

# Neolithic and Bronze Age cultural communities of the steppe zone of the USSR

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FIGURE 7. Kosouți: general view of the excavation. (Photo: Clive Gamble.)

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### Natural environment

The culture-historical development of Neolithic and Bronze Age communities under Eurasian steppe conditions is indissolubly linked with the establishment and development of early forms of productive economy, and displays a number of distinguishing features, which are the product of both natural and historical factors.

Within the USSR, the steppe extends from the mouth of the Danube to the upper reaches of the Ob and the Altai mountains (Milkov 1977). To the north, the steppes naturally grade in to the forest zone to form a belt of transitional forest-steppe landscape. To the south, the steppe is bounded by the coast of the Black Sea, the foothills of the Caucasus and beginning in the Lower Volga region the semi-deserts and, further south, deserts of Soviet Central Asia.

The European part of the steppe is characterized by a temperate continental climate, fairly fertile chernozems and dark chestnut-coloured soils which, in the not too distant past, were covered with a rich diversity of herbage predominantly grasses; see above, p. 781. Broad-leaved woodland occupied the river valleys, steadily increasing northwards towards the forest zone.

The Trans-Volga steppes have a continental climate, and the thin chernozems, dark chestnut and chestnut-coloured soils have a high salt content, which determined the spread of xerophyte wormwood-grass and shrub vegetation.

Despite the relatively favourable conditions that were produced by the onset of the post-glacial climatic optimum, the steppe zone did

not become a habitat suitable for the domestication of cereals (Vavilov 1966). Suitable forms of sheep and goat for stock-breeding were also originally lacking.

Although populations of aurochs, wild boar and horse were widespread (Tsalkin 1970; Shnirelman 1980), sedentism was a precondition for their initial domestication. Thus, throughout the Mesolithic and during part of the Neolithic, the steppe zone was very sparsely populated. Because of the natural environment, the development of a productive economy and its diffusion into the steppe zone were directly dependent on the influence of communities further to the south which had entered the era of the productive economy.

### The diffusion of agriculture

During the 6th and the first half of the 5th millennia BC, the Kelteminar (Masson 1966; A.V. Vinogradov 1981) and Seroglazovka (Melentev 1976) cultures came into existence under the influence of advanced centres in the Trans-Caspian area and around the Aral Sea. The Crimean (Formozov 1962; Kolosov 1985), Bug-Dniester and Sursko-Dnieper (Danilenko 1969; Markevich 1974) cultures take shape at the same time or a little later. These cultures, which have, in part, different impetuses and occur at different times, combine elements of a traditional appropriating economy with new features of emergent agriculture and pastoralism; all of them, however, are found in regions on the edge of the steppe zone, rather than in it.

Unfortunately, little work has been done on the problem of the diffusion of progressive forms of economy in the steppe proper; this can

Translated from the Russian by Sarah Wright.

be explained with reference to the specific character of the process here. It is clear that southern influences on the steppe came from the Carpatho-Danube region as well as from the eastern Caspian region and the Caucasus.

The initial impetuses undoubtedly came mainly from the eastern Caspian region, where a pastoralist complex based on breeding sheep and goats which were also suited to the steppe zone emerged quite early on. The tradition of making round-bottomed pottery out of clay to which cockle-shell had been added as a filler, which subsequently became widespread in the cultures of eastern Europe and western Siberia, also emerged in this area.

It should be emphasized that the eastern Caspian, Caucasian, and Carpatho-Danubian influences were directed not so much towards the interior of the steppe zone although they were very significant there as towards the forest-steppe zone.

Evidently the cultural impetuses which came simultaneously from various centres and their interaction with each other and with local traditions, on the one hand, and, on the other hand, the diversity of the soils, flora, and fauna of the forest-steppe belt created a very favourable cultural background for the perception, independent selection, and consolidation of the forms of productive economy most suited to local conditions. These forms of economy were then conveyed both to parts of the steppe zone and, later, northwards to the forest zone.

Only in this way can we explain why the majority of cultures and sites of the Neolithic and Eneolithic occupied, or gravitated towards the forest-steppe regions.

The Middle Volga and southern Urals was a focus of culturogenesis that also emerged in the forest-steppe during the Neolithic-Eneolithic period to play a significant part in the development of the eastern European and western Siberian communities.

Only from the Eneolithic period (4th and first half of the 3rd millennia BC) onwards is it possible to speak with certainty about the early forms of productive economy and the general cultural progress of the communities of the steppe zone. This process is connected with two important cultural communities, the development of which was based on an early horse-breeding economy.

### The Mariupol and Sredni Stog cultural communities

The first of these communities dates to the first half of the 4th millennium BC, and is represented by the Samara culture (FIGURE 1.9: left bank of the Middle Volga), the Lower Don culture (FIGURE 1.10: Middle and Lower Don regions), the Azov-Dnieper culture (FIGURE 1.11: northern Azov region), and, it seems, the Caspian culture (FIGURE 1.8: northern Caspian region).

The second dates to the second half of the 4th and first half of the 3rd millennium BC, and includes the Khvalynsk culture (FIGURE 1.12: Middle and, apparently, Lower Volga region), the Sredni Stog culture (FIGURE 1.13: from the Lower and Middle Dnieper region to the lower reaches of the Don), and the Repin culture (FIGURE 1.6: Middle Don) (Vasiliev 1981; Vasiliev & Sinyuk 1985). The Suverov group (Dergachev 1986) in the northwestern Black Sea region, and sites of Novodanilovka (Telegin 1985) and post-Mariupol (Kovaleva 1980) types on the left bank on the Dnieper (discussed below also belong to this period.

Each of these groups and cultures has distinctive features but, significantly, they form a kind of unified substratum within the chronological stages identified. This has given scholars grounds for uniting them into two major culture-historical communities. The first (Early Neolithic) is known as the Mariupol community and the second as the Khvalynsk Sredni Stog.

In addition to those already mentioned, the development of the Dnieper-Donets culture (stages II-III: FIGURE 1.14) in the forest-steppe region of the Middle Dnieper also dates to the Eneolithic (Telegin 1968). But, evidently because of its peripheral position, it retained many archaic features and is, to some extent, not typical of the general picture as observed in the eastern and southern regions.

Finally, the appearance of Eneolithic cultures in the Trans-Ural region and western Kazakhstan the Surtandy (FIGURE 1.15; Matyushin 1982) and Botai (Zaibert 1985) cultures also dates to this time, although the development of productive forms of economy proceeded more slowly here and its diffusion dates mainly to the Bronze Age.

The Mariupol culture-historical community is characterized by numerous, fairly short-lived

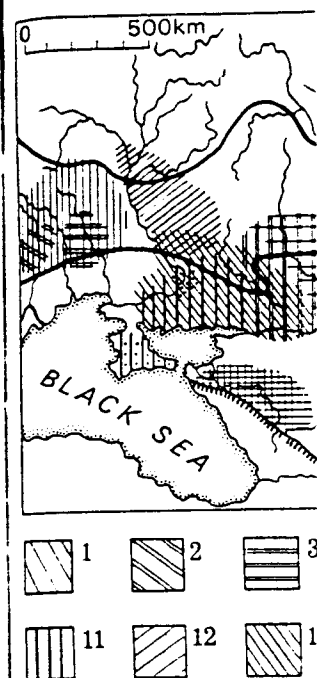


FIGURE 1. Neolithic-Eneolithic

- 1 Keltiminar
- 2 Cris-Körös
- 3 Bug-Dniester
- 4 Crimean
- 5 Sursko-Dnieper
- 6 Repin
- 7 Seroglazovka
- 8 Caspian
- 9 Samara

settlements, most of which were in the forest-steppe zone. Collected pits or trenches, often with pits or trenches, are distinctive. The backs and are sprinkle pottery is pointed-bottomed pottery with a table filler in the fabric shaped lip and all-over decoration predominates. There is a specific assemblage (plaques made from with cockle-shell pins) and bulls and other animals as tools and weapons (lithic adzes, chisels, and a main distinguishing feature is a high percentage of horse

Sredni Stog cultural

communities dates to the 4th millennium BC, and is Samara culture (FIGURE 1.9: Middle Volga), the Lower Don (FIGURE 1.10: Middle and Lower Don), the Dnieper-Donets culture (FIGURE 1.13: from the Dnieper region), and, it seems, the Repin culture (FIGURE 1.8: northern Caspian)

to the second half of the 4th millennium BC, and the Khvalynsk culture (FIGURE 1.12: Middle Volga region), the Sredni Stog culture (FIGURE 1.13: from the Dnieper region to the lower Dnieper), and the Repin culture (FIGURE 1.8: northern Caspian) (Vasiliev 1981; Vasiliev 1982). The Suverov group (Dergachev 1980) in the northwestern Black Sea region (Telegin 1980) types in the Dnieper (discussed in this period).

groups and cultures has been identified, but, significantly, they form a stratum within the chronology. This has given scholars the opportunity to divide them into two major communities. The first (Early Neolithic) includes the Mariupol and the Khvalynsk Sredni Stog

as already mentioned, the Dnieper-Donets culture (FIGURE 1.14) in the forest-steppe zone of the Dnieper also dates to the 4th millennium BC (Vasiliev 1968). But, evidently, in terms of their general position, it retained a distinct picture as observed in other regions.

The range of Eneolithic cultures in the southern region and western Kazakhstan (FIGURE 1.15; Matyushin and Vasiliev 1985) cultures also dates to the 4th millennium BC, though the development of the economy proceeded more slowly. The diffusion dates mainly to the 3rd millennium BC.

Culture-historical community is numerous, fairly short-lived

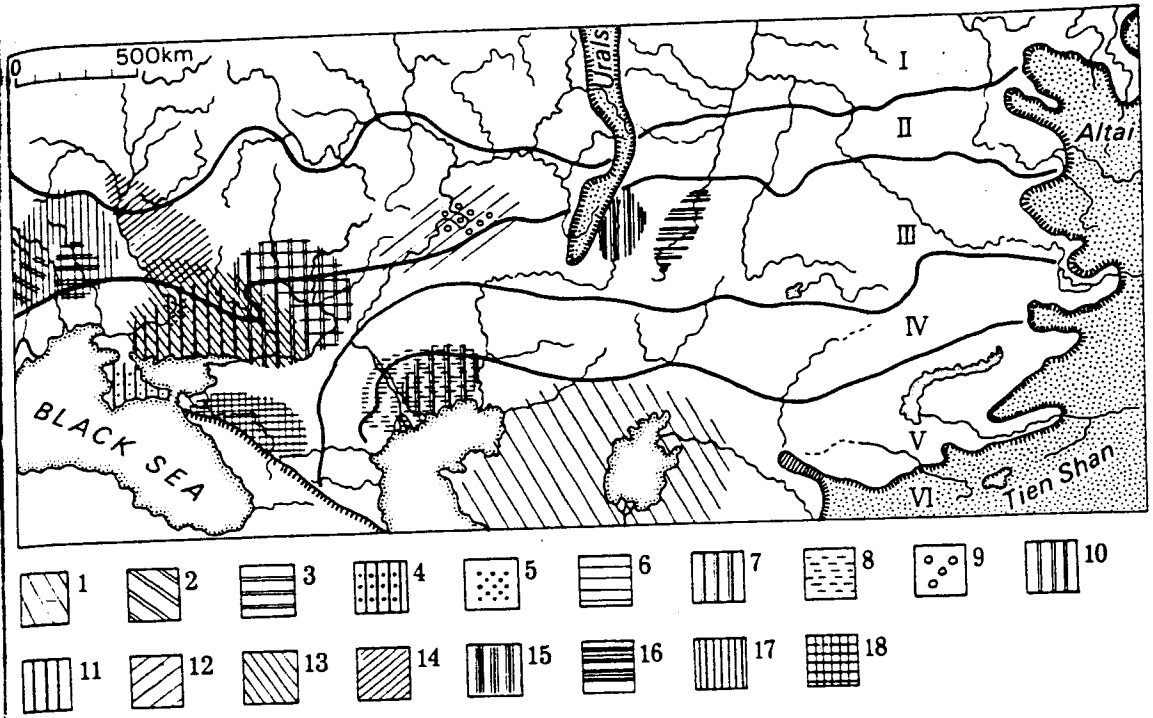


FIGURE 1. Neolithic-Eneolithic cultural communities

- |                  |                      |
|------------------|----------------------|
| 1 Kelteminar     | 10 Lower Don         |
| 2 Cris-Körös     | 11 Azov-Dnieper      |
| 3 Bug-Dniester   | 12 Khvalynsk         |
| 4 Crimean        | 13 Sredni Stog       |
| 5 Sursko-Dnieper | 14 Dnieper-Donets    |
| 6 Repin          | 15 Surtandy          |
| 7 Seroglazovka   | 16 Botai             |
| 8 Caspian        | 17 Cucuteni-Tripolye |
| 9 Samara         | 18 Maikop            |

Natural zones

- I forest
- II forest-steppe
- III steppe
- IV semi-deserts
- V deserts
- VI mountains

settlements, most of which occur towards the forest-steppe zone. Collective burials in large pits or trenches, often with several burial horizons, are distinctive. The skeletons lie on their backs and are sprinkled with ochre. Some pottery is pointed-based, although flat-bottomed pottery with cockle-shell and vegetable filler in the fabric and a distinct collar-shaped lip and all-over combed impressed decoration predominates.

There is a specific assemblage of ornaments (plaques made from wild-boar tusk, beads, cockle-shell pins) and depictions of horses, bulls and other animals on bone plates, as well as tools and weapons (large flint knife-blades, stone adzes, chisels, and maces). One of the main distinguishing features is the extremely high percentage of horse bones (80% or more)

found at settlements. Horses are also often found as sacrifices in burials.

The whole economic and cultural assemblage continues organically in the cultures of the Khvalynsk Sredni Stog community, reflecting the genetic link with previous cultures. The widespread opening-up of regions of the steppe proper occurred in this period. Collective burial is replaced by individual burial in large clan cemeteries. Burial grounds containing only a limited number of burials also occur and, most importantly, the first kurgan (barrow) burials appear

The earliest of these kurgans, as determined by Tripolye imports, are dated to the very beginning of the second half of the 4th millennium BC. The bodies were laid on their backs, but often in a contracted position, with the legs

bent upward at the knee. A northern or northeastern head orientation predominates. There is a marked increase in the number and variety of weapons: large flint knife-blades, spearheads and javelins, and various types of stone mace.

The appearance of zoomorphic sceptres and of horse-riding is associated with the Khvalynsk (FIGURE 1.12) and Suvorov cultures (Danilenko & Shmagly 1972). The pottery assemblage undergoes considerable change as round-bottomed vessels begin to predominate. Along with combed and impressed decoration, pricked and then corded decoration begin to appear. The traditional cockle-shell ornaments, beads, pendants made from deer's milk-teeth, and stone bracelets, are supplemented by metal ornaments.

#### The emergence of a steppe economy

The principal significance of the cultures discussed above is that they demonstrate the transfer of the cultural epicentre from the forest-steppe to the steppe zone. The horse-breeding economy, later supplemented by sheep-breeding, apparently leads, in the second half of the Eneolithic, to the emergence of semi-mobile population groups with which the kurgan assemblages and sites of Novodanilovka type are associated. The increase in population density was accompanied by an increase in the area available for stock-breeding, because of the complete opening up of the steppe in the European part of the USSR, particularly in the Trans-Volga region.

Throughout the Eneolithic, steppe cultures were greatly influenced by the agriculturalist communities of the Caucasus, Trans-Caspian region, and Carpatho-Danubian region. In the late phase, however, the steppe tribes themselves start to play an ever-increasing rôle in the development of these agriculturalists. Material similar to the Mariupol material, from the Tumek Kichidzhik burial ground in the southern Aral Sea region is significant in this respect (A.V. Vinogradov, Itina & Yablonsky 1986).

Events on the western periphery were significant. Pastoralist tribes, having penetrated the area inhabited by the agriculturalist communities of the Carpatho-Danubian region, provoked considerable changes in the development of the Cucuteni-Tripolye and

Alden II Bolgrad cultures. Similar processes also took place in the foothills of the Caucasus (Masson 1982).

This process of cultural genesis intensifies, particularly in the final stages of the Eneolithic when it is accompanied by the emergence of numerous and diverse cultural groups at sites such as Usatovò, the lower layer of Mikhailovka, Konstantinovka, and a whole number of diverse sites from the forest-steppe zone.

The subsequent cultural and economic development of the communities of the steppe zone encompasses the period of transition from the Eneolithic to the Bronze Age (the second half of the 3rd millennium BC to the 18th century BC).

In this period the eastern European steppe was completely opened up and the Asian steppe was in the process of being opened up, as a result of the final establishment of semi-mobile and semi-nomadic pastoralism, based mainly on sheep-breeding, and partly caused by the onset of a dryer climate in the middle of the 3rd millennium BC.

In eastern Europe, this is the period of the Pit Grave (or Yamnaya) and Catacomb cultural communities, identified by the remarkable Russian archaeologist V.A. Gorodtsov at the beginning of the century.

#### The Pit Grave (Yamnaya) culture

The Pit Grave culture (Merpert 1974) is of local origin. Its source can be traced to the Eneolithic cultures of Khvalynsk and Sredni Stog. It underwent two main stages of development. In the early stage (27th–25th centuries BC) it occupied the region from the Volga to the right bank of the Dnieper. In the late stage (25th–18th centuries BC) it extended from the area around Orenburg, to the south of the Urals, across the whole steppe and (in part) forest-steppe zone westwards to the Eastern Carpathians, also penetrating deep into southeast Europe as far as the Middle Danube region (FIGURE 2.1).

Thanks to its prolonged existence and large territorial extent, the Pit Grave culture includes a large number of zonal and local variants with their distinguishing features. The settlements of this culture are few and far between (Mikhailovka, Skelya Kamenolomnya, Aleksandriya, etc). They seem to be cultural centres and, in a number of cases, have man-made defensive structures.

Kurgan cemeteries containing simple sub-

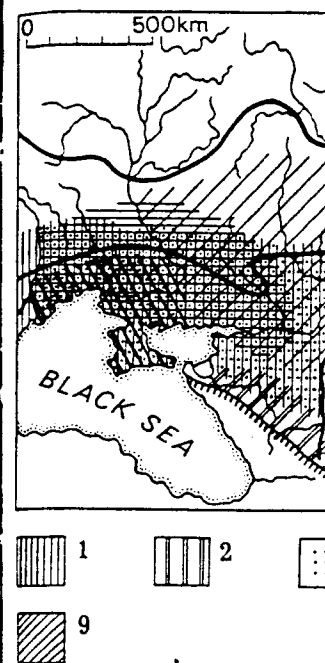


FIGURE 2. Cultural communities

- 1 Pit Grave (Yamnaya)
- 2 Afanasevo
- 3 Catacomb
- 4 North Caucasian
- 5 Andronovo

rectangular pit-chambers (figure takes its name) are characteristic. Burials are central, with secondary burials at the edges. The chambers are roofed with layers of beams and slabs. In some regions anti-rooms are found used in this way. Remains of dismantled four-wheeled vehicles are found placed over the roof.

The bodies were placed in pits with bent legs raised at the knees. In the early stage, the orientation of the skeletons was to the north and northeast; in the late stage, to the south and southwest.

The inventory is sparse, consisting of weapons and ornaments. Characteristic are oviform vessels of the early stage; flat-bottomed vessels of the late stage decorated with corded ware. The shape

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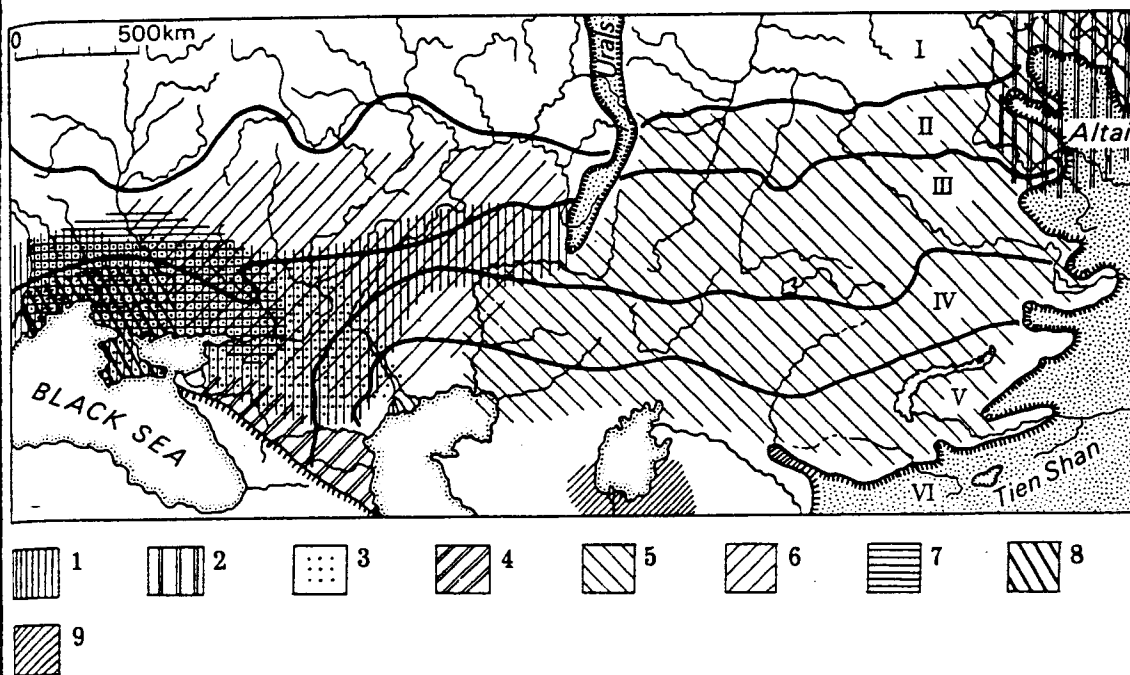


FIGURE 2. Cultural communities of the end of the Eneolithic/Bronze Age

- |                       |                   |
|-----------------------|-------------------|
| 1 Pit Grave (Yamnaya) | 6 Srubnaya        |
| 2 Afanasevo           | 7 Mnogovalikovaya |
| 3 Catacomb            | culture           |
| 4 North Caucasian     | 8 Sabatinovka     |
| 5 Andronovo           | 9 Tazabagyab      |

#### Natural zones

- |                  |
|------------------|
| I forest         |
| II forest-steppe |
| III steppe       |
| IV semi-deserts  |
| V deserts        |
| VI mountains     |

rectangular pit-chambers (from which the cul-  
ture takes its name) are characteristic. Primary  
burials are central, with secondary burials often  
let in round the edges. The grave chambers are  
roofed with layers of beams, or, less often, stone  
slabs. In some regions anthropomorphic slabs  
are found used in this construction. The  
remains of dismantled four-wheeled wooden  
vehicles are found placed above the chamber  
roof. —

The bodies were placed on their backs with  
bent legs raised at the knee. As a rule, the  
skeletons were sprinkled with ochre. In the  
early stage, the orientation was predominantly  
to the north and northeast; in the late stage, to  
the south and southwest.

The inventory is sparse: pottery, tools,  
weapons, and ornaments. Round-bottomed  
oviform vessels are characteristic of the early  
stage; flat-bottomed of the late stage. In both  
stages they are decorated with cord impressions  
(corded ware). The shapes and ornamental

composition vary. Stone axe-hammers, flint  
knife-daggers, and arrowheads are found. The  
metal artefacts are sparse: knife-daggers, flat  
axe-adzes, and tetrahedral awls. Ornaments  
include: copper, silver and gold spiral-shaped  
rings, bone beads, and pendants.

Faunal remains from settlements and burial  
grounds indicate that the animals bred were  
mainly sheep, cattle and horses. The ratio varies  
from one region to another. Agriculture was also  
practised. Hunting played a secondary rôle.

#### The Catacomb culture

The material from the Catacomb culture (FIGURE  
2.3) is equally impressive (Popova 1955; Sha-  
poshnikova 1969). It is named after the  
distinctive sub-kurgan burials consisting of a  
vertical shaft with a lateral catacomb niche  
branching off from its base. The culture arose at  
the end of the 3rd/start of the 2nd millennium  
BC, and in some regions developed until the end  
of the 17th century BC. Its origin has been the

subject of long debate. It is now believed that it arose on the basis of the Pit Grave community under strong North Caucasian influence.

The culture consists of several subdivisions which are constantly being defined more precisely. The central link in this community is the Donets group, located in the basin of the Seversky Donets river. At its height, this culture spread across the whole steppe from the Volga and north Caucasus to the river Prut in Moldavia. As they settled in new places, the Catacomb tribes partly displaced and partly assimilated the Pit Grave populations which preceded them. This was accompanied by the emergence in the peripheral regions of an area of distinctive mixed Pit Grave-Catacomb assemblages.

As before, the settlements are few in number. Fortified settlements occur (Perun, Leventsovka), as do temporary, short-lived sites or stopping-places.

The kurgans contain central burials. Secondary burials are let in concentrically around the southern side of the mound. The catacombs themselves are vaulted and sub-rectangular or oval in plan. Their form and size vary. Bodies are predominantly in a contracted position on their side, and occur in various orientations. The skeletons are sprinkled with ochre, but less often and more sparsely than in the Pit Grave culture.

An assemblage is quite often found in the burials. The pottery, which is always flat-bottomed, is made from paste with an admixture of fired clay. The jar-shaped vessels, pots and cups are decorated around the rim, on the shoulders, or all over. Corded decoration predominates. Ornatly decorated incense burners on legs are characteristic.

The stone artefacts include a large number of axe-hammers, often with elegant relief decoration, maces, and flint arrow-heads. There are many more metal artefacts than in the Pit Grave culture, either originating in the North Caucasian cultural region or made locally from arsenical bronze. Casting moulds found in the burials provide evidence for local bronze casting. Massive lop-headed axes, flat adzes, daggers of distinctive type, chisels and awls are widely represented. There are many bone and metal ornaments: rings, pendants, beads, distinctive hammer-shaped pins etc. The majority of them are, like the metal tools, of North Caucasian origin.

The nature of the culture and its faunal remains suggest that semi-mobile pastoralism was practised. In the steppe zone, sheep-breeding predominated, while in the forest-steppe cattle were also important.

#### The development of pastoralism in the steppe zone

The cultures considered above demonstrate developmental continuity in the early pastoralist economy. They are associated with the establishment of the semi-mobile, semi-nomadic, predominantly sheep-breeding economy most suited to the steppe zone (which remained fairly sparsely populated). The steppe is identifiable as an independent cultural region with clearly expressed cultural and economic indices peculiar to itself.

Throughout the development of both the Pit Grave and Catacomb communities, an active adoption of cultural elements from the Caucasus, the Carpatho-Danubian region, and central Europe, can be traced as well as from the forest-steppe, particularly the Middle Volga and southern Ural region. In addition, the tribes of these cultures themselves played a direct rôle in the fate of a large number of communities in both near-by and distant regions.

The appearance of the first pastoralist cultures on the Asiatic steppes also dates to the end of the Eneolithic and start of the Bronze Age. The most striking of these was the Afanasevo culture (FIGURE 2.2; *History of Siberia* 1968; Khlobystina 1975), which existed on the steppes of the Minusinsk basin, in the Gorny Altai region and between the rivers Yenisei and Ob.

It is characterized by small, short-lived settlements and, primarily, by kurgan burial grounds. The small mounds are surrounded by stone revetments. Pits of simple form, sometimes with a wooden frame-built lining, were covered with planks or stone slabs. Bodies were laid in an extended or contracted position on their backs with the head oriented northwards.

Oviform pottery with a pointed base, similar to early Pit Grave pottery, is characteristic of the Afanasevo culture. Flat-bottomed vessels appear towards the end of the culture. The culture dates to the second half of the 3rd millennium BC, and, at the start of the 2nd millennium BC, is replaced by the Okunevo culture which is characterized by kurgans with

a stone revetment, of rectangular burial in a stone cist. On the steppes appear to have been populated.

#### Middle and Late Bronze Age

The last culture-historical period to consider is the Middle Bronze Age (centuries BC) and Late Bronze Age (centuries BC). This is the period of the eastern European and Asian steppes, finally and fully opened up. The transition to stable sedentary pastoralist-agriculturalist economies of a wide range of combinations.

This stage is represented by several communities, the main one being the Srubnaya culture (FIGURE 2.5) and Srubnaya roots of both these communities. The cultures of the end of the Bronze Age in the southern Ural regions, together with constant and increasing contact, made them remarkably similar in all major parameters to such a degree that, recently, many scholars have grouped them together in a single Srubnaya cultural community.

The Andronovo cultural community, the largest of those considered, is found between the rivers Ural and Ob. Whereas at first it mainly occupied the forest-steppe of the Bronze Age it extended and from the taiga-forest zone to the desert oases of Soviet Central Asia and Tien Shan.

The territory of the Srubnaya culture is slightly smaller. Initially it occupied the forest-steppe of the Upper Don regions, and then spread to the whole forest-steppe and the Middle and Lower Dnieper river valleys, although individual sites are found as far east as Soviet Central Asia.

Unfortunately, there is no single author of works which make the Srubnaya culture-historical community. Krivtsova-Grakova (1955) has remained the author of the Srubnaya community, the following authors are Maksimenko 1978, Kosarav 1981, and

Wooden poles form a single, rectangular structure [Translator's note].

culture and its faunal semi-mobile pastoralism in the steppe zone, sheep-herding, while in the forest-steppe zone important.

#### Pastoralism in the steppe

As demonstrated above, the early pastoralism is associated with the semi-mobile, semi-nomadic sheep-breeding to the steppe zone (which was densely populated). The steppe is a dependent cultural region with its own cultural and economic life.

The development of both the Pit and the Srubnaya communities, an active element from the Caucasus-Danubian region, and is traced as well as from the Middle Volga region. In addition, the tribes themselves played a direct rôle in the number of communities in the steppe regions.

The first pastoralist culture in the steppe also dates to the end of the Bronze Age. This was the Afanasevo culture (see *History of Siberia* 1968; which existed on the Krasnoyarsk basin, in the Gornyy between the rivers Yenisei and

and by small, short-lived kurgan burials. Initially, the community occupied the forest-steppe of the Middle Volga and Upper Don regions, and then extended across the whole forest-steppe and steppe from the Middle and Lower Dnieper region to the Ural river although individual sites are known as far east as Soviet Central Asia.

Flat-bottomed vessels are characteristic of the end of the culture. The second half of the 3rd millennium BC, at the start of the 2nd millennium BC, was replaced by the Okunevo culture characterized by kurgans with

a stone revetment, of rectangular plan, and burial in a stone cist. On the whole, the Asiatic steppes appear to have still been sparsely populated.

#### Middle and Late Bronze Age

The last culture-historical stage that we will consider is the Middle Bronze Age (17th-14th centuries BC) and Late Bronze Age (14th-12th centuries BC). This is the period in which both the eastern European and Asiatic steppes were finally and fully opened up. This is linked with the transition to stable sedentism and a complex pastoralist-agriculturalist economy in a wide range of combinations.

This stage is represented by several cultural communities, the main ones being Andronovo (FIGURE 2.5) and Srubnaya (FIGURE 2.6). The roots of both these communities go back to the cultures of the end of the Eneolithic and start of the Bronze Age in the Middle Volga and southern Ural regions. This circumstance, together with constant and prolonged interaction, made them remarkably similar in terms of all major parameters to such an extent that, until recently, many scholars were inclined to join them together in a single Srubnaya-Andronovo cultural community.

The Andronovo cultural community is the largest of those considered in this paper. Whereas at first it mainly occupied the area between the rivers Ural and Irtysh, at the end of the Bronze Age it extended as far as the Yenisei, and from the taiga-forest zone of western Siberia to the desert oases of Soviet Central Asia and the Tien Shan.

The territory of the Srubnaya community is slightly smaller. Initially the community occupied the forest-steppe of the Middle Volga and Upper Don regions, and then extended across the whole forest-steppe and steppe from the Middle and Lower Dnieper region to the Ural river although individual sites are known as far east as Soviet Central Asia.

Thanks to the length of time that they existed and the extent of their territory, each of these communities is represented by thousands of settlements and burial complexes, the study of which has given rise to an abundant literature and, as a result, a large number of sometimes mutually exclusive opinions on chronological attribution, provenances, and the typology and interpretation of sites.\*

However, all specialists agree that both cultural communities involve two basic chronological horizons, the early one corresponding with the middle, and the later one with the end, of the Bronze Age.

In the early period, the cultures of both communities have fortified settlements, later replaced by large, long-lived, open settlements. Large houses of rectangular plan either on the surface, sunken-floored or semi-sunken-floored with frame-built walls are characteristic. Houses with stone foundations occur on the steppe. Settlements with houses have been discovered in the copper-ore regions of the Donbass, the western Ural region and Kazakhstan, and include sites where metal was worked.

Kurgans, sometimes ringed with stones or with a surrounding ditch are characteristic of the cultures of the Srubnaya community. They contain large simple pits, pits with frame-built internal constructions (hence the name of the culture: Srubnaya from Russian *sруб*, framework)† or stone cists. In the later stages, small rectangular or oval pits occur. Cemeteries with simple burial in the ground are also known.

The burial complexes of the cultures of the Andronovo community are similar to the Srubnaya ones, but catacomb kurgans are also known. The mound is more often surrounded by a ring of stones, and flat cemeteries usually have low sub-rectangular or circular stone revetments.

Inhumation was practised by both commu-

\* Unfortunately, there is no single work that covers either of these communities thoroughly, although there are a large number of works which make broad regional generalizations. For the Srubnaya community of cultures the work of Krivosova-Grakova (1955) has remained topical and should be mentioned, along with a collection of recent papers on *The Srubnaya culture-historical community* (1985) which is one of the most complete new works. For the cultures of the Andronovo community, the following should be mentioned, from an extensive literature: Chernikov 1960, Salnikov 1967, Maksimenko 1978, Kosarav 1981, and Zdanovich 1988.

† Wooden poles form a single, ridged, tent-like 'mortuary house': the dwellings are thought to have been constructed similarly [Translator's note].



nities, with a certain amount of cremation occurring at a later stage. The bodies were placed in a contracted position on the left side with the hands to the face. In the cultures of the Srubnaya community, the predominant orientation is eastwards, whereas in the Andronovo it is westwards.

Animal sacrifices are common. In the early stages, whole skeletons (most often of horses) are found, while in the later stages only individual bones occur. The inventory consists of vessels, tools, weapons and ornaments and varies according to the sex and age of those buried. For the early periods, warrior burials stand out because of their wealth. Andronovo warrior burials, in Sintashta-type cemeteries (Gening 1977) which contain the remains of chariots, sacrificed horses and a large number of weapons, are especially noteworthy.

Despite the mass of indices, variations in which form the basis for the distinction between the two communities, the pottery, tools, weapons, and ornaments are generally similar. The general developmental trend of Srubnaya and Andronovo pottery consists in a gradual transition from squat angular vessels to more extended, harmonious proportions. Combed impressed geometrical decoration (triangles, rhomboids, squares, etc.) is common, either all over or in horizontal bands. In later phases, jugs and jar-shaped pots decorated with applied bands occur. The stone artefacts are axe-hammers, battle-axes and flint arrowheads.

There are a large number of metal artefacts, connected with the widespread development of metal-working (Chernykh 1970; 1976), although towards the end of the culture their number diminishes. There are lop-headed axes, spearheads, sickles, knives and daggers. The numerous bone and antler bridle cheek-pieces – sub-rectangular or disc-shaped with knobles in the early stages, pivoted at a later stage – are of particular interest.

There are numerous and diverse ornaments, usually found in children's or women's burials. The settlement and cemetery material indicate that the main type of economy in the cultures of both these communities was mixed agriculture and pastoralism. Sheep and goat, cattle, horses, and pigs were bred. The importance of agriculture in relation to pastoralism, and the make-up of the domestic herd, depended on

specific environmental conditions and differed both within and between zones. Agriculture and the herding of cattle, sheep, goats, and pigs predominated in the forest-steppe regions. In the steppes, the semi-desert and mountainous regions, sheep pastoralism prevailed.

At the end of the Bronze Age the Srubnaya and Andronovo cultures break up into a large number of cultural formations of so-called Srubnaya-Andronovo appearance, characterized by pottery with banded decoration (Valikovaya culture: Chernykh 1983).

In addition to those mentioned, two more communities belong to this period: the Mnogovalikovaya ('multi-banded') Pottery culture (FIGURE 2.7) and the Sabatinovka culture (FIGURE 2.8; Berezanskaya 1986). The former occupied the steppe and forest-steppe regions from the Prut to the Dnieper and the Donets, although some sites occur further east. It dates to the Middle Bronze Age (17th–15th centuries BC).

The Sabatinovka culture occupied the steppe zone from the mouth of the Danube to the Dnieper, the northern coastal region of the Sea of Azov and the eastern Crimea. It dates to the Late Bronze Age (14th–12th centuries BC).

The Mnogovalikovaya Pottery culture is characterized by settlements with large semi-sunken-floored or surface pisé dwellings. Small kurgans contain one or more burials in simple pits, sometimes with frame constructions or stone cists. The ritual was inhumation or, occasionally, cremation. The bodies were placed in a more or less contracted position on their sides, mainly in a northeastern or eastern orientation. The burials are distinguished by the sparseness of the inventory.

The pottery is specific: truncated biconical forms decorated with incised lines or applied bands (from which the culture takes its name), often in the form of hatched triangles or fir-tree/herring-bone pattern. In the late stages, jar-like vessels occur.

Bone clasps with a central, or central and side, opening are a distinctive burial artefact. Metal artefacts are relatively scarce and are represented by types characteristic of the Late Catacomb and Early Srubnaya cultures. The Borodino hoard is associated with this culture.

In its general features the Sabatinovka culture is similar to the Late Srubnaya, and was for a long time considered to be part of it. Houses

either have stone foundations or were simply

floored. The kurgan inhumations were strongly contracted, lying on their sides. The pottery mair and jars with banded decoration have strong links with the Noua culture of the steppe Carpatho-Dniester region.

The assemblage of metal objects is also distinctive (Chernykh 1976). The economy of the Sabatinovka culture is based on various combinations of agriculture and livestock husbandry, including semi-mobile pastoralism.

Thus the development of the Middle Bronze Age cultures demonstrated the opening-up of the entire European plain from the Danube to the Altai. This process, with considerable population movements, made it possible to open up t

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conditions and differed between zones. Agriculture of sheep, goats, and pigs in forest-steppe regions. In desert and mountainous regions nomadism prevailed.

In the bronze age the Srubnaya culture breaks up into a large number of so-called subcultures. The appearance, characterized by banded decoration (Chernykh 1983).

As mentioned, two more to this period: the Mnogopodanad' Pottery culture (Chernykh 1986). The former in forest-steppe regions and the Donets, occur further east. It dates to the Iron Age (17th-15th centuries

BC). The culture occupied the steppe zone from the mouth of the Danube to the Black Sea in the southern coastal region of the Sea of Azov and the Crimean Peninsula (14th-12th centuries BC).

The Sabatinovka Pottery culture is characterized by settlements with large semi-surface pisé dwellings. Small numbers of burials in simple pits with frame constructions or stone walls. Burial was inhumation or, occasionally, cremation. The bodies were placed in a contracted position on their sides, with the head to the east or eastern orientation. Distinguished by the sparseness of burials.

Decorative elements specific: truncated biconical motifs with incised lines or applied bands (in the culture takes its name), or of hatched triangles or fir-tree-like motifs. In the late stages, jar-like

burials with a central, or central and secondary, distinctive burial artefact. Burial pits are relatively scarce and are characteristic of the Late Bronze Age. The Sabatinovka culture is associated with this culture. It includes the Sabatinovka culture and the Late Srubnaya, and was for a long time considered to be part of it. Houses

either have stone foundations or are sunken-floored. The kurgan inhumations are usually strongly contracted, lying on one side, and lack inventories. The pottery mainly consists of jugs and jars with banded decoration, and shows strong links with the Noua culture of the forest-steppe Carpatho-Dniester region.

The assemblage of metal artefacts is distinctive (Chernykh 1976). There are many objects of eastern Transylvanian type. The economy of the Sabatinovka culture was based on various combinations of agriculture and livestock husbandry, including, apparently, semi-mobile pastoralism.

Thus the development of the Middle and Late Bronze Age cultures demonstrates the final opening-up of the entire Eurasian steppe from the Danube to the Altai. This process is linked with considerable population growth, which made it possible to open up the whole territory

and led to the transition to sedentism and the establishment of more intensive forms of farming economy.

This transition was made possible by the rapid development of bronze-casting and the widespread introduction of metal artefacts into all branches of production. Throughout their development, the steppe tribes interacted with each other and the communities of Central Asia, the Caucasus, the Carpatho-Danubian region and the forest-steppe zone, especially with the tribes of the Middle Volga and southern Ural region, where large foci and centres of metallurgy and metal-working operated.

In the next stage, these cultural communities were to experience major transformations associated with the transition to the Iron Age which, in the Eurasian steppe, took place between the 12th and 8th centuries BC.

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