

Scythian »families« – biological and/or social kinship. An overview of the research problem

Anton Gass

Zusammenfassung

Skythische »Familien« – biologische und/oder soziale Verwandtschaft. Ein Überblick zur Forschungsproblematik

Die früheisenzeitlichen reiternomadischen Verbände des skythischen Kulturkreises waren im 1. Jt. v. Chr. im gesamten eurasischen Steppengürtel durch eine neue soziale Schicht gekennzeichnet – eine kriegerische Elite. Deren Macht spiegelte sich in den monumental Grabbauten und prunkvollen Grabbeigaben. Bereits im 19. Jh. führten diese Machtzeugnisse die Wissenschaft zur Frage nach der Sozialstruktur der nomadischen Verbände. Man suchte zuerst nach Hinweisen in den antiken Schriftquellen und verknüpfte sie mit Ergebnissen erster Ausgrabungen von großen Grabhügeln der Führungsschicht der skythenzeitlichen Nomaden. Im Laufe der Zeit stützte sich die Forschung auf die Analysen der Fund- und Befundsituation früheisenzeitlicher Nekropolen mit monumentalen Grabhügeln der »Könige/Fürsten«, auf ethnologische Forschungen zu eurasischen Nomaden jüngerer Zeit und auf antike Schriftquellen.

Eine der zentralen Forschungsfragen zur skythenzeitlichen Gesellschaft war und bleibt immer noch, wie die gesellschaftliche Stellung legitimiert und weitergegeben wurde. Zur Klärung dieser Frage bot man verschiedene Modelle gesellschaftlicher Entwicklung zum Erreichen einer herausgehobenen Stellung durch Verdienste oder biologische Verwandtschaft sowie aufgrund eines postulierten Verwandtschaftsverhältnisses zu einem mythischen Urahn. Jedoch blieb offen, inwieweit die Verwandtschaftsbeziehungen der skythenzeitlichen Eliten bereits auch zu Dynastiebildungen geführt hatten. Einen Durchbruch für solche theoretischen Überlegungen verspricht ein Einsatz der Naturwissenschaften, vor allem der Archäogenetik, der noch in der Zukunft liegt.

Introduction

The early Iron Age equestrian nomadic societies of the Eurasian Steppe between the 9th/8th and the 3rd centuries BC are referred to as »Scythians«. In some areas further east, they are also referred to as »Sauromats«, predominantly from the Volga-Don interfluvium to the southern Urals, or as »Saks«, especially in Kazakhstan (Parzinger 2004, 55 f.; 64 f.; Parzinger 2007, 31 f.; cf. Jettmar 1964). Ancient written texts, such as the tradition of Herodotus, describe the Scythians as a confederation of different tribal groups north of the Black Sea (Herodot IV, 17–31; 47–57). The equestrian nomadic societies

Summary

In the 1st millennium BC, the early Iron Age equestrian nomadic societies of the Scythian cultural sphere were widespread across the Eurasian Steppe and were characterised by a new social class – a warrior elite. Their power was reflected in monumental tombs and magnificent grave goods. As early as the 19th century, these testaments to power led scholars to question the social structure of these nomadic societies. At first, they searched for clues in the ancient written sources and linked these to the results of early excavations of large burial mounds of the leading stratum of the Scythian nomads. Over time, research has focused on analyses of finds and features of Early Iron Age cemeteries with large »royal/princely« kurgans, as well as ethnological research on contemporary Eurasian nomads and on ancient written sources.

One of the central research questions about Scythian society was, and remains, how social status was legitimised and passed on. To clarify this question, scholars offered various models of social development and different explanations for achieving a prominent position. These included merit or biological kinship, as well as a postulated relationship to a mythical ancestor. However, to what extent the kinship relations of the Scythian elites had already led to the formation of dynasties remained unanswered. The use of natural sciences, especially archaeogenetics, promises future breakthroughs to help answer these theoretical considerations.

further east, from the southern Urals far into southern Siberia, had their own cultural characteristics and more regional traditions; however, based on their way of life and economy, their art, their social structure and their ideas about the afterlife, they can be included in the Scythian cultural sphere in a broader sense. Nevertheless, the term »Scythian« and related concepts are not precise ethnic attributions, but rather serve as a designation for groups with similar cultural characteristics (Menghin/Parzinger 2007, 23; Parzinger 2013, 539).

The economy and way of life of the Scythian equestrian nomads was based on livestock breeding. The size of the



Fig. 1 Burial site Issyk, Almaty Region (Kazakhstan). View over the Scythian kurgans. View from south.

Abb. 1 Gräberfeld Issyk, Gebiet Almaty (Kasachstan). Überblick auf die skythenzeitlichen Kurgane. Blick von Süden.

herds, consisting mainly of sheep and horses, and attractive nutritious grazing areas played a central role in their life. The constant search for new grazing areas often led to conflicts, therefore warlike confrontations formed part of everyday life. The increasing emphasis on a warlike element in these societies during that period is striking, which is why they have also been termed »equestrian warrior nomads« (Parzinger

2006, 541; Parzinger 2013, 540). Charismatic and energetic leaders probably stood at the head of these societies, as Herodotus's writings also suggest. They enjoyed a high reputation and their power was based on the allegiance of warrior elites (Parzinger 2013, 541). This development led to a strong stratification within society, which was not evident in the preceding Bronze Age. The mortuary cult in particular reflects these

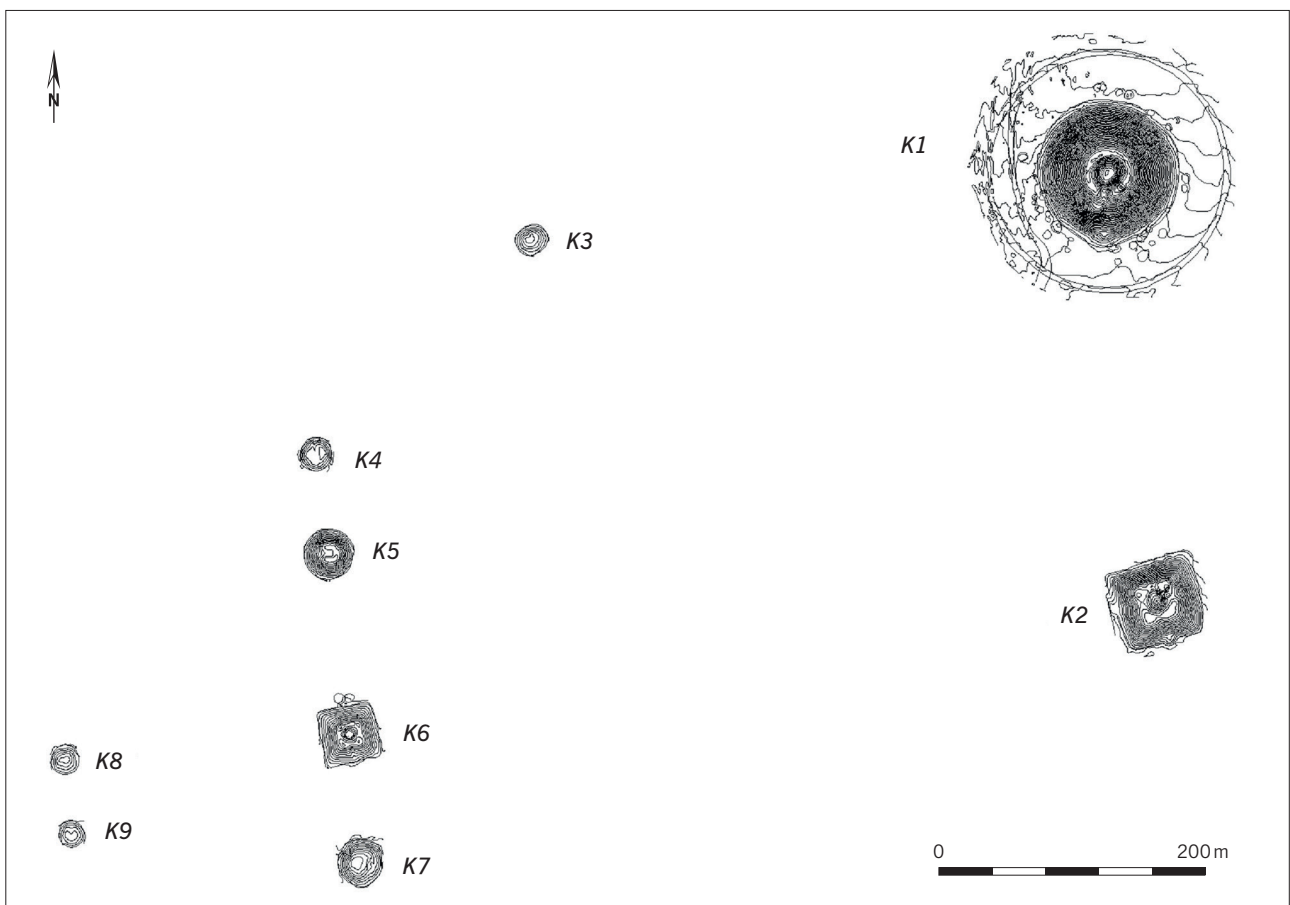


Fig. 2 Burial site Zhoan Thobe, Almaty Region (Kazakhstan). Plan of the necropolis with three rows of kurgans.

Abb. 2 Gräberfeld Zhoan Tobe, Gebiet Almaty (Kasachstan). Plan der Nekropole mit drei Kurganenreihen.

Fig. 3 Burial site Asy Saga, kurgan 1, Almaty Region (Kazakhstan). Kurgan 1 had a height of 21 m and a diameter of 149 m. View from west.

Abb. 3 Gräberfeld Asy Saga, Kurgan 1, Gebiet Almaty (Kasachstan). Der Kurgan 1 maß 21 m in der Höhe und hatte einen Durchmesser von 149 m. Blick von Westen.



processes in an impressive way: the prominent position of the Scythian elites is expressed throughout the entire Eurasian Steppe by monumental burial structures (burial mounds = know as kurgans [Fig. 1]) and magnificent grave goods.

The importance of these tombs for the equestrian nomads is well documented by the ancient Greek historian Herodotus in his »History« when he reports on the Persian-Scythian war. When asked by the Persian King Darius I (549–486 BC) to fight, Scythian King Idanthyrsos replied as follows: »It is like this with me, Persian: I never ran from any man before out of fear, and I am not running from you now; I am not doing any differently now than I am used to doing in time of peace, too. As to why I do not fight with you at once, I will tell you why. We Scythians have no towns or cultivated land, out of fear for which, that the one might be taken or the other wasted, we would engage you sooner in battle. But if all you want is to come to that quickly, we have the graves of our fathers. Come on, find these and try to destroy them: you shall know then whether we will fight you for the graves or whether we will not fight. [...]« (Herodotus IV, 127).

Scythian burial grounds usually consisted of several kurgans arranged in rows, the location and orientation of which depended on landscape conditions, but they were predominantly prominently positioned so as to be visible from a distance. The number of kurgans within a row varied, as did the

size of the burial mounds in each necropolis (Fig. 2). The dimensions of the kurgans ranged in size from very small, with a moderate height, to monumental, with a diameter of up to almost 150 m¹ and a height of 21 m². Such outstandingly large and ostentatiously furnished kurgans, the first of which were excavated as early as the 19th century, are often referred to as »princely« or »royal« kurgans (DGS 1866, II; Zabelin 1876, 619; Talbot Rice 1957, 91–103).

Social-anthropological, historical and archaeological approaches to the problem of kinship relations in equestrian nomadic society

Early in research history, the monumentality of the graves and the splendour of the grave goods raised the question of the social structure of these early equestrian nomadic societies. Since the Scythian culture was itself without writing, 19th century scholars focused on ancient written sources, especially Herodotus, in order to be able to interpret the extraordinary archaeological findings. They thought that the formation of dynasties and kinship relations played a decisive role in shaping the equestrian nomadic society of the Scythian period. Apparently, the idea of a divine origin of royal power existed among the Scythians and played

Fig. 4 Kurgan Alexandropol, Dnipropetrovsk oblast (Ukraine). Drawing between 1850 and 1860. The kurgan was 21 m high and 100 m in diameter. View from west.

Abb. 4 Kurgan von Alexandropol, Oblast Dnipropetrovsk (Ukraine). Zeichnung zwischen 1850 und 1860. Der Kurgan maß 21 m in der Höhe und hatte einen Durchmesser von 100 m. Blick von Westen.



1 E.g., kurgan 1 of the Asy Saga cemetery, Kazakhstan (Fig. 3): Gass 2016, 254.

2 E.g., kurgan Alexandropol in Ukraine (Fig. 4): Polin/Alekseev 2018, 22.

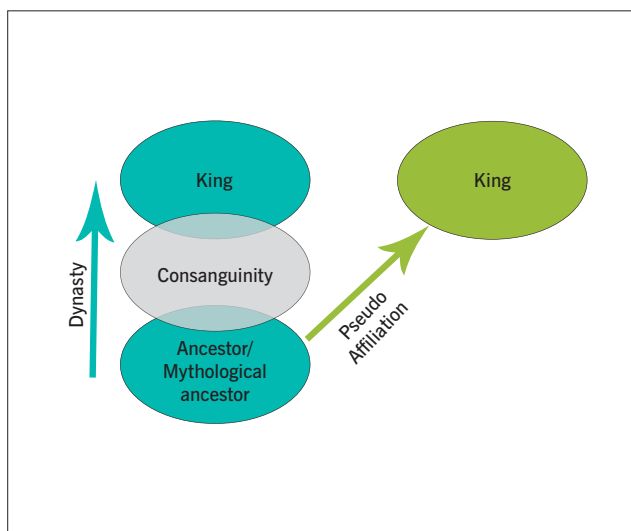


Fig. 5 Diagram of familial relations between the Scythian elite according to theory by A. Khazanov (1975).

Abb. 5 Schema der verwandschaftlichen Beziehungen skythischer Elite nach der Theorie von A. Chazanov (1975).

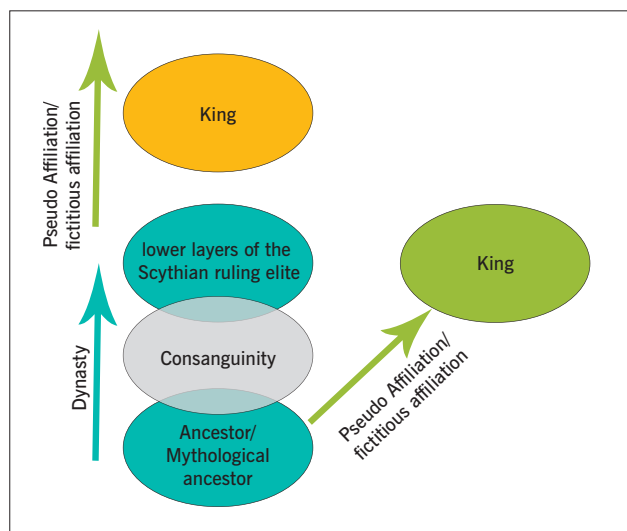


Fig. 6 Diagram of familial relations between the Scythian elite according to theory by N. Orekhova (2003).

Abb. 6 Schema der verwandschaftlichen Beziehungen skythischer Elite nach der Theorie von N. Orekhova (2003).

an important role in this. Much, however, remained speculative, because considerations about Scythian society, although plausible, were difficult to verify, either with the help of written texts or through the findings of excavations.

The historian and sociologist A. S. Lappo-Danilevsky assumed as early as 1887 that kinship relations had played a central role in Scythian society. This applied to the ordinary population and to the leading stratum and the royal families. Accordingly, each kurgan cemetery was suggested to represent a Scythian clan. This thesis has been put forward repeatedly by researchers up to the present day (Gass 2011, 68; Alexejew 2020, 181), but without any definitive evidence to support it.

Lappo-Danilevsky was convinced that power within society could only have passed from father to son. He divided society itself into three groups. The first group was the leading stratum. It consisted of great kings, kings and princes as well as *nomarchs* (provincial administrators). *Nomarchs* could only attain this position by belonging to a noble family or through their own merits. For all others it was exclusively hereditary. The second group consisted of the priests. The third and last group included so-called free Scythians and slaves. Lappo-Danilevsky based his considerations on an analysis of ancient Greek written sources that described everyday Scythian life, beliefs and social structure. Furthermore, he included the results of the first excavations of great Scythian kurgans in the 19th century, such as Kul-Oba, Autonomous Republic of Crimea (Ukraine), Alexandropol and Chertomlyk, both Dnipropetrovsk oblast (Ukraine) (Lappo-Danilevsky 1887, 145–147).

In 1925, historian and archaeologist Y. V. Got'e divided the Scythian graves into three groups based on the grave goods: Tombs of kings and princes, those of warriors and those

of common people (Got'e 1925, 229 f.). The archaeologist V. I. Ravdonikas was also convinced in 1932 that the power of a Scythian prince or king was hereditary, because Scythian society was patriarchal (Ravdonikas 1932, 62–69). In 1985, the archaeologist E. P. Bunyatyan also assumed that the status of king was hereditary and that Scythian royal dynasties existed. She also considered it possible that the Scythians could have had both dynastic nobility with hereditary power and a warrior nobility with acquired power (Bunyatyan 1985, 21 f.).

In 1975, the evaluation of ancient written texts, results from archaeological excavations and ethnological research on Eurasian nomads of more recent times also led historian and social anthropologist A. M. Khazanov to the conclusion that Scythian society was probably led by kings. These kings either belonged to a dynasty or displayed a pseudo-affiliation to legitimise their power (Fig. 5). In his opinion, in the territory of the European Scythians (predominantly southern Ukraine and the southern Russian steppe) there was only one royal dynasty based on genealogical kinship. In any case, overall, genealogical kinship determined the configuration of the social structure, which reinforced the prominent position of the leading stratum. This process, also referred to in ethnography as the »conical clan« (Sahlins 1958, 132–142), transformed genealogical kinship into a self-contained noble class whose membership was hereditary (Khazanov 1975, 193).

Based on Greek written sources, Khazanov defined some parameters that should characterise a Scythian king. In particular, these include the splendour of the burial, evidence of human sacrifice (or *Totenfolge*³) and opulent grave goods. According to this definition, he counted about 40–45 great kurgans from the 5th–3rd century BC for the area of the European Scythians. Khazanov considered it unlikely that

3 This German term describes practices in which other persons in some way related to a deceased person (e.g., a spouse or a servant)

follow the deceased to the grave. This can be connected to the suicide or the ritual killing of the aforementioned related person.

40–45 Scythian kings of one and the same dynasty would have been buried there during a three-hundred-year period. Rather, he explained this high number of great kurgans by the fact that not all contained graves of kings, but that also the highest nobility might have been buried in some of them (Khazanov 1975, 193).

However, written sources could not provide an answer to the question of whether or not this high nobility belonged to the ruling royal family. In contrast, Khazanov noted that Herodotus, Hippocrates of Kos, Lucian of Samosata and Klearchos of Soloi described a very diverse Scythian aristocracy. A distinction was made between an aristocracy by birth, i.e., a so-called »aristocracy of bloodline« (tribal leaders and leaders of tribal coalitions) and an aristocracy of merit (in the army or the administration), whereby the social position of the latter was determined by proximity to the king and their position within the administrative apparatus (Khazanov 1975, 179–187).

N. A. Orekhova developed A. Khazanov's statements further in 2003, applying general sociological approaches and concepts as well as historical-comparative and historical-systematising analyses. She concluded that only the lowest strata of the Scythian elite were actually related to each other by blood within the framework of a family or tribe. The higher a social position, the more conditional was the consanguinity, or family relationship (Fig. 6). The top of the leading stratum resorted to fictitious genealogical relationships in order to remain associated with a leading family with mythological ancestors (Orekhova 2003).

Dimensions of the Scythian kurgans versus social differentiation

Since the 1960s and 1970s, research on Scythian culture has been concerned with the question of the relationship between the interred people. When looking at the kurgan-size of Saka burial mounds in the catchment area of the River Ili in the south-eastern Zhetysu in Kazakhstan, the archaeologist K. A. Akishev from Almaty proposed in 1963 to divide the constructions into three size categories. In his model, each kurgan size was associated with a particular social group of

the leading stratum of society. In his opinion, the socially elevated groups included people interred in the burial mounds with a height of over 1–2 m (Fig. 7). These were particularly successful and respected warriors who could be called heroes. In Akishev's opinion, the Saka nobility was buried in larger kurgans with a height of over 5–6 m (Fig. 8). In very large burial mounds (Fig. 9) with a height of 8–17 m the kings or princes rested (Akishev/Kushaev 1963, 86; cf. Gass 2016, 76). He did not, however, provide a detailed definition of these three strata of the Saka elite. In consequence, the division into three groups on the basis of the sizes of kurgans and the associated social interpretation must remain speculative.

A few years later, Akishev revised his subdivision. He no longer considered the exact measurements of the burial mounds to be the only decisive factor to determine the social differentiation of the interred. Nevertheless, he continued to refer to three group-sizes of burial mounds for members of the upper class and designated them as »small«, »medium« and »large« kurgans. He interpreted the small ones as the burial sites of warriors, who *per se* held an elevated position in a warlike society. He equated the »heroes« who came from the ranks of the warriors with the nobility. Thus, both acquired and inherited power were treated in a similar way in the early Iron Age societies of the Asian equestrian nomads. In his view, medium-sized kurgans were erected for the deceased of both groups. At the top of the social scale were kings or princes, for whom the monumental royal or princely kurgans were built (Akishev 1978, 56; cf. Gass 2016, 76).

In the course of his analysis of Scythian-period great kurgans in the Altai and Tuva, the archaeologist A. D. Grach made a similar proposal for the classification of kurgan sizes and their correlation with the social position of those interred within them, albeit including classification based on grave goods (Grach 1975, 158–174; cf. Gass 2016, 76). Here too, however, many questions remain unanswered.

In 1979, the observation that the size of Scythian kurgans from the Lower Dnieper in southern Ukraine did not always correlate with the quality of the grave goods led archaeologist B. N. Mozolevsky to conclude that the kurgans' dimensions alone would not be sufficient to draw conclusions about the actual status of those buried there. In his view, social status would be expressed by the combination of several elements,

Fig. 7 Burial site Torgunsky-III, kurgan 2, Transvolga, Volgograd Region (Russia). View from east. With its height of 1.9 m and a diameter of 59 m kurgan 2 is a representative of kurgans of the higher Scythian society – warriors and heroes according to K. Akishev's sizing of kurgans.

Abb. 7 Gräberfeld Torgunsky-III, Kurgan 2, Transvolga, Gebiet Wolgograd (Russland). Blick von Osten. Mit einer Höhe von 1,9 m und einem Durchmesser von 59 m steht Kurgan 2 stellvertretend für die Kurgane der gehobenen skythenzeitlichen Gesellschaft – für Krieger und Helden nach K. Akiševs Kurganengrößenaufteilung.





Fig. 8 Burial site Issyk, kurgan 11, Almaty Region (Kazakhstan). View from north. With its height of 6.4 m and a diameter of 69 m kurgan 11 is a representative of kurgans of the Saka nobility according to K. Akishev's sizing of kurgans.

Abb. 8 Gräberfeld Issyk, Kurgan 11, Gebiet Almaty (Kasachstan). Blick von Norden. Mit einer Höhe von 6,4 m und einem Durchmesser von 69 m steht Kurgan 11 stellvertretend für die Kurgane des sakischen Adels nach K. Akiševs Kurganengrößenaufteilung.

including: Height of the kurgan; depth and size of the burial grave; complexity of the kurgan structure; presence and dimension of stone constructions; the number of accompanying graves (*Totenfolge*) and co-buried horses; and lastly, opulent grave goods and indications of a rich funeral feast or ritual acts at the burial site (Mozolevs'kyy 1979, 156 f.; cf. Gass 2016, 76).

In a study of the large kurgans of the Scythian Gerrhos, the so-called area of the Scythian Heroes on the lower Dnieper, B. N. Mozolevsky and S. V. Polin presented a size classification into four groups of Scythian kurgans of the northern Pontic region, which they immediately interpreted accordingly: Group 1 – monumental kurgans (14–22 m high) for the main kings (the *Basileia*); Group 2 – kurgans with a height of 8–11 m for family members of the main king, or for secondary kings (also *Basileia*); Group 3 – kurgans with a height of 4.5–7.0 m for the *nomarchs* (chiefs) of the *nomoi* (administrative

subdivisions); and lastly as Group 4 – kurgans with a height of 2.0–4.5 m for tribal elders and other respected tribal members (Mozolevsky/Polin 2005, 299 f.; cf. Parzinger 2004, 90; Gass 2016, 76 f.).

In 2016, A. Gass suggested that the size of the burial complexes in the Saka kurgans of the south-eastern Zhetysu in Kazakhstan, which he evaluated, should not be considered in isolation from the overall findings and the find material. He suggested that the special social position of the interred, which was underlined by the construction of large kurgans by the community, did not always depend only on certain achievements of the deceased, but may also have been based on the heritability of social position (Gass 2016, 79).

There is no doubt that the large kurgans were built for persons of note. However, the question of the exact status within society of the interred person remains open. For example, the »Golden Man« of Issyk in south-eastern Kazakhstan,



Fig. 9 Burial site Vinogradny 2, kurgan 1, northern Caucasus, Stavropol Region (Russia). View from west. With its height of 10.6 m and a diameter of c. 90 m kurgan 1 is a representative of kurgans of the Scythian kings and princes according to K. Akishev's sizing of kurgans.

Abb. 9 Gräberfeld Vinogradny 2, Kurgan 1, Nordkaukasus, Region Stavropol (Russland). Blick von Westen. Mit einer Höhe von 10,6 m und einem Durchmesser von ca. 90 m steht Kurgan 1 stellvertretend für die skythenzeitliche Königs- und Fürstenkurgane nach K. Akiševs Kurganengrößenaufteilung.

Fig. 10 Burial site Issyk, Almaty Region (Kazakhstan). View from north. Left: »Golden Man of Issyk«, reconstruction by K. Akishev.

Abb. 10 Gräberfeld Issyk, Gebiet Almaty (Kasachstan). Blick von Norden. Links: »Goldener Mann von Issyk«, Rekonstruktion von K. Akišev.



which, until 2001, was considered the richest scientifically studied Scythian burial east of the Ural Mountains, was discovered in an adjacent (or secondary) chamber of a 6 m high burial mound (Gass 2016, 283). The fact that the interred individual lay in an adjacent chamber could be an indication of his secondary status (Fig. 10).

On the other hand, the investigations at the royal kurgan of Arzhan 2 in Tuva, Southern Siberia (Russia), which, since 2001, has been considered the richest scientifically studied Scythian burial east of the Urals, showed that the main burial does not always have to be placed exactly in the middle of a kurgan (Fig. 11) (Čugunov et al. 2010, 16–22). Moreover, the kurgan of the »Golden Man« with a height of 6 m is not the largest kurgan in the necropolis, as some kurgans here reach a height of up to 10 m. However, it is somewhat higher compared to an average kurgan height of 4 m for all other great kurgans of Issyk. Thus, with regard to this feature, the social status of the »Golden Man« remains unclear. Furthermore, the question arises whether the special status, which was supposed to be emphasised by the community through the construction of the tomb, is actually due to the deceased's own achievements, especially since the »Golden Man« of Issyk had already died at a young age⁴. It is more likely that the high social standing of the »Golden Man« was inherited.

If one considers Scythian cemeteries with large kurgans as cemeteries of a leading class, or even a dynasty (Gass 2011, 68), then the question arises whether the different sizes of graves in one and the same necropolis could indicate an internal social stratification among the buried elite. However, as long as such kurgan cemeteries have not been fully excavated and investigated, such considerations inevitably remain speculative. The same applies to the question whether there might have been a genetic relationship between the burials in the central tombs of the linearly arranged kurgans of a particular necropolis; if this were confirmed, we might well be dealing here with dynasties (Gass 2016, 81).

Input from the natural sciences

Scientific methods, especially archaeogenetic analyses on aDNA, promise completely new insights. While archaeogenetic studies and isotope analyses in the Eurasian Steppe region have so far been very successfully used to solve questions of population history and mobility⁵, there are now also promising new approaches to clarify biological relationships between the burials within one and the same kurgan, or indeed between several kurgans within the same necropolis (Mary et al. 2019).

The only pilot study conducted so far to investigate genetic relationships in the Scytho-Siberian world, which was carried out by a Russian-French team in 2018, included 28 individuals of the ordinary population from five Early Iron Age cemeteries in the southern Siberian Republic of Tuva. The researchers were able to prove family relationships of the first degree, involving parent-child pairs; a man and his two parents, a woman with two daughters, or full sibling pairs. Second degree family relationships verified included siblings and paternal uncles, while third degree relationships included siblings, uncles and grandparents and great uncles (Mary et al. 2019, 418). Further results of the studies indicate that the »Siberian Scythians« were organised in patrilocal and patrilineal societies, in which the men remained within the family and the women left the families after reaching marriageable age. Thus, burial practices of the ancient equestrian nomads in southern Siberia were linked to both kinship and paternal lineage (Mary et al. 2019, 411).

Conclusion

If we look back at the discussion of the past hundred years, we can see that the repeated attempts to evaluate ancient written texts in conjunction with the findings of archaeological excavation have hardly advanced beyond unprovable hypoth-

⁴ 16–18 years; according to Akishev 1978, 62; cf. Parzinger 2006, 660.

⁵ Unterländer et al. 2017; Krzewińska et al. 2018; Gnecci-Ruscione et al. 2021;

Ventresca Miller et al. 2021.

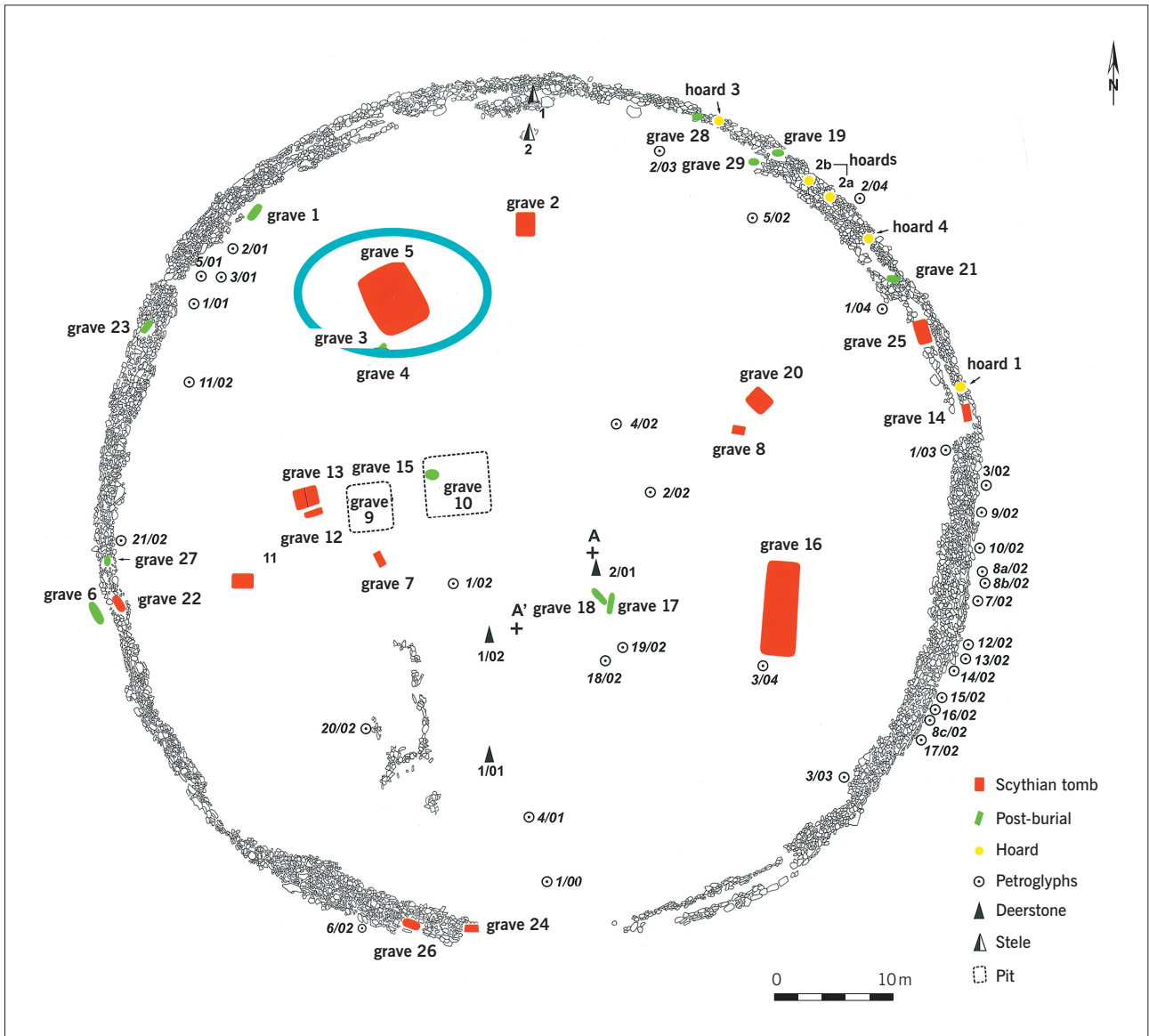


Fig. 11 Royal kurgan Arzhan 2, Tuva Republic (Russia). Map of the site. Grave 5 with the burial of the royal couple. View from south-east. Reconstruction of the costumes and equipment of the prince and princess from grave 5.

Abb. 11 Fürstenkurgan Arzhan 2, Republik Tuva (Russland). Plan der Anlage. Grab 5 mit der Bestattung des Fürstenpaares. Blick von Südosten. Rekonstruktion der Bekleidung und der Ausrüstung vom Fürsten und von der Fürstin aus dem Grab 5.

eses or even pure speculation. It is obvious that the sometimes very large differences in the size of the tombs and the opulence of the grave goods reveal social stratification. However, we know no more today than we did a hundred years ago about what might be behind this, because neither ancient written sources nor excavation results alone can provide unambiguous and reliable answers to questions about social structure, kinship relations and early dynasty formation (Kunichika 2012, 242–245). The written evidence is not very reliable and often reflects a distinctively Greek view on social conditions amongst the Scythian equestrian nomads, as already expressed in the terminology used by Herodotus. Any

attempts to reconcile his statements with archaeological findings and to develop a picture of Scythian society from them are therefore either limited to generalities or doomed to failure, just as they were a hundred years ago.

In addition, theoretical discussions on the phenomenon of early Iron Age elite or royal tombs in Eurasia (Parzinger 1992; Eggert 2007; Schier 2010) have so far hardly been able to draw upon results from investigations using natural sciences (Čikiševa 2010). Initiating an interdisciplinary, theory-based debate in the field of Scythian studies still remains a future endeavour.

Bibliography

- Akischev 1978**
K. A. Акишев, Курган Иссык. Искусство саков Казахстана (Москва 1978).
- Akischev/Kushaev 1963**
К. А. Акишев/Г. А. Кушаев, Древняя культура саков и усуней долины реки Или (Алма-Ата 1963).
- Alexejew 2020**
A. Alexejew, Die Skythen Herodots. In: A. J. Alexejew/M. Nawroth/A. Gass/J. J. Piotrowskij (eds.), Eisenzeit. Europa ohne Grenzen. 1. Jahrtausend v. Chr. Ausstellungskatalog (St. Petersburg 2020) 176–195.
- Bunyatyan 1985**
Е. П. Бунятян, Методика социальных реконструкций в археологии. На материалах скифских могильников IV–III вв. до н.э. (Киев 1985).
- Čikiševa 2010**
T. Čikiševa, Die paläoanthropologischen Materialien. In: K. Čugunov/H. Parzinger/A. Nagler, Der skythenzeitliche Fürstengurgan von Aržan 2 in Tuva. Arch. Eurasien 26 = Steppenvölker Eurasiens 3 (Mainz 2010) 256–295.
- Čugunov et al. 2010**
K. Čugunov/H. Parzinger/A. Nagler, Der skythenzeitliche Fürstengurgan von Aržan 2 in Tuva. Arch. Eurasien 26 = Steppenvölker Eurasiens 3 (Mainz 2010).
- DGS 1866**
Древности геродотовой Скифии. Сборник описаний археологических раскопок и находок в Черноморских степях. Вып. I (Санкт-Петербург 1866).
- Eggert 2007**
M. K. H. Eggert, Wirtschaft und Gesellschaft im früheisenzeitlichen Mitteleuropa: Überlegungen zum »Fürstenphänomen«. Fundber. Baden-Württemberg 29, 2007, 255–302.
- Gass 2011**
A. Gass, Early Iron Age Burials in Southeastern Zhetysay: The Geoarchaeological Evidence. Archaeology, Ethn. and Anthr. Eurasia 39,3, 2011, 57–69.
- Gass 2016**
A. Gass, Das Siebenstromland zwischen Bronze- und Früheisenzeit. Eine Regionalstudie. TOPOI. Berlin Stud. Ancient World 28 (Berlin, Boston 2016).
- Gnecci-Ruscione et al. 2021**
G. A. Gnecci-Ruscione/E. Khussainova/N. Kahbatkyzy/L. Musralina/M. A. Spyrou et al., Ancient genomic time transect from the Central Asian Steppe unravels the history of the Scythians. *Scien. Advances* 7,13, 2021, doi: <https://doi.org/10.1126/sciadv.abe4414> (16.01.2023).
- Got'e 1925**
Ю. В. Готье, Очерки по истории материальной культуры Восточной Европы (до основания первого Русского государства) (Ленинград 1925).
- Grach 1975**
А. Д. Грач, Принципы и методика историко-археологической реконструкции форм социального строя (по курганным материалам скифского времени Казахстана, Сибири и Центральной Азии). In: А. М. Решетов/Ч. М. Таксами (eds.), Социальная история народов Азии: сборник статей (Москва 1975) 158–182.
- Herodot**
Herodot, Historien. Zitiert nach H. Stein, Herodot. Neun Bücher der Geschichte (Gütersloh 1984).
- Herodotus**
Herodotus of Halicarnassus, The Histories. An account of great and marvellous deeds through the 1920 translation of A. D. Godley (Pax Librorum 2010).
- Jettmar 1964**
K. Jettmar, Die frühen Steppenvölker. Der eurasiatische Tierstil. Entstehung und sozialer Hintergrund (Baden-Baden 1964).
- Khazanov 1975**
А. М. Хазанов, Социальная история Скифов. Основные проблемы развития древних кочевников Евразийских степей (Москва 1975).
- Krzewińska et al. 2018**
M. Krzewińska/G. M. Kılınc/A. Juras/D. Koptek in/M. Chyleński et al., Ancient genomes suggest the eastern Pontic-Caspian steppe as the source of western Iron Age nomads. *Scien. Advances* 4,10, 2018, <https://doi.org/10.1126/sciadv.aat4457> (16.01.2023).
- Kunichika 2012**
M. Kunichika, »The Scythians Were Here...«: On Nomadic Archaeology, Modernist Form, and Early Soviet Modernity. *Ab Imperio* 2, 2012, 229–257, <https://doi.org/10.1353/imp.2012.0042> (16.01.2023).
- Lappo-Danilevsky 1887**
А. С. Лаппо-Данилевский, Скифские древности (Санкт-Петербург 1887).
- Mary et al. 2019**
L. Mary/V. Zvenigorosky/A. Kovalev/A. Gonzalez/J.-L. Fausser et al., Genetic Kinship and Admixture in Iron Age Scytho-Siberians. *Human Genetics* 138, 2019, 411–423, doi:10.1007/s00439-019-02002-y.
- Menghin/Parzinger 2007**
W. Menghin/H. Parzinger, Vorwort der Herausgeber. In: W. Menghin/H. Parzinger/A. Nagler/M. Nawroth (eds.), Im Zeichen des goldenen Greifen. Königsgräber der Skythen. Ausstellungskatalog (München, Berlin, London, New York 2007) 23–25.
- Mozolevs'kyu 1979**
Б. Н. Мозолевский, Товста Могила (Київ 1979).
- Mozolevsky/ Polin 2005**
Б. Н. Мозолевский/С. В. Полин, Курганы скифского Герроса IV в. до н.э. (Киев 2005).
- Orekhova 2003**
Н. А. Орехова, Социально-политический статус скифского общества Северного Причерноморья в контексте политогенеза кочевых социумов Евразии. Автореферат диссертации на соискание ученой степени кандидата исторических наук (Волгоград 2003).
- Parzinger 1992**
H. Parzinger, Zwischen »Fürsten« und »Bauern« – Bemerkungen zu Siedlungsform und Sozialstruktur unter besonderer Berücksichtigung der älteren Eisenzeit. *Mitt. Berliner Ges. Anthr.* 13, 1992, 77–89.
- Parzinger 2004**
H. Parzinger, Die Skythen. C. H. Beck Wissen 2342 (München 2004).
- Parzinger 2006**
H. Parzinger, Die frühen Völker Eurasiens. Vom Neolithikum bis zum Mittelalter (München 2006).
- Parzinger 2007**
H. Parzinger, Die Reiternomaden der eurasischen Steppe während der Skythenzeit. In: W. Menghin/H. Parzinger/A. Nagler/M. Nawroth (eds.), Im Zeichen des goldenen Greifen. Königsgräber der Skythen. Ausstellungskatalog (München, Berlin, London, New York 2007) 30–48.
- Parzinger 2013**
H. Parzinger, Die Reiternomaden der Skythenzeit in der Eurasischen Steppe. In: T. Stöllner/Z. Samsašev (eds.), Unbekanntes Kasachstan. Archäologie im Herzen Asiens. Band II. Katalog der Ausstellung des Deutschen Bergbaumuseums Bochum vom 26. Januar bis zum 30. Juni 2013 (Bochum 2013) 539–553.
- Polin/Daragan 2011**
S. Polin/M. Daragan, Das Prunkgrab Alexandropol'-Kurgan. Vorbericht über

die Untersuchungen in den Jahren 2004–2009. *Eurasia Ant.* 17, 2011, 189–214.

Polin/Alekseev 2018

С. В. Полин/А. Ю. Алексеев, Скифский царский Александропольский курган IV в. до н.э. в Нижнем Поднепровье. *Курганы Украины 6* (Киев, Берлин 2018).

Ravdonikas 1932

В. И. Равдоникас, Пещерные города Крыма и готская проблематика в связи со стадийным развитием Северного Причерноморья. In: В. И. Равдоникас (ed.), *Известия Государственной Академии истории и материальной культуры* 12,1,8 (Ленинград 1932) 5–106.

Sahlins 1958

M. D. Sahlins, *Social stratification of Polynesia* (Seattle 1958).

Samašev 2007

Z. Samašev, *Die Fürstengräber des Sieben-*

stromlandes. In: W. Menghin/H. Parzinger/A. Nagler/M. Nawroth (eds.), *Im Zeichen des goldenen Greifen. Königsgräber der Skythen*. Ausstellungskatalog (München, Berlin, London, New York 2007) 162–170.

Schier 2010

W. Schier, *Soziale und politische Strukturen der Hallstattzeit. Ein Diskussionsbeitrag*. In: D. Krause (ed.), »Fürstensitze« und Zentralorte der frühen Kelten. Abschlusskolloquium des DFG-Schwerpunktprogramms 1171 in Stuttgart, 12.–15. Oktober 2009. *Forsch. u. Ber. Vor- u. Frühgesch. Baden-Württemberg* 120 (Stuttgart 2010) 375–405.

Talbot Rice 1957

T. Talbot Rice, *Die Skythen. Ein Steppenvolk an der Zeitenwende* (Köln 1957).

Unterländer et al. 2017

M. Unterländer/F. Palstra/I. Lazaridis/A. Pilipenko/Z. Hofmanová et al., *Ancestry*

and demography and descendants of Iron Age nomads of the Eurasian Steppe. *Nature Commun.* 8,14615, 2017, <<https://doi.org/10.1038/ncomms14615>> (16.01.2023).

Ventresca Miller et al. 2021

A. R. Ventresca Miller/J. Johnson/S. Makhortykh/C. Gerling/L. Litvinova et al., *Re-evaluating Scythian Lifeways: Isotopic Analysis of Diet and Mobility in Iron Age Ukraine*. *Plos One* 16,3, 2021, 1–25, <<https://doi.org/10.1371/journal.pone.0245996>> (16.01.2023).

Zabelin 1876

И. Забелин, *История русской жизни с древнейших времен 1* (Москва 1876).

Source of Figures

- | | | | |
|-----|-------------------------------|----|--------------------------------------|
| 1 | author | 10 | overview photo and collage |
| 2 | after Gass 2016, 367 Abb. 202 | | author; reconstruction after |
| 3 | author | | Samašev 2007, 166 Abb. 9 |
| 4 | after Polin/Daragan 2011, 190 | 11 | after Čugunov et al. 2010, 28; 212; |
| | Abb. 2 | | 214 Abb. 36; 225 f.; Beilage 1; col- |
| 5–9 | author | | lage author |

Address

Dr. Anton Gass
Museum für Vor- und Frühgeschichte
Staatliche Museen zu Berlin – Preußischer
Kulturbesitz
Archäologisches Zentrum
Geschwister-Scholl-Str. 6
10117 Berlin
Germany
a.gass@smb.spk-berlin.de