

## Article

# Golden Swords of the Early Nomads of Eurasia: A New Classification and Chronology

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**Abstract:** The “ceremonial” forms of swords and daggers—that is, bladed weapons decorated with precious metals—occupy a special place in the culture of the early nomads. For the Scythian period, we know at least 76 ceremonial objects from 61 sites, corresponding to 3.5% of the total sample. More than half of the finds come from the northern Black Sea region (mainly Ukraine). Ceremonial forms are represented in all morphological categories (from daggers to extra-long swords), but their distribution is slightly different. Most akinakai belong to the average and long swords. Most Scythian akinakai in Eurasia belong to the dagger and short sword groups. Although most Scythian swords and daggers fall into the Middle Scythian period, most ceremonial forms belong to the last phase of Classical Scythian culture. This period is a veritable “golden autumn” of Scythia with its huge royal burial mounds and abundance of gold, perfectly illustrating our argument that conspicuous consumption coincides with periods of political and social instability. After the peak of the proliferation of ceremonial akinakai in the third quarter of the 4th century BC, we observe a generation later the complete disappearance of Classical Scythian culture, along with its characteristic weapons, horse harnesses, and animal style.

**Keywords:** akinakai; Eurasian nomads; swords; daggers; ceremonial weaponry; Scythian



**Citation:** Topal, Denis. 2024. Golden Swords of the Early Nomads of Eurasia: A New Classification and Chronology. *Arts* 13: 48. <https://doi.org/10.3390/arts13020048>

Academic Editor: Caspar Meyer

Received: 11 August 2023

Revised: 30 January 2024

Accepted: 2 February 2024

Published: 27 February 2024



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## 1. Introduction

The first millennium BC was marked by the spread of iron, the rise of nomadism, and the cavalry revolution. It was also the time of the emergence of new social and cultural standards, thanks to which the nomadic world was to influence the historical landscape of Eurasia for the next two millennia. A completely new cultural space takes shape, commonly referred to as the “Scythian-Siberian world” or the “Eurasian steppe cultural continuum of the Scythian period”. The spread of nomadism at the turn of the second to the first millennium BC led to a veritable explosion in the development of offensive weapons, for weapons are one of the most sensitive indicators of social or ideological change. The sword or dagger and its form became a calling card of early nomadic culture, alongside horse harnesses, funerary architecture, metal vessels, and jewelry. The particular attitude towards weapons reached its highest point in the Scythian period, when the *akinakes* became an object of worship and the embodiment of the god of war (Hdt. 4.62; Mela 2.14). All this suggests that the turbulent cultural processes of the steppe continuum had to have an impact on the appearance of bladed weapons, which were closely linked not only to the everyday lives of nomadic warriors but also to the religious or funerary spheres of nomadic communities.

The object’s history of research began more than two-and-a-half centuries ago with the first steps of Scythian archaeology. In September 1763, A. Melgunov carried out the first documented excavations of a Scythian burial mound in the northern Black Sea region. Among the significant objects of the “Melgunov hoard” discovered at that time, an archaic *akinakes* in a gold scabbard occupied the central place (Pridik 1911, Figures 1–6, Table 1, 3, 4). In the 19th century, the first enthusiasts, no doubt in pursuit of magnificent finds,

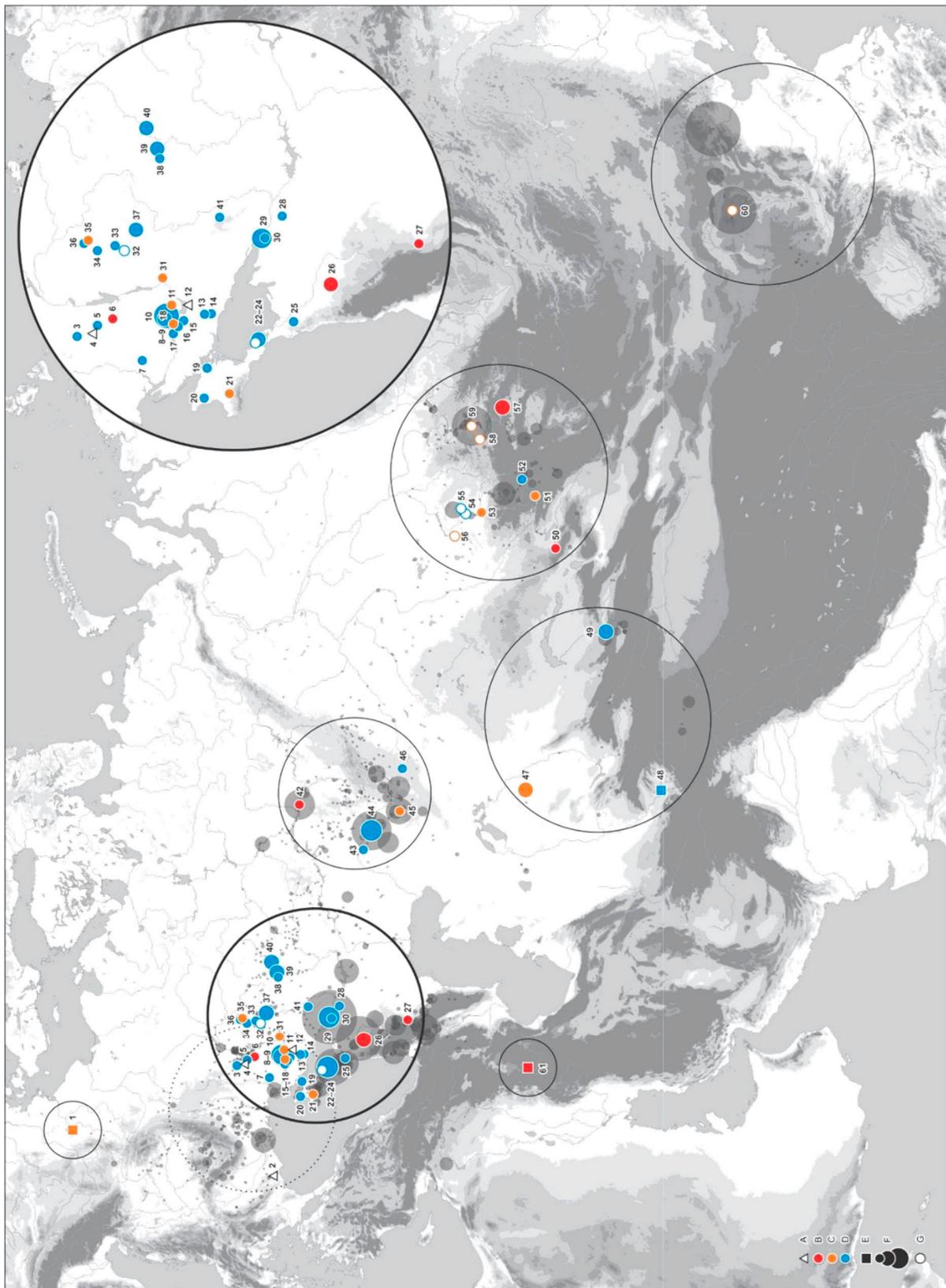
excavated the famous aristocratic tombs of Pontic Scythia. Most of them were equipped with ceremonial swords, for example, Kul-Oba (DBK 1854, Table 26, 2; 27, 10), the Keku-vatsky barrow (Reinach 1892, Table 27, 9), the Hostra Mohyla (DGS 1872, Table 13, 16–18, 26), and the Chortomlyk burial mound (DGS 1872, Table 35, 1, 2; 37, 3; 40, 9, 12, 14). At about the same time, far to the west, a Scythian gold sword turned up in a hoard near Vetttersfelde (Furtwängler 1883, Taf. 3). These fantastic finds probably prompted Scythian archaeological research initially to examine the most common examples, which formed the basis for the first observations on the Scythian sword's development, chronology, and local expression.

The “ceremonial” forms of swords and daggers, that is, bladed weapons decorated with precious metals, usually gold, occupied a special place in the culture of the early nomads. Among the most important warriors of the Achaemenid Empire (e.g., the Persian kings), gold swords frequently appear as royal gifts on special occasions (Hdt. 8.120.1; Xen. Anab. 1.2.27; 1.8.27–29). Among the Scythians, the sword was the embodiment of the god of war, the only one of the Scythian gods to whom altars were erected and sacrifices offered (Hdt. 4.62). It is known that gold was an exceptional metal for the Scythians, as it was for all ancient Iranians (Vertiienko 2021, pp. 29–30), and symbolized the so-called *khvarenah* or *xwarra(h)*—military luck, glory, or, in other words, the charisma of the warrior.

For the Scythian period, we know at least 76 ceremonial objects from 61 sites (Appendix A; Figure 1), corresponding to 3.5% of the total sample. Geographically, the ceremonial *akinakai* are unevenly distributed (Table 1): Thus, at least three-quarters of ceremonial *akinakai* are concentrated in the European part of the area (59; 78%), while 17 (22%) of such objects are found in Asia. Moreover, more than half (51%) of the finds (39 objects) come from the northern Black Sea region (mainly Ukraine), 11 (14%) from southern Siberia, nine (12%) from the Ural region, five finds each (7%) from the Caucasus, the Volga region, and Central Asia, and one each from China and Central Europe. Most Scythian *akinakai* in Eurasia belong to the groups of daggers (with a blade length of up to 20 cm; 37.8%) and short swords (20–30 cm; 27.2%). Ceremonial forms are represented in all morphological categories (from daggers to extra-long swords), but their distribution is slightly different—most *akinakai* belong to the average (30–40 cm; 50%) and long (40–70 cm; 27%) swords. The chronological distribution of *akinakai* in the European part of the area roughly corresponds to that of Gauss (which means the gradual appearance and gradual disappearance of the type), with most finds belonging to the Middle Scythian period (late 6th–early 5th centuries BC), which is closer to the end. Most ceremonial forms (51; 67%) are, on the contrary, assigned to the last stage or the Classical Scythian culture. The peak is associated with the last phase: the second half of the 4th century BC or the third quarter of the 4th century BC. Nevertheless, on average, there are four ceremonial specimens per region in a given chronological period. In other words, there was an average of one ceremonial *akinakes* per generation in each region. The only exception is the Black Sea region in the Classical period, where the number of ceremonial swords is 10 times higher. But before we deal with this anomaly, a survey of the geographic distribution and formal development of the relevant material is in order.

**Table 1.** Distribution of ceremonial *akinakai* by periods and regions.

	Danube	Pontus	Caucasus	Volga	Ural	Central Asia	Siberia	China	Total (Periods)	% (Periods)
Early (700–575 BC)	-	1	4	-	1	-	3	-	9	11.8
Middle-I (550–500 BC)	1	2	-	-	-	-	1	-	4	5.3
Middle-II (500–425 BC)	-	3	-	-	2	2	4	1	12	15.8
Classical (425–300 BC)	-	33	1	5	6	3	3	-	51	67.1
Total (regions)	1	39	5	5	9	5	11	1	76	100
% (regions)	1.3	51.3	6.6	6.6	11.8	6.6	14.5	1.3	100	



**Figure 1.** Distribution of the ceremonial swords in Eurasia (A—pre-Scythian, B—Early Scythian, C—Middle Scythian, D—Classical Scythian, E—hoards, F—burial mounds, and G—stray finds; other items are gray-colored); the numbers correspond to the list in Appendix A.

## 2. Swords from Hoards and Other Unusual Contexts

Less than half of the other Scythian *akinakai* were discovered as “stray finds” outside archaeological assemblages (912 out of 2130, 43%). For various regions, this figure ranges between 25 and 60% (Topal 2021, Table 4). Most finds of ceremonial swords (over 85%; 52 out of 62) are associated with aristocratic burial mounds, almost all of which are male burials (a ceremonial dagger accompanied a woman in a famous double tomb of the Arzhan-2 mound). For Eurasia, except for Arzhan-2, only a few cases of bladed weapons in women’s graves are known (Fialko 2015, pp. 65–75). However, almost all finds of ceremonial swords are associated with funerary monuments—aristocratic burial mounds. Only one sword, one scabbard, and one scabbard’s chape were found as part of a hoard, while two other swords and scabbards come down to us without any reliable archaeological context. However, the scabbard (Figure 2, 1) from Chayan (now the village of Zaporozizke, Saki District in Crimea) and a stray find from the village of Klyuchi in Tyumentsevo District, Altai Krai (Figure 12, 11), most likely belong to destroyed or looted graves (Shcheglov and Katz 1991, p. 114; Frolov 2016, p. 57). In this connection, we can assume that the scabbard described as an “accidental purchase from Kerch” (Alekseev 2006, 48, Figure 2, 4) was also part of the burial.

Two other swords were found in burial mounds, but in a somewhat unusual context. A sword in a gold scabbard from the Melgunov barrow, or Lita Mohyla (Figure 2, 3), near the village of Kopani (Znamianka District, Kirovohrad region) was found to the west of the center of the mound at a depth of about two meters in a stone box, among many other things lying together (Tunkina 2006, p. 136). Probably because of the absence of bone remains (Miller 1764, pp. 502–3), this assemblage entered the literature as the “Melgunov hoard” (Pridik 1911, p. 2). Additional investigation of the monument in 1990 revealed that the “treasure” was embedded in the Bronze Age mound and was probably a cenotaph (Kisel 2003, pp. 24, 27). The ditch with horse burials (excavated in 1990) and the Scythian burial in the catacomb (in 1892) date to the Classical period (4th century BC) and are not associated with the Early Scythian “treasure” or “cenotaph” (Bokiy and Mogilov 2014, p. 35). Archaeological proxies do not support the hypothesis of a burnt tomb because the identified traces of burning and slag belong to the iron workshops at the site in post-Scythian times.

An unusual case of an archaeological context related to a ceremonial sword was documented in Burial Mound 30 near the village of Velyka Bilozerka, Zaporizhzhia region (Figure 2, 4). The modest size of the mound, the burial feature, and the grave goods do not allow it to be assigned to the highest aristocratic rank. Probably the discrepancy between the status of the buried person and the ceremonial *akinakes* prompted the participants of the ceremony to place the sword with its gold-covered scabbard in a deep cache in the corner of the burial chamber (Otroshchenko 1984, p. 122).

In addition to these unusual ritual assemblages, several hoards included Scythian ceremonial swords and sheath details. Such a collection containing explicitly Scythian objects was allegedly excavated near Ziwiye Castle in Iran. It is still one of the main arguments for the hypothesis of the origin of Scythian art in the Near East. Around 1946–1947, a bronze sarcophagus containing many gold, silver, and ivory items was discovered near Saqqez in Iran. The coffin’s interior suggests its function as a container for treasures rather than a burial (Moorey 1971, p. 260; Wicks 2012, p. 156). In the 1950s, after the first publications (Godard 1949; Godard 1950; Ghirshman 1950), and probably due to the emerging interest in objects from “Ziwiye” on the antiquities market, the stream of finds from this region continued. The total number of items associated with the site soon exceeded 340 objects. Among them, four cultural groups can be distinguished: Assyrian, Scythian, Assyrian with Scythian elements, and local (Uartian, Mannaeen?) (Ghirshman 1950, p. 181). As purely Scythian items, they are usually described as a silver plate inlaid with gold, fragments of a belt (van Loon 1966, p. 178; Ghirshman 1979, pp. 19–26), and a gold sword scabbard’s chape or bouterolle (Stöllner et al. 2004, p. 757, Kat. 442). So far, we can say that the find from Ziwiye, regardless of whether it is a treasure or a tomb, contains objects from various

places that were looted or brought as gifts. Moreover, some objects are insignia made on behalf of influential local, Scythian, or Median rulers (Lukonin 1987, pp. 71–72). Weapons also occupy an important place among these insignia. The gold sword's scabbard from Ziwiye (Figure 2, 5) belongs to the same line of Scythian ceremonial objects as those from the Kelermes and Melgunov barrows.



**Figure 2.** Akinakai in unusual context: 1—Chayan (Picón et al. 2007, cat. 59), 2—Oxus treasure (Curtis 2012, fig. 9), 3—Melgunov barrow (Alekshev 2012, pp. 80–85; 116–19), 4—Velyka Bilozerka barrow (Rolle et al. 1991, cat. 89). 5—Ziwiye (Stöllner et al. 2004, Kat. 442), 6—Vetttersfelde (Topal 2021, ill. 5).

The contents of the Oxus or Amu Darya hoard present similar difficulties to those from Ziwiye. Deriving most likely from a site near Takht-i Kuwad or Takht-i Sangin in southern Tajikistan, the exact composition of the hoard (which now consists of more than 180 gold and silver objects and over 1500 coins) and its find spot are exceedingly difficult to establish (Muscarella 2003, p. 264). In addition to numerous vessels, bracelets, plates, and figurines made of precious metals, this hoard also yielded a gold sheath for a small dagger. The reliefs on the scabbard show scenes of a royal lion hunt, an allusion to the Assyrian art of the time of Ashurbanipal. It is probably this fact that has led scholars to date the find to the pre-Achaemenid period, and the images of *akinakai* on reliefs from Persepolis with Median captives to a “Median” attribution of the find (Herzfeld 1921, p. 154; Barnett 1962, pp. 78–80; 1968, pp. 36, 38; Ghirshman 1962, p. 79). J. Boardman (2006, p. 118) believed that the decoration on the edge of the sheath in the form of an eye and a beak also argues for the pre-Achaemenid origin of the Takht-i Kuwad dagger. Some scholars date it to the Achaemenid period (Calmeyer 1974, p. 118; Muscarella 1977, p. 192) since the treasure at the Oxus otherwise did not contain any pre-Achaemenid objects (Stronach 2001, p. 242). An Achaemenid date may also be suggested by the image of a winged disc on the upper part of the sheath, although winged sun disks are known even on Neo-Assyrian seals (Boardman 2006, pp. 115–16). The dagger is thought to have been made in the Achaemenid era—no earlier than the reign of Darius I, 522–486 BC (Curtis 2012, p. 340) or, more likely, in the era of Artaxerxes II, 404–359 BC (Curtis and Tallis 2012, p. 145)—perhaps as a gift from the Persian king to an official from a remote province of the empire (Stronach 2001, p. 244).

The most complete of these “treasures” with ceremonial *akinakai* is the set of artifacts discovered in 1882 in northern Lower Silesia (Figure 2, 6). The assemblage came to light near the village of Vetersfelde, now Witaszkowo in Poland (Gmina Gubin, within Krosno Odrzańskie County, Lubusz Voivodeship). This collection, now on display in the Altes Museum in Berlin, is still the westernmost findspot of elite objects with Scythian cultural associations. The contents are richly decorated, partly in a broadly geometric style (pendants, an ornament for the temple, a torque, and a whetstone) and partly in an animal-based one (ornaments in the shape of a fish and a clover-leaf phalera, bracelets, and part of a sword sheath) (Furtwängler 1883, pp. 4–11). According to D. Redfern (2012, pp. 43, 45), 19 different tools were used to make the items from the precious metals, with four of the seven items (bracelet, fish, phalera, and sheath) deriving most likely from the same workshop. At least three of them (fish, phalera, and scabbard) were made using the repoussé technique (Redfern 2000, p. 417). A. Furtwängler (1883, 32) and W. Ginters (1928, p. 18) were convinced of the Ionian origin of the items from Vetersfelde. A. Jessen (1947, p. 84) considered Olbia or Tyras to be the place of manufacture.

The analysis by D. Redfern (2000, p. 417) using the macro-laser imaging technique revealed that the items were all made in a workshop that could not be located more precisely than “in the Black Sea region”. V. Megaw (2005, p. 36) also pointed to Ionian and Persian “orientalizing influences” but linked the origin of the artifacts to the lower Dnieper. Scholars are relatively unanimous about the date of the hoard, with most suggestions falling between the 6th and 5th centuries BC (see Rostovtsev 1925, pp. 399, 410; Schefold 1938, pp. 8, 14, 36, 62; Onayko 1966b, p. 160), although G. Kossack (1987, pp. 30–35) insisted on a date of the 7th century BC. Z. Bukowski (1977, pp. 197–98) also dated the Vetersfelde hoard earlier, using the typological features of the sword to narrow the range to the late 6th to early 5th centuries BC. A. Alekseev (1991b, p. 47) initially proposed “the second quarter of the 5th century BC” as the upper limit and later “the last quarter of the 6th century BC” as the lower limit (Alekseev 2003, p. 198). L. Nebelsick (2014, p. 55) prefers a low chronology for the treasure—within the “second half of the 6th century BC”—and also considers the hoard a diplomatic gift, possibly related to the Scythian campaign of Darius I (Nebelsick 2015, p. 145). He suggests that some of the Scythians involved were the local elites supporting the “Milesian-Persian interests” during the Scythian-Persian conflict and that

the hoard was symbolically destroyed in a sanctuary near a sacred spring (Nebelsick 2003, pp. 78–79; 2006, p. 328; 2014, p. 73).

### 3. The First Ceremonial Swords in the Nomadic Milieu

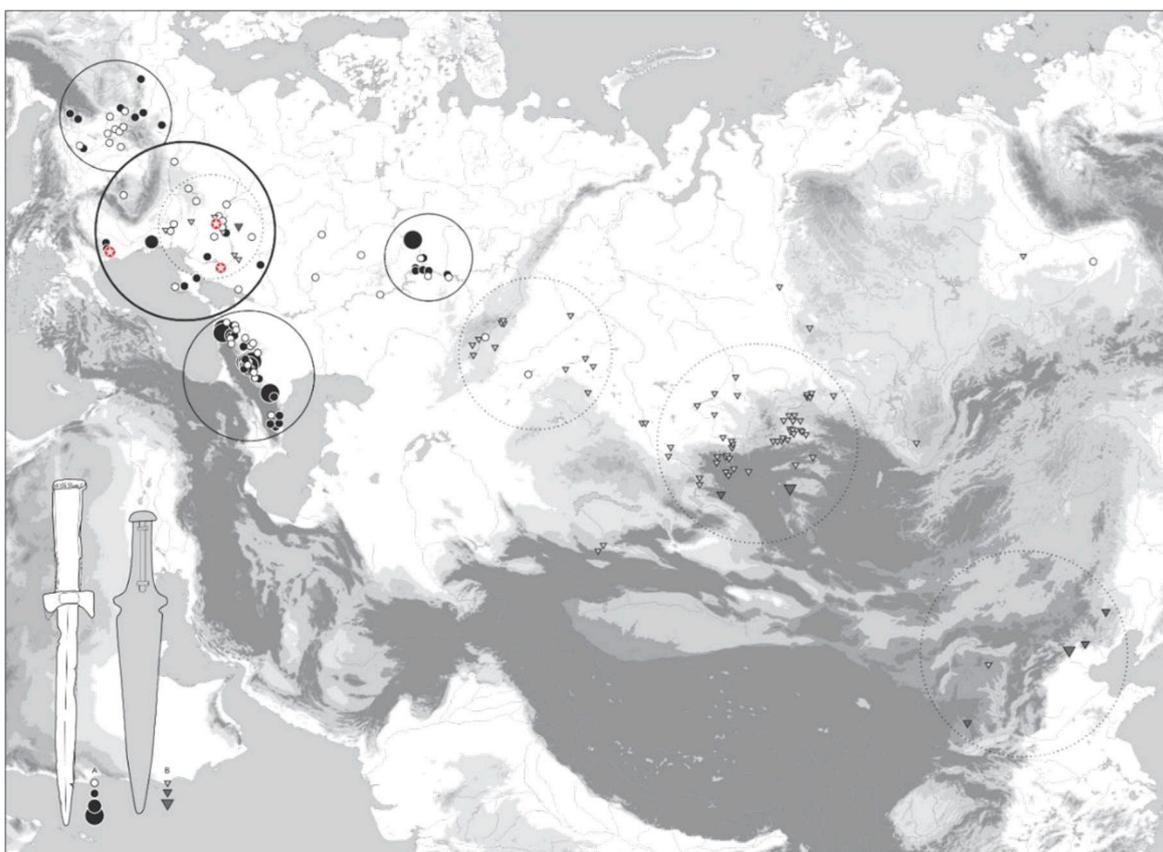
The tradition of decorating swords with gold in the nomadic milieu appeared shortly before the emergence of the Scythian *akinakes*. The best preserved pre-Scythian dagger with a scabbard decorated with gold dates from the middle of the 8th century BC and comes from the Ptichata Mogila mound (Figure 3, 1–4) near Belogradets in northeastern Bulgaria (Tončeva 1980, pl. 22). Elements of gold scabbards, similar to those found at Belogradets, are also known from pre-Scythian graves in Ukraine—for example, from the tumulus Vysoka Mohyla near Balky (Bidzilya and Yakovenko 1974, p. 150) and a barrow near Kvitky (Kovpanenko and Gupalo 1984, pp. 50–53). While it is difficult to reconstruct the shape of the latter example (only small fragments of the hilt and blade are preserved), the daggers from Belogradets and Vysoka Mohyla (Figure 2, 5–7) can nevertheless be attributed to a specific variation of the pre-Scythian weapons, notably the daggers of the *Kabardino-Pyatigorsk type*.

The origin of the Kabardino-Pyatigorsk-type daggers (Figure 4) has traditionally been associated with the Karasuk material repertoire (Terenozhkin 1975, pp. 19, 20). The chronological position of the type generally ranges from the 8th century to the first half of the 7th century BC (Valchak 2008, p. 19). If we try to summarize chronological observations for this category of material culture, we can trace some evolutionary patterns of the Kabardino-Pyatigorsk-type daggers. For example, the round or oval cross-section of the handle is considered a somewhat earlier feature, while the flattened handles with multiple rows of openwork ring-shaped decorations are typical of later products (Podborský 1970, p. 159; Dudarev 1991, p. 45). The length of the hilts decreases over time. Moreover, the straight guards evolve into ones curving towards the blade (Dudarev 1999, p. 100; Valchak 2008, pp. 18, 19; Topal and Bruyako 2012, p. 134). S. Dudarev (1999, p. 100) detected in such changes the influence of iron swords without guards, while S. Valchak (2008, p. 18) explains this process with the gradual withdrawal from circulation of long-bladed weapons, for which wide hilts were an essential technological feature. Bimetallic daggers with a flat handle and a short-curved guard with triangular wings aligned almost directly against the blade are dated later than the others and, most likely, survived until the middle of the 7th century BC. Therefore, the iron daggers from Belogradets and Vysoka Mohyla and another piece from Kvitky belong to the youngest variety of pre-Scythian bladed weapons.

The daggers of Kabardino-Pyatigorsk can undoubtedly be claimed to be a prototype for the Scythian *akinakes* in the North Caucasus, and the size groups of Kabardino-Pyatigorsk swords and daggers are close to those of the early Scythians. Nevertheless, the evolutionary line of the European experiments may have developed in parallel in Asia based on the same Karasuk weapon traditions. The discovery of a bronze dagger in a gold scabbard in Burial Mound 4 of the Eleke-Sazy cemetery (Figure 3, 8–11) in 2018 led to such reflections (Samashev 2018, Figure 4, 5). Its hilt is designed in the form of two diamond-shaped guards, the pommel is decorated in animal style, and the shape of the sheath in the lower part is strikingly reminiscent of the paddle-shaped chapes from the pre-Scythian period of Europe. On the pommel are two heads of feline predators with rounded, recessed ears turned in opposite directions—images familiar from both the well-known buckle in the shape of a rolled predator in the Siberian collection of Peter I and the decorations on the clothing from Arzhan-2 (Alekseev 2012, pp. 32–33, 58–59). Similar bronze daggers were previously known only from stray finds, and their chronological position could only be hypothesized.



**Figure 3.** Pre-Scythian and Early Scythian ceremonial daggers: 1–4—*Belogradets* (Echt 2004, Kat. 193a, 193b), 5–7—*Vysoka Mohyla (Balky)* (Rolle et al. 1991, 357, Kat 78), 8–11—*Eleke Sazy* (Samashev 2018, fig. 4, 5).



**Figure 4.** Distribution of the ceremonial pre-Scythian swords and daggers (A—Kabardino-Pyatigorsk type and B—Karasuk type; ceremonial items are marked with a star).

However, if the lower chronological limit of the preliminary dating of “8th–7th centuries BC” is correct (Samashev et al. 2019, p. 130), this specimen could indicate the chronological priority of the Asian version of the *akinakes*. Besides the dagger, the burial of the adolescent in Barrow 4 was accompanied by a gold torque, a *gorytos* with 40 three-winged arrowheads, and various gold ornaments (Samashev 2018, pp. 111–12). In addition to the *akinakes*’ pommel, the gold scabbard, decorated with deer heads in the granulation technique, is also worked in the animal style. Based on the features of the animal style found in the assemblage, it is most likely synchronous with the cultural and chronological horizon of Arzhan-2 (Čugunov 2020, p. 230).

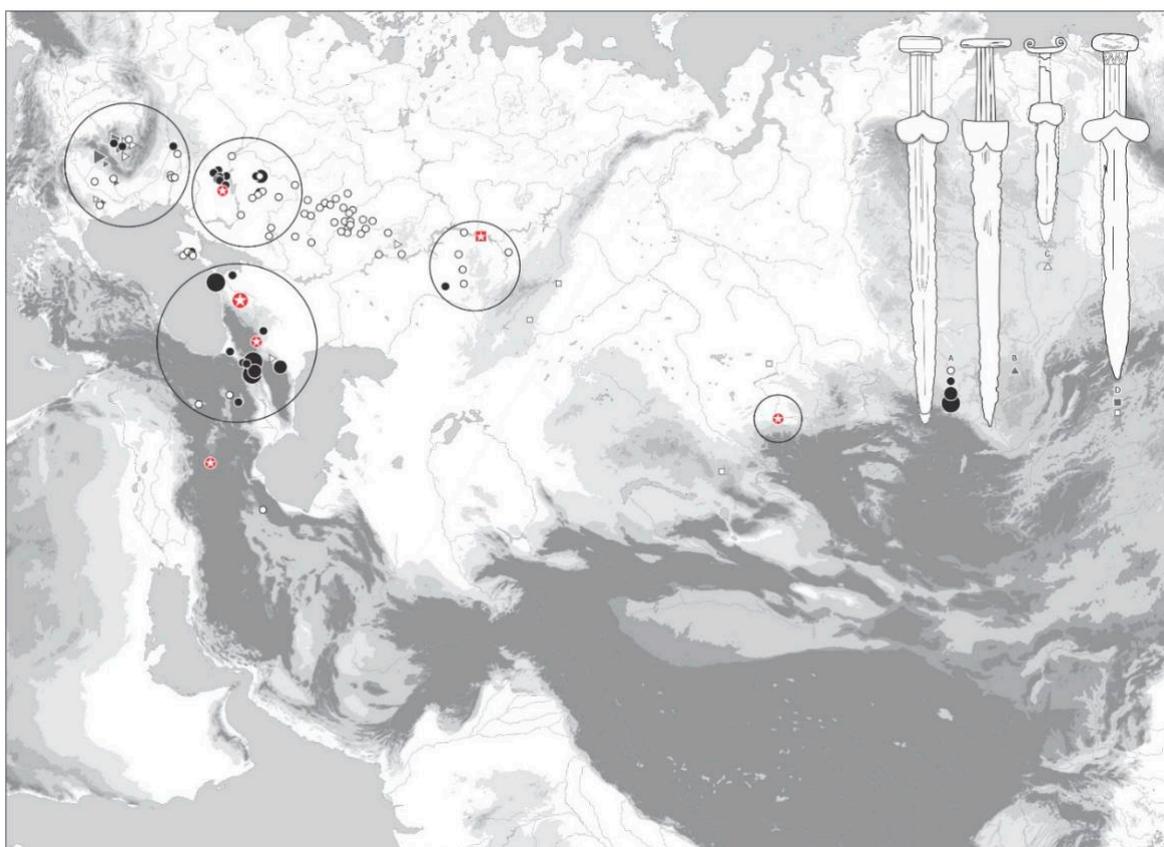
According to K. Čugunov (2020, pp. 229–30), Arzhan-2 marks the final stage of this second cultural-chronological horizon, following the first, the *Arzhan-Chernogorovka stage*. The iron daggers decorated with gold from the Arzhan-2 mound (Čugunov et al. 2010, Taf. 8–9, 40, 61, 76) from the second half of the 7th century BC are undoubtedly of *Nurmanbet-Uygarak* design. One of them, known as the “king’s dagger,” is distinguished by a massive pommel and hilt decorated with half-reversed predators, as well as a ribbed edge showing a procession of animals. K. Čugunov (2011, p. 55) believes that the scrolls framing the cutting edge were made in the Chinese manner and that the dagger itself was not imported but made by a master who was well acquainted with the ornamental traditions of early Chunqiu (“The Spring and Autumn Period”). The *Nurmanbet type* was described by N. Chlenova (1981, p. 7) based on a series of daggers united in the North Kazakhstan type by M. Gryaznov (1956, pp. 11–12). A flat handle characterizes these daggers with a wavy edge and a tip with rounded edges, which, according to N. Chlenova (1981, p. 11), allows them to be called “Karasuk-type” daggers with a mushroom-shaped pommel. The origin of the *Qin type* is associated with the Western Zhou’s leaf-shaped daggers and with the Eurasian steppes’ bladed weapons. A. Tairov (2007) finds parallels to the Nurmanbet type

in daggers of the Qin type (Kang 1999, pp. 374–76, Figure 2a–c), for example, in a specimen from a Yucun burial of the early 8th century BC (late Zhou period). Subsequent examples point to a preference for daggers of a hybrid character, combining the traditions of the steppe culture and the Zhongyuan or Central Plains people (Liang 2018, p. 143).

#### 4. Early Scythian Ceremonial *Akinakai*

The earliest Scythian *akinakai* of the European area are bimetallic swords and daggers of the *Orbeasca-Stepnoy* (Vulpe 1987, 84–85, 88) or *Gudermes* (Topal 2021, 79–81) type, and their construction combines a bronze handle and an iron blade. This idea has been proposed because early Scythian bimetallic handle technology can be traced back to pre-Scythian technology, the so-called Cimmerian scheme. B. Shramko (1984, pp. 30–31) explains the persistence of the old technological methods in combination with the new forms by the lack of familiarity with sophisticated forging and forge-welding combined with a well-developed technology of non-ferrous metal casting. By all appearances, the bimetallic technology was adopted by the Scythian armorers from the preceding Kabardino-Pyatigorsk tradition, and the first samples of *Gudermes akinakai* appeared in the Caucasus at the turn of the 8th–7th centuries BC, while most finds are dated to the first half of the 7th century BC. Moreover, the replacement of bimetallic daggers by iron *akinakes* of “steppe-type” origin is confirmed by the horizontal stratigraphy of the Serzhen-Yurt cemetery, where both pre-Scythian and early Scythian objects were found (Kozenkova 1992, p. 39). The *Gudermes* type is characterized by a high degree of standardization. *Akinakai* of this type belong mainly to the short and average-length swords, and this distinguishes them from both the earlier Kabardino-Pyatigorsk (Figure 4) and the Kelermes type (Figure 5), which are considered later. Burials with *Gudermes akinakai* are known only in the Caucasus and Danube regions, and the vast space in between is dotted with stray finds, concentrated mainly on the forest-steppe between the Volga and the Don. At the same time, framed bronze handles combined with an iron blade are occasionally found far to the east of the central area, including in burial assemblages, albeit of a more recent date than in the European area (Topal 2021, p. 88). Nevertheless, the “frame” bimetallic technique was not widely used in the manufacture of *akinakai* handles in “Asian Scythia”. The early Scythian period was, however, a time when there were a great variety of solid bronze swords and daggers east of the Urals.

However, not a single bimetallic *akinakes* decorated with gold is known. The earliest European items are connected with the subsequent variation of Scythian *akinakai*, such as the Kelermes type (Topal 2013, pp. 14–19). A while ago, E. Chernenko (1980, p. 11) proposed this term to describe massive “butterfly”-shaped hilts, having chosen the Kelermes sword as a reference type and calling for the introduction of similar nomenclature for other types of Scythian blade weapons. About 20 Archaic *akinakai* with a loop under the pommel are currently known; 4 were discovered in well-dated burials. Moreover, about 10 more objects with similar morphological characteristics—including the shape of the three-part handle, the massive hilt, and the blade—can also be attributed to this type. Possibly there is a link here with the bimetallic swords and daggers of the Cimmerian period, for which the shape of the framework hilt, cast in bronze, was of fundamental constructive value. According to B. Shramko (1984, p. 31), this technique became ornamental instead of constructive with the disappearance of bimetallicism. Perhaps this explains the “frame” and “three-part” nature of the handles and the later items, which survived until the late 6th century BC.



**Figure 5.** Distribution of the Early Scythian akinakai (A—Kelermes type, B—Ferigile type, C—Frata type, and D—Argayash type; ceremonial items are marked with a star).

The chronology of this type is based primarily on the eponymous monument with a ceremonial sword from Burial Mound 1 near Kelermesskaya (Figure 6, 5, 7, 8), excavated by D. Schultz in 1903. Stylistically, it resembles a ceremonial *akinakes* from the burial mound Lita Mohyla or Melgunov barrow (Figure 6, 10–11), not far from Kropivnitsky (formerly Kirovograd, Elisavetgrad), which was excavated in 1763 (Pridik 1911, pp. 1–2). The dates assigned to the Kelermes and Melgunov assemblages vary from the mid-7th century BC (Alekseev 1992, pp. 52, 96; Alekseev 2003, p. 295; Ivantchik 2001, p. 282) to the end of the 7th or the 6th century BC (Artamonov 1966, pp. 18, 91; Ilyinskaya and Terenozhkin 1983, p. 104; Murzin 1984, pp. 19–20), the second half of the 6th century BC (Rostovtsev 1925, p. 312), the 6th to 5th centuries BC (Rostovtsev 1926, p. 240), or even the first half of the 4th century BC (Pridik 1911, p. 21). However, a consensus seems to emerge around a date “no later than the middle to the third quarter of the 7th century BC” (Ivantchik 2001, p. 282) as the most acceptable. V. Kisel (2003, p. 30) also suggests that the dating of the Kelermes and Melgunov swords should be pushed deep into the 7th century BC, possibly to the second to the “third quarter of the 7th century BC”. Kisel came to this conclusion after finding analogies to the designs “in the shape of a triangle and a curved leaf” on the swords on a well-dated Urartian relief from Adilcevaz of 680–645 BC (van Loon 1990, pl. 20). K. Metdepenninghen (1997, p. 131) also linked the production of these ceremonial *akinakai* to an Urartian craftsman (or craftsmen) of the era of Rusa II, which began between 695 and 685 BC. Another fragmented sword, decorated with gold and a loop under the pommel (Figure 6, 6, 9), was found in the Kelermes barrow (Mantsevich 1969, Figure 2, 1; Galanina 1997, Taf. 12, 4). Two Kelermes swords—one decorated with gold at the hilt and the pommel—come from Burial Mound 16 of the Nartan burial mound (Ivantchik 2001, Figure 26, 12).



**Figure 6.** Early Scythian ceremonial akinakai and their elements: 1, 2—Ziwiye (Stöllner et al. 2004, Kat. 442), 3, 4—Lugovskoe (photo by D. Topal), 5–9—Kelermes (Alekseev 2012, pp. 80–85), 10, 11—Melgunov barrow (Alekseev 2012, pp. 80–85; 116–19).

The geographical peculiarities of the distribution of *akinakai* of the Kelermes type are remarkable (Figure 5) in that they are almost never found outside the forest-steppe area of the Scythian culture. However, the easternmost find of Kelermes-type *akinakes* was discovered as far away as the steppe Altai, in Barrow 2 near the village of Novovobinka of Petropavlovsk District in Altai Krai (Ivanov and Mednikova 1982, Figure 1). This sword is distinguished by its outstanding size (its total length is 106 cm) and its pommel decorated with gold inlays (Mogilnikov and Mednikova 1985, p. 179). Other swords and daggers found to the east of the Volga were equipped with sleeves under the pommel, often with triangular slits. These finds can hardly be assigned to the Kelermes type, despite some attempts (Ismagil 2000, p. 137), since the sleeves “neither by design nor by function” can be compared with those of the early Scythians (Tairov 2007, p. 144). A. Tairov (2007, pp. 144–45) distinguished this small group, or *Argayash type*, and dated it from the 7th to the first half of the 6th century BC. This group includes a specimen from the Lugovskoe burial ground (Zbrueva 1941, Figure 43), which may be described as a ceremonial type since its pommel is also decorated with a decorative inlay of gold wire (Figure 6, 3, 4) and the sleeve under the tip is also gilded (Zbrueva 1941, p. 109).

On balance, the distribution of the Kelermes swords points to at least two main directions in the type’s geographical spread and local adoption: running meridionally in the case of burials and latitudinally (both eastward and westward) in the case of stray finds. This pattern may, of course, be taken to corroborate the hypothesis that the Scythian-type *akinakes* originated in the North Caucasus as a variation of the Kabardino-Pyatigorsk type daggers (Leskov 1979, p. 48; Chernenko 1979, p. 91; Ismagilov 1980a, pp. 88, 93; Shramko 1984, pp. 30, 31). However, at this point, we should not disregard the potential significance of Transcaucasia as a crossroads where Scythian *akinakai* came directly from the North Caucasus or were produced using North Caucasian models (Esayan and Pogrebova 1985, p. 52). According to the archaeological record, the significance of Transcaucasia comes into view no later than the middle of the 7th century BC, that is, almost simultaneously with the first appearance of the Kelermes-type ceremonial swords. As for the considerable number of stray finds in the forest-steppe regions (notably the Don area), their concentration gives rise to various discussions concerning the use of these swords, for instance, for cultic purposes at “memorial or sacrificial sites connected with the military cult performed directly on the battlefield or in its vicinity” (Sarapulkin 2005, p. 162; Voroshilov 2011, pp. 166–67), or their connection with disturbed burials (Razuvaev and Kuryanov 2004, p. 192).

## 5. Middle Scythian Shapes and Their Expansion into the Steppe

Finds dating to the Middle Scythian period attest to further experimentation with the shape of the blade and the handle. While the shape of the blade with parallel cutting edges predominated in most Early Scythian *akinakai*, triangular and narrow, elongated blades appeared towards the end of the period. The hilts became even more solid and rounded, whereas the pommels, by contrast, were thin and elongated (Ginters 1928, pp. 11–12; Melyukova 1964, p. 60). A. Vulpe (1990, pp. 38, 42) suggests adding examples of the *Piliny-type* and some *Suseni-Măcișeni-type* daggers (according to his typology) to the swords that can already be assigned to the Middle Scythian type. We propose to group them under a new name—the *Shumeyko type*, based on one of the most famous and richly decorated objects discovered on the left bank of the Dnieper at the end of the 19th century (Topal 2021, p. 133).

In 1899, S. Mazaraki excavated a barrow near the Shumeyko farm in the environs of the village of Vovkivtsi in Romny Uyezd, Poltava Governorate (now the Sumy region of Ukraine). In the central burial, in a large pit with wooden structures, the remains of protective armament, spearheads, axes, bridle sets (consisting of bronze and bone *psalia* with zoomorphic endings), and a large pot with geometrical ornamentation were discovered (DP 1900, pp. 7–8). To the right of the buried person was found a short sword with a gold hilt (Figure 7) decorated with granulation and a gold scabbard (DP 1900, 17, Table 45, 461). V. Ilyinskaya (1968, p. 71) dated this barrow to the late 6th–early 5th centuries BC

on account of a foot of a black-figure *kylix* with an image of a satyr that was mistakenly attributed to the grave goods. Probably as a result of another oversight, a bronze statuette of a bull (Gribkova and Polidovich 2013, p. 259)—similar in design to a panther from the Zolotoy Kurgan (Golden Mound) of the early 5th century BC—was ascribed to the Shumeyko mound as well (Alekseev 2003, p. 200). Furthermore, the tip of the sword sheath from Shumeyko has been compared to similar tips from the late 6th–early 5th centuries BC from Vetersfelde, Zolotoy Kurgan, Hostra Mohyla, and Oleksandrivka (Onayko 1966b, p. 159; Ilyinskaya 1968, pp. 71–72). However, the upper part of the tip from Shumeyko is decorated not with an almond-shaped ornament as on the listed swords but with triangles made of granulation, which finds analogies in the decoration of ceremonial swords from the Kelermes and Melgunov barrows. Opposing images of sitting goats with tucked-up legs and their heads turned at the hilt also point to a connection with the Kelermes tradition (Onayko 1966b, p. 170). Besides, the images of panthers on the scabbard are identical to the images on the gold plaques from Ulsky Mound 1 of 1908, associated with the turn of the 7th–6th centuries BC (Gossel-Raeck 1993, p. 65, Kat. 28). Other categories of grave goods also relate the find to the Early Scythian period—for example, double-looped bronze *psalia* close to three-loop items from Kelermes (Grechko 2012, pp. 88–90). The shape of a black ceramic pot with incised ornamentation is similar to a vessel found in the barrow near the Bilsk hillfort of the late 7th–early 6th centuries BC (Bruyako 2005, pp. 51–52). Therefore, we have all grounds to consider the Shumeyko barrow to be either the youngest Early Scythian assemblage or the oldest Middle Scythian one, pointing to a date within the second quarter of the 6th century BC (Grechko 2012, p. 92).

In 2019, a burial with another ceremonial sword of Shumeyko type was excavated, tentatively dated to the 6th century BC (Andruh et al. 2020, p. 56). In the secondary Burial Mound 377 (the primary one had been looted in antiquity) of the Mamay-gora cemetery, in addition to an *akinakes* in a scabbard decorated with gold leaf (Figure 8), bronze and bone arrowheads, an iron axe, pendants made of deer teeth, and a chalk pendant covered with gold were discovered. Besides that, a flat-bottomed amphora of gray clay from Lesbos (type A) of the late 7th or first half of the 6th century BC accompanied the buried person aged 18–20 (Andruh and Toshchev 2022, p. 415). Even though the design of the handle of this sword combines elements of both the Shumeyko (granulated triangles) and Vetersfelde *akinakai* (“lyre-like” ornament on the handle), this object seems closer to the Shumeyko series. The decoration of the handle end with transverse notches and a rhomboid pommel decorated with granulated triangles could further support this impression.

Closely related to the Shumeyko type, typologically and chronologically, is another variation of Scythian *akinakai*, highlighted as a distinct unit by A. Vulpe. In his second morphological group, he identified a *Susent-Măcișeni* type (or Vetersfelde type; see Topal 2022, p. 175), consisting of daggers with a straight pommel and a massive guard (Vulpe 1990, p. 38). In our view, this type of hilt is defined too broadly and does not reflect the main design features of this group—a wide, massive kidney-shaped (or heart-shaped) hilt, an extended, narrow pommel, and a broad triangular blade.

This dagger came to light in 1882 to the north of Lower Silesia, 10 km from Gubin near the village of Vetersfelde (today Witaszkowo, Poland), as part of the famous assemblage mentioned earlier on in this article, containing richly decorated objects in the Scythian animal style, among them ceremonial weapons (Figure 9), commonly attributed to Black Sea manufacturers (Furtwängler 1883, pp. 4–11). Without going into the issue of the origin of the dagger’s cover from Vetersfelde (variously considered Ionian or Pontic workshops), we can note the unanimity among researchers, with few exceptions, on the dating of the hoard to the late 6th or early 5th century BC, with the sword belonging to the group of the most ancient pieces in the treasure (Topal 2022, p. 175). D. Redfern (2012, 29, p. 44) even suggested that the *akinakes* belonged to the Early Scythian type of bimetallic swords and daggers of the Orbeasca type of the late 8th–early 7th centuries BC, a proposition that has, however, been rejected by the present author (see Topal 2015, pp. 31–35, Figure 1).



Figure 7. Middle Scythian ceremonial akinakes from Shumeyko barrow (Polidovich 2019, fig. 1, 1-3; 2).



**Figure 8.** Middle Scythian ceremonial akinakes from Mamay-gora (Andrukh and Toshchev 2022, pp. 70, 74, 76–77).

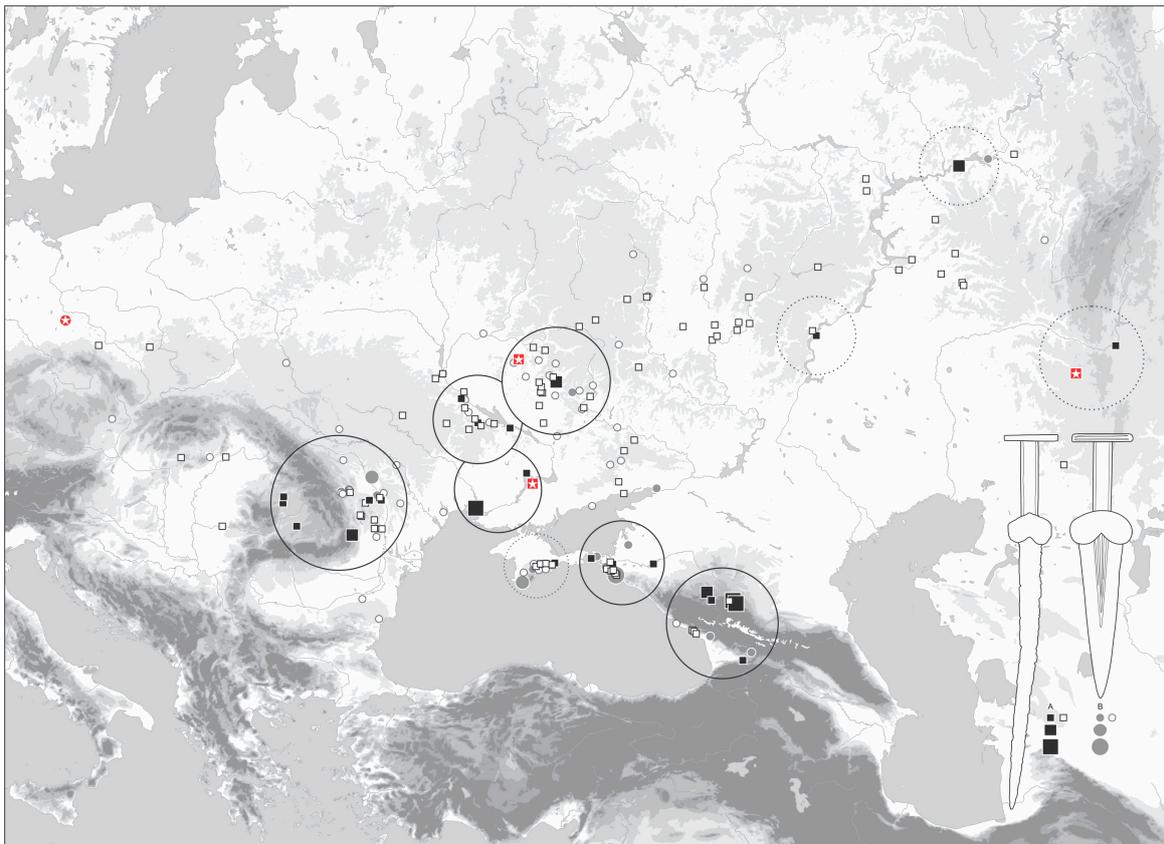


**Figure 9.** Middle Scythian ceremonial akinakes from Vetersfelde (Furtwängler 1883, Taf. 3, 2, 5; von Bothmer 1973, cat. 3; Nawroth 1997, Abb. 1; Topal 2021, ill. 5).

On the other hand, among the latest items in the hoard is a diamond-shaped pendant (which extends the period of accumulation of the objects in the treasure and the sword itself—a *reliquia*). The nearest analogy of which was discovered in Barrow 400 near Zhurivka (Bobrinsky 1905, p. 11, Figure 14) of the first or second quarter of the 5th century BC (Alekseev 2003, p. 198). There are other analogies to this object, which is sometimes considered a belt adornment (Greifenhagen 1982, p. 8). In Colchis, similar items have been dated broadly to the pre-Hellenistic period beginning in the 6th century BC. In the design of the Vetersfelde sword sheath, especially in the protrusion at the top, one can recognize Early Scythian influence in the item's similarity to the stray find of a bronze scabbard from Firminiş (Matei 1977, Figure 1). However, this typological similarity to Early Scythian designs is probably the result of the continuous evolution of the Middle Scythian-period sheaths of the Shumeyko type rather than the direct influence of imported objects.

With the appearance of a new type of scabbard, the granulated triangles seen on the scabbards from the Shumeyko barrow of the second quarter of the 6th century BC (and also the chapes of Early Scythian ceremonial swords from Melgunov and Kelermes barrows of the mid-7th century BC) are replaced by a drop-shaped ornament executed in gold wire. Such “drops” are presented on a series of ceremonial *akinakai* sheaths: the finds from Hostra Tomakivska Mohyla (DGS 1872, Table 26, 13, 16–18) of the late 6th–early 5th centuries BC, Zolotoy Kurgan (Golden Mound) of 1890 (Steven 1891, Figure 2, 7) of the first quarter of the 5th century BC, and Mound 6 near Oleksandrivka (Kovaleva et al. 1978, Figure 2, 2) of the late 6th century BC. In this Vetersfelde series of sheaths, the common connecting link is the shape of the sheath's tip, which is still triangular, as in the Shumeyko type. However, while the shape of the tip remains relatively constant, the use of granulation in the ornament is replaced by wire appliqué comparable to those seen on the Tomakivka sheath. Another peculiarity of the Vetersfelde sheath is the double spirals resembling those on the bronze scabbards from Kolkhida-Psakhara in Abkhazia (Trapsh 1954, Figure 62, 1–5) and on a fragment from Maka in Dagestan (Kotovitch 1959, Table 7, 24).

To judge from the evidence available, the Vetersfelde and Shumeyko types both appeared in the late 7th to early 6th centuries BC. However, in the case of the Vetersfelde type, the primary period of circulation probably falls in the second half of the 6th century BC, which is significantly later than that of the Shumeyko type. The fact that it was still possible to experiment with the shape of the Vetersfelde dagger type in the Archaic period is proven by a bimetallic example from Łubnice (Bukowski 1977, Table 12, 1). The bronze hilt of this *akinakes* combines a mushroom-shaped pommel with a kidney-shaped hilt. At the same time, the broad triangular blade is decorated with longitudinal notches, like on the daggers of the Vetersfelde type. However, the eponymous find of the ceremonial sword also indirectly confirms that, in contrast to the Shumeyko *akinakes*, this type of dagger was common for much longer—after all, the Vetersfelde hoard postdates the Shumeyko burial mound by about half a century. Furthermore, whereas the chronology of the Vetersfelde and Shumeyko types overlaps to some extent, the geographical distribution of the two types shows some marked differences. In the Caucasus, the Shumeyko type is widespread in the central part of the North Caucasus, while the Vetersfelde type is more characteristic of the Kuban region. Thus, *akinakai* of the Shumeyko type mainly occupy the right bank of the Dnieper, while daggers of the Vetersfelde type are found in the forest-steppe on the left bank and in the Donets region (Figure 10).



**Figure 10.** Distribution of the Middle Scythian akinakai (A—*Shumeyko type*, B—*Vettersfelde type*; ceremonial items are marked with a star).

## 6. The End of Middle Scythian Culture

The later evolution of the Middle Scythian *akinakai* is also easy to trace in the example of ceremonial forms. The end of the Middle Scythian culture (late 6th–early 5th centuries BC) characterized a small series of ceremonial swords with gold scabbards. A distinctive feature of the specimens from the Hostra (Tomakivska) Mohyla, the Zolotoy Kurgan, and Oleksandrivka is the scabbard with parallel edges and a rounded tip. The burials of this period, according to A. Alekseev, constitute a separate chronological group. It is noteworthy that in this compact group, he included burials with items of blade weapons from Hostra Mohyla, Oleksandrivka, Vishnivka, and, possibly, Artsyz (Alekseev 2003, p. 196). Among the signs of this group are the secondary character of the burials (which, according to the researcher, indicates the initial development of the territory), gold torques, ceremonial scabbards, the predominance of arrowheads with internal sleeves, and elements of protective armor (Alekseev 2003, p. 197).

In 1862, after excavations by I. Zabelin of the mound Hostra Mohyla near the village of Tomakivka, Dnipropetrovsk Region (former Ekaterinoslav Governorate), local peasants discovered a “treasure” in the mound, consisting of several jewelry items (DGS 1872, pp. 62–63). In addition to 200 bronze arrowheads, gold torques, plaques, and *vorvorka*, the hoard also included the famous sheath of a dagger made of gold (DGS 1872, pl. 26, 13, 16–18). The dagger was heavily rusted. However, judging by the gold cover, it had an oval pommel and a heart-shaped hilt, and the handle shaft was ribbed (Rostovtsev 1918, p. 38). From the sheath of a sword from the Zolotoy Kurgan (Golden Mound), excavated in 1890 by N. Veselovsky near Simferopol (Raskopki 1890, pp. 4–5), only the tip was preserved. The iron parts of the short sword “rusted and fell apart” (Steven 1891, p. 149). Nevertheless, according to V. Murzin (1984, p. 37), the pommel of the *akinakes* “consists of two closely converging volutes, forming, as it were, a ring”. Most likely, the phrase “the hilt

of the sword consisted of thick iron rings” (Raskopki 1890, p. 5) testifies to the decoration of the shaft of the hilt with longitudinal notches, similar to those on the hilt from Hostra Mohyla or Shumeyko barrow. Having examined numerous analogies to the things that made up the grave goods of the Golden Mound (a quiver set, a panther figurine, a *lekkythos*, a black-glazed cup), S. Koltuhov (1999, p. 16) considered the dating of “the first quarter of the 5th century BC” to be the most preferable. At the same time, he does not exclude that the scabbard of the sword, “most likely, repeatedly repaired”, dates back to the 6th century BC and the sword itself, as a later product, to the late 6th century or first half of the 5th century BC.

The blades of the sword from Kurgan 6 near Aleksandrovka (Oleksandrivka, Dnipropetrovsk Region) are parallel; the hilt is butterfly-shaped, and the pommel is rectangular with rounded edges. An important detail is the ribs on the blade, shown on the gold cover below the hilt (Kovaleva et al. 1978, p. 13, Figure 2, 2). Such ribs would become especially popular in the Classical period: they, for example, decorated the gold cover of swords from the Elizavetovskaya burial ground (Miller 1910, pl. 5), Velyka Bilozerka (Otroschenko 1984, Figures 1–2), Oksyutyntsi (Bobrinsky 1894, pl. 22, 4), Osnyahy (Gorodtsov 1911, pl. 3, 4), and Kul-Oba (Reinach 1892, Table 27). The scabbard, like the objects from Shumeyko and Vetersfelde, is still composite, but the *akinakes* from Oleksandrivka have an innovation that is already characteristic of the Classical period (Polidovich 2014, p. 159): the protrusion of the scabbard of the Oleksandrivka sword is designed in the form of a wild boar. The sword from Oleksandrivka was found in a cache under secondary Burial 1 in Barrow 6 of Cimmerian time (Kovaleva and Muhopad 1982, p. 94). Based on some features—a quiver set, a single-spring fibula, a *vorvorka*, and bowls—researchers of the burial attributed it to the late 6th century BC (Kovaleva and Muhopad 1982, p. 99).

Thus, at the end of the Middle Scythian culture, many features emerge that define the appearance of the swords and daggers of the Classical period. These features include an oval pommel, transverse notches on the handle, and longitudinal grooves on the blade. However, while swords and daggers became “lighter” in the Classical period by tapering the handle (which was often forged together with the pommel and hilt), in the Middle Scythian, the *akinakai* retained their massiveness. Features such as an oval pommel, a flat hilt, and a “butterfly-shaped” hilt allowed A. Vulpe (1990, p. 43) to distinguish the *Cozia type*. *Akinakai* of the Cozia type are the most representative and widespread group of artifacts in the European part of the range (Figure 11). We also have many well-dated assemblages. The type is mainly concentrated in the east of the Danube region and includes the steppe part of the Black Sea region as well as Crimea, Ciscaucasia, southern Ural, and the Trans-Ural region. This type appeared in the 6th century BC and was known until the turn of the 5th to the 4th century BC. Most burials belong to the first half of the 5th century BC instead of the first quarter of the century. At the same time, most of the early burials of the 6th century BC are associated with the Caucasus. The most easterly finds can be considered to be the extra-long swords from the Southern Tagisken burial ground of the 5th century BC (Tolstov and Itina 1966, Figure 14, 1, 2, 15, 16), decorated with gold plates. A plate fragment in the animal style has been preserved from the sword with a broken antenna pommel from Barrow 59 (Tolstov and Itina 1966, pp. 166–68), but the sword from Mound 53 is better preserved: it has a wooden scabbard covered with gold foil. In the middle part of the scabbard are predators (wolves?), and in the area of the hilt is the head of a mountain sheep, or argali. A similar motif is found on a fragment of a hilt covered with gold appliqués from the Kyryk-Oba-II burial ground, which was found in Grave 1 of Mound 18 (Gutsalov 2010, Figure 5, 3). Another ceremonial dagger also demonstrates a new shape; the hilt is covered with gold leaf, and the *porte-épée* is decorated with gold *vorvorka*. It was found in Burial Mound 4 of the Besoba cemetery (Figure 12, 5–6), with the date of the quiver set in the 5th century BC (Kadyrbaev 1984, p. 88, Figure 1, 47).



**Figure 11.** Distribution of the Middle Scythian akinakai of (Cozia type; ceremonial items are marked with a star).

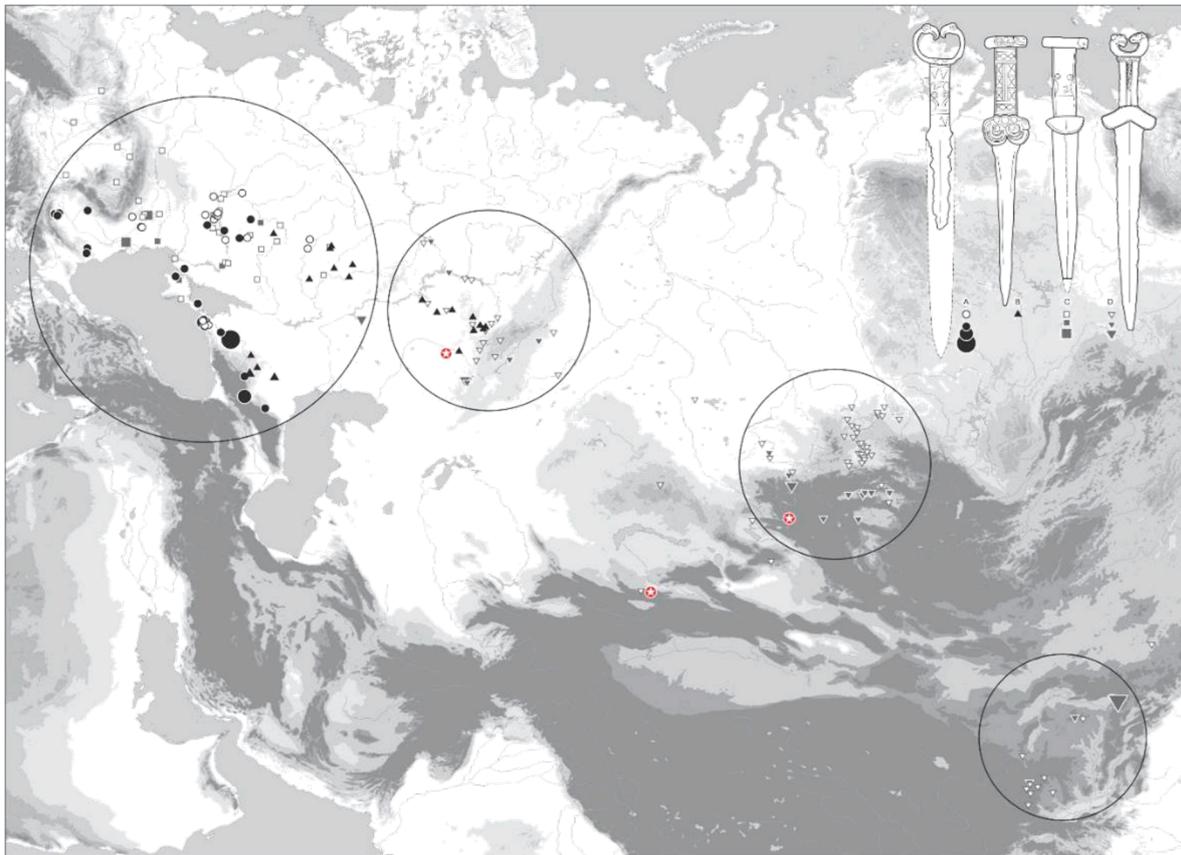
Nevertheless, the most striking manifestation of the new form of *akinakai* can probably be considered a richly decorated sword from Burial 2, Kurgan 4 of the Filippovka-I burial ground (Yablonsky 2013, p. 86, cat. 296). One side was decorated longitudinally with an elongated plate in the blade's center (Figure 12, 1–4). Cast silver reliefs decorated with gold inlay were installed on the hilt on both sides. The hilt with reliefs carved in iron was covered with gold leaf hammered into the surface. The end of the handle from the side of the pommel ends with a relief, also covered with a gold leaf with cut openwork. The inlay on the blade and hilt of the sword was made using different technologies, so it is possible that not only one master but a team took part in the production of the sword (Shemahanskaya and Yablonsky 2011, p. 404). The blade and the handle, with a hilt and pommel, are decorated with multi-figured compositions throughout the product. Narrative compositions unfold on the edges of the blade from its different sides; the hilt is designed with images of a wild boar and poorly preserved images of deer on the pommel. Both sides of the blade are decorated with complex compositions of walking animals and anthropomorphic scenes. The decorative scheme is a linearly rhythmic composition, complicated by scenes of animal torment as well as anthropomorphic scenes: a horseback rider hunting with a spear in front of a wild boar, the death of a warrior with a sword in his stomach, two warriors sacrificing a deer with swords, a warrior with an axe swinging at a deer (Rukavishnikova 2011, p. 373; Topal et al. 2022).



**Figure 12.** Middle Scythian ceremonial akinakai from Filippovka-I (1–4) (Yablonsky 2013, pp. 86–87, cat. 296) and Besoba (5, 6) (Arbore-Popescu et al. 1998, p. 128, cat. 64).

## 7. The Appearance of Griffin Daggers in the Archaeological Record

The emergence of ornithomorphic and zoomorphic pommels fits into the framework of the common Eurasian tradition. In the second half of the 6th century BC, not only on the territory of European Scythia, *akinakai* with a “realistic” ornithomorphic pommel appeared. Daggers with pommels in the form of opposed heads of birds of prey appear throughout the Scythian world (Topal 2020, Figure 4). Several regions stand out, mainly where such daggers were most common: the Volga-Urals, Zhetysu, western Siberia, and northern China (Figure 13). In the steppes of the Southern Urals, several daggers with pommels in the form of opposing griffins were discovered in well-dated burials. Among them is the ceremonial sword from Barrow 1 (Figure 14, 6–10) of Filippovka-I (Kuzeev et al. 2003, p. 16). All *akinakai*, except for the last one, date back to the late 6th–5th centuries BC (Denisov 2010, p. 229), while the Filippovka barrow, according to Western Asian imports and Pontic analogies, belongs to the late 5th to mid-4th century BC (Treister 2012, pp. 268, 284). Despite the apparent connection of the griffin daggers of the Urals with eastern Siberian samples, R. Ismagilov (1980b, p. 221) insisted on their local production. This is indicated by the fact that they are made exclusively of iron, while the Tagar daggers are made of bronze. Daggers from the Volga-Kama were most likely made by local Ananyino artisans, consistent with the spectral analysis data (Kuzminykh 1983, p. 130). According to A. Akishev (1978, p. 35), “pommels in the form of two griffin heads are widespread only in Southern Siberia, in Altai, Zhetysu, and as they move away from these regions, they are replaced by an antenna and claw-like ones”. At the same time, the researcher dates back the Issyk mound, including a griffin sword with gold inlay (Figure 14, 1–4), to the 5th century BC (Akishev 1978, p. 39).



**Figure 13.** Distribution of the Middle Scythian *akinakai* (A—Găiceana type, B—Marychevka type, C—Mircești type, and D—Issyk type; ceremonial items are marked with a star).



**Figure 14.** Middle Scythian ceremonial akinakai from Issyk-I (1–5) (Akishev 1978, 40–42, Table 22–25), Filippovka-I (6–10) (Aruz et al. 2000, cat. 6), and Klyuchi (11) (Frolov 2016, fig. 3).

Both the griffin dagger from the Issyk barrow and the *akinakes* from Mound 1 of the Filippovka-I burial ground accompanied long ceremonial swords (Akishev 1978, ill. 43, pl. 24; Pshenichnyuk 2012, Figure 27, 1) with a simple, slightly curved pommel and hilt, decorated with gold wire (as in Issyk) and figured applications on the pommel and hilt (as in Filippovka). Both long swords were attributed to the “transitional” type, which reflects the shift “from the Sauromatian to the early Sarmatian swords” of the early 4th century BC (Pshenichnyuk 2012, pp. 68, 87). The other two “transitional” swords from Filippovka-I, from Barrows 3 and 14, were also decorated with gold—their hilts were inlaid with gold wire (Pshenichnyuk 2012, Figure 66, Figure 127, 15). The handle of the sword from the burial mound at Buruktal is woven with gold wire, and the pommel is inlaid with gold wires hammered into iron (Smirnov 1964, Figure 48, 4d).

Daggers with a pommel in the form of opposing heads of eared griffins or feline predators are proxies of the connections of the South Ural tribes with the population of Kazakhstan and more eastern regions of Eurasia and the Aral Sea region, Zhetysay and Altai (Tairov 2000, 163, Figure 49, 2). From the territory of the Kazakh Altai, in Barrow 2 of the Berel burial ground, among other things, a fragment of a sword hilt was found, overlaid with gold foil and topped with opposed griffin heads (Sorokin 1969, Figure 21, 1, 3). It is not entirely clear how exactly Barrow 2 should be dated; L. Marsadolov (2015, p. 59) placed it between Tuekta and Pazyryk or within the framework of the “late 6th to first quarter of the 5th century BC”. This dagger is the easternmost find of a ceremonial griffin *akinakes* after Filippovka and Issyk items. In the east of the Scythian world, for example, in the Sauromatian or Pazyryk milieu, the image of the “mythical eagle” appears no earlier than the middle of the 6th century BC; at the same time, the arcuate shape of the hilt was also developed. The overwhelming majority of daggers with opposing heads of griffins or mythical eagles date back to the second half of the 6th to the first half of the 5th centuries BC (Umanskij et al. 2005, p. 21). In particular, griffin daggers of the Pazyryk culture were discovered in the area of Kumurtuk (Kiselev 1951, pl. 30, 11) and S. Kiselev (1951, p. 334) associated with the Minusinsk Hollow. V. Kubarev (1987, pp. 57–58), on the contrary, did not exclude the reverse process: from Western Kazakhstan to Altai, Tuva, and then to the Minusinsk Hollow, since the abundance of finds, in his opinion, indicates the popularity of griffin daggers in the Central Asian region.

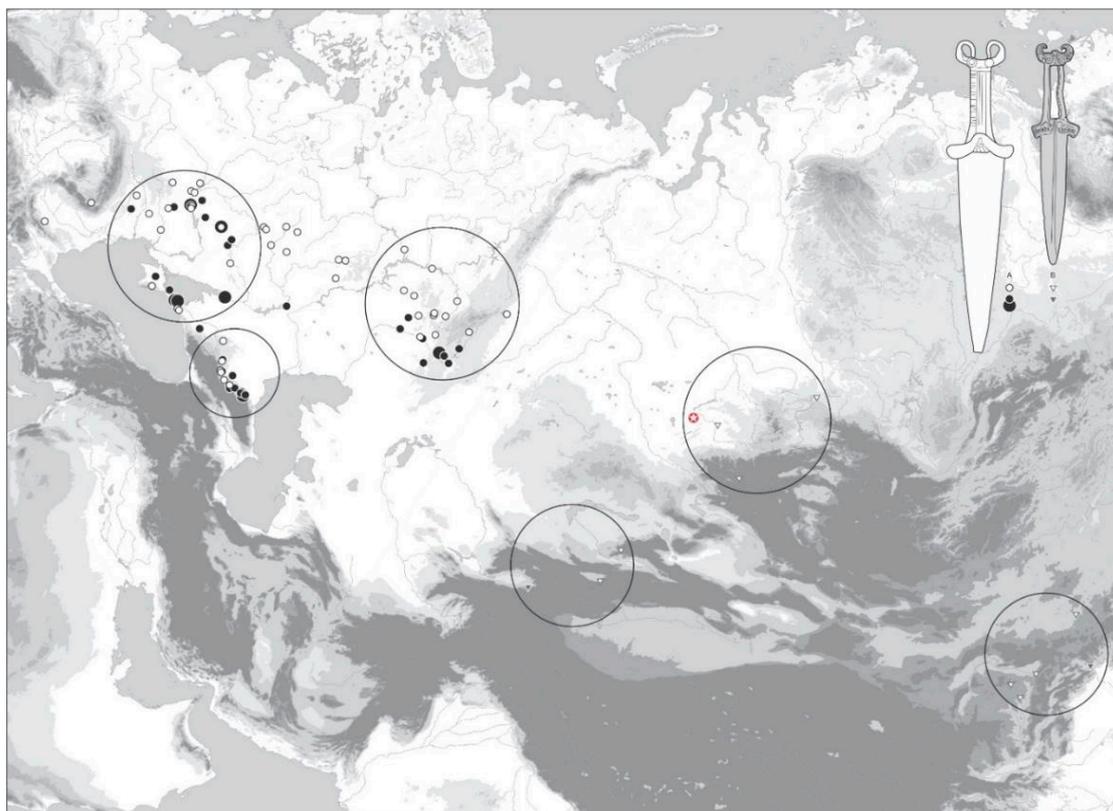
The abundance of such products is known in the area of the Tagar culture in the Khakass-Minusinsk Basin and the Middle Yenisei, perhaps since from the 6th–5th centuries BC, in the decor of the pommel of the Tagar daggers, the heraldic heads of griffins crowd out all other images (Bobrov and Moor 2011, p. 150). Their main difference from other griffin daggers lies in the hilts, which are decorated with symmetrical figures of crouching predators (Bogdanov 2006, p. 90). Guards in the form of heads of predatory mammals turned in different directions are found only to the east, in the north of Central China, and hilts in the form of birds of prey or griffins—both in the east and in the west. N. Chlenova (1981, p. 10) believed that, since these daggers were decorated in the Altai animal style and were not found in the Tagar mounds, they most likely came to the Minusinsk Basin from Western Siberia, where such items are known, in addition to Altai, in the Ob basin. At the same time, iron was used for decorative purposes in the production of the earliest bimetallic Tagar daggers (some of which have images of griffins) (Devlet 1968, p. 30). In Asia, bimetallic daggers are almost unknown outside the Khakass-Minusinsk Basin. Among the Tagar antiquities, one can trace the gradual transformation of bronze items into iron ones. According to M. Devlet (1968, p. 31), this points to the local nature of these items.

The hilt must be one of the griffin daggers from Khakassia, a stray find from the village of Askyszskoe that was covered with gold (Klemenzen 1886, pl. XIV, 7). The hilt of another animal-style dagger from the Minusinsk region (collection of I. Tovostin) was decorated similarly (Zavituhina 1983, cat. 203). Both specimens most likely belong to the turn of the 6th–5th centuries BC. On the surface of the handle of two other daggers in the animal style of the 4th century BC<sup>1</sup>—stray finds near Ukladochnaya and Shadrino—fragments of

gold foil are noticeable (Frolov et al. 2017, Figure 1, 3, 4). A dagger from northwest China combined a gilded hilt and shaped silver appliques on the blade (Desroches 2000, cat. 109).

Based on the chronological features of the category of items under consideration, griffin daggers appeared in the vast expanses of the Scythian world no earlier than the middle of the 6th century BC and have been known for over a century. At the same time, the latest items, dated to the 5th and even 4th centuries BC, turn out to be ceremonial forms, which are usually characterized by some delay. Ceremonial items are associated with three regions: the Volga-Urals, Zhetysu, and South Siberia. Therefore, it is difficult to determine the source of such an innovation as a griffin pommel. Despite numerous attempts, China can hardly be considered the source of this type's origin. The extreme western periphery, in the form of the Volga-Urals, can be considered a place for the further evolution of griffin daggers and their subsequent penetration into the Black Sea and Danube regions. Zhetysu, or Seven Rivers, where the griffin daggers are rare, is also not very suitable. Most likely, the role of the original territory, where the canons of the image and the morphology of the griffin daggers were formed, most of all suits the Central Asian area, including Altai, Tuva, and the Khakass-Minusinsk Basin. This idea can be proved by the abundance and diversity of types of griffin daggers (both iron and bimetallic), among which some varieties are characteristic exclusively of the Sayan-Altai, like items with hilts in the form of figures of crouching predators. In addition, there is reason to consider such a design of the hilts as earlier compared with the decorated muzzles of predators or the heads of birds or griffins. The latter iron specimens predominate over bronze and bimetallic ones (Devlet 1966, p. 8).

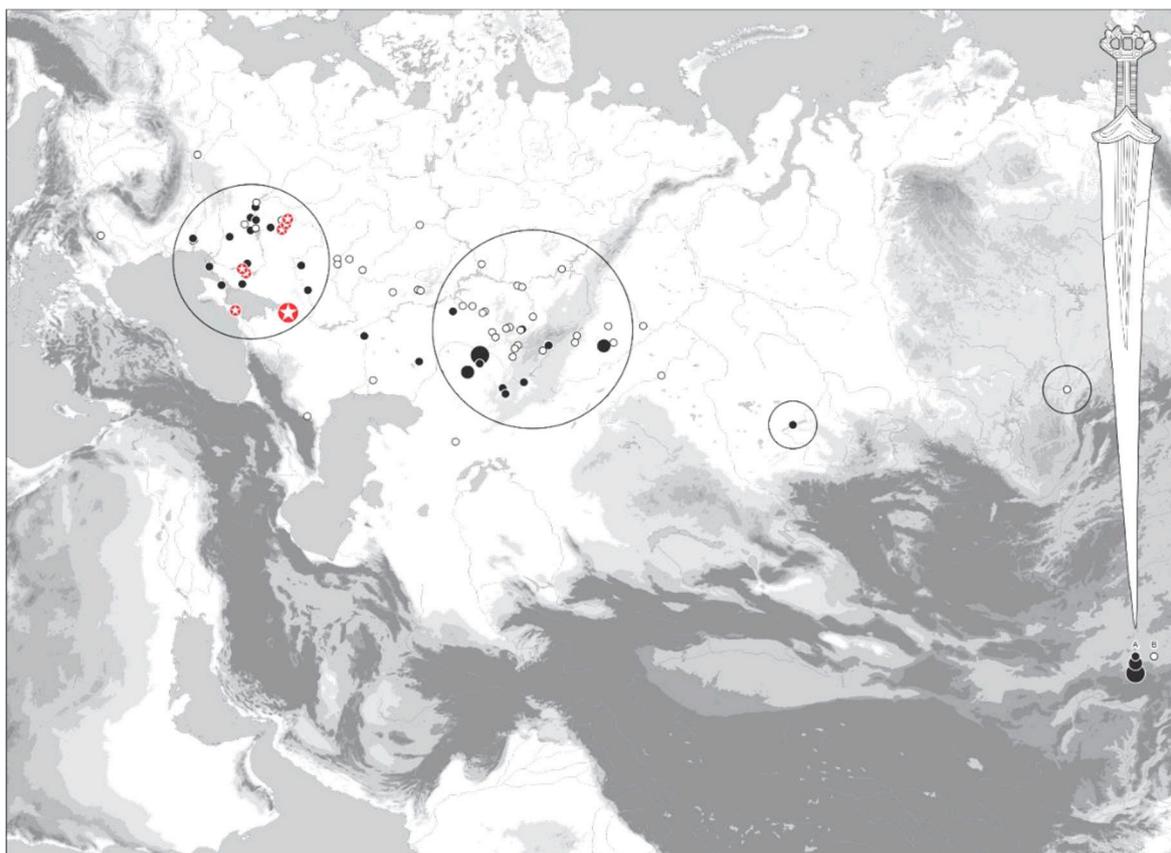
The image of a bird of prey accompanied Scythian art in its appearance, including in the design of weapons of the archaic period (scabbard chapes). However, from the second quarter of the 6th century BC, Greek influence (volute motif) was superimposed on Archaic iconography, which led to the emergence of a new popular Scythian-Greek motif (Kantorovich 2015, p. 31). At the same time, the Scythian animal style evolved from clear, natural images to their ornamental schematization. A. Melyukova (1964, pp. 55, 101) considered antenna pommels, interpreted in the animal style, more characteristic of Scythia than simple ones. Most of them were designed as the claws of a bird of prey, and only three specimens were in the form of bird or griffin heads. In antenna pommels, at first, they saw only a stylized image of the heads of griffins, birds of prey, or even calves (Bobrinsky 1894, p. 164; Miller 1910, p. 115; Rostovtsev 1925, p. 419). B. Grakov (1947a, pp. 70, 71) and N. Merpert (1948, p. 78) believed that the antennae were interpreted as the claws of a bird of prey (their primary metaphor was “the blow of a sword is similar to the blow of an eagle's claw”). The images of eyes at the base of the pommel are associated with the second motif of “vigilance and accuracy”. Burials with *akinakai* of this type—*Grishchentsy type* (Topal 2020, pp. 634–35)—are concentrated mainly in two main regions: in the forest-steppe part of the Middle Dnieper, gravitating towards the left bank, and in the North Caucasus. Judging by their chronology, the Grishchentsy type does not go beyond the 5th century BC while tending to the middle to the third quarter of the century. Another trend is also noted—steppe burials, as a rule, are later than forest-steppe ones (except in the Caucasus). Stray finds are also characteristic of the forest-steppe, and, forming a traditional concentration in the interfluvium of the Desna and Volga, they follow eastward to the Kama region and the Volga-Ural region (Figure 15). Far to the east of the main area, in Altai, near the village of Klyuchi, a single sword with eyes under the pommel (Figure 14, 11), decorated with gold, was found; moreover, it belongs to the extra-long swords and is over 110 cm (Frolov 2016, 57, 58, Figure 1, 1, 2). The western direction is less representative than the eastern one. The westernmost finds are in northern Bulgaria and southern Transylvania, like the extra-long sword from Dobolii de Jos—*Aldoboly*. Although some stray finds naturally fall in the steppe area, this trend was already fully developed in the Classical period.



**Figure 15.** Distribution of the Middle Scythian akinakai (A—Grishchentsy type and, B—Beixinbao type; ceremonial items are marked with a star).

### 8. Solokha and the End of the Antennae Evolution

The openwork pommel in the form of stylized bird heads or claws of a bird of prey with an eye at the base (Merpert 1948, p. 78) of the Classical period is a stylistic development of earlier types of pommels decorated in a realistic manner (Melyukova 1964, p. 56). At the same time, R. Ismagilov (1978, pp. 232–33) notes the exclusively utilitarian nature of the crossbar between the volutes (for its subsequent lining with gold foil) and considers this a late sign of the pommel, which, in his opinion, was formed by the late 5th century BC. According to the researcher, this innovation appeared in Greek workshops for manufacturing ceremonial “royal” items, and then, after a while, it was accepted by the Scythians (Ismagilov 1978, p. 232). In addition to the characteristic pommel, this type is distinguished by grooves along the edges of the hilt—an imitation of wire or rope winding to prevent the sword hilt from slipping in the hand (Ginters 1928, p. 39)—and the relatively frequent decoration of the hilt with images of animals or geometric ornaments. Besides, such pommels are typical not only for swords—for example, the lower part of the iron handle of the mirror from the northeastern chamber of the Chortomlyk mound is also designed and interpreted in the form of “stylized claws of a bird of prey” (Aleksseev et al. 1991, pp. 197–98, cat. 118). However, this type of *akinakai* (with a highly stylized pommel in the form of bird or griffin heads, volutes with breaks, and a crossbar) is now known as the *Solokha type* (Topal et al. 2014, pp. 33–57). I. Shramko (1992, p. 222) suggested that the Bilsk hillfort was the center of their production (due to the significant concentration of the swords in the Vorskla and Sula basins) (Figure 16).



**Figure 16.** Distribution of the Classical Scythian akinakai (A—Solokha type, burials and B—stray finds; ceremonial items are marked with a star).

The eponymous sword from the Solokha barrow (Figure 17, 1–2) (A. Mantsevich 1987, pp. 69, 121) dates back to the late 5th century BC. However, the side burial where it was found dates back to the turn of the 5th–4th centuries BC, according to the “black-glazed *kylix* from Olynthus” and amphorae. The dating of the side burial of the Solokha barrow, constructed after the erection of the barrow over the main burial, varied from the “first half to the middle of the 4th century BC” (Brashinsky 1965, pp. 97–98) to the “first quarter of the 4th century BC” (Alekseev 1991b, p. 52; 2003, p. 228). However, A. Alekseev (2003, pp. 228, 231) noted that most of the items from the burial, including the famous sword in a sheath with a gold cover, are much older. They accumulated over the long lives of their owners. Regardless, S. Monakhov (1999, pp. 240–43) dates the *kylix* from the side burial to the early 4th century BC and the amphora assemblage to the 380s BC.

The burial with a ceremonial sword from Mound 2 near the village of Oksyutyntsi (Bobrinsky 1894, pl. 22, 4) was dated back no later than the middle of the 5th century BC based on a black-glazed *kylix* (Onayko 1966a, p. 61). These *kylikes* were common in the second quarter of the 5th century BC (Sparkes and Talcott 1970, 268, no. 469–72). Another sword with a schematic antenna pommel covered with gold was discovered in Burial 2 of Mound 3 of the Pereshchepine burial ground (Shramko 1994, p. 124, Figure 7, 1; 8). S. Makhortyh (2011, p. 14) attributed this assemblage to the late group of burials at the site of “the last quarter—the late 5th or the first half of the 4th century BC”. The arrowheads from the quiver set from this burial are reliably dated to the late 5th or the first third of the 4th century BC (Makhortyh 2012, p. 153). Based on the features of the arrowheads’ set, a sword in a gold cover of the Solokha type from Mound 4 near Osnyahy (Gorodtsov 1911, pl. 3, 4) was also attributed to the 4th century BC (Shramko 1976, p. 197) or the late 5th to the first third of the 4th century BC (Makhortyh 2012, p. 153). Based on the similarity of the scabbard of the ceremonial sword from the cache of Mound 30 near Velyka Bilozerka

(Figure 17, 3, 4) to a scabbard from Kul-Oba Barrow, V. [Otroshchenko \(1984, p. 126\)](#) dates this item to the last third of the 4th century BC.



**Figure 17.** Classical Scythian ceremonial akinakai of Solokha type from Solokha barrow (1, 2) ([Piotrowski et al. 1986, Kat. 155](#)), Velyka Bilozerka (3, 4) ([Rolle et al. 1991, cat. 89](#)), Vysochino (5) ([Lukyashko 2022, fig. 2](#)), and Kul-Oba (6) ([Aleksiev 2012, pp. 178–82](#)).

In addition to the famous sword scabbard from Kul-Oba barrow (Figure 17, 6), fragments of a hilt were found in the stone crypt (Reinach 1892, Table 27). Even though the sword's pommel has not been preserved, according to other features—a wide butterfly-shaped hilt, imitation winding on the handle shaft, and notches on the blade—it can be assumed that the sword belonged to the Solokha type. The core of the assemblage of the Kul-Oba mound, according to A. Alekseev (2003, p. 229), refers to the second half of the 4th century BC. The burial from the crypt is synchronized with the Chortomlyk barrow, in contrast to the burial under the crypt, which is chronologically close to the secondary burial of the Solokha barrow (Alekseev 2003, p. 262). The Thasian amphora from the Kul-Oba mound was initially dated back to the late third to fourth quarter of the 4th century BC (Brashinsky 1965, p. 104). A. Alekseev (2003, p. 262) offers the 330s BC as a reference date, noting a downward trend in the chronology of some finds in the first half of the 4th century BC. At the same time, S. Monakhov (2003, p. 70, pl. 46, 1) dates one of the late biconical amphorae with the *Areton* (Ἀρέτων) stamp to the 330s. This barrow is one of the latest assemblages with a sword of the Solokha type (Alekseev et al. 1991, p. 125).

A series of swords of the Solokha type comes from the Lower Don, and three of them were decorated with gold, including a richly decorated scabbard. In 1901, near Elizavetovskaya (Elizavetinskaya), Azov District of the Rostov region, I. Ushakov excavated a mound, which later received his name. In Ushakov's Kurgan 16 of the Elizavetovskaya burial ground, in addition to the sword and the hilt and scabbard covered with gold appliqué, Greek imported vessels were found, in particular an *aryballic lekythos* of the late 5th–early 4th centuries BC and late Chian amphorae of the 4th century BC. Despite the considerable differences in the dating proposed by the researchers—from the 6th to the 5th century BC, or the 5th century BC (Kieseritzky 1902, pp. 44–45; Minns 1913, p. 270; Borovka 1928, p. 97; Sokolsky 1954, p. 138), and even the 7th century BC (Tallgren 1917, p. 77)—the most probable date could be the first half of the 4th century BC (Rostovtsev 1925, pp. 531, 532; Shilov 1966, p. 174). I. Brashinsky (1980, p. 124) dated this assemblage to the early 4th century BC based on fragments of black-glazed pottery. However, E. Vlasova (1997, p. 37) disagreed with this dating and dated the primary burial from the Ushakov mound to the last quarter of the 5th century BC. She also stated that the cover of the scabbard was made earlier, as it was installed twice on the scabbard.

In Burial Mound 10 of 1909, near Elizavetovskaya, a sword with a hilt covered with gold foil was discovered. The sword's pommel was decorated with “the well-known stylization of griffin heads” (Miller 1910, p. 115, pl. 5), and the scabbard was wide, had parallel edges, and was decorated with scenes of tormenting animals. N. Sokolsky (1954, p. 141) dates it by analogy with the swords from Solokha and Kul-Oba to the 4th century BC. However, stamped Heracleian amphorae from this mound belong to type I-4, according to S. Monakhov (2003, p. 129), and date back to the late 5th–early 4th centuries BC, although the researcher initially dated them to the 390s BC (Monakhov 1999, p. 171). The scabbard, similar in shape, with parallel edges and a long blade, is associated with a sword from Mound 1 of 1910 of the Elizavetovskaya burial ground (Pharmakowsky 1911, p. 197, Abb. 5). According to Yu. Polidovich (2014, p. 155), the shape of this item opens a new series of Scythian scabbards, although their three-part construction (the mouth, middle part, and tip) is an archaic sign, well known in the previous era. In 2019, in the territory of the Azov region, near the village of Vysochino, in Burial 4 of Mound 1 (Figure 17, 5), a sword of the Solokha type with a gold cover on the hilt was found (Lukyashko 2022, Figure 1, 1; 2; 3). The burial is dated based on amphorae and a painted *lekythos* to the early 4th century BC (Lukyashko 2022, p. 121).

It is symptomatic that assemblages containing swords with a claw-like pommel of the Solokha type are dated to the 4th century BC, or they contain ceremonial forms decorated with gold or are dated by analogy with these “rich” burials. For ceremonial items, the mechanism of chronological “delay” is especially characteristic, since valuable weapons could be stored for a long time and passed down from generation to generation. This “delay” means the burials could have been made when the type was already out of use. A

vivid example of such a phenomenon is the hilt of an Achaemenid sword from the 5th century BC (Alekseev et al. 1991, pp. 92–102, 130–31, Figure 67, cat. 192) from the Chortomlyk barrow of the late third quarter of the 4th century BC (Alekseev 2003, pp. 268–69). Nevertheless, the Solokha type apparently appeared at the turn of the 6th–5th centuries BC and existed until the late 4th century BC. Chronologically, assemblages with *akinakai* of the Solokha type can be divided into three groups, which date back to (a) the second or third quarter of the 5th century BC; (b) the late 5th to the first third of the 4th centuries BC; and (c) the second half of the 4th century BC. Early burials are concentrated in left-bank forest-steppe Ukraine, and a single assemblage is known in the Kuban region. In addition, at this time, the image of an *akinakes* of the Solokha type appears on a stone sculpture: on stelae from the Krasnodar Museum (Pregradnaya?) (Miller 1925, p. 109, Figure 7) and Ternivka, Mykolaiv region (Elagina 1959, Figures 3–6).

The widest distribution of swords of this type was in the last decade of the 5th century to the first third of the 4th century BC; the vast majority of dated assemblages are associated with this span. This period is also the time for the most ceremonial items, with the hilt and often the scabbard covered with gold, although they are found only on the Dnieper's left bank and in Don's lower reaches. *Akinakai* of the Solokha type penetrate the right bank of the Dnieper; to the south, into the steppe part; in the west, they reach the Lower Dniester; and in the east, they fall into the Volga-Ural interfluvium. Numerous stray finds in the Volga-Don forest-steppe are associated with this period. At the final stage of its development, in the second half of the 4th century BC, *akinakai* of the Solokha type appeared in the Crimea and in the burials of the Southern Urals and Trans-Urals. Furthermore, precisely during this period, mirrors appeared, the handles of which were decorated in the Solokha style.

The distribution of finds of swords and daggers of the Solokha type looks quite eloquent (Figure 16). The complete absence of the Solokha *akinakai* in Transylvania, the Great Hungarian Plain, and Crimea and their almost complete absence in the Caucasus are indicative. Burials with swords and daggers of the Solokha type gravitate towards three main regions—the interfluvium of the Dniester, the Siverskyi Donets, and the Urals. The concentration of swords in the Vorskly-Sula region brought I. Shramko (1992, p. 222) the idea of localizing the center of their production in the Bilsk hillfort, where the blacksmiths were fluent in processing ferrous metals and gold. The Sauromatian assemblages with swords of the Solokha type cover mainly the Southern Urals. There is a considerable mass of less documented stray finds between the Don and the Urals. Already in the later Classical period, when in the middle of the 4th century BC, the centers of production of bladed weapons were shifting to the south, the antenna pommel practically disappeared from the set of decorative techniques of the Scythian armorers. So, the Solokha type is apparently formed on the left-bank forest-steppe of the Dnieper—for the early period of its evolution (the first half of the 5th century BC), only forest-steppe burials are characteristic. Moreover, most “ceremonial” forms come from the left banks of the Dnieper (Topal 2020, 639).

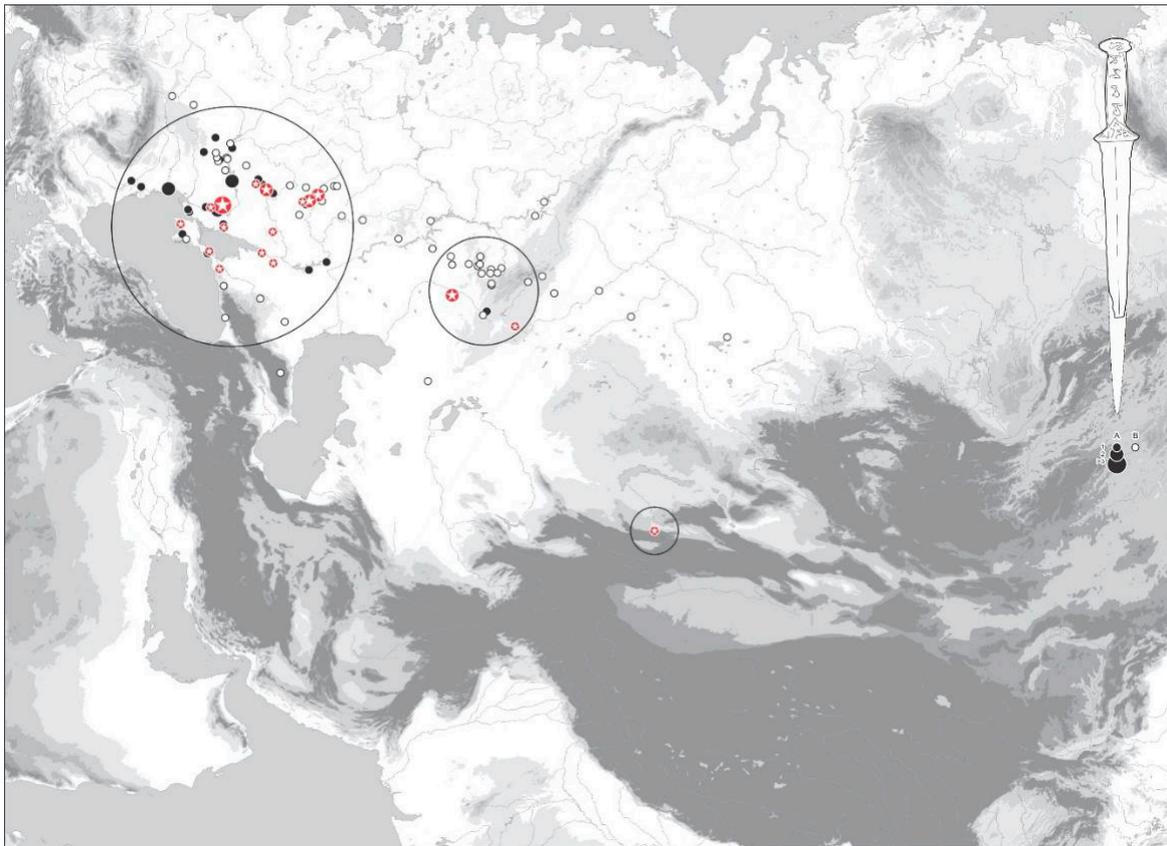
## 9. Chortomlyk and the “Golden Madness” of the Scythian Culture

As far back as M. Rostovtsev (1914, pp. 89–90), in his search for analogies with a sword from Chastye Kurgany, he paid attention to the “unusual typicality” of handles such as Chortomlyk, Kul-Oba, Kekuvatsky, etc. and concluded their simultaneousness. W. Ginters (1928, pp. 33–36) developed this idea further and distinguished a group of “swords with flattened oval tips”. B. Grakov (1947b, p. 112) called such a shape of the handle the *Chertomlyk-Kul-Oba type*; A. Melyukova (1964, pp. 51–52) assigned this group but separated the finds from the Kekuvatsky Mound (Figure 18, 8) and Karagodeuashkh (Melyukova 1964, p. 53). Later, several swords from Classical Scythia with an oval pommel, a sub-oval handle, a “false” triangular hilt, and a triangular blade were grouped under the *Chertomlyk type* term (Topal 2014, p. 130). According to A. Alekseev (1991a, p. 278), this type developed under the influence of Greek weapons, as an oval hilt is typical of Greek *xiphoi* (Melyukova 1964, p. 53), and some of the swords assigned to this type are single-edged. Most of them are distinguished by the decoration of the hilt, pommel, and handle in animal style; some

swords were covered with gold on a forged relief. Since the swords of the “Chertomlyk series” (Figure 19) combine elements of Greek-Scythian art and some of them were found on the Bosphorus, it can be traditionally assumed that they originated from the workshops there (Onayko 1970, p. 31). However, according to the observations by V. Gulyaev (2009a, pp. 163–64), the decorations on the handles were applied by forging and not by punching, and the handles were covered with gold leaf shortly before the funeral.



**Figure 18.** Classical Scythian ceremonial akinakai of Chertomlyk type from Chortomlyk barrow (1, 3–5) (Alekseev 2012, pp. 211–14), Berdyansk barrow (2) (Murzin et al. 2022, p. 100), Chayan (6) (Picón et al. 2007, cat. 59), Kolbino (7) (Gulyaev 2009b, fig. 4), Kekyvaty barrow (8) (Tolstikov and Nefedkin 2010, p. 615, fig. 12), and Zhitkov-II (9) (Kodai Oriento Hakubutsukan 1991, p. 65, cat. 40).



**Figure 19.** Distribution of the Classical Scythian akinakai (A—Chertomlyk type, burials and B—stray finds; ceremonial items are marked with a star).

In the Chortomlyk (in Ukrainian) or Chertomlyk (in Russian) barrow, in the central grave, five double-bladed ceremonial swords were discovered (Figure 18, 1, 3–5), and four are known at present.<sup>2</sup> Three were found in chamber 5 (feature K), stuck into the wall (DGS 1872, p. 112, Table 40, 9, 12, 14). Next to the known Achaemenid sword (Figure 18, 1, 4) was found another one, of which only the hilt was preserved (DGS 1872, Table 37, 3). Initially, I. Brashinsky (1965, pp. 100–1) dated the Chortomlyk barrow by the Sinope stamps to the late 4th or 3rd centuries BC. M. Artamonov (1966, p. 52), analyzing the images on the silver vase and platter from Chortomlyk, placed the burial mound between the first quarter and the middle of the 4th century BC. N. Onayko (1970, p. 99) dated the black-glazed Greek vessels to the middle or third quarter of the 4th century BC; the Chersonesian amphora stamp was dated to the first half of the 3rd century BC; and the Sinope one to the late 4th or early 3rd century BC. A. Alekseev proposed several dates for the assemblage. The “broad” date supported by the Achaemenid sword and amphora stamps from the mound covers the 5th through the turn of the 4th–3rd centuries BC, and the “narrow” one is the 330–300 s BC, according to the gold plaques, arrowheads, and bronze tops (Alekseev et al. 1991, pp. 130–31). Although, according to A. Alekseev (2003, p. 268), the “core” of the Chortomlyk assemblage (including the ceremonial warrior set of the “Trojan series”) is dated to 350–320 s BC, the later items belong to the last third of the 4th century BC. S. Polin and S. Monakhov disagreed with this conclusion fundamentally based upon analogies that pointed to the middle to the third quarter of the 4th century BC (Mozolevsky and Polin 2005, p. 370) or the late 340s to the first half of the 330s BC (Monakhov 1999, pp. 368, 578).

In addition to the specific design of the handle of the Chertomlyk type, a series of gold-plated scabbards from the “Chertomlyk series” stands out. The cover from Mound 8 (“Five Brothers”) of the Elizavetovskaya burial ground adjoins the sheaths from Chortomlyk, as well as the scabbard of the Metropolitan Museum of Art found, presumably, in Crimea,

near Chayan (Richter 1932, pp. 109–12, Figure 3). According to M. Treister (1999, p. 79), these prestigious sheaths and *gorytoi* of the “Trojan series” (including those from Vergina tomb) were made in Bosporan workshops in the 360–340 s BC. A. Shcheglov and Katz (1991, p. 103) have suggested that the items of the Trojan series were made in about the 350s BC and deposited in the aristocratic burials starting in the 340s BC; the researchers considered Chortomlyk the latest one among them. A. Alekseev (2003, p. 245) believes that stylistic peculiarities of details and images on the items of the series cannot be dated more precisely than the middle of the early last quarter of the 4th century BC. However, this appeal to the plots of the Trojan cycle could have been stimulated by Alexander the Great’s campaign. That is why the lower date of these things is limited to 334 BC. Nevertheless, some details of images on the scabbards of Chortomlyk type (the most important one is a long spear in the hand of a horseman) can be dated after 331 BC (Nefedkin 1998, p. 76). However, the only preserved sword scabbard from Chortomlyk belonged to a unique sword that combines Early Scythian, Achaemenid, and Greek-Scythian features (Treister 2010, pp. 227–29).

On the sword’s scabbard from Burial Mound 8 of the Five Brothers group, the scenes are similar to those on the gold cover of the sword from Chortomlyk. The pommel’s oval shape and the guard’s triangular-heart shape are similar to those on swords from the Chortomlyk barrow (Shilov 1961, pp. 158–59). The images of animals on the hilt are identical to the reliefs on the sword’s hilt from feature K of chamber 5 of the central tomb (DGS 1872, Table 37). I. Brashinsky (1984, p. 139) attributed this assemblage to the turn of the third and the last quarter of the 4th century BC, while S. Monakhov (1999, p. 362) dated the amphora assemblage from Burial Mound 8 of the Five Brothers group from the second half of the 350 s to the middle of the 330 s BC. The Kekuvatsky burial mound (Reinach 1892, Table 27, 9), with a sword hilt similar to those of Chortomlyk, was dated to the middle of the 4th century BC based on finds of a painted *pelike* (Yakovenko 1974, p. 65; Vinogradov 2005, p. 271).

In the Kuban region, in the Karagodeuashkh barrow, a sword was discovered similar to the swords from Chortomlyk and Kul-Oba, of which an iron hilt covered with gold leaf was preserved (Malmberg 1894, p. 128, Table 5, 3). The handle was slightly thickened in the middle, and the upper part was almost ellipsoidal. The authors of the first publication dated it to between the 4th and 3rd centuries BC; M. Artamonov (1966, pp. 74–75) regarded it as parallel to the Alexandropol barrow and dated it to the late 4th century BC. The analysis of the assemblage elements (including Greek pottery) points to the chronological proximity of the Karagodeuashkh barrow to the Chortomlyk and Kul-Oba (Vakhtina 2009, p. 39). Early Chersonesian amphorae found in the Karagodeuashkh mound were dated to the third quarter of the 4th century BC (Mozolevsky and Polin 2005, p. 365). Despite possible approximation to the 360 s, the most probable date of the barrow is the third quarter of the 4th century BC or from the 340 s to the first half of the 320 s (Monakhov 1999, pp. 412, 578).

In the aristocratic Burial 1 of Burial Mound 11, near Stary Merchyk, a sword with an oval tip was found, the hilt of which was covered with gold leaf. Figures of griffins sitting opposite each other were minted at the guard, and a lying deer with a predator was placed on the oval handle (Bandurovskij and Buynov 2000, Figure 20, 1). This assemblage contained the objects of the second half of the 4th century BC, including a rare black-glazed bowl, a silver goblet, and fragments of a silver bowl (Bandurovskij and Buynov 2000, Figure 61, 67). As a result, the authors of the excavations dated the burial to the period between the erection of Solokha and Chortomlyk with Kul-Oba or the period of “340 s–325 BC” (Bandurovskij and Buynov 1999, 23–24).

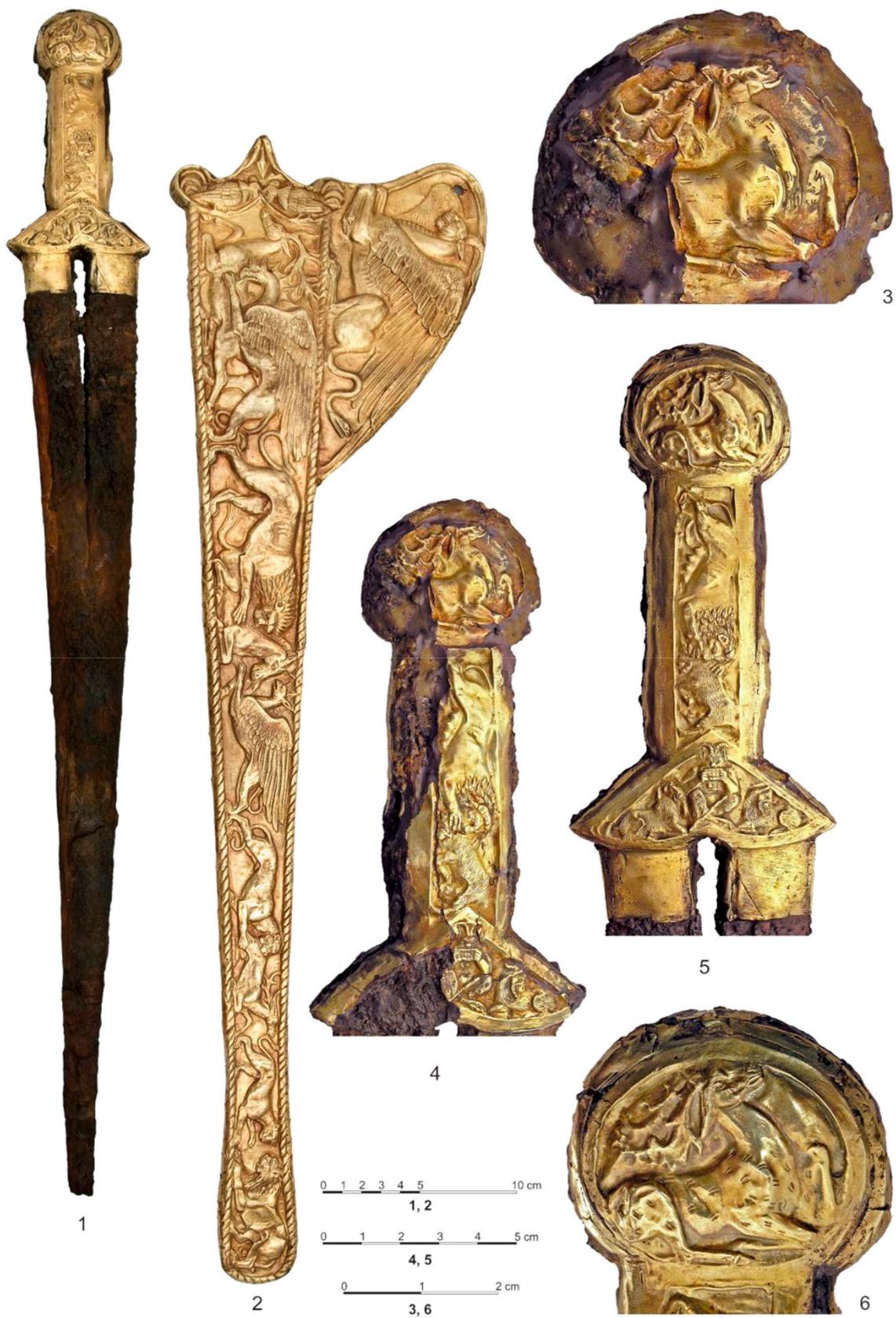
One of the first to be discovered in the Middle Don, in the Chastye Kurgany group near Voronezh, in Barrow 3, a sword was found that is surprisingly similar in decoration and morphology to the Chortomlyk ones (Rostovtsev 1914, p. 11, Table 2, 5). M. Rostovtsev (1914, p. 12) dated the Voronezh sword, as well as all the Chortomlyk series, to the second half of the 4th century and the early 3rd century BC, noting the particular golden age of this type in the first half of the 3rd century BC. In Barrow 11 of the same group,

sheaths were discovered bound with a silver plate stamped with stylized floral ornaments (Puzikova 2001, p. 14, Figure 6, 8, 8a). S. Zamyatnin (1946, p. 48) attributed the first barrows of the Chastye Kurgany group (including Mound 3) to the last period of the burial ground functioning in the second half of the 4th century BC.

The sword from Barrow 9 from the village of Durovka, based on its oval pommel and subtriangular hilt (Puzikova 1969, Figure 6, 3, 4, 5), could also be attributed to the Chertomlyk type. The iron hilt of this sword is encircled by figural plates of precious metals (silver and gold) (Puzikova 1969, 93, Figure 6, 1, 2). In a similar way, but with the help of bone plates, the handle of a mirror from Burial Mound 2 of Barrow 13 near Pokrov was decorated (Terenozhkin et al. 1973, pp. 161–66), attributed to the second half of the 4th century BC (Alekseev 2006, p. 58). The proper Chertomlyk-style decorations on the mirror handle, for example, the ornamentation on the Kul-Oba mirror (Reinach 1892, Table 31), consisted of a rounded pommel with an image of a predator. The handle shaft was decorated with an image of a deer with rampant antlers and a predatory animal running after it. Aristocratic burials eloquently testify to the possible coexistence of the Chertomlyk and Solokha decoration models. So, probably, Kul-Oba, one of the youngest barrows with a sword of the Solokha type, contained a mirror with a hilt of the Chertomlyk style, while the Chertomlyk barrow contained a mirror with a hilt of the Solokha type. Therefore, the synchronization time of these two types of hilt design appears to be the beginning of the last third of the 4th century BC or 330s BC.

The assemblage from Kolbino is considered earlier and is dated to the middle or third quarter of the 4th century BC (Savchenko 2006, p. 329). A gold-hilted sword from Burial 1 of Mound 7 near the village of Kolbino (Gulyaev 2008, Figure 1, 4) was similarly dated by researchers according to the Chertomlyk sword to the middle of the third quarter of the 4th century BC (Gulyaev and Savchenko 2000, p. 93). In Barrow 36 of this burial ground, another sword of the Chertomlyk type was also discovered (Gulyaev 2008, Figure 1, 5) with an openwork blade (Figure 18, 7). It is believed that these openwork blades and, possibly, handles were caused by a desire to lighten the upper part of the sword and thus to bring its center of gravity closer to the point of impact (Savchenko 2006, p. 325). Moreover, as the slits occupy the upper part of the blade, it could indicate a connection with an older pattern, typical of Solokha-type *akinakai*: the grooves forming an elongated triangle.

The sword from the central burial mound of the Tovsta Mohyla mound (Figure 20) also has slits on the blade (Mozolevsky 1979, pp. 69–73, Figures 52–56). In addition, this sword is distinguished by an unusually rounded tip. Like many swords from aristocratic burials, the handle is covered with gold foil. The sheath of this example is also supplied with gold leaf in a manner typical of the Chertomlyk series (Treister 1999, p. 75). B. Mozolevsky (1979, p. 229) dated all the mound burials within the limits of the second or early third quarter of the 4th century BC. The chronological similarity of the three-handled amphorae (dated by A. Alekseev to the last quarter of the 4th century BC) from Tovsta Mohyla and Kurdzhips has been questioned by S. Polin, without considering it as a serious reason to revise B. Mozolevsky's chronological conclusions (Mozolevsky and Polin 2005, pp. 363–64). A. Alekseev (2003, p. 243), broadly agreeing with the lower chronological limit, moves the upper one based on analogies of the phiale and amphora in the Kurdzhips barrow and the pectoral from Velyka Blyznitsya. In his opinion, Tovsta Mohyla belongs to the group of "royal barrows" of the second to third quarters of the 4th century BC (Chmyreva Mohyla, Tsimbalka, Haimanova Mohyla), in the range of 350–340s to 320s BC. Summing up the chronological observations, we can conclude that the time of the most incredible spread of swords of the Chertomlyk type was the third quarter of the 4th century BC, and most of the stray finds are also connected chronologically.



**Figure 20.** Classical Scythian ceremonial akinakes from Tovsta Mohyla barrow (Polidovich 2015, fig. 1).

On the left bank of the Lower Don, in the diagonal Burial 2 of Burial Mound 3 of the Zhitkov-II burial ground near the village of Vesoly, Rostov region, an *akinakes* of the Chertomlyk type was discovered (Figure 18, 9). There were also cross grazes on the sides of its hilt, wrapped in gold foil (Parusimov 2013, p. 225, Figure 3, 22). This burial yields a painted jug with similar forms to the Olbian ceremonial tableware of the second half of the 4th or 3rd century BC (Klepikov 2002, p. 61). However, the rectangular gold plates with an image of a reclining deer decorating the wooden bowls (Parusimov 2013, Figure 3, 17, 19) find direct analogies in the assemblage of the Zavadska Mohyla (Mozolevsky 1980, pp. 105, 109, Figure 44, 6, 9; 47). Furthermore, in the grave of the Zavadska Mohyla, we find Chian “new style” amphorae that date to the third quarter of the 5th century BC, probably to the 430s BC (Alekseev 2003, p. 259). This date is not contradicted by the *Nymphesus-Zavadska Mohyla* horse harnesses (Kantorovich 2012, pp. 36–37) of the second half of the 5th century BC, although V. Klepikov insists on the dating of gold covers from the Volga-Don interflaves to the 4th century BC and even the early 3rd century BC (Klepikov 2002, p. 62).

In addition to the oval handle and pommel, an important feature associated with a group of swords of the Chertomlyk type is a slit hilt. For example, such slits on the hilt are present on a sword from the Berdyansk burial mound (Murzin and Fialko 1998, p. 107, Figure 4); similar is the general design of the sword, like an oval pommel and extended hilt (Figure 18, 2). This “royal” barrow belongs to the early assemblages of the third group, including the Solokha barrow, according to A. Alekseev (2003, p. 207). The Berdyansk burial mound is very close in time and its grave goods to the Solokha barrow and is dated by various researchers within the limits of 380–365 BC and 375–365 BC (Kovalyov et al. 1992, p. 40) or 380–375 BC (Fialko 1997, p. 57). S. Monakhov (1999, p. 287) believes there are serious grounds for narrowing the date to the first half of the 360s BC. Nevertheless, it is preferable to date the barrow to the late first or early second quarter of the 4th century BC (Mozolevsky and Polin 2005, p. 362). On the gold-foil-covered hilt of the sword from Burial 1 of Burial Mound 3, near the village of Stary Merchyk, one can see four slotted rectangles (Bandurovskij and Buynov 2000, p. 77, Figure 8, 7–8). This burial is attributed to the third quarter of the 4th century BC, and the presence of a clad sword is attributed to the participation of the Scythians of the Siversky Donets in the war with Bosphorus (Grechko and Karnauh 2011, p. 249). A. Alekseev (2003, p. 247) suggested that a considerable part of gold-decorated weapons could be used as diplomatic gifts for the Scythian nobility. A similar sword was discovered in the ruined burial mound near Perevalsk in the Luhansk region (Filatov and Chernenko 1972, p. 123, Figure 1). A sword from this aristocratic burial was wrapped in gold foil, which shows hollows, probably caused by the slits. Besides the hilt, the blade of the sword was also slit, and its pommel was oval-shaped, almost round, with an animal motif.<sup>3</sup>

The “cultural types” of the Scythian *akinakai* can be diagnosed by means of various complementary indicators, one of which is the reflection in fine art and monumental sculpture. One such image of an *akinakes* of the Chertomlyk type can be regarded as a relief on a silver bowl from the cache of the Haimanova Mohyla barrow (Bidzilya and Polin 2012, pp. 105–16, 421–24, Figure 593, 594). The ornamental frieze of the bowl presents six figures, one of which (a bearded warrior) has a long ceremonial sword with a triangular blade decorated with a geometric pattern (Bidzilya 1971, p. 54). The design of the pommel is interesting: it is oval, and the edges of the hilt are decorated with horizontal incisions (most probably, it is an imitation of a sheathed sword). The author of the excavations dated this assemblage to the early second half of the 4th century BC (Bidzilya 1971, p. 55). A. Alekseev (2003, p. 277) later dated Haimanova Mohyla to the middle or third quarter of the 4th century BC, connecting this mound to the time of Ateas’ activities. According to S. Monakhov, the amphora set from the northern burial dates the mound to the middle of the 330 s BC, which allowed S. Polin to narrow the dating to the 350–340 s BC (Mozolevsky and Polin 2005, p. 365). In any case, it is clear that the sword depicted on the cup from Haimanova Mohyla dates to the time of the greatest spread of the Chertomlyk type.

## 10. Shulhivka and the Spread of Single-Blade Swords in the Classical Period

Closely connected with the Chertomlyk type is a group of ceremonial single-bladed weapons observed by W. Ginters (1928, pp. 36–37), A. Melyukova (1964, p. 59), and A. Alekseev (2006, p. 43). There are nine examples of long single-bladed swords with a handle consisting of an oval pommel, a trapezoidal hilt often covered with gold leaf, and relief ornamentation. The ornamental design of the hilt brings this group extremely close to the ceremonial swords of the Chertomlyk type. In particular, there are broad analogies to the zoomorphic motifs of feline predators and ungulates. One of the earliest finds of swords of this type comes from barrows excavated by N. Veselovsky in 1889–1891, near the village of Shulhivka or Shulgovka (Alekseev 2006, pp. 46–47, Figure 1, 1). Unfortunately, this eponymous item of the *Shulgovka* type has been lost. The only sources for Veselovsky's excavations are his field documentation, a list of finds, and a manuscript catalogue prepared in the 1890s by G. Kizeritsky. A detailed analysis of these documents allowed A. Alekseev (2006, pp. 43–47) to make a detailed description of swords, correct a series of historiographical inaccuracies, and determine the chronology of the barrow construction. In his opinion, the gold plaques reproducing the obverse and reverse of the Bosporan stater allow us to attribute the whole assemblage not earlier than the 330s BC (Alekseev 2006, p. 46).

The chronology of the Chortomlyk barrow was discussed above in detail. It is indicative that one of the swords of Shulgovka type was discovered in the Chortomlyk barrow, apparently in the southwestern chamber among the military set (Alekseev et al. 1991, cat. 72, 73). The overall length and form of this sword can be reconstructed only approximately, as only the hilt, covered with gold, and the gold tip of the scabbard are preserved. However, from the blade fragment preserved in the tip of the sheath, we can still judge its section, particularly the longitudinal notch in the central part, which forms one pointed edge. A direct analogy of this cross-section shape is in an iron *makhaira* from the barrow near the village of Abramovka in the Middle Don region (Medvedev and Efimov 2001, Figure 5, 1). This item allowed A. Alekseev (2006, p. 47) to suppose that the sword's blade from the Chortomlyk barrow (the same as Shulhivka and Abramovka) extended in the middle part, like the blades typical of Greek *makhairai*. It should be noted that A. Alekseev (2006, p. 47), despite S. Polin's objections, supports his previous position, proposing as the *terminus ante quem* for the sword the date of the central burial, that is, 329–328 BC.

In Burial 1 of Burial Mound 9 in the Try Mohyly area, near the village of Pisky, Basha-tank District, Mykolaiv region, a single-bladed sword with a gold cover in animal style (Grebennikov 1987, p. 153, Figure 4, 10) and a silver box-headed chape, not mentioned in the first publication (Mozolevsky and Polin 2005, p. 352), were found. The burial was dated by Chersonesian and Heracleian amphorae to the last quarter of the 4th century BC, probably the 310s BC (Monakhov 1999, p. 430), though A. Alekseev (2006, p. 48) believes it was the 310s BC at the earliest. In his later work, S. Monakhov (2003, p. 94) dated this burial to the 330–310s BC.

In Burial 4 of Barrow 10 near the village of Mala Lepetykha, partly excavated by N. Veselovsky in 1916 and then investigated in 1990 by G. Evdokimov, a single-bladed sword was discovered. The sword handle was covered with a gold leaf with relief depictions of animals: a deer lying on its knees and a feline predator preparing to leap. On the guard, which is distinguished by a slightly raised, rounded ledge, there is also an image of a feline. On the pommel is an image of an ungulate, probably a roe deer (Danilko and Kupriy 2004, p. 83, Figure 3, 2). Next to the sword was found an elongated electrum scabbard chape (Evdokimov et al. 2012, p. 85, Figure 8, 1). Besides a single-bladed sword, Burial 4 contained an amphora, a bridle and a quiver set, a bronze cauldron, gold torques and bracelets, etc. (Evdokimov et al. 2012, pp. 77–89). Based on amphorae close to Peparethos or the I-B Chertomlyk variant of the 340–320s BC (Monakhov 2003, p. 99), the dating of Burial 4 was defined within the framework of the middle to the third quarter of the 4th century BC (Evdokimov et al. 2012, pp. 89, 92).

In Burial 2 of the aristocratic mound of Soboleva Mohyla, a single-bladed sword with a hilt was found covered with gold (Mozolevsky and Polin 2005, pp. 181–82, Figure 99,

50; 104, 2; Table 19). The handle was decorated with embossed images of animals: on the hilt, there was a lying fallow deer; on the handle, there were a deer and a predator; on the guard, there was probably an image of a predator, too. Also preserved were the silver box-shaped scabbard's chape, as well as several fragments of wooden sheaths with Greek-type ornamentation, according to S. Polin (Mozolevsky and Polin 2005, p. 182, Figure 104, 1). The ornamentation structure of the scabbard is similar to that on the sword in the Haimanova Mohyla bowl—it is oriented along its length and consists of spiral scrolls. Mending amphorae of the *Melitopol type* of funeral feast allowed the authors to date the burial mound to the third quarter of the 4th century BC. This date is not contradicted by data on other types of amphorae from an unknown center, similar to those found in Barrow 8 of the Cherednikova Mohyla group in the early 340s BC (Monakhov 1999, p. 346), as well as Peparethos (Solokha I) and Sinope (Mozolevsky and Polin 2005, p. 358). Moreover, according to M. Treister (2005, p. 519), silverware from the Soboleva Mohyla is also characteristic of the assemblages from the middle to third quarter of the 4th century BC.

There are also finds of single-bladed swords of this type in Crimea. In the eastern part of the peninsula, in Burial 2 of Burial Mound 5 of the Bohachivka group, a fragment of the hilt of a single-bladed iron sword sheathed in gold was discovered (Koltuhov 2012, p. 45, Figure 16, 5). Despite looting, some grave goods were preserved that bring this assemblage together with Soboleva Mohyla: in particular, a silver *kylix* of the type characteristic of the Northern Black Sea area of the third quarter of the 4th century BC (Treister 2005, p. 513). In the collection of the State Hermitage, there is a single-bladed sword published by M. Rostovtsev (1914, p. 89, Table 5, 1) as a “purchase in Kerch”. Unfortunately, apart from the morphology of this item, nothing can point to the dating of this find. However, except for a sword from Bohachivka, the closest analogy to it is a sword from Burial Mound 487 near the village of Kapitanivka from the forest-steppe of the right bank of the Dnieper (Alekseev 2006, p. 48). Two barrows in the Dnieper forest-steppe present single-edged swords—Mound 487 at Kapitanivka and the barrow near Ryzhanivka. Barrow 487, excavated by A. Bobrinsky (1910, p. 70, Figure 8, 8a) in 1908 along the road from Kapitanivka to Zlatopil, contained a single-bladed sword handle, and its scabbard was equipped with a massive electrum chape. Besides the sword, the primary burial contained a rich artifact, which included javelins, a quiver set, an amphora, a bronze bowl, and a gold torque. The burial of a horse with a bridle set accompanied the main tomb. The amphora was defined as a Heracleian one (possibly of type IIa, according to S. Monakhov), analogies of which can be found in the Alexandropol barrow of the last quarter of the 4th century BC. The elements of the bridle from the horse burial are close to the horse harnesses from Burial 2 of the Khomina Mohyla barrow and the Rizhanovka barrow of the late 4th century BC, which allows the assemblage from Kapitanivka to be dated within the last quarter of the 4th century BC (Alekseev 2006, p. 50).

In the central (male) burial of the Great Ryzhanivka barrow, among the wealthiest set, was found a single-bladed sword in a gold sheath with a chape (Chochorowski et al. 1997, phot. 5). N. Onayko (1970, p. 58) dated the secondary (female) burial, studied by G. Ossowski (1988, p. 6) in 1887, to the second half of the 4th century BC, narrowing this framework according to the chronology of Panticapaeian staters to 340–315 BC. S. Monakhov (1999, pp. 413–15), based on analogies to the black-glazed pottery, dates the burial to the third quarter of the 4th century BC, which, in his opinion, is also confirmed by the chronological position of the amphora (of the so-called “Ryzhanovka type”). As the result of additional investigations of the barrow in 1995–1998, apart from the remarkable collection of the artifacts, a series of radiocarbon dating was also obtained. Based on the latter, the authors of the excavations proposed a date for the main burial site of  $270 \pm 12$  BC (Chochorowski et al. 1998, p. 109), and the assemblage was divided into four chronological groups (5th–4th, 4th, 4th–3rd, and 3rd centuries BC). Most of the items are dated to the second half of the 4th century BC, and only a few are found in the 3rd century BC (Skoryj 1998, p. 132). The combination of amphorae in the central burial, according to A. Alekseev (2003, p. 272), concerning S. Monakhov's (1999, pp. 497–509) observations, leaves

the 270s BC as the maximum upper limit, which is hardly admissible, according to S. Polin (Mozolevsky and Polin 2005, pp. 377–78). Besides, as a result of the recalculation from the data of radiocarbon dating tables made by A. Alekseev (2001, pp. 71–72), it appeared that the probability that all wooden elements of the barrow's central burial were manufactured in the late 4th and early 3rd centuries BC (350–285 BC) was rather high (Zaytseva et al. 2005, p. 212).

The excavation team seemed to agree with that, later offering the date of 360–270 s BC (Kovaliukh et al. 2003). As a result, based on the results of radiocarbon dating and analysis of the artifacts, A. Alekseev (2003, pp. 272–73; 2006, p. 50) proposed the date ca. 300 s BC, or more broadly, 315–285 BC, noting that the Great Ryzhanivka barrow is a later “royal tomb” of Scythia. However, S. Polin is categorically against it, considering the most acceptable dating of Ryzhanivka as the third quarter of the 4th century BC (Mozolevsky and Polin 2005, p. 379). Nevertheless, the authors of the discovery, who have recently published a monograph on the results of excavations, insist on initial chronological observations. Indeed, the grave goods' elements find analogies in the monuments of the late 5th century BC, but the “core” of the assemblage seems to date to the second half of the 4th century BC, while many items of the “core” (including gold-plated sword covers) show traces of long-term use. At the same time, some finds date exclusively to the 3rd century BC—applications in the form of Medusa Gorgon of the first quarter of the century, a *lacrimarium* of the first half of the 3rd century BC, and a fragment of a Samian amphora from the 280–270s BC (Skoryj and Chochorowski 2018, p. 135). As a result, combining the <sup>14</sup>C data and their observations regarding the details of funerary rites and “archaeological” chronology, the authors of the excavations settled on a date of “280–260s BC” (Skoryj and Chochorowski 2018, p. 143).

It should be noted that other types of single-blade *akinakai* are also known for Classical Scythia in the Lower Don and Lower Danube, for example, the Chaush type (Topal 2021, p. 341, Figure 151). During the Classical Scythian period, single-bladed weapons were also represented by Greek and Thracian types. For example, a series of so-called combat knives were discovered in the Carpathian-Dniester region, and their sources are associated with the Greek and Thracian workshops (Bruyako 1989, p. 68). The few finds of *makhairai* in the Black Sea region are connected with the Greek communities of the coastal area. The appearance of the *makhaira* in the Black Sea region was dated to the third quarter of the late 6th century BC (Nazarov and Solovev 2000, Figure 3; Vinogradov 1999, p. 154). During the Archaic period, the single-blade weapons of the Northern Black Sea region were found exclusively on Berezan island (Borysthenes), in addition to the fighting knives of the Thracian-Illyrian milieu (Bruyako 2015, p. 216).

As for the ceremonial single-blade weapon of Shulgovka type, A. Alekseev distinguishes two varieties in its decoration. The hilt of the first one is decorated with a consecutive row of three or five animal images (Kapitanivka, Shulhivka, Kerch, and Bohachivka), and the second has images of a predator and an ungulate (Ryzhanivka, Soboleva Mohyla, Chortomlyk, and Mala Lepetykha). Besides, such diversity is also present in the “initial” (Chertomlyk?) type, according to A. Alekseev (2006, p. 51). In particular, most sword hilts of the Chertomlyk type are decorated according to the second variation (five swords from Chortomlyk, two swords from Kolbino, items from Stary Merchyk, Five Brothers, and Kekuvatsky barrows). However, only the sword hilt from Burial Mound 1 from Stary Merchyk and a sword from Chortomlyk depict a predator without the ungulates. Several images of animal processions as per the first type, according to A. Alekseev, decorated sword handles from Chastye Kurgany. It is difficult to determine whether these differences in decoration are chronological features—the assemblages with single-bladed swords are more or less simultaneous. They do not exceed the second half of the 4th century BC. However, many burials with double-bladed swords of the Chertomlyk type, decorated similarly to the second variety of single-bladed swords of the Shulgovka type, date to the middle or third quarter of the 4th century BC. In contrast, the first variety is dated to the last quarter of the late 4th century BC.

Besides that, it is evident that in the 4th century BC, the centers of blade weapon production were shifting to the south. So, the Solokha type was formed, still in the forest-steppe left bank of the Dnieper. The distribution of the Chertomlyk type and associated Shulgovka type ran in the opposite direction from the Solokha type, probably from south to north, from the right bank of the Middle Dnieper (Figure 16). Significantly, the forest-steppe burials with single-edged swords of the Shulgovka type appeared much later than the steppe ones and were located exclusively on the right bank of the Dnieper River (Figure 21). Continuing the comparison with the Solokha type, we can note a significant narrowing of the area of Chertomlyk swords and daggers, along with the eastern border of the burials with Chertomlyk-type *akinakai* passes along the Don. Furthermore, the second-most crucial concentration of burials with bladed weapons is not in the Lower Don but in the Middle Don region. The trajectory of this final lineage of development of Scythian *akinakai* undoubtedly reflects certain tendencies in the Scythian culture of the end of the 4th century BC. These trends, in particular, resulted in the disappearance of *akinakes* as a part of cultural tradition, notwithstanding a general statement (Melyukova 1964, p. 46) that by the 4th–3rd centuries BC, the number of Scythian burials with bladed weapons was considerably increasing.



**Figure 21.** Distribution of the Classical Scythian *akinakai* and Greek *machairai* (A—*Shulhiovka* type, B—*Chaush* type; C — *Greek machairai*; ceremonial items are marked with a star).

## 11. Conclusions

The vast majority of sword and dagger finds from the Scythian world are thus associated with aristocratic burials, including some “stray finds,” probably from disturbed or looted burial mounds from the Scythian period. The other exceptions to this cultural pattern are also quite revealing: the famous Melgunov hoard is part of a funerary monument (possibly a cenotaph), and a sword from the Velyka Bilozerka barrow is deposited in a grave cache. The burial practice of converting the weapon into a ceremonial one (usually

covered with a thin layer of gold) was the closest thing to conspicuous consumption among the Iranian-speaking nomads of the Eurasian steppe. It is easy to see that the ceremonial weapons of the Iranians found in isolation in graves, for example, from Ziwiye, Oxus, and Vetersfelde, lie outside the nomadic world and probably mark its boundaries for different periods. The distribution vector of the ceremonial forms of *akinakai* (probably together with the non-ceremonial objects) was constantly changing in different periods. Thus, the Kelermes type entered the Black Sea region from the southeast in the Early Scythian period (Figure 5). In the Middle Scythian period, it moved from north to south, from the Ukrainian forest-steppe to the steppe region around the Black Sea (Figure 10); at the end of the Middle Scythian culture, a modified griffin dagger type arrived in the Black Sea region from Asia (Figure 13, 15). At the beginning of the Classical period, the Solokha type moves from north to south (Figure 16), repeating the Middle Scythian route. At the end of the Classical period, on the other hand, the vector is redirected from west to east (Figure 19, 21).

The material of the ceremonial pieces also shows a divergence between the European and Asian regions. In Europe, swords and scabbards from the early Scythian period to the end of the Classical period are (with the rarest of exceptions) covered only with gold leaf and relief images. The range of decoration techniques in the Asian part is much more extensive and includes gilding, wire decoration, gold inlay, and figural applications. Silver and electrum appear in sword decoration at the end of the Middle Scythian period and the beginning of the Classical period or in the middle and end of the 5th century BC. They are actively used in both Europe and Asia. However, the finds of extra-long swords underline the difference between so-called European and Asian Scythia, and the differences concern chronology, context, and object status. Thus, extra-long swords almost completely disappeared west of the Volga at the beginning of the Classical period, while they continued to accompany grave goods in the east. This phenomenon is probably related to the fact that they became known much earlier in the European area. However, this does not exclude the cultic function of extra-long swords in these communities, who, according to Herodotus (Hdt. 4.62.2), considered the “antique iron sword” (ἀκινάκης σιδήρεος ἀρχαῖος) the incarnation of the god of war. In Europe, the finds of extra-long swords are mainly stray finds, while in Asia, they are associated with burials; moreover, the Asian extra-long swords (4 out of 6) are often decorated with precious metals. In the European region, on the other hand, where ceremonial swords were abundant during the “golden madness” in the Classical period, no connection can be established between the excessive length of the swords and their prestigious status.

The tradition of ceremonial swords in the context of burials runs through the history of the Iranian nomads. It emerged at the end of the pre-Scythian period in the northern Pontic region as a breakaway from the Caucasus, where most pre-Scythian swords and daggers were concentrated. The background for its emergence is the declining practice of placing swords and daggers in hoards, which dates back to the Late Bronze Age. Then, the tradition was actively manifested in the Scythian period and later revived in the Sarmatian period of the late 3rd and early 2nd centuries BC (Mordvintseva 2016, p. 176). In Scythian times, the ceremonial sword tradition is accompanied by chronological breaks between the main links of the periodization chain (early 7th, early 6th, and late 5th centuries BC). Although most Scythian swords and daggers fall into the Middle Scythian period (in full accordance with Gauss’s law), most ceremonial forms belong to the last phase of Classical Scythian culture. This period is a veritable “golden autumn” of Scythia, with its vast royal burial mounds and abundance of gold perfectly illustrating R. Bradley’s (1990, pp. 101–2, 136) observation that conspicuous consumption coincides with periods of political and social instability. After the peak of the proliferation of ceremonial *akinakai* in the third quarter of the 4th century BC, we observe a generation later the complete disappearance of Classical Scythian culture, along with its characteristic weapons, horse harnesses, and animal style.

**Funding:** The research was carried out within the framework of the project ‘Golden swords in Eurasia in late 8th—early 3rd centuries BC and the dynamics of the conspicuous consumption of the

early nomadic elites of Ukraine' and funded by a research fellowship of the German Archaeological Institute (15.11–31.12.2022).

**Data Availability Statement:** Data are not contained in this article. Data sharing is not applicable.

**Conflicts of Interest:** The author declares no conflict of interest.

## Appendix A

The list of locations of the ceremonial swords of the early nomads of Eurasia (the numbers correspond to the points of the map in Figure 1) is as follows:

1. Witaszkowo-*Vettersfelde*, hoard
2. Belogradets-*Ptichata Mogila* barrow
3. Great Ryzhanivka barrow
4. Kvitky barrow
5. Kapitanivka-Zlatopil, Barrow 487
6. Kopani-*Melgunov barrow (Lita Mohyla)*, hoard, cenotaph?
7. Pisky-*Try Mohyly*, Barrow 9, Burial 1
8. Pokrov-*Tovsta Mohyla* barrow
9. Hirnitske-*Soboleva Mohyla* barrow, Burial 2
10. Chortomlyk-*Chertomlyk* barrow
11. Tomakivka-*Hostra Mohyla* barrow
12. Balky-*Vysoka Mohyla* barrow
13. Shulhivka, barrow
14. Novovasylivka-*Berdyansk* barrow
15. Velyka Bilozerka, Barrow 30
16. Velyka Znamyanka-*Solokha barrow*
17. Mala Lepetykha, Barrow 10, Burial 4
18. Velyka Znamyanka-*Mamay-gora*, Barrow 377, burial 1
19. Bohachivka-*Bogachyovka*, Barrow 5, Burial 3
20. Zaporizke-*Chayan*, barrow?
21. Simferopil-*Zolotoy kurgan*, Barrow of 1890
22. Kerch-*Kul-Oba* barrow
23. Kerch-*Kekuvatsky* barrow
24. Kerch, stray find
25. Krymsk-*Karagodeuashkh* barrow
26. Kelermesskaya-*Kelermes*, Barrow 1
27. Nartan, Barrow 16
28. Veselyi-*Zhitkov-II*, Barrow 3, Burial 2
29. Elizavetinskaya-*Elizavetovskaya*, Barrow 8 (Five Brothers); 10 of 1909; 1 of 1910; 16 (Ushakov barrow)
30. Vysochino, Barrow 1, Burial 4
31. Oleksandrivka-*Aleksandrovka*, Barrow 6, Burial 1
32. Miloradove, stray find
33. Bilsk-*Pereshchepine*, Barrow 3, Burial 2
34. Osnyahy, Barrow 4
35. Vovkivtsi-*Shumeyko*, barrow
36. Pustoviytivka-*Oksyutyntsi*, Barrow 2
37. Stary Merchyk, Barrow 3; 11
38. Durovka, barrow 9
39. Kolbino, barrow 7; 36
40. Voronezh-*Chastye Kurgany*, barrow 3; 11
41. Perevalsk-*Hornyatsky*, barrow
42. Lugovskoe, burial 57
43. Algabas-*Kyryk-Oba-II*, barrow 18, burial 1
44. Filippovka-I, barrow 1; 3; 14

45. Saryzhar-Besoba, barrow 4
46. Anikhovka-Buruktal, barrow of 1954
47. Southern Tagisken, barrow 53; 59
48. Takht-i Kuwad (Sangin), *Oxus (Amu Darya) hoard*
49. Esik-Issyk barrow
50. Tarbagatay-Eleke-Sazy, barrow 4
51. Berel, barrow 2
52. Aktash-Borotal-I, barrow 82
53. Novoobinka, barrow 2
54. Shadrino, stray find
55. Ukladochnaya, stray find
56. Klyuchi, stray find
57. Arzhaan-Arzhan-2, barrow
58. Askyzskoe-Askiz, stray find
59. Minusinsk, stray find
60. Ordos, stray find
61. Saqqez-Ziwiye, hoard

## Notes

- <sup>1</sup> Dagger of the same time from Barrow 82 of the Borotal-I burial mound (Kubarev and Shulga 2007, Figure 63, 10) can hardly be considered ceremonial. However, its wooden scabbard was decorated with three hemispherical gold plaques (Kubarev 1981, p. 38).
- <sup>2</sup> Even swords originate from the Chortomlyk barrow, one of which is of Achaemenid appearance and the other is single-bladed of Shulgovka type. Another sword, never published by I. Zabelin, was found in feature F of chamber 5 (Alekseev et al. 1991, p. 103, cat. 185).
- <sup>3</sup> The openwork hilt of the sword from the village of Miloradove (Rudinsky 1928, p. 50, Table 7, 11) is also equipped with slits. They are also present in the upper part of the handle, which has a griffin figure inscribed into the round pommel. According to I. Shramko (1991, p. 70), this sword belongs to the category of ceremonial swords because the irregularities on the hilt were not smoothed out, as it was assumed that they would be covered with a gold plate.

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