
THE USE OF BRONZE IN MAKING THE EARLY SCYTHIAN AKINAKAI

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*Instead of bronze I will bring you gold,
and silver in place of iron.*

Isaiah, 60: 17

The problem of genesis of Scythian akinakai is closely linked to the problem of origin of the Scythian material culture and has been extensively debated for a long time. Without any doubts, the initial typological and chronological observations appeared simultaneously with the first publications of finds, while still searching for parallels to them, and studying their most striking features. In this way, Adolf Furtwängler argued on similarities and differences of the Persian and Scythian akinakai (Furtwängler 1883, 35-37), and Eduard Lenz brought attention to the resemblance between Scythian antennae pommels and swords of the Bronze Age (Ленц 1905, 62-63). Evgenij Pridik analyzed a sword from the Litoj (Melgunov) kurgan and concluded its Assyrian origin, and furthermore suggested that Persians borrowed the idea of akinakes from Scythians (Придик 1911, 20-21). Ellis Minns dedicated a small part of his famous monography “Scythians and Greeks” to Scythian swords and daggers (Minns 1913, 68-72). Besides that, his book contains the analysis of particular burial complexes with armament found in the kurgans of Chertomlyk, Litoj, Shumeyko, Kul-Oba, Karagodeuashkh, Vetersfelde et al. (Minns 1913, 149-240).

Alexander Lappo-Danilevsky was one of the first researchers who turned to the problem of the origin of the Scythian akinakes. However, he believed that Scythian weaponry was mostly of Greek origin, while meant apparently, famous findings of classical antiquity such as Kul-Oba or Chertomlyk (Лаппо-Данилевский 1887, 379). Therefore, in his opinion the Scythian armament saved “traces of Greek art” and preserved features closed to “Finnish, partly Caucasian and German weapons” (Лаппо-Данилевский 1887, 511).

Mikhail Rostovtsev publishing items from the Voronezh kurgans identified the series of swords with typical design (and therefore contemporary) like Chertomlyk, Kul-Oba and Kekuvatsky kurgan (Ростовцев 1914, 89-90). Later, analyzing swords and daggers from the Urals, he developed the idea of the evolution of the Scythian sheaths, their relation to the Persian sheath and blade weapons of a later period (Ростовцев 1918, 50-54). The opinion of Rostovtsev on the genesis of *Orenburg* and *West-Siberian* swords seems to be quite original. He did not consider that objects found in South Russia could be a prototype for the West Siberian akinakai, but assumed that the *Orenburg* (and *Minusinsk*) swords and daggers appeared as a result of “**clash** between the Hallstatt culture and morphology of Scythian-Persian akinakes” (Ростовцев 1918, 61). Nevertheless, Rostovtsev was more reasonable when he wrote about the antennae pommel (*volute head* by M. Rostovtsev): according to his idea, it appeared as a result of “**combination** of western (the *Hallstattian one?*) and eastern animal morphology” (Ростовцев 1918, 60).

The monography of Waldemar Ginters “Das Schwert der Skythen und Sarmaten in Südrussland” (*The Sword of Scythians and Sarmatians in Southern Russia*) became a logical completion of the initial accumulation of archaeological records (Ginters 1928). In this work Ginters gathered almost all available at that time information of the Scythian and Sarmatian bladed weapons, not only from the territory of southern Russia, but also from Central Europe. Nevertheless, Ginters left the question on the akinakes’ origin open, and this could be explained by the state of archaeological records at his time (Литвинский 2001, 49). Indeed, the search of the prototype could hardly be bound to succeed in the 1st half of the 20th century. So, Ginters concluded that “akinakes comes finally formed to southern Russia”

(Ginters 1928, 88), while indicating the Iranian East as a starting point, because it “could be met only in Iranian regions or on the territories under Iranian influence” (Ginters 1928, 89).

In the 1960s, the debates about the Scythian akinakes’ origin flared up again with new force. The hypothesis of the Persian origin (after Ростовцев 1918, 55) was developed by Anna Melyukova (Мелюкова 1964, 60) and Natalya Chlenova (Членова 1967, 21). The main argument was the spread of akinakai in the Iranian Middle East, and especially the fact that Greeks believed that the akinakes is a traditional weapon of Persians and Lydians. Boris Grakov considered that Scythians adopted akinakes from Persians during their Near Eastern campaigns (Граков 1971, 92). Mikhail Artamonov had compromised, insisting that akinakes was invented jointly by Scythians and Medes upon the Scythian presence in the Near East (Артамонов 1974, 39-40). However, the main obstacle to the acceptance of this hypothesis is the “lack of proper Scythian swords and daggers in the Near East” (Исмагилов 1989, 86). Furthermore, the early Scythian akinakai are older than their *prototypes* – e.g. images of akinakai from Persepolis or the Oxus treasure could not be dated earlier than the 6th century BC (after Есаян, Погребова 1985, 51). *Inter alia*, it is hardly possible to trace the distribution of akinakes from the Near East *via* Caucasus, because, according to the chronological data, the akinakai enter Transcaucasia from the territory of the North Caucasus (Лесков 1979, 47; Черненко 1979, 91; Есаян, Погребова 1985, 50).

A hypothesis of the central Siberian origin of akinakes was offered by Alexey Terenožkin, who claimed that the original forms of Scythian swords and daggers could be found among weapons of the Late Bronze – Early Iron Age in the Minusinsk Hollow (Тереножкин 1975, 3-32; Тереножкин 1976, 126-132). In particular, *Karasuk-Tagar* daggers were offered on the role of prototypes (Членова 1972, 131-135) that are considered to be similar to the Cimmerian ones and could have had an impact on the formation of new types of weapons in the North Caucasus (Исмагилов 1989, 88). This hypothesis was shared by Vyacheslav Murzin, who, however, noted that the assumption of Karasuk origin of Scythian akinakes is not based on the assemblages that are firmly dated (Мурзин 1984, 75-77). More-

over, there are no long swords (well known in the Pontic Scythia) in the Near East or South Siberia. And the manufacturers, who produced complicate bimetallic daggers and swords barely needed any borrowings from the Karasuk casters, who were not familiar with this technology (Шрамко, Фомин, Солнцев 1977, 57-74; Шрамко 1976, 49-54; Шрамко 1984, 23).

According to the other group of researchers, Scythian sword is the result of further evolution of North Caucasian daggers of the *Kabardino-Pyatigorsk* type (Лесков 1979, 48; Черненко 1979, 91; Шрамко 1984, 30, 31; Исмагилов 1989, 88, 93), and the Persian akinakes could be considered as one of variants of this type. Nevertheless, close resemblance between Karasuk-Tagar daggers and swords of the Northern Caucasian and Scythian types could be explained by the fact of “entering the areas, where these weapons were used on the territory, where Karasuk-Cimmerian community was consecutive changed by the Scythian-Siberian one” (Исмагилов 1989, 93).

One of the significant feature of the Scythian archaic blade weaponry is the use of bronze (after Ginters 1928, 23; Виноградов 1974, 260; Тереножкин 1975, 28-29), often in the combination with iron. This fact is understandable, especially if one considers that the manufacturing of Scythian bimetallic handles goes back to Pre-Scythian technology of the so-called *Cimmerian scheme*. For example, Boris Shramko explains the preservation of ancient technological methods combined with new forms by insufficient familiarity with sophisticated forging, and with forge welding with a well-developed technology of bronze moulding (Shramko 1984, 30-31). Furthermore, the replacement of bimetallic daggers with the iron “steppe” akinakai is confirmed by horizontal stratigraphy of Seržen-Yurt cemetery of the pre-Scythian and Scythian time (after Kozenkova 1992, 39; Козенкова 2002, 89). Bimetallic Scythian swords also drew attention of Alexandru Vulpe, who allocated the *Orbeasca* (or *Orbeasca-Stepnoj*) type based on two finds from Romania. Due to analogies from the Caucasus, it was dated to 800-750 BC (Vulpe 1987, 84-85, 88; Vulpe 1990, 36-37).

Bimetallic swords and daggers are also well-known in the pre-Scythian time. Special attention researchers have paid to daggers of the

Kabardino-Pyatigorsk (Крупнов 1960, 203) or the *North Caucasian*¹ type (Анфимов 1965, 198), whose origin is associated with Karasuk traditions (Тереножкин 1975, 19, 20). The chronological position of the North Caucasian daggers is determined within the frame of 900-650 BC (after Вальчак 2008, 19). Before the 1960s, a small number of daggers of this type had limited a possibility for their classification, then in the 1970s, attempts of systematization are constantly being proposed (after Podborský 1970, 153-163; Тереножкин 1975, 11; Членова 1975, 70-81; Шрамко 1984, 25). Now it seems that a scheme proposed by Varvara Kozenkova shows a significant degree of formalization (Kozenkova 1995, 45-47); typological principles she applied have later been developed and supplemented by Sergey Valchak (Вальчак 2008, 8-9). If we try to summarize the chronological observations on this category of material culture, some evolutionary patterns could be traced. For example, a round or oval cross-section of the handle is considered to be an early feature, while the flattened handle with ringed ornamentation is typical for the items of the later period (after Podborský 1970, 159; Дударев 1991, 45). The length of the hilt decreases over time², and the straight hilts became more curved (after Дударев 1999, 100; Вальчак 2008, 18-19; Топал, Бруяко 2012, 134). Bimetallic daggers with a flattened handle and short curved hilt dated later than others were most likely in use since the mid- 7th century BC. Therefore, they may claim to be the prototype for the Scythian akinakes. In addition, a smooth shape of the hilt surprisingly resembling the classical kidney-shaped hilt of the Scythian akinakai, is known in the pre-Scythian time. This is clearly demonstrated by the hilt of the *Cimmerian* bimetallic dagger from Sofievka (after Тереножкин 1975, рис. 1/13).

Unexpected manifestation of Kabardino-Pyatigorsk traditions could be observed on the Sauromatian territory. In 1907, near Marychevka station, an iron dagger was discovered, and over fifty

years later it was published by Konstantin Smirnov (Смирнов 1961, рис. 1/10). Similar items from the Volga-Ural region (Горбунов, Исмагилов 1976; Исмагилов, Скарбовенко 1977) were published in the 1970s, and this motivated Ramil Ismagilov to allocate a new type of Sauromatian daggers and swords – the *Marychevka type* (Исмагилов 1981; Исмагилов 1989). This term was readily accepted by scholars, and all subsequent finds will supposedly relate to it (Исмагил, Сунгатов 2004, 127). This type is characterized by massive, butterfly-like hilts decorated with heads of griffins with spirally curved beaks and geometric ornament on the handle. Even K. Smirnov has observed some *Caucasian* features in the design of akinakes from Marychevka, such as ringed pattern on the handle, a pommel with lowered ends, etc. (Смирнов 1961, 13). While developing these views, R. Ismagilov also confirmed the Caucasian origin of the Marychevka type and dated it back to 650-550 BC (Исмагилов 1989, 91). Besides that, according to Ismagilov, the very presence of this experimental, and certainly the early group of bladed weapons, favors the hypothesis of the Caucasian origin of Scythian akinakes based on further evolution of *Cimmerian* daggers in the North Caucasus.

Akinakai of the *Gudermes* type

The dagger discovered in a kurgan near Stepnoy (the Gudermes district, the Chechen Republic, the Russian Federation) is one of the most remarkable and interesting finds of bimetallic akinakai. In archaeological publications it is more often referred as the *Gudermes dagger*, therefore it makes sense to extend this term on other exemplars as well³. Unfortunately, the main burial contained this dagger was greatly disturbed in antiquity, so it was not possible to establish certain important details of the funeral rite (after Виноградов 1974, 259), though the remains of wooden scabbard, which ends with the bronze rolled panther (fig. 1/2) were recorded. According to Vitaliy Vinogradov, in the Scythian milieu the scabbard's end designed in the Animal Style appears not later than the end of the 7th century BC, and was spread in the 6th century BC mainly in the North Caucasus (Виноградов 1972, 112-117). V.B. Vinogradov was the first who drew attention on its resemblance with objects from Ziwiye, Kelermes, Litoy,

¹ There are also less successful definitions in archaeological papers, such as *Cimmerian daggers* (Членова 1975, 69-70; Шрамко 1984, 24-25) or *bimetallic swords and daggers with cross-shaped hilts* (Podborský 1970, 153; Дударев 1991, 40; Makhortykh 2008, 170).

² Sergey Dudarev interprets these changes as an influence of iron swords without hilts (Дударев 1999, 100), while Sergey Valchak explains this process by gradual reduction of circulation of the long swords (Вальчак 2008, 18), for which the long hilt was an important technological feature.

³ It should be mentioned that the term *Orbeasca type*, introduced by A. Vulpe, was not widely accepted.

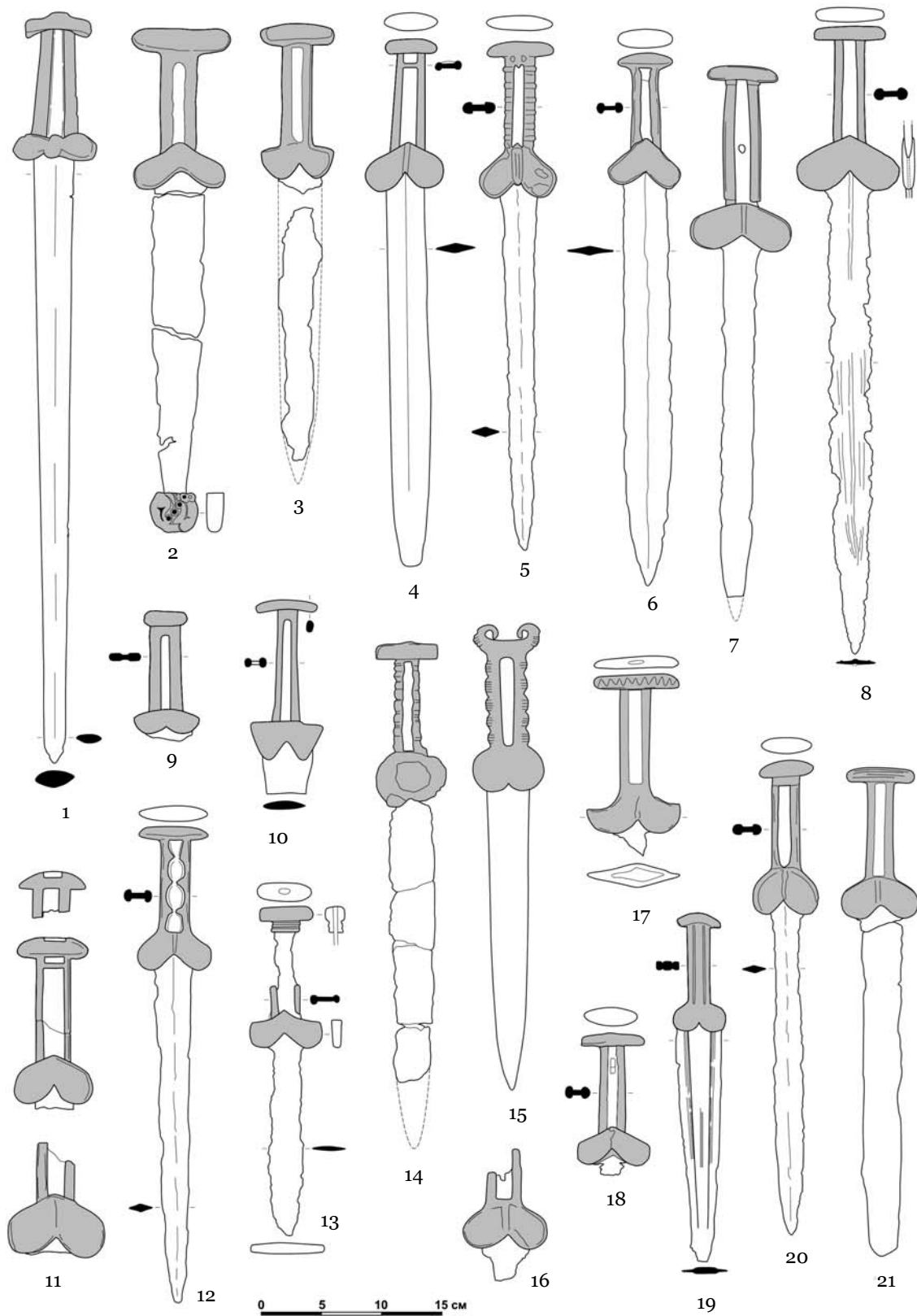


Fig. 1. Akinakai of Guderme type. 1 - Polsko Kosovo; 2 - Gudermes (Stepnoy), barrow; 3 - Tlia, gr. 85; 4 - Museum of history in Kharkiv; 5 - Maslovka; 6 - Pokrovka; 7 - Berezovka-Karaulnaya mountain; 8 - Orbeasca de Sus; 9 - Stremț; 10 - Bujor; 11 - Kumbulta (Galiat, Faskau); 12 - Lopatino; 13 - Museum of Zlatoust; 14 - Raygorod (Prussy), barrow 2; 15 - Sholokhovo, barrow 13; 16 - Boguchary; 17 - Gradizhsk; 18 - Lapot' (Stenka Razin barrow) near Kamyshin; 19 - Łubnice; 20 - Stezhenskiy; 21 - Mezhgorye-Barabanovo.

Daryevka and Tlia, although he dated these finds with the tendency to the *rejuvenation* (usual for 1970s): from the 1st half of the 6th century BC, perhaps the early 6th century BC (after Виноградов 1974, 261). Anatoliy Kantorovič attributed Gudermes and other *bouterolles* with the image of the rolled feline predator to the Kelermes-Yablonovka type (after Канторович, Шишлов 2014, 88), and set the lower chronological limit to the 2nd quarter of the 7th century BC. Another akinakes of the Gudermes type was found in the central Caucasus, in burial no. 85 from the Tlia cemetery (after Техов 1980, 223, рис. 3/7). The dagger was forged from higher-carbon steel, and the lateral parts of the handle were molded out of bronze in the shape of rollers (fig. 1/3). The burial was initially dated by the author of excavations to the late 8th century BC (after Техов 1972, 32), later – not early than the 1st half of the 8th century BC (after Техов 1980, 249). Finally, this burial was dated to the late 8th - 1st half of the 7th century BC (after Техов 1980a, 58), although it drew objections from Yuriy Voronov, who dated both the dagger and this burial complex from the late 7th to the 1st half of the 6th century BC (after Воронов 2006, 35). In 1900, Countess Praskovya Uvarova published the bronze fragments of the sword's frame handle found in the village of Kumbulta, Digoria (now in Northern Ossetia) (Уварова 1900, табл. XCV/3, 4); later, based on the countess' collection Alexey Terenozhkin offered its reconstruction (Тереножкин 1975, 29, 34, рис. 20/6, 7). In 1960, Evgeniy Krupnov introduced published the fragments of the handle from Faskau (Крупнов 1960, табл. XXX/3). It turned out, that these fragments were from the same sword but they were recorded in different lists creating a historiographical confusion⁴ (fig. 1/11). Nevertheless, the question of the origin of these swords is still open and requires an independent study. In 1989, a dagger with the bimetallic frame handle was found in the destroyed part of the burial ground near Bujor, Анара (Новичихин 1990, 63, рис. 1). This exemplar is interesting for the outline of its hilt, which consists of two triangles with a common straight base forming the high edge of the hilt (in contrast to other items of this type) (fig. 1/10). Perhaps just *abrupt geometrism* of the hilt brings together the item from Bujor and daggers of the Kabardino-Pyatigorsk type. Most likely,

⁴For more information, see: Бабенко 2006, 54.

due to this fact, the author of the first publication identified this dagger as “occupying an intermediate position between the pre-Scythian and Scythian bimetallic blade weapon” (Новичихин 1990, 69).

One of the burial complexes with a bimetallic sword (fig. 1/9) comes from Transilvania, from a destroyed grave near Stremț (after Vasilev 1980, pl. 10/2; Vulpe 1990, 36, Taf. 5/26). It is believed that together with the sword were also found arrowheads and fragments of pottery, but the Museum of Sebeș received only akinakes in fragments, which was attributed to the *Orbeasca type* by A. Vulpe (after Vulpe 1990, 36).

Another interesting item was discovered in Bulgaria, to the south of Danube, on the Lower Yantra river. In a secondary grave of the burial mound near Polsko Kosovo, a long sword (fig. 1/1) with the bimetallic frame handle was found (after Stanchev 2000, 35, pl. 1/1). By a number of parallels and the funeral rite, the author of publication identified this burial complex as the Early Scythian one of the late 8th - early 7th century BC (after Stanchev 2000, 37). Meanwhile, the Early Scythian attribution is not fully convincing. Thus, Igor Bruyako suggests that the burial from Polsko Kosovo belongs to the group of *mixed* burials of the earliest stage of the Scythian culture, synchronous with Endzha and Belogradec, thereby marking the *Exodus of Cimmerians* from the North Pontic region (after Бруяко 2005, 113).

Bimetallic swords of the same scheme but designed in a different way are known from kurgans of the Dnieper river region. Another sword comes from Burial no. 13 near Prussy (Mikhaylovka village) excavated by Vikentiy Khvoyka (after Шрамко 1984, 31) and dated to the late 7th - early 6th century BC. However, this sword is more often associated with Kurgan no. 2 near Raygorod (after Древности 1900, 9, табл. XXXVIII/166, 2/12; Мелюкова 1964, 47). But such features as the massive kidney-shaped hilt and transverse incisions differ this sword from other Gudermes akinakai⁵ (fig. 1/14). A.I. Melyukova dates back the black-glazed kylix discovered in this grave to the time of “no earlier than the mid-4th century BC” (Мелюкова 1964, 47), although, according

⁵Nonetheless, this type of ornamentation is present on the bimetallic sword from Maslovka (after Ворошилов, Медведев 2007, рис. 1/2), where it is combined with fragments of bight under the pommel.

to the recent data, this kylix could be attributed to B₂ type by Villard&Vallet of 375-350 BC (after Гречко 2012, 92). A similar sword (fig. 1/15) was found in Barrow no. 13 of the *Slavyanka* cemetery near Sholokhovo (after Волкобой, Лихачев, Шалобудов 1979, 50, рис. 8/3). However, except the kidney-shaped hilt and incisions on the handle, the original antennae pommel makes it different from other Gudermes akinakai⁶.

A fragment of a bimetallic dagger with frame handle was found on the left bank of the Dnieper river, near Gradizhsk, the Globino district in the Poltava region, Ukraine (fig. 1/17). It bears the traces of ornamentation: the edges of the pommel are flattened and a zigzag runs along the edges of this item. Irina Kulatova, the author of publication, considers that this exemplar belongs to transitional forms from the Cimmerian to the Early Scythian daggers (Кулатова 1994, 110, мал. 1; Кулатова 1999, рис. 1/2). Recently, the first bimetallic sword with frame handle was discovered in Crimea, between the villages of Mezhgorye and Barabanovo of the Belogorsk district (рис. 1/21); it is kept in a private collection. Scholars who published this artifact date it to the late 8th - early 7th century BC (Скорый, Зимовец 2014, 19).

One more Early Scythian bimetallic sword of unknown provenance is kept in the Museum in (after Бабенко 2006, рис. 1). It is curious that an arcuate bight was attached to the upper part of the handle of this sword (fig. 1/4). Another bimetallic sword (fig. 1/16) found near Vogučar (after Лукьяшко 1994, 140, рис. 1; Лукьяшко 2014, 242) on the Lower Don was dated to the 2nd half of the 7th century BC (after Лукьяшко 2013, 16). An iron sword (fig. 1/20) with the blade inserted into the bimetallic handle fitted with bar-shaped pommel and large kidney-shaped hilt was found by chance near Stezhenskiy, the Alekseevskaya district, the Volgograd region (after Серацков 1989, 249, рис. 1). The most probable date, according to Igor Sergatskov, is the late 7th - early 6th century BC. Two bimetallic swords came

from the Tambov region: from Pokrovka, the Muchkapskiy district (fig. 1/6) (after Медведев 1999, 104⁷, рис. 51/2; Клоков, Моисеев 1999, 38; Ворошилов, Медведев 2007, рис. 1/1) and Maslovka, the Umyot district (fig. 1/5) (after Ворошилов 2006, 39; Ворошилов, Медведев 2007, рис. 1/2). A typical feature of the latter one is the presence of the remains of a bight under the hilt, like on akinakai of the Kelermes type (after Topal 2013, 17). Furthermore, the handle was molded with a distinct detail – the prominences on the edge. Initially, Alexey Voroshilov dated the akinakes from Maslovka to the end of the 7th century BC and the sword from Pokrovka to the late 7th - early 6th century BC (Ворошилов 2006, 39, 43); later he narrowed the chronological position of both objects to the 1st half of the 7th century BC (Ворошилов 2007, 154). An iron sword (fig. 1/12) with a bronze handle decorated with oval cutouts was discovered in Lopatino, the Penza region (after Максимов, Полесских 1971, рис. 1/1). The authors of the publication dated it to the 6th century BC. The fragmented iron sword from the Stenka Razin Kurgan (near Lapot', Kamyshin, the Volgograd region) has also the bronze casted frame handle (after Зайковский 1913, 216, рис. IX; Смирнов 1961, рис. 1/4). There was a perforation made at the top of the iron base of the handle, possibly for fixing of the sword-knot (fig. 1/18). K. Smirnov proposed *terminus ante quem* for this item as the 2nd half of the 7th century BC (Смирнов 1961, 11). Probably, the most eastern find of the Gudermes type is preserved in the Museum of Zlatoust, the Chelyabinsk region (fig. 1/13). Analyzing its chronological position, Alexander Tairov took into account the conclusions of Alexey Voroshilov (2007) and thus considered that this item was also produced in the 1st half of the 7th century BC (Тайров 2011, 164). In 2009, the Saratov Museum acquired a bimetallic sword with frame handle (fig. 1/7) that was found in 1987 on the slopes of the Karaulnaya mountain in the Bazarny Karabulak district of the Saratov region (after Моржерин 2010, 3).

The circumstances of the discovery of another bimetallic sword (fig. 1/8) from Romania are not clear. It was found on the right bank of the Teleorman River in the vicinity of Orbeasca de Sus hillfort (Teleorman County). Excavations at this

⁶ Cases of coexisting of various pommels within a type of akinakai, are not uncommon. For example, I know at least three akinakai of the *Kelermes* type with antennae pommels: from Museum of Borisoglebsk (after Мулкиджанян 1983, 137-139), from А.А. Bobrinsky collection (after Мелюкова 1964, рис. 20/1) and near Berlyachevo village from south Bashkiria (after Смирнов 1961, 20, рис. 3/7). There are also two akinakai of the *Marychevka* type from the Tambov region, Russia: the Petrovskoye district and Tynkovo (after Клоков, Моисеев 1999, рис. 11/1-2).

⁷ In the monography of Alexander Medvedev (Медведев 1999) it is cited as an *akinakes* from the Tambov Museum.

site revealed several layers of the Bronze Age, the Early and Late Hallstatt, the Basarabi culture (Vulpe 1990, 36) but fortifications of the settlement were erected in the Early Hallstatt (after Moscalu, Beda 1979, 368). Based on Caucasian parallels (Tlia and Stepnoy burials), Alexandru Vulpe attributed this exemplar (as well as the whole type – the *Orbeasca type* by A. Vulpe) to the 1st half of the 7th century BC (Vulpe 1990, 37).

At the moment, the most north-western finds of the bimetallic Scythian akinakes was accidentally discovered on the territory of the burial ground⁸ of the Lusatian culture near the village of Łubnice in Wieruszów County, Łódź Voivodeship, Poland (Abramek 1970, 538; Bukowski 1977, Tab. XII/1; Gedl 1980, 31, Taf. 7/49). Despite the number of archaic features that could be explained by the influence of pre-Scythian traditions (as bimetalism, the *mushroom-shaped* pommel), akinakes from Łubnice (fig. 1/19) is an Early Scythian item, which reached the Polish territory from the steppes of the North Pontic region (after Gedl 1980, 32). Therefore, despite to the date as the 6th century BC proposed by Zbigniew Bukowski, this dagger could be confidently attributed to the 7th century BC, probably a little later than the Caucasian exemplars. This younger date could be partly confirmed by the refusing of *framework* technology in manufacturing the handle.

Thus, it is obvious that the bimetallic technology of Scythian weapon-craft was inherited from a previous tradition and the first samples of akinakai of the Gudermes type appeared at the turn of the 8th-7th century BC in the Caucasus. *Terminus ante quem* could be determined as the turn of 8th-7th century BC, but this way of design of handles could reach in the mid of the 6th century BC. It should also be mentioned that several Scythian akinakai were entirely made out of bronze. The dagger (fig. 2/13) from Russkie Folvarky (Kamianets-Podilskyi) is probably one of the earliest stray finds in the Carpathian-Dniester region (after Sulimirski 1936, tab. IX/1; Гавлик 2004, рис. 1/1). Its origin is probably associated with daggers of the Tagar culture (after Гавлик 2004, 166, рис. 1/1), and the date could not be later than 7th century BC (after Гавлик 2004, 166, рис. 1/1).

⁸ Zbigniew Bukowski mentions that there are a lot of Scythian arrowheads, but this dagger was found in a disturbed burial, so the burial assemblage could not be accurately established (Bukowski 1977, 184).

A stray find from the Borsod county in Hungary (fig. 2/12) (after Kemenczei 1984, Abb. 1/5; 1991, Taf. 62/280), is clearly related to the Siberian exemplars. It is probably dated to the 1st half of the 7th century BC (after Kemenczei 1991, 74). Another bronze sword (fig. 2/11) was discovered in the Kamenka district of the Cherkassy region, Ukraine, on the right bank of the Dnieper river (probably, near the village of Timashovka) (after Бобринский 1901, 146, табл. XI/5; Scythian Gold 1999, 111). A similar bronze exemplar (fig. 2/10) was found in western Kazakhstan near Kyzyltu, the Aktobe region (after Грязнов 1956, 12, рис. 3/7; Смирнов 1961, 15, рис. 1/1).

Akinakai of the the *Posmuş* type

The swords partly or completely produced out of bronze are well-known in the Carpathian Basin⁹. There is a group of swords in Romania, defined by Alexandru Vulpe (and accepted by George Marinescu) (Marinescu 1984, 71-72) that called the *Posmuş type*¹⁰ (Vulpe 1990, 23). The eponymous dagger (fig. 2/3), found in a grave of the *Dealul Mortilei* burial mound near the village of Posmuş (fig. 3/F) (after Buzdugan 1976, fig. 2/3; Vasilev 1980, pl. 2/8; Vulpe 1990, Taf. 1/2), was made entirely out of bronze. A. Vulpe considers this item as a certain evolutionary starting point for the whole type (Vulpe 1990, 23). A similar exemplar (made from iron but with the bronze hilt) was found in the Mărişelu cemetery, Grave no. 4 (fig. 2/6) (after Marinescu 1984, Abb. 9/6; Vulpe 1990, Taf. 1/3). Other daggers from that cemetery were made entirely out of iron, e.g. the one from Grave no. 6 (fig. 2/8) (after Marinescu 1984, Abb. 11/1; Vulpe 1990, Taf. 1/5), Grave no. 7 (fig. 2/7)

⁹ There are akinakai with the single-edged blade of the *Tiszadob type* (by A. Vulpe) with bronze details: Curtea de Argeş and Benic which originate from the Carpathian region. The bronze handle of the sword from Curtea de Argeş was originally decorated with engraving: the pommel – with chess ornament, and the rod – with parallel zigzags and transversal lines (after Vulpe 1967, pl. XVI/2, fig. 19; Vulpe 1990, Taf. 30/198). A. Vulpe dated the burial from Curtea de Argeş to the 2nd half of the 6th century BC (Popescu, Vulpe 1982, 88, 107; Vulpe 1984, 54), because the pottery from this complex is similar to the ceramics from graves with akinakai from Ferigile cemetery (after Vulpe 1967, 58), the phase Ferigile-North of the late 7th - 6th century BC (after Vulpe 1990, 126). In 1897, near the villate of Benic in Romania (Hungarian: *Borosbenedek*) was discovered an iron dagger with bronze hilt decorated with vertical zigzags (after Ginters 1928, Taf. 13/c; Roska 1942, k p. 173; Vasilev 1980, pl. 14/2; Vulpe 1990, Taf. 29/194).

¹⁰ *Daggers of the Posmuş variant* after G. Marinescu (Marinescu 1984, 71).

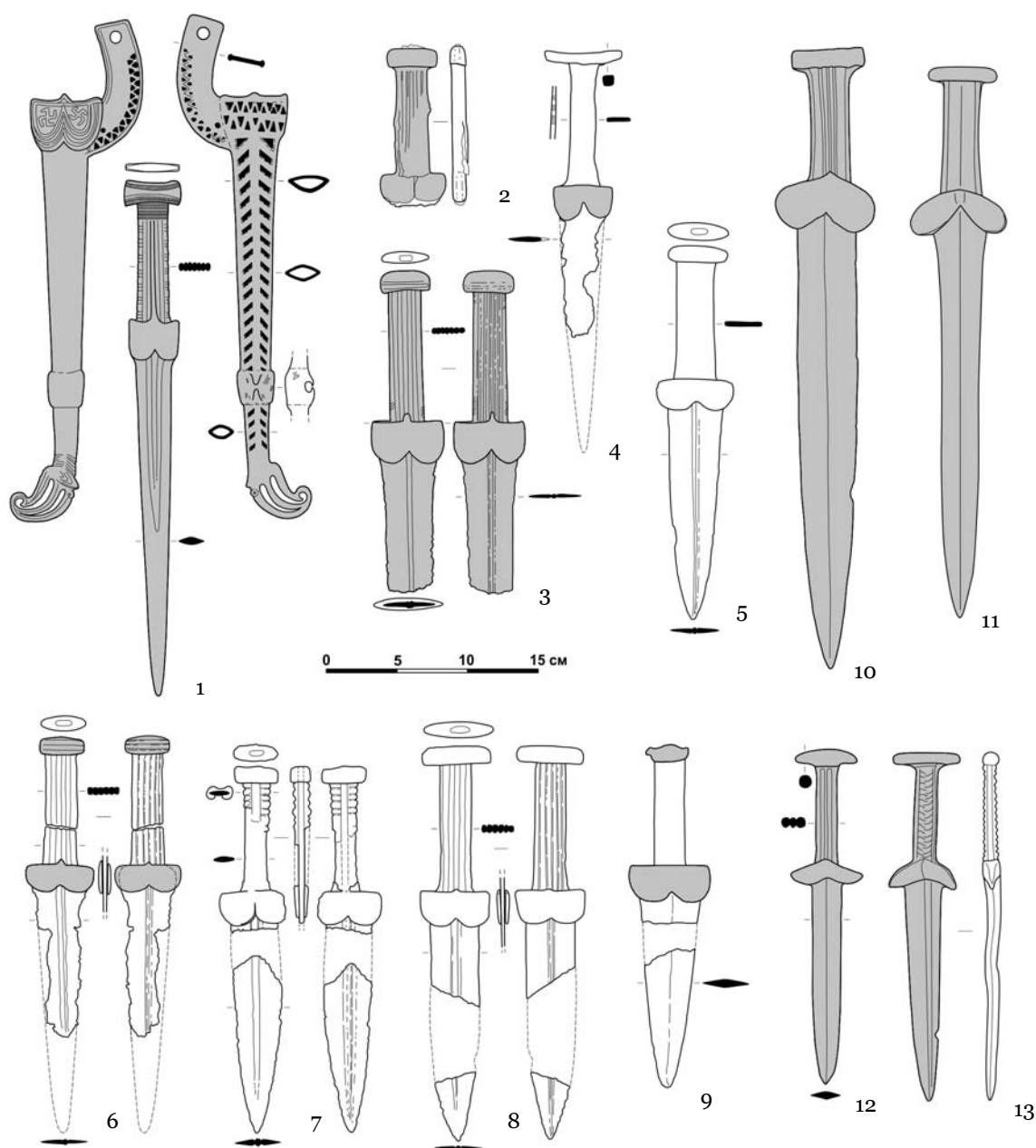


Fig. 2. Akinakai of Posmuş type (1-9) and bronze akinakai of Siberian origin (10-13). 1 - Firminiş; 2 - Aiud-Parc; 3 - Posmuş; 4 - Tiszabercel; 5, 7 - Mărişelu, gr. 7; 6 - Mărişelu, gr. 4; 8 - Mărişelu, gr. 6; 9 - Budeşti-Finaţe, gr. 6; 10 - Kyzyltu; 11 - Timashovka; 12 - Borsod; 13 - Russkiye Folvarki.

(after Marinescu 1984, Abb. 9/6; Vulpe 1990, Taf. 2/7), and a stray find from the disturbed complex near the Grave no. 7 (fig. 2/5) (after Marinescu 1984, Abb. 13/1; Vulpe 1990, Taf. 1/6).

The bronze handle of a dagger of the Posmuş type was found in 1895 in a park of Aiud town, in Grave no. 6 (after Valentin Vasiliev) or no. 8 (after Alexandru Vulpe) (Herepey 1898, 267, táb. B/2; Roska 1942, 189, kép. 225/2; Vulpe 1990, 24, Taf.

1/4). Besides the dagger (fig. 2/2), among the grave goods were discovered ca. 20 arrowheads (7 out of bone, 13 out of bronze), a double-bladed iron axe, bronze plaques (fig. 3/B), and the bronze ring with four loops (fig. 3/B4) (after Vulpe 1990, 24). Such rings (as a specific type of harness) are known in other complexes of the early stage of the Ciumbrud group: e.g. in Grave no. 3 of Budeşti-Finaţe, Grave no. 4 of Mărişelu (fig. 3/E4), Blaj, Simeria, Firminiş (after Vasiliev 1980, 96; Vulpe

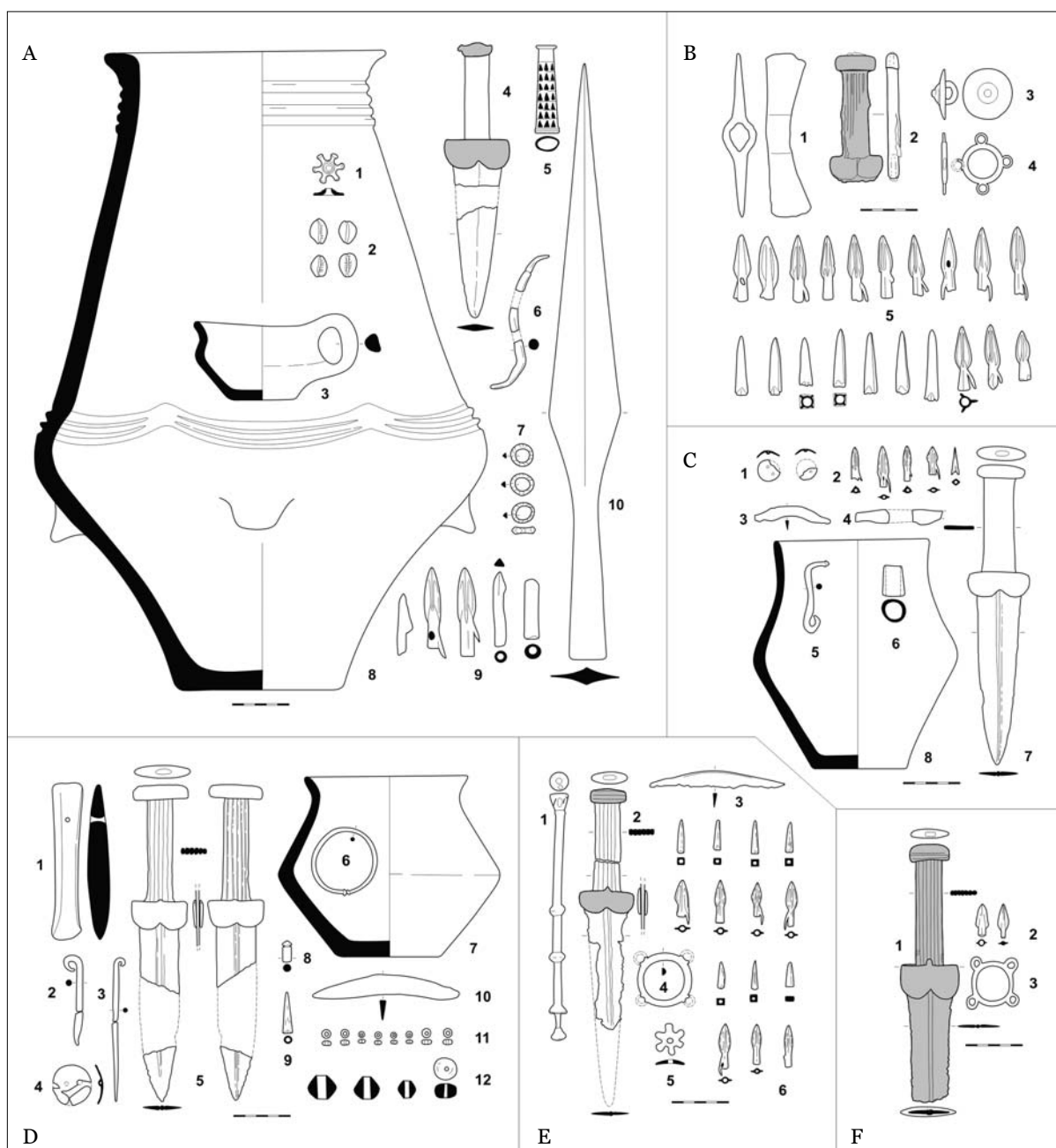


Fig. 3. Burial complexes with akinakai of Posmuş type: A - Budeşti-Fînaţe, gr. 6; B - Aiud-Parc; C - Mărişelu, gr. 7; D - Mărişelu, gr. 6; E - Mărişelu, gr. 4; F - Posmuş.

1990, Taf. 42/B, C5-7, D7), in a burial ground near Curtea de Argeş (Vulpe 1967, pl. XVI/5), as well as in burials of the Vekerzug culture¹¹ (after Chochorowski 1985, 113; Бруйко 2005, 276-277; Kemenczei 2009, 54) and Western Podolia group (after Бандрівський 2005, 90). The earliest rings

¹¹ For example, Ártánd (1953), Hejőkeresztúr, Kesznyéten (gr. 12), Nyíregyháza, Szentcsanak (gr. 61), Tiszalök, Újfehértó, Mád, Törökszentmiklós (gr. 34) and Kunszentmárton (Kemenczei 2009, Taf. 7/1; 24/5; 29/7; 51/14; 74/10; 99/19; 130/3; 153/8).

of this type (the *Carpathian-Podolian type* after Mikola Bandrivskiy) are known from HaC₂ (mid-7th century BC) to HaD, or to the late 6th - early 5th century BC (after Бандрівський 2005, 92; Kemenczei 2009, 54). Despite the presence of bronze plaque of the 2nd half of the 8th - the 1st half of the 7th century BC in this grave from Aiud, the bronze arrowheads with spike point to *terminus post quem* of mid 7th century BC (after Козубова, Скаков 2012, 199).

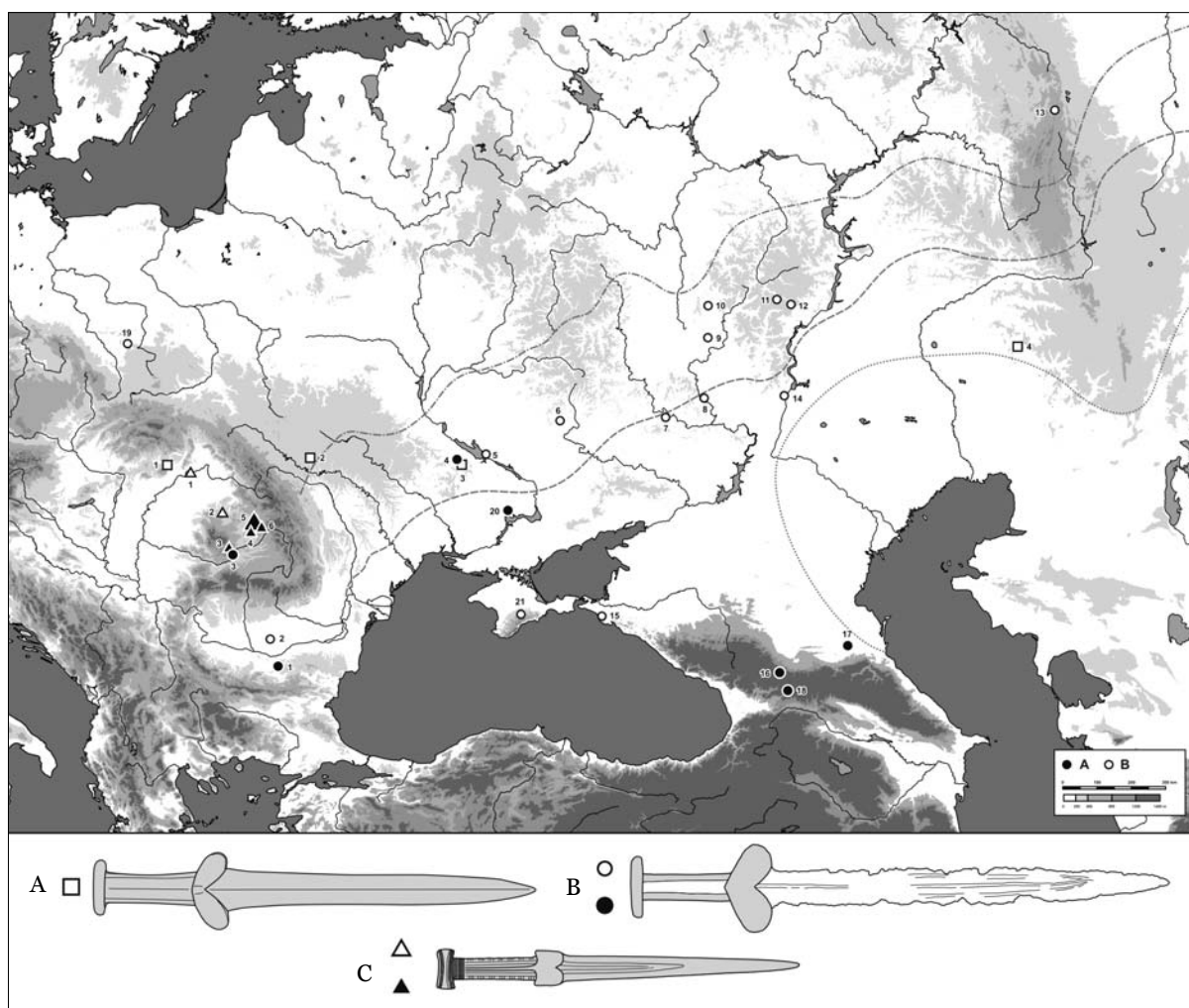


Fig. 4. Distribution of bronze and bimetallic akinakai. *A* - bronze akinakai of Siberian origin: 1 - Borsod; 2 - Russkiye Folvarki (Kamianets-Podilskyi); 3 - Timashovka; 4 - Kyzyltu. *B* - akinakai of Gudermes type: 1 - Polsko Kosovo; 2 - Orbeasca de Sus; 3 - Stremț; 4 - Raygorod; 5 - Gradizhsk; 6 - Kharkiv; 7 - Boguchary; 8 - Stezhenskiy; 9 - Pokrovka; 10 - Maslovka; 11 - Lopatino; 12 - Berezovka; 13 - Zlatoust; 14 - Lapot; 15 - Bujor; 16 - Kumbulta; 17 - Stepnoy; 18 - Tlia; 19 - Łubnice; 20 - Sholokhovo; 21 - Mezhgorye-Barabanovo. *C* - akinakai of Posmuş type: 1 - Tiszabercel; 2 - Firminiș; 3 - Aiud; 4 - Budești-Fînațe; 5 - Mărișelu; 6 - Posmuș.

The butterfly-shaped hilt and the pommel of the iron dagger from the Grave no. 6 near Budești-Fînațe were also made out of bronze (fig. 2/9) (after Marinescu 1984, 49, Abb. 5/6; Vulpe 1990, 25, Taf. 2/8). George Marinescu dated back this burial and the cemetery in general to the mid - late 7th century BC (Marinescu 1984, 81). Among the finds, the burial's grave goods included an iron spearhead, bronze *holder*, a hand-made large pot and little ladle, spiked arrowheads and cowry shells¹²

¹² Igor Bruyako considers cowries (Cypraeidae) as a chronological indicator of the Early Scythian culture (Bruyako 1999, 51; 2005, 252-253; Bruyako 2007, 231-232). In particular, he argued their North Caucasian origin and the time of their penetration into Transylvania – until mid-7th century BC.

in (fig. 3/A). Despite the relative similarity of the bronze holder with the sheaths of the pre-Scythian period (after Marinescu 1984, 75; Gawlik 1998, 57), this exemplar belongs to a completely different type of items (probably, the holder of a spear). Therefore, its *terminus post quem* could not be earlier than the mid-7th century BC (after Бруяко 2005, 249). Moreover, the daggers from the Grave no. 6 from Budești-Fînațe and the Grave no. 7 from Mărișelu (fig. 2/5) have no longitudinal grooves on the handle, a characteristic of the Posmuș type. This fact probably led some researchers to the determination of stray finds from Mircești and Dănești as being *similar* to the

Posmuş type¹³ (after Vulpe 1990, 25-26; Gawlik 1998a, 25; Бруяко 2005, 154).

A special attention deserves a ceremonial sword with a sheath. Possible, from a grave near the village of Firminiş, in *La Temeteu* area, north-western Transylvania (after Matei 1977, pl. I, II; 1978, 107, Abb. 3; Vasiliev 1980, 12; Vulpe 1990, Taf. 3/11). According to discoverers, bronze arrowheads, few bronze rings, and an iron object were found near the body. The fact that the plowing unearthed several burials indicates that the Firminiş grave was not the isolated one (after Matei 1977, 63). This complex contained the bronze ring with loops, apparently similar to those found in Aiud, Budeşti-Fînaţe, and Mărişelu (after Matei 1977, 63, pl. II/5; Vulpe 1990, 27). The sword from Firminiş (fig. 2/1) was molded entirely from qualitative bronze and was decorated with chased design (after Matei 1977, 64). Noteworthy are the handle ornamented with grooves and the hilt in the shape typical for the Posmuş type. Special interest deserves the original scabbard (Matei 1977, pl. II/3; III/1-4) also casted from bronze and ornamented like the holder from Budeşti-Fînaţe. The hilt was decorated with an unusual element of design for Scythian weapons – two symmetrically arranged swastikas. The end of scabbard is bent in the shape of bird's beak that brings it together with Caucasian items (provided with chapes with a bird's head).

Bird's head chapes (*bouterolles*) in the Early Scythian period

De facto, a large amount of bronze *bouterolles* in the shape of highly stylized bird's head (sup-

¹³ However it is difficult to agree with such attribution and dating to the 7th century BC (Gawlik 1998, 56-57; Бруяко 2005, 154). The determination of these daggers as "probably related to the Posmuş type" (*wohl nahestehend, möglicherweise zugehörig*) (Vulpe 1990, 25) demonstrates some doubts of A. Vulpe. *Atque*, these doubts are not unfounded, because the only feature that could link these stray finds with akinakai of the Posmuş type is their original hilt, the *bow-shaped*, according to Sergey Skoryi (Скорый 1982, 85). But the most important features such as longitudinal grooves, oval-shaped pommels, the rib on the blade are absent on daggers from Mirceşti and Dăneşti. Moreover, the flat handle, the cross-section of the blade, and the shape of hilt bring these items together with the so-called *Găiceana type* (Vulpe 1990, 57-61, cat. 74-75) dated back by the late 6th century BC (like the one from Barrow no. 5 near Separi). In addition, A. Vulpe does not extend the chronological position of the Posmuş type on the whole 7th century BC; *terminus post quem* has been set by 650-550 BC (Vulpe 1990, 27-28). Meanwhile, even Caucasian parallels to the grave goods do not allow us to date the finds earlier than the mid-7th century BC (Козубова, Скаков 2012, 199-200).

posedly, Golden eagle – *Aquila chrysaetos* (after Вольная 2015, 21)) was discovered exactly on the Caucasus (fig. 6). 10 objects were found in graves excavated in the North Caucasus: two in Grave no. 2 and Grave no. 4 of the Nižniy Čegem cemetery (after Виноградов 1972, 101, 109, рис. 28/1, 11), four at the Faskau cemetery (after Уварова 1900, 275, табл. 115/4, 5; Крупнов 1960, табл. 75/2-5), two at the Koban cemetery (after Уварова 1900, 83, рис. 80; Погребова, Раевский 1992, 127, рис. 19/а-б), one in Verkhniy aul (after Вольная 2002, рис. 3/5), and one at the Klivana cemetery (after Козенкова 2007, 267, 268). In Transcaucasia, in Georgia, *bouterolles* are known from the disturbed Grave no. 4 in Dvani (after Макалатия 1949, 226, рис. 6), Grave no. 495 in Natsargora (after Georgien 2001, №374; Mehnert 2008, Taf. 68/20)¹⁴, and a stray find from Patardzeuli (after Маисурадзе, Пирцхалава 2011, 71, рис. 1). The dagger from Grave no. 246 of the Tlia necropolis was also supplied with a similar *bouterolle*, but was made out of bone (after Техов 1980a, рис. 18/2). In the Kuban region such objects were discovered in Grave no. 55 of the Vladimirovskiy cemetery (after Шишлов и др. 2007, рис. 3/10) and on the 5th Paškovskoe hillfort (after Пьянков 2005, рис. 1). A find from Маикоп also refers to this group of objects, despite the fact that it was mistakenly attributed as a finial of a chariot (after Іллінська 1963, 35, рис. 2/5; Переводчикова 1980, рис. 1/9). A clearly Caucasian *bouterolle* was discovered at a considerable distance in the Grave no. 336 of the Starshiy Akhmylovskiy cemetery, the Volga-Kama region (after Патрушев, Халиков 1982, 46, табл. 56/4в). There are not so many *bouterolles* in the North Pontic region: from the 2nd tomb of the Reryakhovatoya Mogyula near Matusov (Ильинская, Мозолевский, Тереножкин 1980, 41-42, рис. 11/5-7), stray finds from the Snake Island (Greek: *Λευκός (Leucos)*) (Островерхов, Охотников 1989, 55, рис. 3/6; Охотников, Островерхов 1993, 46, фото 18/1), and the Nisporeni district, the Republic of Moldova (Топал 2014, 23, рис. 2/4). Besides this, there are some recent finds of *bouterolles* in the shape of bird's head from the Crimean mountains: near Staryi Krym and Alan-tepe, the Kirovskiy district, the village of Aleksandrovka, and between Sennoe and Nekrasovka, the Belogorsk dis-

¹⁴ Perhaps, the *bouterolles* were among the materials of the Brili burial ground (Маисурадзе, Пирцхалава 2011, 71).

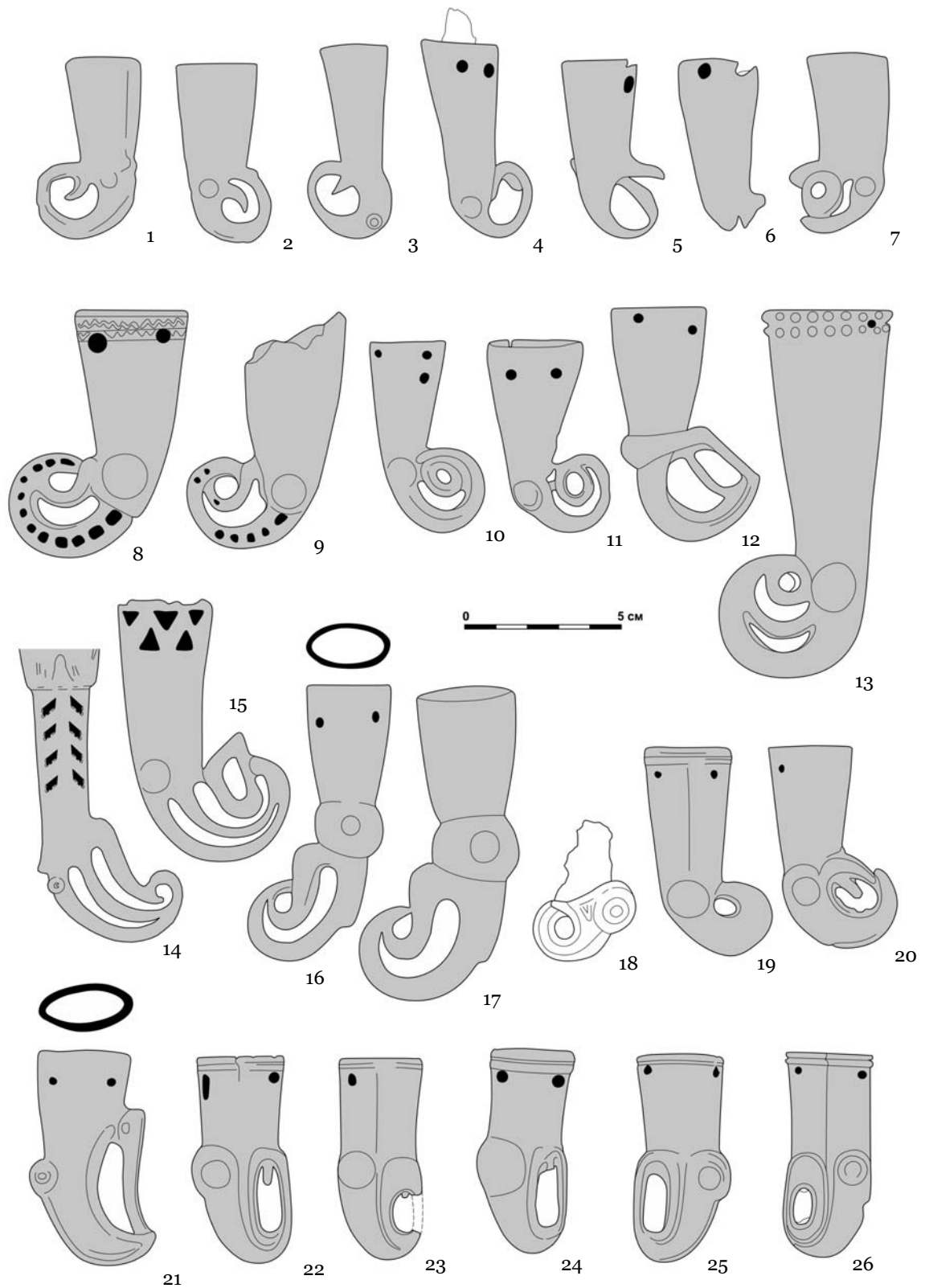


Fig. 5. Bouterolles in the shape of bird's head. 1 - Nizhniy Chegem, gr. 4; 2 - Nizhniy Chegem, gr. 2; 3 - Verkhniy Aul; 4-7 - Faskau; 8 - Klivana; 9, 15 - Koban; 10 - Natsargora, gr. 495; 11 - Dvani, gr. 4; 12 - Akhmylovo burial ground, gr. 336; 13 - Patardzeuli; 14 - Firminiş; 16 - Vladimirovskiy, gr. 55; 17 - Maykop; 18 - Tlia, gr. 246; 19 - Aleksandrovka; 20 - Sennoe-Nekrasovka; 21 - Pashkovskoe hillfort 5; 22 - Surb-Khach; 23 - Staryi Krym; 24 - Snake island (Leucos); 25 - Nisporeni; 26 - Repyakhovataya Mogyla (Matusov), tomb 2.

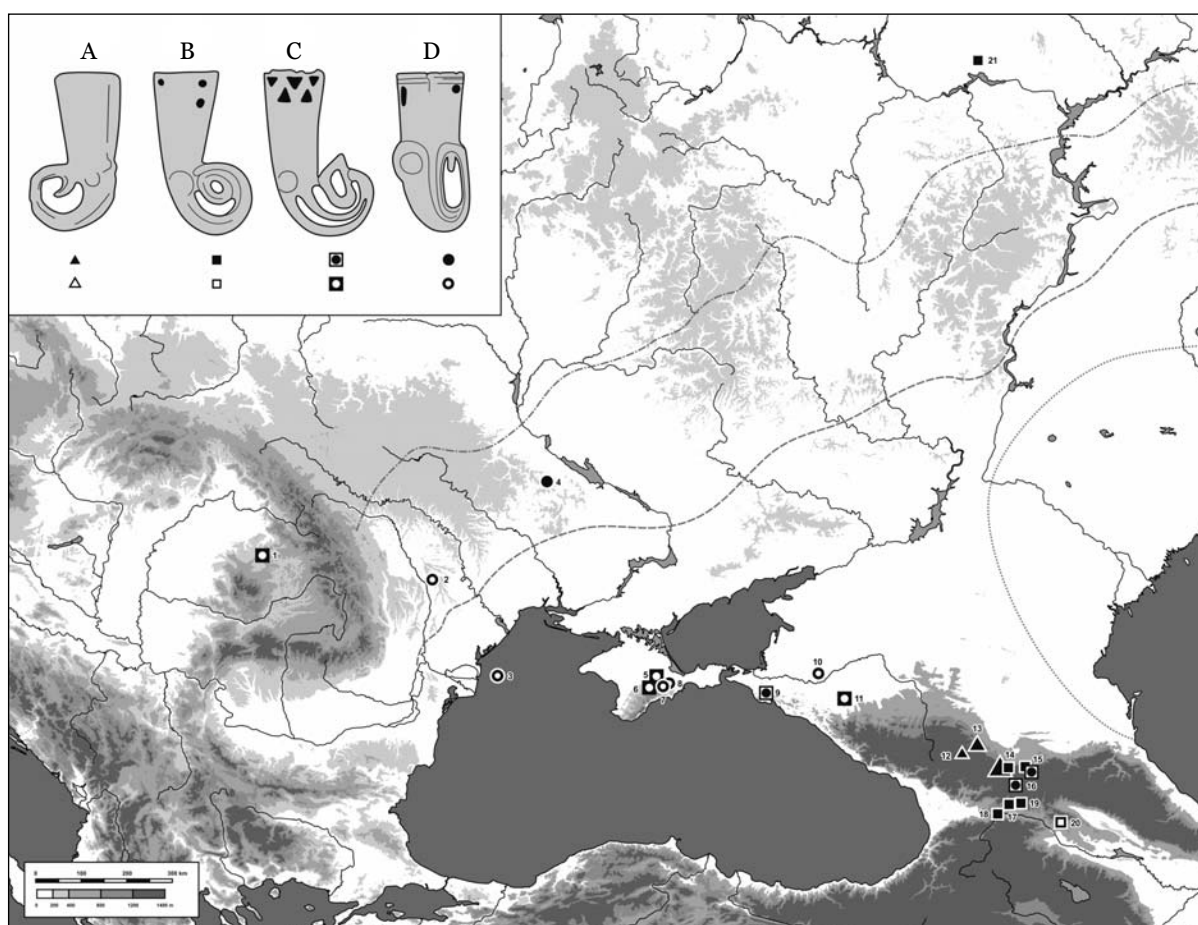


Fig. 6. Distribution of bouterolles in the shape of bird's head: *A - Digorian type (Faskau), B - Koban type, C - transition type (Firminiş), D - Northern-Pontic type (Matusov)*. 1 - Firminiş; 2 - Nisporeni; 3 - Snake island (Leucos); 4 - Repyakhovataya Mogyla (Matusov); 5 - Sennoe; 6 - Aleksandrovka; 7 - Surb-Khach; 8 - Staryi Krym; 9 - Vladimirovskiy; 10 - Pashkovskoe hillfort; 11 - Maykop; 12 - Verkhniy Aul; 13 - Nizhniy Chegem; 14 - Faskau; 15 - Koban; 16 - Tlia; 17 - Dvani; 18 - Natsargora; 19 - Klivana; 20 - Patardzeuli; 21 - Akhmylovo.

trict (Скорый, Зимовец 2014, 39-42). Exemplars from Staryi Krym and Alan-tepe are the exact parallels to the objects from the Repyakhovatoya Mogyla, Nisporeni, and Leucos, but objects from Aleksandrovka (fig. 5/19) and Sennoe-Nekrasovka (fig. 5/20) are more similar to the finds from the North Caucasus. Despite the certain realism of bird's beak and eyes, the shape of the ending is designed in the shape of ringed ledge that, probably, indicates the archaism of these artifacts.

Unfortunately, there are not too many well-dated complexes containing the bouterolles. Grave no. 4 from Nizhniy Chegem could be dated to the 2nd half of the 7th century BC (after Виноградов 1972, 101-102; Маисурадзе, Пирцхалава 2011, 74). Grave no. 336 from Akhmylovo belongs to the turn of the 7-6th century BC (after Погребова, Раевский 1992, 205). One of the earliest burials is probably Grave no. 246 from Tlia. Bagrat Tekhov

attributed this complex to the 2nd half of the 7th century BC (after Тихов 1980a, 69-70), although Nino Sulava, based on an iron fibula, dated it back to the 1st half of the 6th century BC (after Сулава 2006, 58). Grave no. 495 from Natsargora was dated to the 8-7th century BC (after Georgien 2001, 407), that has caused the objections from Marina Pirtskhalava and Vissarion Maisuradze, who proposed to limit the date to 650-500 BC (Маисурадзе, Пирцхалава 2011, 75). The objects from the North Pontic region were dated in general slightly later than the Caucasian examples. Based on the chronology of the 2nd tomb of the Repyakhovatoya Mogyla, bouterolles from Matusov, Leucos and Nisporeni could be dated to the turn of the 7-6th century BC (after Гречко 2012, 77-79; Топал 2014, 25). This date could be indirectly confirmed by the finds from the Snake Island: the earliest fragments of Rhode-Ionian pot-

tery from this site are dated to the late 7th - early 6th century BC (after Охотников, Островерхов 1993, 29, 104).

In general, there are several groups of the bird's head bouterolles¹⁵: *Digorian* (the Faskau type) (fig. 5/1-6), the *Koban* type (fig. 5/7-13) and the *North Pontic* (Matusov type) (fig. 5/21-26). The first group, allocated for convenience into Digorian type, is typical for the North Caucasus and represents a bronze holder with a ringed ledge, inside of which is shown a tongue. Samples from Transcaucasia and some items from the North Caucasus (of the Koban type) are designed in a similar (however, not realistic) way: the bird's beak is shown with a certain degree of stylization (by a double-turn spiral). The next group is represented by the finds from Koban, and in fact continues the evolution of the image to the increased realism. Bird beaks on the bouterolles of the Northern Pontic type are less curved and more elongated that make them closer to the scabbard's ending from the Pashkovskoe hillfort. And a *hybrid variant* appears in Crimea, that keeps the Caucasian shape (the rounded beak) combined with stylistic features from the Black Sea region (design of head). The North Pontic bouterolles are properly oval holders including the protome of the head of bird of prey. There is another intermediate link between the North Pontic and Koban items: the *Firminiş type*, that has elongated spiral shape of the beaks (fig. 5/14-18). Besides the openwork of ending, the sheath from Firminiş is closer to the Caucasian examples by its triangle openings, resembling, for example, bouterolle from the Koban burial ground. Therefore, an attempt of dating the scabbards from Firminiş to the 6th or even to the 5th (sic!) century BC (after Вольная 2015, 27) looks strange, despite the fact that even in the 1970-80s the highest date went no further than the early 6th century BC (after Matei 1978, 22; Черненко 1984, 59). Thus, the most preferred chronological position of the Firminiş

¹⁵Andrey Novichikhin defines, in particular, two main groups: one, more stylized associated with Koban antiquities of Central Caucasus and less – with the North Pontic region. And a special place occupies bouterolle from the Vladimirovskiy cemetery (Новичихин 2006, 51-52). Galina Volnaya in her recent paper also studies two main types: “with the ringed beak, sharpened slightly convex tongue and a little oval eye” and “strongly curved beak from two slices, big oval eye and semi-ringed tongue” (Вольная 2015, 21). However, there is also the third type on the table from this article (Вольная 2015, 22), which probably unites the exemplars standing out of the proposed typology (perhaps, due to the proportions).

sword and the Posmuş type looks like the 2nd century BC. Moreover, this date is perfectly consistent with the lower chronological limit of the existence of bouterolles in the shape of bird's head – the Late Koban period (Koban IV after Varvara Kozenkova), or the mid-7th century BC (Вольная 2015, 26).

According to the chronological position of bouterolles and the akinakai that were found with them, these artifacts (as the daggers of the Posmuş type) belong to the next tradition. This was the *Kelermes* tradition (after Ворошилов 2009, 40; Ворошилов 2011, 157; Ворошилов 2013, 91; Топал, Бруяко 2012, 134-141; Денисов 2012, 66-67; Шелехань 2013a, 137-138) that also came to the North Pontic region and the Carpathian basin from the Caucasus. And the Posmuş type perhaps was a kind of a transitional link that combined the well-known technology of bronze casting and new morphology. A number of characteristics indicate the *genetic connection* between the Kelermes and Gudermes akinakai. One of the main features of Kelermes akinakai is the triform handle made out of three shafts, and the central is usually rhombic. It is quite possible that the shape of the central shaft was influenced by manufacturing of akinakai, i.e. due to the fact of making the blade with median rib and the handle by hot hammering from one piece of metal. It seems that on some exemplars the central rhombic shaft of the handle is an extension of median rib of the blade, and two round shafts on the edges of hilt are rudimentary preserved from the frame handles of bimetallic akinakai. Namely, this detail shows the connection between the Kelermes type and the bimetallic akinakai, for which the design of moulded bronze frame had constructive importance. According to B.A. Shramko, if bimetalism disappears, this design becomes an ornamental imitation but not constructive (after Shramko 1984, 31). Perhaps, this could explain the “frame” and “triform” design on much later exemplars known until the 5th century BC. In this regard, akinakes from an Imirler grave near Amasya (Anatolia, Turkey) is especially interesting (Ünal 1982, 66). A long sword from Imirler (fig. 6/10) is often compared to the early Scythian akinakai, including exemplars from Kelermes and the Litoi (Melgunov) Kurgan (after Kossack 1987, 67; Ivantchik 2001, 42-48). It is notable that the cross-section of the blade is rhombic with the rib

in the middle and the handle with hafting plate was covered with the iron frame¹⁶.

Without any doubt, the bight on the handle is the clearest and easily diagnosed characteristic of the early Scythian swords and daggers, and bimetallic at that. K.F. Smirnov had noticed an interesting detail on the hilt of sword from Lapot' (the *Stenka Razin* barrow), namely the ledges (fig. 1/18) "were probably formed as a result of a failed molding of a bight under the pommel" (after Smirnov 1961, 11). According to Smirnov, as a result, the functional needs made it necessary to punch an opening in the handle. This fact, along with bimetallicism in combination with the frame handle, K.F. Smirnov interpreted as "archaic Caucasian features". Such bights are known on the other bimetallic swords with frame handles from Kumbulta-Galiat-Faskau (fig. 1/11), the Kharkiv Museum of History (fig. 1/4) (after Babenko 2006, 55, fig. 1; 2/3, 4) and Maslovka (fig. 1/5) (after Ворошилов, Медведев 2007, рис. 1/2).

Indirectly, the evolution of Scythian swords and daggers is reflected on their sheaths, as well as bouterolles. One of the earliest examples, the eponymous sword from Gudermes of the 1st half of the 7th century BC was accompanied by the scabbard's end with the widespread Iranian subject – the image of the rolled feline predator (fig. 1/2). The earliest akinakai of the Kelermes type of the mid-7th century BC, namely, the ceremonial swords from Barrow no. 1 from Kelermes (after Галанина 1997, табл. 7/1(a), 9/1(c)) and the Litoi Kurgan (after Придик 1911, табл. 1, 3/1) were accompanied with sheath with semi-oval extension. The bouterolles with the image of the rolled feline predators were found near Kelermes akinakai in Grave no. 164 (after Техов 1980a, рис. 12/2, 6) and Grave no. 216 (after Техов 1980a, рис. 14/1, 5) of the Tlia cemetery, and a kurgan near Daryevka (after Ильинская 1975, табл. XXXIV/3, 18)). Perhaps, with the further evolution of the Kelermes type, the Koban bouterolles¹⁷ in the shape of bird's head had been also adopted (along with the traditional Scythian

rolled predators). For good reason, that one of the latest Kelermes swords from the 2nd tomb of the Repyakhovataya Mogyla (of the turn of the 7-6th century BC) has a bouterolle with the image of the bird of prey (fig. 5/26).

Conclusion

Ergo, bimetallic akinakai, are the result of the further evolution of bladed weapons produced by the so-called *Caucasian laboratory*, and we can assume that for some time they coexist with the daggers of the Kabardino-Pyatigorsk type, probably in the 1st half of the 7th century BC. The ulterior development of Scythian akinakes and its widespread in the Black Sea region provoked rejection of use of bronze due to the complexity of the technology and, perhaps, to the difficulties with access to raw materials. However, the morphology of the new product was more stable that subsequently led to the emergence of new types of weapons. The penetration of the akinakai in the Carpathian basin is extremely significant. Like the Caucasus, this region could be considered as the center of generation of new types of Scythian blade weapons. The creative rethinking of the Gudermes and Kelermes traditions was taken place exactly in the Carpathian basin. These processes led to the appearance of the Posmuş type in Transylvania and the Ferigile type (after A. Vulpe) in Wallachia that stayed within the area are the local feature of the Carpathian-Danube region (fig. 4). The way of distribution of the early Scythian akinakai allows us to conclude that the penetration of akinakai (and their owners, of course) in this region had taken two main routes. The initial infiltration followed the northern border of the forest-steppe area on the way to Transylvania¹⁸, and later – along the southern one, to the Bărăgan Plain.

¹⁶ H. Hauptmann wrote that the handle of this sword is made out of bronze (Hauptmann 1983, 268), but V. Ūnal ignored the description of this quite important detail in the first publication of Imirler burial.

¹⁷ According to G. Volnaya, the curved tongue of birds is not typical for the Koban culture, so the image of the bird of prey's head was inspired by Early Scythian art (Вольная 2015, 25, 26).

¹⁸ Igor Bruyako expressed the opinion on the possibility of such route of penetration of Scythians in Transylvania (Бруяко 2005, 186-188, рис. 53), while Romanian researchers insisted on the existence of the passes to the South – between the Bistriţa and Tărnău mountain ridges (Mihăilescu-Bîrliba, Untaru 1971, fig. 4).

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Utilizarea bronzului la producerea pumnalelor akinakai scitice timpurii

Rezumat

Pentru pumnalele akinakai scitice timpurii este caracteristică realizarea lor din bronz, cel mai des în aliaj cu fierul. Tehnologia confecționării mânerelor bimetalice este pusă în legătură cu „schema cimeriană” în a cărui cadru se confecționau așa-numitele pumnale de tip Kabardino-Piatigorsk. Cele mai târzii piese de acest tip sunt atestate în siturile datate la mijlocul sec. VII a. Chr. și din acest considerent pot fi tratate drept precursori ale akinakesului scitic. Atelierele scitice au moștenit tehnologia bimetalică de la predecesorii lor și primele pumnale de acest fel sunt asociate cu tipul Gudermes, apărut la sfârșitul sec. VIII a. Chr. - începutul sec. VII a. Chr. în Caucaz. Akinakai

timpurii sunt cunoscute și în bazinul Carpatic, fiind confecționate în totalitate sau parțial din bronz, de tip Posmuș. Descoperirile respective sunt atribuite tradiției Kelermes, aceasta din urmă a pătruns în nordul Pontului și în zona carpato-nistreană tot din Caucaz. Cu privire la pumnalele de tip Posmuș, constatăm că, probabil, acestea reprezintă piese ale unei etape de trecere, combinând tehnologia prelucrării bronzului cu o morfologie nouă. Legătura genetică dintre tipurile Gudermes și Kelermes este ilustrată prin realizarea mânerelor din trei părți, centrală fiind în secțiune romboidală cu inel de prindere. Piesele bimetalice sunt de fapt produsul unei evoluții a pumnalelor „laboratorului caucazian”. Totodată, putem presupune că, o perioadă oarecare, piesele date au coexistat cu pumnalele de tip Kabardino-Piatigorsk, probabil în prima jumătate a sec. VII a. Chr. Evoluția ulterioară a pumnalului akinakai scitic și răspândirea lui largă în nordul Pontului a condus la renunțarea confecționării acestuia din bronz, probabil datorită complexității tehnologiei și limitării accesului la materia primă. Însă, morfologia noilor produse, calitativ nouă, a condus la apariția noilor tipuri de piese. În spațiul carpato-nistrean, în perioada scitică timpurie, tradițiile Gudermes și Kelermes suportă o serie de modificări. Drept rezultat, în Transilvania apar pumnalele de tip Posmuș, iar în Valahia cele de tip Ferigele, al căror areal nu se extinde în afara regiunii și formează două variante locale. Analiza răspândirii pumnalelor akinakai scitice timpurii ne permite să constatăm că pătrunderea tipului respectiv de armament s-a produs pe două căi: în perioada timpurie, prin nordul regiunii de silvostepă, în Transilvania, și mai târziu, prin regiunea de sud – în câmpia Bărăganului.

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- Fig. 1. Akinakai de tipul Gudermes. 1 - Polsko Kosovo; 2 - Gudermes (Stepnoj), tum.; 3 - Tlia, m. 85; 4 - Muzeul de istorie din or. Harkiv; 5 - Maslovka; 6 - Pokrovka; 7 - Berezovka-*Muntele Karaulnaia*; 8 - Orbeasca de Sus; 9 - Stremț; 10 - Bujor; 11 - Kumbulta (Galiat, Faskau); 12 - Lopatino; 13 - Muzeul din or. Zlatoust; 14 - Rajgorod (Prussy), tum. 2; 15 - Šolohovo, tum. 13; 16 - Bogučary; 17 - Gradižsk; 18 - Lapot' (tumulul lui Stenka Razin) lângă or. Kamyšin; 19 - Łubnice; 20 - Steženskij; 21 - Mežgorie-Barabanovo.
- Fig. 2. Akinakai de tipul Posmuș (1-9) și akinakai de origine siberiană (10-13). 1 - Firminiș; 2 - Aiud-*Parc*; 3 - Posmuș; 4 - Tiszabercel; 5, 7 - Mărișelu, gr. 7; 6 - Mărișelu, gr. 4; 8 - Mărișelu, gr. 6; 9 - Budești-Fînațe, gr. 6; 10 - Kiziltu; 11 - Timašovka; 12 - Borsod; 13 - Ruskie Folvarki.
- Fig. 3. Complexe funerale cu akinakai de tipul Posmuș: A - Budești-Fînațe, gr. 6; B - Aiud-*Parc*; C - Mărișelu, gr. 7; D - Mărișelu, gr. 6; E - Mărișelu, gr. 4; F - Posmuș.
- Fig. 4. Distribuția akinakai bimetalice și din bronz. A - *akinakai din bronz de origine siberiană*: 1 - Borsod; 2 - Ruskie Folvarki (or. Camenița); 3 - Timašovka; 4 - Kiziltu. B - *akinakai de tipul Gudermes*: 1 - Polsko Kosovo; 2 - Orbeasca de Sus; 3 - Stremț; 4 - Rajgorod; 5 - Gradižsk; 6 - Harkiv; 7 - Bogučary; 8 - Steženskij; 9 - Pokrovka; 10 - Maslovka; 11 - Lopatino; 12 - Berezovka; 13 - Zlatoust; 14 - Lapot'; 15 - Bujor; 16 - Kumbulta; 17 - Stepnoj; 18 - Tlia; 19 - Łubnice; 20 - Šolohovo; 21 - Mežgorie-Barabanovo. C - *akinakai de tipul Posmuș*: 1 - Tiszabercel; 2 - Firminiș; 3 - Aiud; 4 - Budești-Fînațe; 5 - Mărișelu; 6 - Posmuș.
- Fig. 5. Buterole în forma de cap de pasăre. 1 - Nižnij Čegem, m. 4; 2 - Nižnij Čegem, gr. 2; 3 - Verhrij Aul; 4-7 - Faskau; 8 - Klivana; 9, 15 - Koban; 10 - Nacargora, m. 495; 11 - Dvani, m. 4; 12 - Ahmylovo, m. 336; 13 - Patardzeuli; 14 - Firminiș; 16 - Vladimirovskij, m. 55; 17 - Majkop; 18 - Tlia, m. 246; 19 - Aleksandrovka; 20 - Sennoe-Nekrasovka; 21 - cetățuia Paškovskoe-5; 22 - Surb-Haci; 23 - Staryj Krym; 24 - Insula Șerpilor (Leucos); 25 - Nisporeni; 26 - Repeahovataja Moghila (Matusov), m. 2.
- Fig. 6. Distribuția buterolelor în forma de cap de pasăre. A - *tipul digorian (Faskau)*, B - *tipul Koban*, C - *tipul de tranziție (Firminiș)*, D - *tipul pontic (Matusov)*. 1 - Firminiș; 2 - Nisporeni; 3 - Insula Șerpilor (Leucos); 4 - Repeahovataja Moghila (Matusov); 5 - Sennoe; 6 - Aleksandrovka; 7 - Surb-Haci; 8 - Staryj Krym; 9 - Vladimirovskij; 10 - cetățuia Paškovskoe; 11 - Majkop; 12 - Verhrij Aul; 13 - Nižnij Čegem; 14 - Faskau; 15 - Koban; 16 - Tlia; 17 - Dvani; 18 - Nacargora; 19 - Klivana; 20 - Patardzeuli; 21 - Ahmylovo.

Бронза в изготовлении раннескифских акинаков

Резюме

Одним из признаков, указывающим на архаичность скифского клинкового оружия, является использование в изготовлении акинака бронзы, чаще всего в сочетании с железом. Технологию изготовления раннескифских биметаллических рукоятей возводят к «киммерийской схеме», в рамках которой изготавливались т. н. кинжалы кабардино-пятигорского типа. Самые поздние из них, скорее всего, доживают до середины VII в. до н.э., поэтому они вполне могут претендовать на роль прототипа скифского акинака. Биметаллическая технология досталась скифским оружейникам в наследство от предшествующей традиции, и первые биметаллические акинаки типа Гудермес возникли на рубеже VIII-VII вв. до н.э. на Кавказе. В Карпатском бассейне также известны раннескифские акинаки, изготовленные полностью либо частично из бронзы, – типа Посмуш. Эти кинжалы относятся к следующей по времени традиции – келермесской, которая также проникла в Причерноморье и в Карпато-Поднестровье с Кавказа. А тип Посмуш, возможно,

являлся переходным звеном, сочетавшим технологию бронзового литья и новую морфологию. О генетической связи акинаков типа Гудермес и Келермес свидетельствует ряд признаков: трехчастная рукоять в виде двух валиков с ромбической перемычкой и петля на рукояти. Биметаллические акинаки являются продуктом дальнейшей эволюции клинкового оружия производства «кавказской лаборатории». Можно предположить, что какое-то время они сосуществуют с кинжалами кабардино-пятигорского типа, например, в первой половине VII в. до н.э. Дальнейшее развитие скифского акинака и его широкое распространение в Причерноморье могли спровоцировать отказ от применения бронзы в связи со сложностями технологии и, возможно, доступом к сырью. Однако морфология нового продукта оказалась более устойчивой, что впоследствии привело к появлению новых типов изделий. В Карпато-Подунавье в раннескифское время происходит творческая переработка гудермесских и келермесских традиций. В результате в Трансильвании появились кинжалы типа Посмуш, а в Валахии – мечи типа Фериджиле, ареал которых не выходит за пределы региона, и они являются локальной особенностью. Анализ распространения раннескифских акинаков позволяет заключить, что проникновение клинкового оружия в Карпато-Подунавье проходило двумя основными маршрутами: на начальном этапе – по северной границе лесостепи в Трансильванию, и чуть позднее – по южной, в бараганскую степь.

Список иллюстраций:

Рис. 1. Акинаки гудермесского типа. 1 - Полско Косово; 2 - хут. Степной, курган; 3 - Тли, п. 85; 4 - Харьковский исторический музей; 5 - Масловка; 6 - Покровка; 7 - Березовка «Караульная гора»; 8 - Орбьяска де Сус; 9 - Стремц; 10 - Бужор; 11 - Кумбулта (Галиат, Фаскау); 12 - Лопатино; 13 - музей г. Златоуста; 14 - Райгород, курган 2; 15 - Шолохово, курган 13; 16 - Богучары; 17 - Градижск; 18 - Лапоть (бугор Стеньки Разина) близ г. Камышина; 19 - Лубнице; 20 - хут. Стеженский; 21 - Межгорье-Барабаново.

Рис. 2. Акинаки типа Посмуш (1-9) и бронзовые акинаки сибирского облика (10-13). 1 - Фирминиш; 2 - Аюд «Парк»; 3 - Посмуш; 4 - Тисаберцаль; 5, 7 - Мэришелу, п. 7; 6 - Мэришелу, п. 4; 8 - Мэришелу, п. 6; 9 - Будешть-Фынаце, п.6; 10 - Кызылту; 11 - Тимашовка; 12 - Боршод; 13 - Русские Фольварки.

Рис. 3. Комплексы с акинаками типа Посмуш: А - Будешть-Фынаце, п. 6; В - Аюд «Парк»; С - Мэришелу, п. 7; D - Мэришелу, п. 6; Е - Мэришелу, п. 4; F - Посмуш.

Рис. 4. Распространение бронзовых и биметаллических акинаков. А - бронзовые акинаки сибирского облика: 1 - Боршод; 2 - Русские Фольварки (Каменец-Подольский); 3 - Тимашовка; 4 - Кызылту. В - акинаки типа Гудермес: 1 - Полско Косово; 2 - Орбьяска де Сус; 3 - Стремц; 4 - Райгород; 5 - Градижск; 6 - Харьков; 7 - Богучары; 8 - Стеженский; 9 - Покровка; 10 - Масловка; 11 - Лопатино; 12 - Березовка; 13 - Златоуст; 14 - Лапоть; 15 - Бужор; 16 - Кумбулта; 17 - Степной; 18 - Тли; 19 - Лубнице; 20 - Шолохово; 21 - Межгорье-Барабаново. С - акинаки типа Посмуш: 1 - Тисаберцаль; 2 - Фирминиш; 3 - Аюд; 4 - Будешть-Фынаце; 5 - Мэришелу; 6 - Посмуш.

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Рис. 6. Распространение бутеролей в виде головы хищной птицы: А - дигорский тип (Фаскау), В - кобанский тип (Кобань), С - переходный тип (Фирминиш), D - причерноморский тип (Матусов). 1 - Фирминиш; 2 - Ниспорены; 3 - о. Змеиный (Левке); 4 - Репяховатая Могила (Матусов); 5 - Сенное; 6 - Александровка; 7 - Сурб-Хач; 8 - Старый Крым; 9 - Владимировский могильник; 10 - Пашковское городище; 11 - Майкоп; 12 - Верхний аул; 13 - Нижний Чегем; 14 - Фаскау; 15 - Кобан; 16 - Тли; 17 - Двани; 18 - Нацаргора; 19 - Кливана; 20 - Патардзеули; 21 - Старший Ахмыловский могильник.

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