

CROSS-DATING IN CENTRAL ASIA

The Chronology of the Karasuk and the Scythian Periods

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As early as during the first millennium B. C. the warlike nomadic peoples of Inner Asia were a decisive factor for the sedentary peoples beyond the borders of the steppes. I may mention here the inroads of the Hsiung-nu into Han-time China, the battles between the Achaemenid rulers of Persia and the Sakae, and, last though not least, the invasions of the Near East by Cimmerians and Scythians in the 8th and 7th centuries B. C. Cimmerians and Scythians, it is true, came from the area north of the Black Sea, but according to information given by Herodotus they became mobilized by events which happened much farther to the East, i. e. in Central Asia.

In order to understand the background of these evident dynamics we have to clarify the development in the interior of Asia, as to what must have happened there on the levels of economy, social organization and religion. What ethnic groups were involved? We need, in fact, a history of Inner Asia since the end of the 2nd millennium B. C.

The main difficulty is that we have to rely upon scarce information originating not from the Central Asians themselves, but by their partners or enemies. Only in a very late period do they have a historic tradition of their own, fixed by written documents. In earlier periods there is nothing comparable to the Turkish runic texts which were made since the 7th century A. D.¹ In the area of the nomads even the sporadic appearance of objects highly informative for the historian, like coins and short inscriptions in Chinese or other languages, is very late. Some evidence of this kind is met only in the centuries about the beginning of the Christian era.

¹ Kljaštorny 1964.

I am referring to an inscribed lacquer bowl in the tombs of the Hsiung-nu princes in Northern Mongolia (Noin Ula) and Chinese seals in the graveyards of the Hsiung-nu population in Transbaikalia.² Tiles with Chinese characters on them occur in the ruins of a building in the Minusinsk basin. It was the residence of a person mentioned in the Chinese annals, a Chinese general who was taken prisoner of war by the Hsiung-nu and was afterwards posted by them as a governor in one of the domains they had conquered.³ Coins which were derived from Graeco-Bactrian prototypes have recently been found in a cemetery of nomads in Northern Bactria.⁴

For all periods preceding this level, archaeology is competent. (Of course, one cannot ignore the casual allusions in the written documents of the neighboring sedentary peoples). The archaeologists of the Soviet Union have dedicated themselves to this task with great devotion and industry. They have developed a scheme repeatedly brought to the attention of the general reader by western scholars.⁵

The solid basis of the efforts of our colleagues in Soviet Russia were extensive excavations in all areas of the Union and in Northern Mongolia. They took notice of the results of Chinese archaeologists digging in the whole Southeastern part of Central Asia – but they do not know them much better than we do. The picture we get may be condensed in the following way: During the 2nd millennium B. C. there were no nomadic peoples throughout the whole belt of steppes. In the oases of the south, from Turkmenia to Eastern Turkestan, there lived sedentary peasants of Europoid stock using increasingly irrigated fields. To the north we have the so-called Bronze Age of the Steppes. The bearers of this Bronze Age were farmers, too, with an intense husbandry. The skulls in the graves of these Bronze Age peoples of the steppes are Europoid as well. Only eastwards of the Yenisei and in the taiga of the north are Mongoloid skulls reported.

The Bronze Age of the steppes after the 17th century B. C. is to be divided into two stages: Andronovo and Karasuk. Karasuk is roughly dated between 1300 and 700 B. C.⁶ Cattle breeding and

² Rudenko 1962, p. 62.

³ Kiselev 1951, pp. 479–484.

⁴ Tulchar; see Mandel'stam 1966, pp. 138–144.

⁵ Ghirshman 1951; Jettmar 1950, 1951, 1957, 1962a, 1962b, 1964, 1964/65, 1966a, 1966b, 1966c, 1967; Loehr 1949 and 1952; Philipps 1965; Talbot Rice 1957; Wiesner 1968.

⁶ Jettmar 1950, 1966c. The equivalent of Andronovo in Southern Russia is the culture of the "timber-graves". Cf. Gimbutas 1961.

metallurgy became more intense than before. Towards the end of Karasuk at the latest the full mobility of the nomadic way of life was attained. In the 7th century B. C. in several areas we meet cultures in which horse-riding warriors held a prominent place. A little later they all had weapons, horse gear and a system of artistic decoration recalling what is known from the Pontic Scythians, then in the full light of history. Therefore the period after the 7th century was labeled the Scythian period. During the 3rd century B. C. in the Pontic steppes the Scythians as the ruling nation were replaced by the Sarmatians.⁷ In the same century the first highly organized empire in the steppes was founded by the chief of the Hsiung-nu tribe. Its center lay in Northern Mongolia. New tendencies could be observed in the artistic creations. Therefore the following phase was called Sarmatic or Hunno-Sarmatic (with the supposition that the Hsiung-nu in the Far East and the Huns in Europe were identical).

We referred to the summaries written by western authors. In such texts there is a certain danger that the authors do not take into consideration all objections arising from the original studies. Nor can they mention all critical remarks made during the subsequent discussion. There is a natural tendency for the interpreter to augment the credibility of what is taken over from others. I myself do not feel free of this guilt and therefore I wish to submit here a critical appraisal of the chronological foundations on which our knowledge of Central Asian prehistory rests. Of course I have to restrict myself to an example, and I choose therefore the Karasuk and the Scythian periods in Southern Siberia. The dating of earlier phases may be secured by methods which are put at our disposal by natural sciences, but from the end of the 2nd millennium B. C. onwards we are concerned with rather small differences in time, so that the radiocarbon dates with their rather broad margin of error are of little use. (Of course I shall mention them where they are at hand).

What is now called Southern Siberia by Soviet authors includes the Minusinsk basin, the Altai and its forelands, and Tuva. In Southern Siberia we have the relatively closest web of excavation and the bulk of the stray finds too. The principles of classification used for the whole of Central Asia were worked out here. The terms

⁷ The westward migration of the Sarmatian tribes started in the 4th century B. C. Cf. Smirnov 1954, p. 210.

“Andronovo” and “Karasuk” are derived from a village and a small river in the Minusinsk basin.

In spite of this focus on Central Asia we will have to start with a glance at the situation in South Russia. Affinities to this area are too important; they cannot be neglected. All our ideas regarding the peoples of the steppes were originally derived from this area as can be seen from the terms “Scythian” and “Sarmatian period”. I shall explain later why a comparable approach from the Eastern side, from the Chinese borderlands, was not feasible until now.

Scythians

We have to start our investigation at the western end of the steppe belt because we are confronted here with an extremely favorable situation. Already for the 2nd millennium B. C. we have a relatively solid basis for our chronology by affinities with Central Europe and the Aegean. From the 8th century B. C. onwards Greek colonial cities were founded on the shores of the Black Sea. They had a lively export trade to the nomads in the neighborhood including extremely sophisticated and breakable objects as ceramics of high perfection. This gives us the clue to the dating of the burials made for the nobility of the nomads⁸ and related tribes since the end of the 7th century B. C.

There is a sharp break in the early 6th century B. C.⁹ Suddenly new types of weapons and horse gear appear. The personal ornaments are made in the so-called Scythian animal style.¹⁰

It looked very promising to connect this sudden coming of a new complex with the conquest of the Pontic steppes by a new people: the Scythians, who according to Herodotus and other Greek authors subdued the Cimmerians. But in fact this conquest must have happened much earlier, for in the 6th century there is no drastic change in pottery. Evidently the “Scythian triad” was not brought by the immigration of a foreign people but propagated by raiders of various origin forced to return from the Near East by the rising of the Medes.¹¹ Their leaders were buried together with the best pieces of the booty, products of skilled craftsmen in Assyria

⁸ Schefold 1938 and 1954.

⁹ Terenožkin 1965; Šarafutdinova 1968; Kossack 1953/54; Gimbutas 1956 and 1959. Cf. Pl. I.

¹⁰ This conjunction is called “Scythian triad”. Cf. Jettmar 1962b, p. 177.

¹¹ Grakov-Meljukova 1954, p. 93. Cf. Jettmar 1962b, p. 173.

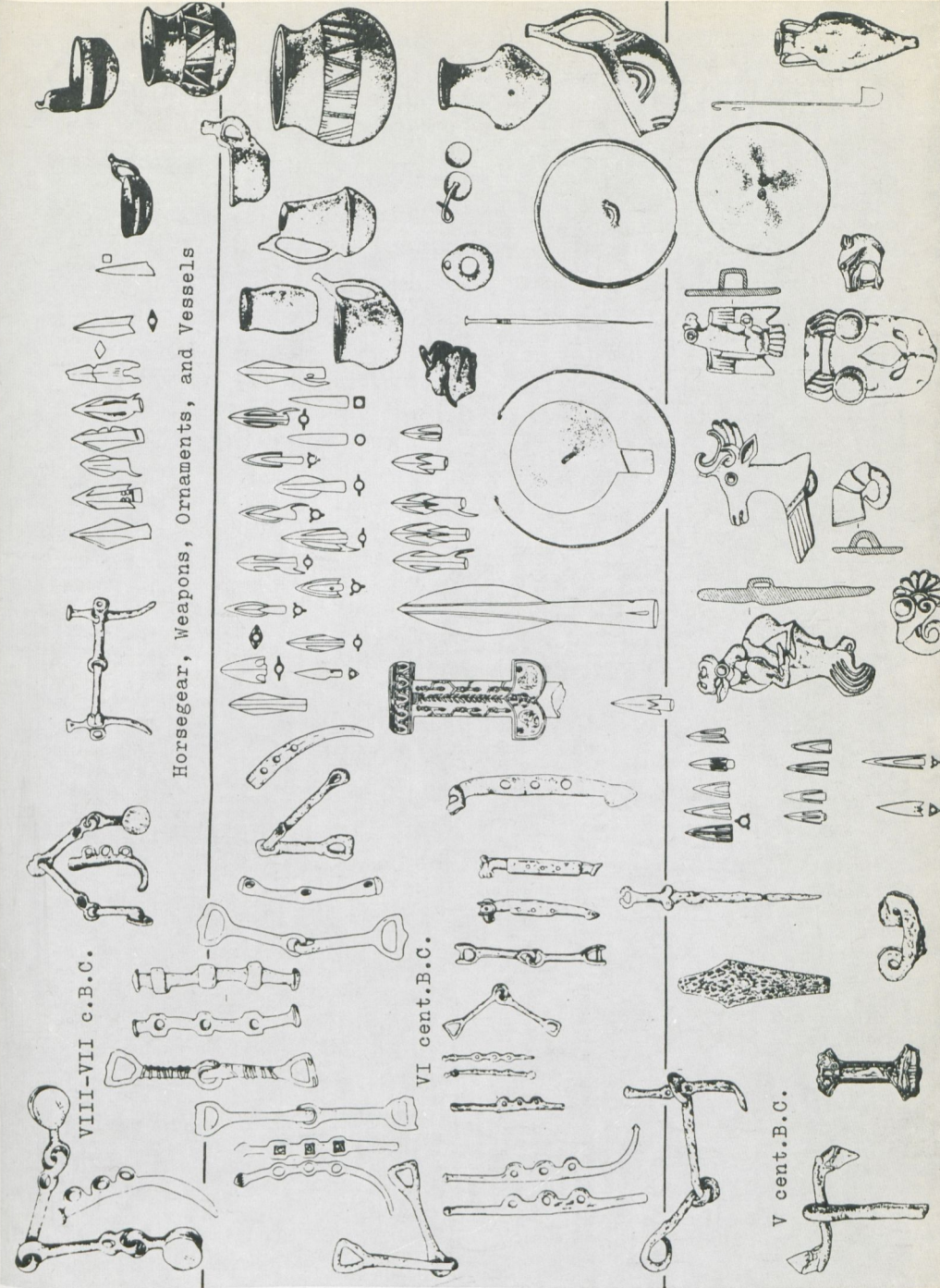


Plate I. *Chronological Sequence in the Dniepr Area in South Russia* showing the evolution of the bridle-bits (and psalia), weapons and other objects with animal decoration, mirrors, vessels (ceramic, local and imported, and bronze cauldrons) from the 8th to the 5th centuries B.C. The break in the first half of the 6th century B.C. is evident, as well as the appearance of a new system of bridling at the beginning of the 5th century B.C. Not to scale. After Grakov-Meljukova 1954

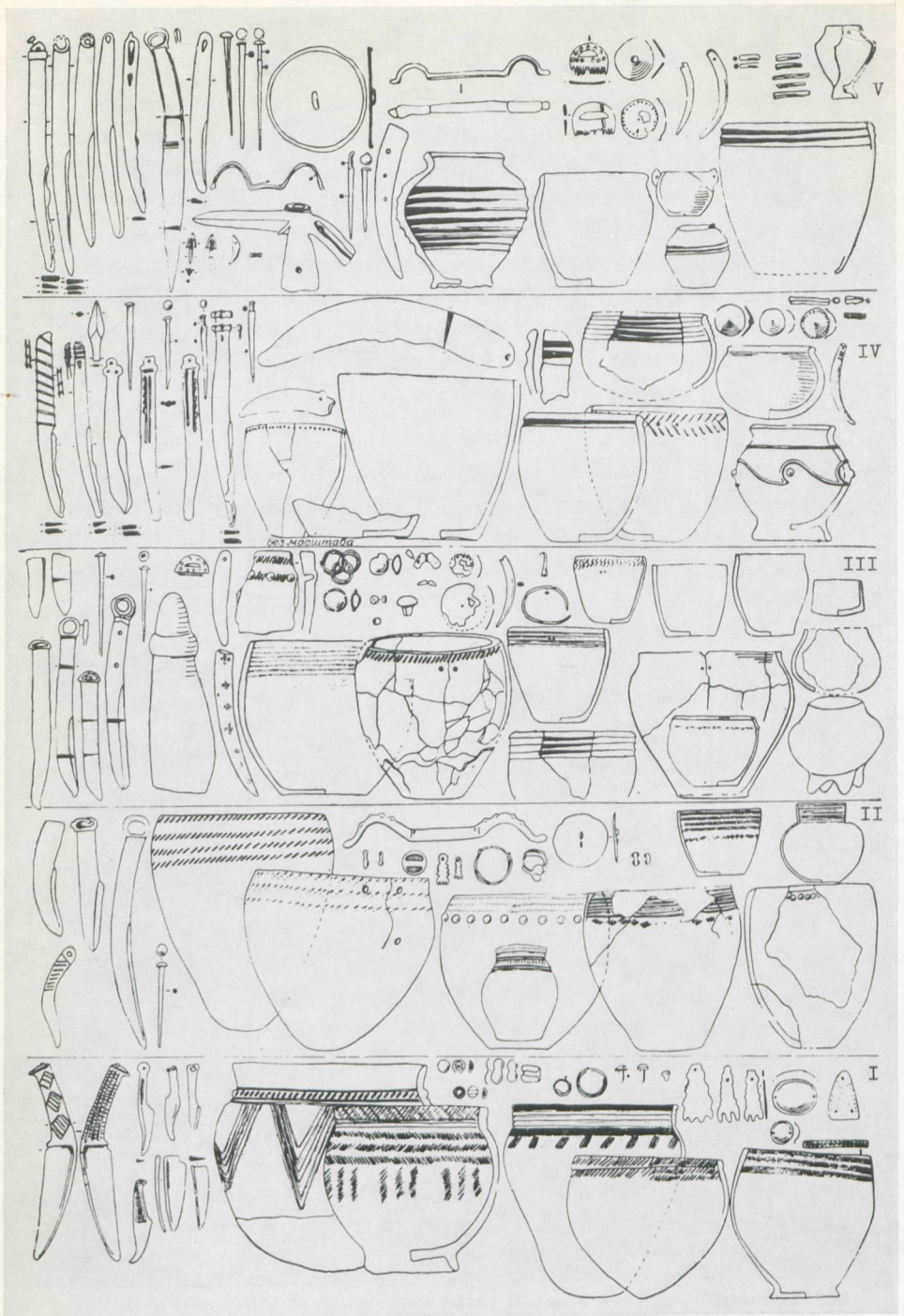


Plate II. *Explanatory Drawings made by Členova showing objects from the Lugavsk (I), Bainovsk (II), Il'insk (III), Kokorevsk (IV) phases and the Early Tagar Period (V). According to Členova this form of transition is restricted to the southern part of the Minussinsk basin. Different scales. After Členova 1961*

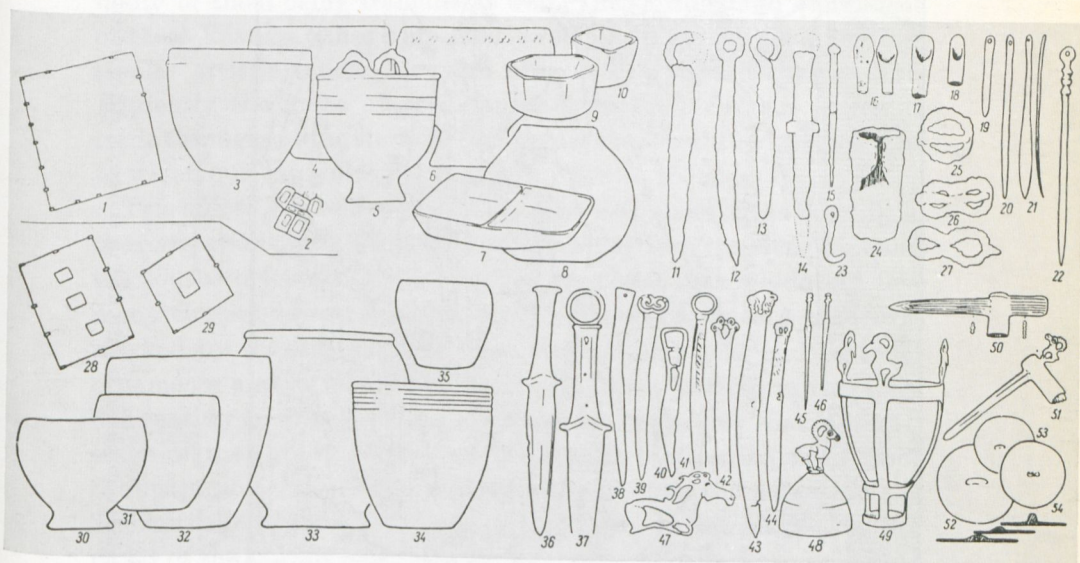
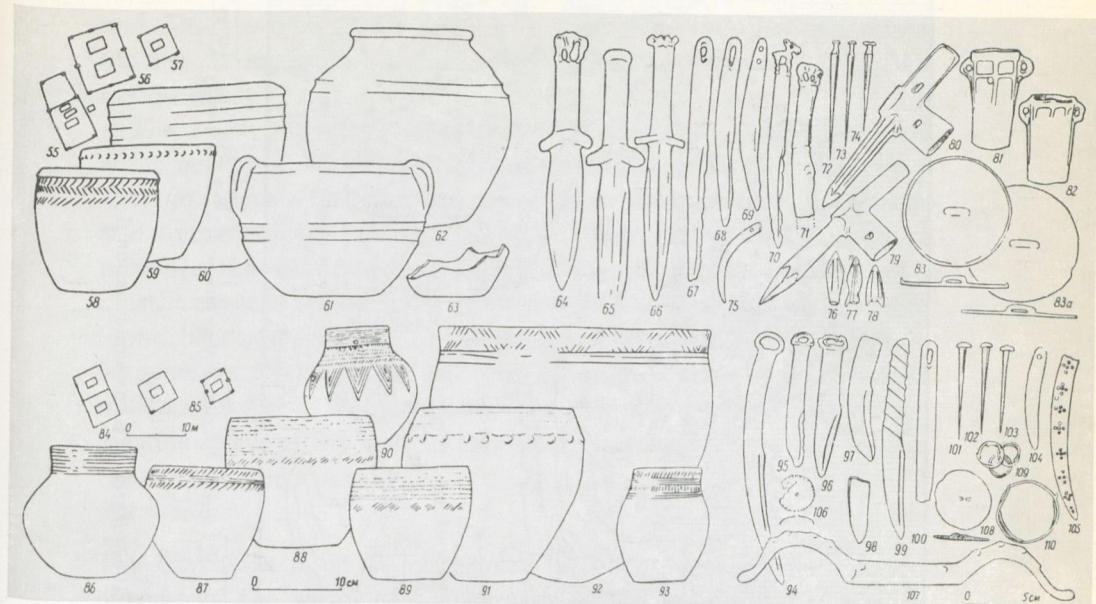


Plate IIIa and Plate IIIb. Drawings made by Grjaznov to show the phases of the Tagar culture: Graves, pottery, bronzes, iron (11-15, 17, 23-27) and bone objects (18-22, 75, 105).

Early Tagar, 7th-6th centuries B.C. = 84-110

Middle Tagar, 6th-5th centuries B.C. = 55-83

Late Tagar, 4th-3rd centuries B.C. = 28-54

Final Tagar (transition period to Taštyk), 2nd-1st centuries B.C. = 1-27.

After Istorija Sibiri, Vol. 1, 1968

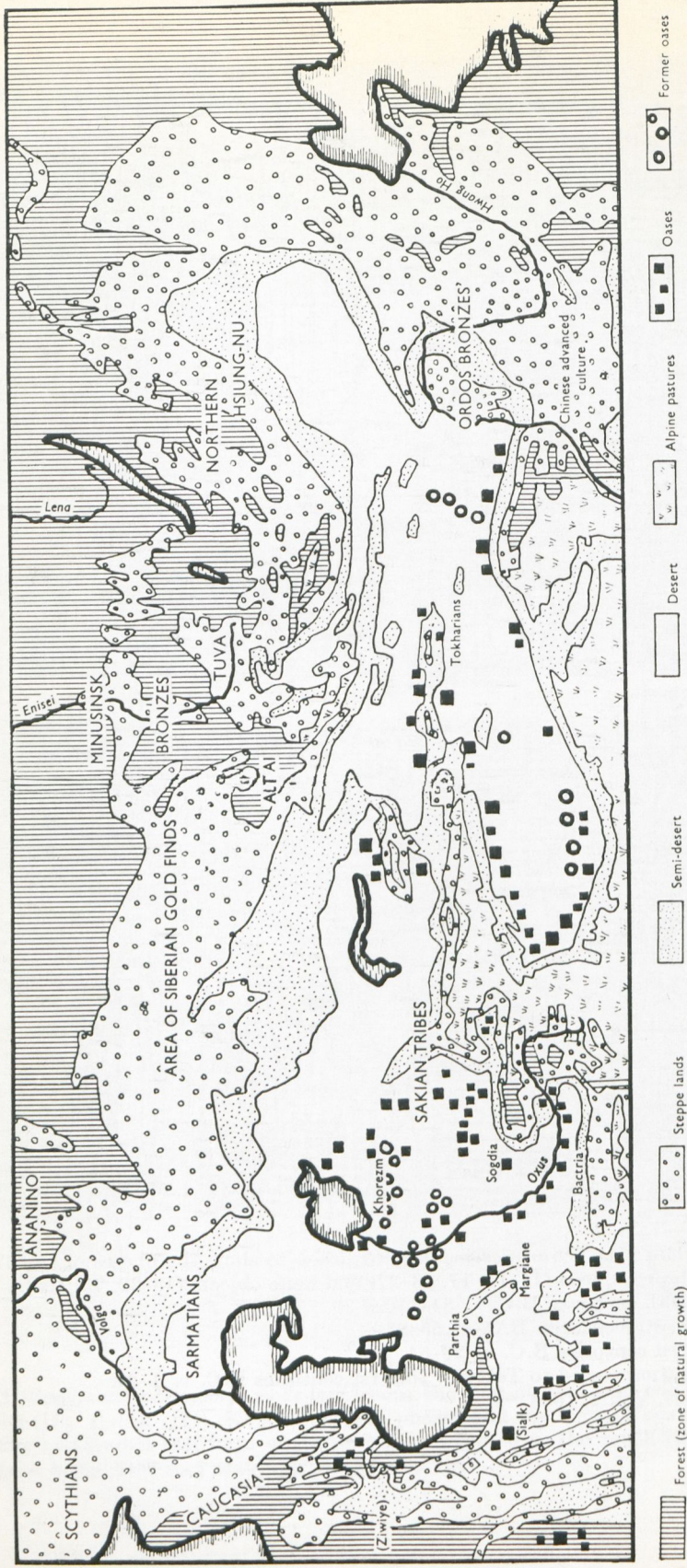


Plate IV. *Sketch of the Asiatic Steppes* showing the areas and the archaeological complexes mentioned in the text. After Jettmar 1967 based on a map of Kussmaul

and Urartu. The study of the objects gives another argument for the dating of the horizon represented by "typical" Scythian antiquities.

The Scythians were described by Herodotus as "having neither cities nor forts, and carrying their dwellings with them wherever they go, accustomed one and all of them to shoot from horseback and living not by husbandry but on their cattle".¹² Archaeology provides the confirmation. In certain areas hundreds of graves, mostly covered by mounds, but no settlements of this period were found. The nomadic way of life must have evolved in South Russia long before the Scythian rule, perhaps since the end of the 2nd millennium B. C. From here to the migration period the Soviet authors speak of the time of the "Early nomads".¹³

Sarmatians

The Scythians must be considered to be only the most western outpost of the world of the nomads in the steppes of Eurasia — many of them being Iranians as well. The clothing and equipment of these Eastern tribes were clearly related to the Scythian outfit,¹⁴ similar artistic tendencies were observed in their decorative art. Evidently the horse allowed far-reaching raids and an extensive trade throughout the steppes. Can we use these manifold connections to widen our chronological system farther to the East?

This indeed can be done for the eastern neighbors of the Scythians, the Sarmatians, who lived in the steppes between the river Don and the southern foothill of the Urals.¹⁵ It is true that we do not find many Greek or Near Eastern imports there, but we see a horizon marked by the introduction of weapons, horse gear and personal ornaments almost identical with the Scythian pattern in the early 6th century B. C. So from this time we reckon the first "Sauromatic" stage of the proper Sarmatian culture, in contrast to the former Srubnaja and Andronovo cultures spread over the same areas.¹⁶ The heritage of these two (related) cultures can be observed in the ritual of the burials and in the many types of pottery, so an ethnic

¹² Herodotus IV, 46. From the 5. century onwards, the winter-camps of the ruling tribes became fortified settlements.

¹³ Černikov 1960, with many references. The term is coined by Grjaznov.

¹⁴ Cf. the famous reliefs at Persepolis showing tributary tribes.

¹⁵ Smirnov 1954, 1961, 1964; Smirnov and Petrenko 1963.

¹⁶ Smirnov 1957.

continuity is probable; the 8th and 7th centuries form a period of transition.

Towards the end of the Sauromatian phase (this variant of the name is used by Herodotus), the Sarmatian complex becomes more and more different from the Scythian one. This tendency grows even stronger during the next phase which is dated between the 4th and 2nd centuries B. C. As we depend on the similarities with Pontic Scythia for dating, this could lead to considerable difficulties. But in these centuries the Sarmatians conquered step by step most of the areas formerly ruled by the Scythians. We know approximately the time-table of this invasion and accordingly it is possible to date the graveyards of the immigrants. It was then their turn to import costly goods from the Hellenistic world, and this is the basis for the chronology of the later periods which are, however, beyond the scope of this study.

As the pottery was different from the Scythian ceramics, the arrowheads which were found in almost every grave are of special importance. Their classification was the framework for establishing the connections with the West. This was the achievement of the Volga-German archaeologist Rau.¹⁷

Minusinsk

One would expect that by the same kind of comparative studies, especially by using the ever-present arrowheads, it would be feasible to extend this chronological system farther to the East. But it soon became evident that there was not enough material excavated in Kazakhstan and the other neighboring territories. Archaeology had to jump directly to the Minusinsk basin in order to find more promising ground.

The Minusinsk basin is in a sense Siberia's "Monument Valley", the monuments, however, being created by man. This patch of open land has almost the size of Austria, but this means only 1 % of the total surface of Siberia.¹⁸ Separated from the belt of the steppes by difficult mountain ridges covered with taiga, i. e. the Alatau and the Sajans it is literally sprinkled over with graveyards. Many of the tombs are topped by mounds, so-called kurgans, and almost all of them are enclosed by stone fences which have orthostatic slabs as

¹⁷ Rau 1927, 1929.

¹⁸ Členova 1967, p. 3.

pillars at certain points. Some of these pillars are carved. There is almost no mountain top in the entire area from which one cannot see several of these monuments.

Such a phenomenon could never escape attention. Therefore, in the whole Russian empire, the first excavation of a mound which was not merely grave robbery was conducted here by the expedition headed by the German scholar Messerschmidt in 1722.¹⁹

At that time Russian colonists were also digging. They found so much gold that sometimes there was a considerable fall in price at the Krasnojarsk market. Later on they had to content themselves with bronzes which were melted down to make samovars and other useful things. Finally they sold grave objects to museums in Russia and Western Europe – 40000 of them have been counted. In the second half of the 19th century A. D. amateurs started rather crude excavations. Some of them were men who had been deported to Siberia because of their revolutionary ideas.²⁰ But this activity was too much and too early. It led to many theories but only superficial classifications. The publication of the *Collection Tovostine* by Tallgren,²¹ and the studies of Gero von Merhart, who came as a prisoner of war to Siberia and was allowed to work in the museum at Krasnojarsk, mark the turning point to the better. But Merhart was too aware of the difficulty to give dates without imported goods and too puzzled by the conflicting trends in the development of the burials and the types of ornaments and weapons to propose a continuous system.²²

Teplouchov was not so timorous. Digging intensely and systematically in a very restricted area he established the system of relative chronology which became the key to the understanding of the whole of Central Asian prehistory.²³ It leads us from the first appearance of metal down to the end of the 1st millennium A. D. One criterion used for this classification was to rank the visible markings of the graves, fences and mounds, along one typological ladder. This fostered the idea that here in a secluded area a continuous evolution had taken place through several millennia. It is strange, however, that according to relative chronology the alterations of the inner

¹⁹ *Istorija Sibiri*, I, 1968, p. 187.

²⁰ Tallgren 1911; Jettmar 1967, pp. 65–68; Gryaznov 1969, pp. 15–22.

²¹ Tallgren 1917.

²² Merhart 1924 and 1926.

²³ Teplouchov 1927 and 1929. Cf. Pl. II.

construction of the graves did not follow the same rules. Single tombs and collective tombs apparently alternated.

The period we are concerned with was divided by Teplouchov into the "Karasuk culture" and the "Minusinsk kurgan culture" (which was followed by the "Taštyk culture"). The only solid bridge from relative to absolute dating in this system was that during the Kurgan culture (from the second stage onwards) typical motives of the Pontic animal style were incorporated. At this time iron came into use. Calculating the retardation by the enormous distance (4000 km), Teplouchov believed that these influences reached Minusinsk around 500 B. C. Tentatively Karasuk was dated at the beginning of the millennium.

The next important step was taken by Kiselev only after the second world war.²⁴ He accepted the term "Karasuk" putting it between 1300-700 B. C. The Kurgan period got another name, "Tagar", and was placed between the 7th-1st centuries B. C. The term "Taštyk" was retained. Kiselev's main interest was to make typological studies for each category of objects and to show which combinations prevailed in the different groups of tombs. Like Teplouchov, he also divided the Tagar culture into three periods, the last (ill-defined) being the transition to Taštyk. The differentiation between the periods is, however, not too convincing. For instance, in the Minusinsk basin we have the interesting custom of not providing the dead with actual weapons but with miniatures. This is said to have begun before the end of the first period. Also, the coming of iron does not form a definite boundary. We can be certain, however, that the final victory of iron took place very late in comparison with the Scytho-Sarmatian standard, perhaps only after the 3rd century B. C.

By the patient work of some western authors including myself, the scheme became well-known in the West - a circumstance which is now becoming a serious hindrance. But in the Soviet Union, too, most of the studies (done in the meantime) follow this line.²⁵ So the typology and the correlation of weapons, tools and ornaments is rather well established. It is a pity, however, that comprehensive publications of graveyards matching the American or West European standard are almost lacking.

²⁴ Kiselev 1951, second edition, pp. 106-303. Kiselev had proposed this term already in 1929.

²⁵ The last and best study of this kind is Členova 1967. Cf. Grjaznov 1941.

It is always a question whether correlated groups shall be put into one sequence or into several lines with multiple interactions. In this respect we are confronted with conflicting views.

Kiselev had supposed that the Karasuk culture was brought by immigrants coming from the Chinese borderlands. Členova believes in immigrants too, but from another direction, namely from the Southwest.²⁶ Moreover she upholds that the aboriginal settlers survived in the Southern part of the basin sheltered by the forests at the foot of the mountain.²⁷ From the 10th century onwards these Lugavsk people got the upper hand. New cultural impulses enabled them to push the intruders bearing the Karasuk culture back and finally to reunite the whole basin into the Tagar culture. Členova discerns three stages of the process; Bainovsk in the 10th century; Il'insk in the 9th century; and Kokorevsk in the 8th-7th centuries B. C.

Martynov²⁸ rejects Členova's thesis, but he too believes that the Tagar culture was evolved in one corner of the basin by resistant earlier settlers during the 10th century. According to him Tagar ranges between the middle of the 8th and the 2nd centuries B. C.

After Kiselev's death the conservative theory is upheld by the doyen of Siberian archaeology, Grjaznov. He does not believe that the Karasuk culture was brought by foreign immigrants. Moreover, he does not think that in an area as restricted as the Minusinsk basin ethnically different populations could coexist for a considerable span of time. Grjaznov has many new arguments at his disposal. He is the chief of the archaeological team of the Krasnojarsk expedition which is studying the area to be covered by an artificial lake which is now being built for a gigantic power station.²⁹

According to his ideas Karasuk came into being by new impulses which are felt everywhere in the steppes and in the surrounding areas. Most of them were spread by trade. In this way a black ware with white incrustations which is well known from Caucasian assemblages finally reached the Minusinsk basin.³⁰

This Karasuk culture proper belongs to the 2nd millennium. It is followed by the Kamennyj log ("stony gorge")-complex which

²⁶ Členova 1961, 1962, 1963. Cf. Pl. III.

²⁷ Lugavsk culture, 12th-116th centuries B. C.

²⁸ Martynov 1967.

²⁹ Grjaznov 1965.

³⁰ Grjaznov 1966; cf. Hančar 1947.

develops directly into Tagar. Tagar is now divided into four subsequent phases. During the 3rd phase there is an increasing tendency to use animal style motives, to build collective graves, and to replace bronze by iron. At first glance this system seems to be rather conservative, but in fact the most important hypothesis added by Kiselev is now omitted. Kiselev had tried to show that there was a particular Karasuk animal style starting much earlier than the Scythian one and developing continuously during the Tagar period.³¹ Now the animalhead-topped knives of the Karasuk period proper are separated from the appearance of animal motives in Tagar by a span of almost four hundred years with no decoration of this kind.

Moreover, the foundations for the exact dates given by Kiselev are seriously shaken. Kiselev had the idea that animalhead knives found at An-yang, the capital of Shang-time China, were the prototypes of the animalhead knives found in Minusinsk (only one of them actually in a grave).³² He believed that such knives existed in China already during the 15th or 14th centuries B. C., and this was the reason for him to date the beginning of Karasuk about 1300 B. C. If we now speak of a rather broad and general horizon of vague contacts, this becomes very unconvincing, especially when we are aware that according to Grjaznov's chronology "bow-shaped ornaments" which also have prototypes in Shang graves, in Siberia are supposed to belong to the 7th or 6th centuries B. C.³³ We are in fact thrown back to the view of Teplouchov that Karasuk may have started in any century around the beginning of the 1st millennium B. C.

The date for the beginning of the Tagar culture (about 700 B. C.) was partly based on the "arrowhead chronology" and not too reliable. More convincing are the affinities between some Tagar weapons, especially picks, and those of the early Ananino culture. But this only means that the first stage of Tagar is older than 500 B. C.

What is really convincing is that the broad impact of western animal style motives came after this time (but this is a thesis already proposed by Gero von Merhart). Členova tried to explain the impact by a new immigration. She referred to Darius' victories

³¹ Kiselev 1951, pp. 233-250.

³² Kiselev 1951, pp. 172-183.

³³ *Istorija Sibiri*, I, 1968, p. 193. Cf. Pl. IV.

over the Sakae in the years 519–518 B. C.³⁴ She supposed that some of the defeated tribes escaped to the North bringing their superior artistic traditions with them. In this case Karasuk, post-Karasuk and Early Tagar would form one complex, Late Tagar the other one.

In the latest graves of the Tagar complex small bronze ornaments (e. g., a belt plaque) were found which also occur in Hsiung-nu graves of Transbaikalia. This gives a reasonable date (2nd–1st centuries B. C.) for the final (Tes') stage.³⁵

Altai

In the Altai some tribes prepared the burials of their princes on the high meadows which they used in summer time, so the tombs lay quite near the permanent frozen ground. Under the stone cover of the kurgan a small alteration of the micro-climatic conditions took place. The sunshine was reflected by the boulders; the cold water of the melting snow could easily pass. Accordingly, the chamber of the burial with all contents froze into a solid lump of ice, and by this conserving many things which otherwise would have decayed.³⁶

Since the discovery of such kurgans in the Altai which turned out to be from the Scythian period, we have here an area of extreme interest. Before, we had only to do with rather dimple graveyards of nomads in the interior, and of farmers in the northern foothills. The first burials of this kind were reported by Radloff, back in the 19th century; the first scientific excavations took place in 1927 and 1929. Since 1947 Rudenko has led expeditions especially equipped for the investigation of such monuments.

The antiquities of the Altai were classified according to the system worked out by Teplouchov. The pre-Scythian phase was e. g. called "Karasuk". Three levels called Majemir, Pazyryk and Shibe – together forming the equivalent of Tagar – were discerned by Grjaznov in 1939.³⁷ Their names were derived from a place where Adrianov had made important finds, and from the two kurgans excavated in 1927 and 1929. Later on the corresponding complexes in the foothills on the course of the river Ob were called Bol'sere-

³⁴ Členova 1962; (Tchlenova) 1963.

³⁵ Chinese imports can be used for the dating of Taštyk. Cf. Kyzlasov 1960.

³⁶ Jettmar 1951, pp. 172, 187.

³⁷ Grjaznov 1947.

čensk, Bijsk and Berezovsk by Grjaznov.³⁸ The dates are 7th–6th centuries, 5th–3rd centuries and 2nd–1st centuries B. C.

A keen observation enabled Grjaznov to distinguish between the assemblages older than the 5th century, and those from the 5th century downwards. In Scythian times there were in the whole belt of the steppes two main systems for connecting the bit of the horse bridle with the cheek-piece. Both, bit and cheek-piece, were made from metal since the 7th century B. C., and in the beginning, the leather strap lying on the cheek of the horse was split into three tongues leading to three parallel openings of the cheek-piece (also wrongly called psalion). The middle tongue of the strap was also used to fix the bit; it was put through the ring at the end of it. From the 5th century B. C. onwards this system was replaced by another one. The cheek straps were now divided into two tongues leading into two openings of the cheek-piece. In this case the cheek-piece itself went through the ring of the bit. This was, in fact, such a practical solution that it was retained for more than two thousand years.³⁹

In the Minusinsk basin this distinction is of little help, because the graves do not contain the horses of the warriors as is usual in the Altai. This is one of the simple reasons which make the dating of the Tagar culture so difficult. In the Altai it turned out that already assemblages which contain this kind of horse bridle have ornaments typical for the early Scythian period. No iron was found in such graves.

In the frozen kurgans in the High Altai there occurs only the second bridling system, so they must be later than Majemir; but one of them, Pazyryk I, was very rich in objects decorated in animal style. The other one, Shibe, had almost nothing of this kind; its ritual instead shows some affinities with late Sarmatian graves. Grjaznov took these two kurgans as typical for two different levels of chronology. This differentiation between Pazyryk and Shibe and the exact date of the kurgans turned out to be a major problem.

For one kurgan of the Pazyryk group, Pazyryk II,⁴⁰ dates between the 5th and the 1st centuries B. C. were proposed. So it was not

³⁸ Grjaznov 1956.

³⁹ Jettmar 1966. It seems that this apparatus was known to the Chinese much earlier.

⁴⁰ Excavated by Rudenko in 1947 and 1948. Cf. Rudenko 1953; Jettmar 1967, pp. 89–107.

clear whether the man who was buried there was a contemporary of Herodotus or Julius Caesar. The Soviet specialists were divided into two camps. Authorities such as Smirnov and Kiselev pleaded for a late Sarmatian date. They all pointed to strong affinities with the Noin Ula kurgans.⁴¹

This dilemma shows not only the problematic character of dating in Central Asia, it also bears direct relation to the composition of the inventories. Only the rulers of large tribes or even confederations of tribes were honoured by a kurgan covered by a layer of stones, which had the effect that the ground was locally frozen preserving textiles, leather objects and carved wood. But such kurgans were inevitably robbed, evidently by subdued tribes who were forced to take part in the building of the grave (perhaps they were the workmen in the copper and gold mines so that they had experience in digging and building wooden constructions). As a result, all metal objects which are normally used for dating disappeared. Only those objects were left which could never be included in the classification schemes.

The solution only came by the study of imported textiles strongly reminiscent of the art of Persepolis.⁴² We now think that the oldest princely kurgans belong to the 5th century, the bulk lying between 400–300 B. C. As we shall see, the examination of Chinese imports which became more prominent as time went on leads to the same result. So finally here we have a successful case of cross-dating. To give an exact date to Shibe is still difficult, but conventionally the classification made by Grjaznov is maintained.

Tuva

Formerly Tuva was a part of the Chinese empire, enjoyed a period of semi-independence, and finally became included in the Soviet Union in 1944. This small land on the upper course of the Yenisei is of extreme importance in spite of its harsh climate.

One reason is that archaeological fieldwork and private digging were very restricted here for a long time.⁴³ Only in 1957 did the

⁴¹ The earlier date for Pazyryk was upheld by Rudenko and Grjaznov and Černecov, the later one by Bernštam, Eftjučhova, Smirnov, Kyzlasov. I kept to the middle. Cf. Grač 1967.

⁴² Roes 1952; Haskins 1959; Rudenko 1961.

⁴³ Teplouchov visited the area and made excavations, but his results were published only recently. Cf. Poltorackaja 1966.

Tuvian Complex Archaeological-Ethnographical Expedition receive sufficient financial support to start systematic excavation, especially in the areas which were to become a huge water reservoir. So here we have relatively little material, mostly coming from graves which were published with their complete contents.

The first attempt for classification of course used the sequences in the Minusinsk basin and in the Altai as models. Kyzlasov⁴⁴ distinguished a culture of Karasuk type earlier than the 7th century B. C. and a culture parallel to Tagar which he called Ujuk (7th-3rd centuries B. C.). The time between the 2nd century B. C. and the 6th century A. D. was included into the Žurmak culture. Kyzlasov however did not become the leader of the archaeological team of the Tuvian expedition, so other terms are used nowadays. The earlier complex is called Kazylgan,⁴⁵ the later one got the name Syyn-čjurek.⁴⁶

The earliest complex unearthed until now has strong affinities to the second ("Podgornij") stage of the Tagar culture in the classification of Grjaznov. This would mean a date between the 6th and 5th centuries B. C. Členova always dates a little higher, so she gives 7th-6th centuries B. C.⁴⁷ The persistence of typical Karasuk traits, elsewhere absent in this level, is noteworthy. On the other hand, we have stray finds with affinities to the Majemir culture. They must belong to the same period.

Graves evidently belonging to the later part of the Kazylgan culture were found in the uppermost part of the Sagly valley, 2000 meters above sea level. Here too the burial chambers were filled with water which froze into ice, only the process was much slower than in the Altai. Therefore only the carvings in wood and bone, but no textiles, were preserved. Among them there are splendid pieces beyond doubt belonging to the artistic world of the great Altai kurgans. Some of these kurgans, which were not built for princes but for the well-off warriors of the tribe, were not robbed at all. Thus, the complete military equipment, the pick, the dagger, and the arrows representing the decayed bow were found. The classification is not difficult. In the Minusinsk basin they would be dated between the 5th and the 3rd centuries B. C.⁴⁸

⁴⁴ Kyzlasov 1958.

⁴⁵ *Istorija Sibiri*, I, 1968, pp. 227-233.

⁴⁶ Vajštejn-D'jakonova 1966, p. 257.

⁴⁷ Členova 1966.

⁴⁸ Grač 1967.

By Soviet archaeologists this is considered as the final argument that Pazyryk and related complexes were not contemporary with the princely graves of the Hsiung-nu (Noin Ula). They must be classified as Scythian and not as Sarmatian.

Some tombs of the graveyard have the typical ritual of the Altai. One or more saddled horses were placed outside the northern wall of the wooden chamber. The rest of the graves, however, belong to another type known also from Kazyrgan and Ozen-Ala-Belig. It was called "Central Asian" by Grač. This means that they belong to a complex which was evidently spread over a large area south of the Altai, most of it beyond the borders of the Soviet Union. In this context we must mention that near the graves of the Kazyrgan culture stone pillars were erected with carvings figuring stags.⁴⁹ Stag-steles like those are also known from Northern Mongolia and Transbaikalia. Evidently some of these carvings were made in the earlier part of the Kazyrgan culture. This would indicate that a meaningful use of specific animal motives was common before animal style decoration became exuberant in the 5th century B. C.

The Žurmak = Syyn-čjurek complex is well dated by Chinese imports, but this does not concern us here.⁵⁰

Radiocarbon Dates

When we now compare the results obtained in the different parts of Southern Siberia we recognize only one really clear-cut borderline separating the assemblages earlier than the end of the 6th century B. C. from those which are 5th century or later. There appears a new system to connect the bridle bit with the cheek-pieces, daggers which are related to derivations of the akinakes – especially those of Sarmatia – and finally a broad spectrum of animal style motives.

But there is no analogy to the even sharper line which separates the inventories older than the end of the 7th century B. C. from the younger ones in the West. There is nothing to compare with the "Scythian triad" in contemporary Siberia. We do not observe a sudden appearance of iron implements and weapons. Evidently the Karasuk and related cultures went over to the cultures of Tagar type by some sort of slow process which we might call accultura-

⁴⁹ Grač 1957, 1958; Vajnštejn 1966, p. 162, fig. 17.

⁵⁰ Grač 1966.

tion, integrating more and more Scythian motives derived from different sources. This is why it is so frustrating to decide whether one complex belongs to the 6th century or still to the 7th or 8th centuries B. C. For this very reason the beginning of the Tagar culture is dated differently by each author.

It is certain, however, that no motives used by the Pontic Scythians since the 6th century B. C. were known in the early part of the Karasuk culture. Instead we observe affinities between Karasuk and the types of archaic China and pre-Scythian Eastern Europe. But this cannot be converted into exact chronology. The initial date of Karasuk (sometimes as about 1300 B. C., sometimes as 1200 B. C.) is mere guesswork.

Can we come to a confirmation or correction by using radiocarbon tests? In Southern Siberia so far only the great kurgans in the High Altai, which have a well-preserved wooden construction in their grave shafts, have been submitted to this kind of investigation in the years between 1959 and 1961:⁵¹

Pazyryk I, II: -2350 ± 140 B. P.

Tuékta I: -2450 ± 120 B. P.

This would mean a dating around 390 B. C. and 490 B. C. respectively, which coincides nicely with the dates estimated by the excavator. More or less, this would also agree with the relative dates obtained by dendrochronology. The trees which were used for the building of the chamber in the Tuékta kurgan were cut 130 years earlier than those from the timber work in Pazyryk I and II. Rudenko happily dwelt on this confirmation.⁵²

But this *consensus omnium* vanishes when we use other dates from the same series of C_{14} tests. The kurgan Pazyryk V got the date -2440 ± 50 B. P., i. e. around 480 B. C. So it seems to belong to the Tuékta kurgans. According to dendrochronology, however, the timber used here was cut not earlier, but 48 years later than that of Pazyryk I and II. This would mean around 340 B. C. The Chinese imports make this assumption much more convincing.⁵³

The radiocarbon date of the Shibe kurgan is even more puzzling: -2420 ± 100 . From the point of typology it looks by no means contemporary with the other great kurgans.

⁵¹ Artem'ev-Butomo-Drožžin-Romanova 1961; Butomo 1963.

⁵² Rudenko 1960, p. 335; Zamotorin 1959.

⁵³ Dittrich 1963, p. 27.

In Eastern Kazakhstan we are in no better situation. The Čilikty kurgan got a date of -2300 ± 90 B. P. But according to Černikov, the excavator, the arrowpoints indicate that it was not erected in the 4th but in the 6th or even in the 7th century B. C.⁵⁴

New dates published in the meantime by the laboratory in Lenin-grad⁵⁵ are even less convincing. One sample would bring Andronovo deep into the 3rd millennium B. C., another one Tagar down to the 5th century A. D.

Chinese Imports and Relations

There is a last chance left for additional arguments by an approach from the Eastern side. We mentioned the Chinese imports in the great kurgans of the Altai. E. g., Pazyryk kurgan VI yielded the fragment of a Chinese mirror from the late 4th century B. C.⁵⁶ Dittrich has done her best to analyze the style of the objects and to look for affinities in the rest of the barbarian inventory. She is convinced that the kurgans of the Pazyryk group were erected between 350–300 B. C.⁵⁷ Dittrich studied the use of the animal-in-combat motive in China and tried to derive hints from this for the chronological position of a related complex in the steppes. Most dates gained in this way are later than the 5th century B. C.⁵⁸ It may be noted however that later studies did not fully agree with Dittrich's views.⁵⁹

Museums and private collections in Europe and in the U.S.A. own bronzes which came from Mongolia and the adjacent Chinese territories. Many of them were found in the Ordos desert, hence the term Ordos bronzes. A part of this stock shows similarities to the antiquities from Minusinsk and the Scytho-Sarmatian West. We can distinguish a group (The occurrence of animalhead-topped knives in An-yang, among the Ordos bronzes and in the Karasuk complex was used for attempts to determine the exact date of Karasuk.), and another one characterized by animal style decoration.

However, systematic use of this splendid material was impossible

⁵⁴ Černikov 1965.

⁵⁵ Semencov–Romanova–Doluchanov 1969, pp. 258–260.

⁵⁶ Cf. Bunker–Chatwin–Farkas 1970, p. 61.

⁵⁷ Dittrich 1962 and 1963, pp. 24–34.

⁵⁸ Dittrich 1963, pp. 51–60.

⁵⁹ Bunker–Chatwin–Farkas 1970; Weber 1966–1968.

as most of it was found on the surface while other objects came from clandestine excavation. In the future, Soviet work covering the neighboring areas (Transbaikalia, the Mongolian People's Republic) will help us a lot.⁶⁰ In the Minusinsk basin we observed no convincing continuity between the animal decoration used during the Karasuk period and the "animal style" of the Tagarians. It seems, however, that the Karasuk tradition was not broken in some parts of Mongolia, and this may explain the reappearance of "Karasuk derived" elements in late inventories of Southern Siberia.

Since the consolidation of Communist rule in China, an archaeological service of great effectivity, extending its activity to the borderlands of the empire, was organized, following the tradition of the Academia Sinica, but also inspired by the Soviet model. Kiselev was sent to China for several years.⁶¹ As a consequence graves have been excavated which contain purely Chinese objects - which can be dated - side by side with Ordos bronzes. This was the case not only in China proper, but also in Mongolia and Manchuria. The dates obtained in this way belong to "Han" or "Warring States" periods. That means a confirmation of the hypothesis that the broad appearance of the animal style in the East was rather late.⁶²

An unexpected early horizon of affinities (besides the animalhead knives and the bow-shaped ornaments) is indicated by the studies of Dewall, also based on new excavations.⁶³ The construction of the bridle in China and in the steppes seems to be similar at certain periods before and after the beginning of the 1st millennium B. C.⁶⁴ But this still must be confirmed by other arguments.

So the approach from the East does not basically change the situation. Before the 5th century B. C. we are in a fog. We can make typological studies and relative chronologies for certain areas, but the way from here to absolute chronology is very difficult and full of pitfalls. This is true also for some western areas where we recently have better summaries, for instance, for Central Kazakhstan. Ambitious Kazakh archaeologists have just begun to establish a classifying system of their own.⁶⁵ Once more we see that all monu-

⁶⁰ Volkov 1967; Dikov 1968.

⁶¹ Kiselev 1960.

⁶² Chêng Tê-k'un 1963, pp. 133-144; Kwang-chih-Chang 1968, pp. 340, 354-362.

⁶³ Jettmar 1966.

⁶⁴ v. Dewall 1964 and 1966.

⁶⁵ Margulan-Akišev-Kadyrbaev-Orazbaev 1966; Kudyrbaev 1968.

ments of the 7th and 6th centuries B. C. are put into one large pigeonhole. The dates are conventional.

We are not able to solve questions of priority, and this in turn makes it almost impossible to judge the direction of genetic relations. This was the dilemma I had to face in writing my book "Art of the Steppes". Reading the Soviet authors you will get the impression that animal-style art begins to spring up everywhere at the same moment like mushrooms after the rain. Surely this was not the case. But the differences in time are minimal and even the relative chronology is weak, so all is fused into one level.

New Approach Possible: Tagisken - Ujgarak

I could imagine a change of this situation rather soon. During the last years excavations in Middle Asia (formerly Western Turkestan) have shown essential differences between the steppes in the North and those in the South. In the North, we meet almost the same culture as in Southern Siberia. In the South surprising complexes of a particular character were observed. One is represented by the necropolis of Tagisken⁶⁶ on the delta of the Syr Darya, another one by the earlier cemetery at Tulchar⁶⁷ in the Biškent valley, South Tadžikistan. A later stage of the Tagisken complex was found at Ujgarak.⁶⁸

Only a part of the material excavated at Tagisken-Ujgarak has been published. Another part was shown in Soviet exhibitions abroad.⁶⁹ But this is sufficient to recognize relations to the pre-Scythian culture of the Ukraine, to the early Chou period of China, and finally to the Near East.⁷⁰ This means that by continuing these excavations we may finally come to a new kind of chronology in Central Asia, independent of the line starting with Teplouchov's famous attempt and therefore avoiding the miscalculations. One attempt has already been made to use the ceramic style observed at Tagisken for the dating of the Karasuk pottery in Minusinsk.⁷¹ The discussion of the weapons found in the borderlands of the Soviet Union is very promising too.⁷²

⁶⁶ Tolstov 1962, pp. 77-88; Tolstov-Ždanko-Itina 1963, pp. 36-47.

⁶⁷ Mandel'stam 1966, 1968.

⁶⁸ Tolstov-Ždanko-Itina 1963, pp. 50-52; Tolstov 1963; Tolstov-Itina 1966.

⁶⁹ Cf. Catalogue of the Russian Exhibition at Paris 1967, nrs 74-77.

⁷⁰ Tolstov-Itina 1966.

⁷¹ Istorija Sibiri, I, 1968, p. 183.

⁷² Litvinskij 1968.

In Middle Asia we are in the very center of change. All trans-continental routes of trade had to pass here. Therefore we do not have to reckon with the same retardations which make cross-dating in Southern Siberia so difficult. I think by continuation of systematic fieldwork – only recently started there – it will become possible to lift the veil which until now covered the initial stages of the cultures of the mounted nomads and the origin of their animal style.

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