spoken in the antiquity? In: Delev, P. *et alii, Ancient Thrace: Myth and Reality. Proceedings of the Thirteenth International Congress of Thracology* (Sofia: St. Kliment Ohridski University Press), 225–232.

PALIGA 2018

Paliga, S., The substratum (Thracian) place names in Romania and Bulgaria. Some thoughts regarding methodology and deontology, *Romanoslavica* LIII, 3, 137–156.

PALMER 1958

Palmer, L.R., Luvian and Linear A, *Transactions of the Philological Society* 57, 75–100.

PAVEL 2014

Pavel, C., Homer and archaeology: perspectives from the East Aegean – West Anatolian interface. In: Faranton, V./Mazoyer, M. (eds.), *Homère et l'Anatolie 2* (Paris: L'Harmattan), 9–70.

PAVÚK 2002

Pavúk, P., Troia VI and VIIa. The Blegen pottery shapes: towards a typology, *Studia Troica 12* (Mainz: Philipp von Zabern), 35–71.

PAVÚK/RIGTER 2006

Pavúk, P./Rigter, W. Goblets, Schüsseln und Kratere – Die Keramik der Perioden Troia VI und VIIa. In: Korfmann, M.O. (ed.), *Troia. Archäologie eines Siedlungshügels und seiner Landschaft* (Mainz: Philipp von Zabern), 231–240.

PEARSON et alii 2022

Pearson, Ch./Sigl, M./Burke, A./Davies, S./Kurbatov, A./ Severi, M./Cole-Dai, J./Innes, H./Albert, P.G./Helmick M., Geochemical ice-core constraints on the timing and climatic impact of Aniakchak II (1628 BCE) and Thera (Minoan) volcanic eruptions, *PNAS Nexus* 1(2), pgac048, <u>https://doi.org/10.1093/pnasnexus/pgac048</u>

PERNICHEVA 1995

Pernicheva, L., Prehistoric cultures in the Middle Struma Valley: Neolithic and Eneolithic. In: Bailey, D.W./Panayotov, I. (ed.), *Prehistoric Bulgaria* [Monographs in World Archaeology № 22] (Madison, Wisconsin: Prehistory Press).

POPESCU/BĂJENARU 2015

Popescu, A.-D./Băjenaru, R., From the Middle Danube to Anatolia: Contacts during the second millennium BC. A case study. In: Militello, P. M./Öniz, H. (eds.), SOMA 2011 Proceedings of the 15th Symposium on Mediterrean Archaeology, held at the University of Catania 3–5 March 2011 [British Archaeological Reports, International Series 2695 (I)]. (Oxford: Archaeopress), 35–42.

POROSZLAI 2003a

Poroszlai, I., Tell cultures of the Early and Middle Bronze Age. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 142–143.

POROSZLAI 2003b

Poroszlai, I., Fortified centres along the Danube. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium*

(Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 151–155.

POROZHANOV 2017

Porozhanov, K., Trakijskata civilizaciya v nachalata na dva kontinenta i po krajbrezhiyata na tri moreta: (v deset etyuda) [The Thracian civilization at the beginnings of two continents and along the coasts of three seas: (in ten etudes)] (Sofia: Literaturna Sofia – 2013).

ROSE 2008

Rose, C.B., Separating Fact from Fiction in the Aiolian Migration, *Hesperia* 430–399,77.

SAVA 2020

Sava, V., The Late Bronze Age pottery in the south-eastern Carpathian Basin, *Slovenská Archeológia* LXVIII/2, 253–296.

SHERRATT/TAYLOR 1989

Sherratt, A./Taylor, T., Metal vessels in Bronze Age Europe and the context of Vulchetrun. In: Best, J.G.P./ de Vries, N.M.W. (eds.), *Thracians and Mycenaeans, Proceedings of the Fourth International Congress of Thracology, Rotterdam 24-26 September 1984* (Leiden: Brill), 106–134.

SMITH 1989

Smith, D.W., Mycenaen penetration into Northern Greece // J.G.P. Best and N.M.W. de Vries (eds.), *Thracians and Mycenaeans, Proceedings of the Fourth International Congress of Thracology, Rotterdam 24-26 September 1984* (Leiden: Brill), 174–180.

SOWA 2020

Sowa, W., Thracian, *Palaeohispanica*. *Revista sobre lenguas y culturas de la Hispania Antigua* 20, 2, 787–817.

SZABÓ 2003

Szabó, G.V., The expanding world: masters of bronzeworking in the Carpathian Basin. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 163–167.

SZATHMÁRI 2003

Szathmári, I., The florescence of the Middle Bronze Age in the Tisza region: the Füzesabony culture. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 156–158.

SZEVERÉNYI et alii 2021

Szeverényi, V./Kreiter, A./Dani, J./Gucsi, L./Kiss, V./ Kulcsár, G./Skoda, P./Szathmári, I. The Middle Bronze Age Füzesabony pottery style of the Carpathian Basin. In: Vučković, V./Filipović, V./Stojanović, B./Risch, R. (eds.), *Crafting pottery in Bronze Age Europe: the archeological background of the CRAFTER project* (Paraćin: Museum of Paraćin), 49–70.

VENNEMANN 1994

Vennemann, Th., Linguistic Reconstruction in the Context of European Prehistory, *Transactions of the Philolological Society* 92, 215–284.

VERNESI et alii 2004

Vernesi, C./Caramelli, D./Dupanloup, I./Bertorelle, G./Lari, M./Cappellini, E./Moggi-Cecchi, J./Chiarelli, B./Castri, L./ Casoli, A./Mallegni, F./Lalueza-Fox, C./Barbujani, G. The Etruscans: A Population-Genetic Study, *American Jornal of Human Genetics* 74, 694–704.

VICZE 2003

Vicze, M., Dunaújváros-Dunadûlõ: burials of the Vatya

culture. In: Kiss, Z.B. (ed.), *Hungarian archaeology at the turn of the millennium* (Budapest: Ministry of National Cultural Heritage – Teleki László Foundation), 155–156.

VICZE 2013

Vicze, M., Koszider: break or continuity? In: Vicze, M./ Poroszlai, I./Sümegi, P. (eds.), *Koszider: Hoard, Phase, Period? Round table conference on the Koszider problem* (Százhalonbatta: Matrica Museum), 15–29.

WIENER 2020

Wiener, M.H., Helladic Greece from the Middle Bronze Age to c. 1350 BCE. In: Blum, S.W.E./Efe, T./Kienlin, T.L./ Pernicka, E. (eds.), *From Past to Present. Studies in Memory of Manfred O. Korfmann* (Bonn: Rudolf Habelt GmbH), 279– 332.

WILKES 1992

Wilkes, J., *The Illyrians* (Cambridge, Ma.: Blackwell Publisher).

WOUDHUIZEN 1989

Woudhuizen, F.C., Thracians, Luwians and Greks in Bronze Age Central Greece. In: Best, J.G.P./ de Vries, N.M.W. (eds.), Thracians and Mycenaeans, *Proceedings of the Fourth International Congress of Thracology, Rotterdam* 24-26 *September* 1984 (Leiden: Brill), 191–204.

WOUDHUIZEN 2013

Woudhuizen, F.C., Traces of ethnic diversity in Mycenaean Greece, *Dacia N.S.* LVII, 5–21.

WOUDHUIZEN 2018

Woudhuizen, F., *Indo-Europeanization in the Mediterranean* (Haarlem: Uitgeverij Shikanda).

YANAKIEVA 2009

Yanakieva, S., *Trakijskata hidronimiya* [*Thracian hydronymy*]. *Studia Thracica* 12 (Sofia: Prof. Marin Drinov).

YANAKIEVA 2018a

Yanakieva, S., The Thracian Language, Orpheus. Journal of Indo-European and Thracian Studies 25, 26–68.

YANAKIEVA 2018b

Yanakieva, S., Language and Ethnic Identity of the Thracians during the Roman Age and Late Antiquity. In: Vagalinski, L. Raycheva, M. Boteva, D. Sharankov, N. (eds.), *Proceedings* of the First International Roman and Late Antique Thrace Conference: Cities, Territories and Identities, Plovdiv, 3rd— 7th October 2016 [Bulletin of the National Archaeological Institute, vol. 44] (Sofia: National Institute of Archaeology with Museum. Bulgarian Academy of Sciences, 131–140.