

CULTURAL COMPLEXITY OF PASTORAL NOMADS

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Introduction

In spite of plenty of general theoretical works in the field of nomadic studies, one cannot say that the interpretation of the pastoral societies in the context of the world history has been thoroughly developed. There are several most influential paradigms of the historical process which include the stage unilineare (modernization theory, neoevolutionism, Marxism [Gellner 1988; Sanderson 1990; 1999; Green 1992; Bantley 1996; Claessen 2000; Carneiro 2003 etc.]) and multilineare theories (Bondarenko, Korotayev 2000; Korotayev et al. 2000), civilization (Toynbee 1948; Weskott 1970; Melko 1995; Sanderson 1995 etc.) and world-system approaches (Wallerstein 1974; Chase-Dunn, Hall 1997 etc.).

In the modernization theory, only Gerhard Lenski has included the nomadic societies into his scheme as the side, per se, dead-end variant of social transformation (Lenski 1973: 132).

The neoevolutionist anthropologists engaged in the typology of the political systems have also lost sight of nomads in their constructions. In the most competent works, we will not find the chapters considering the place of nomadism in evolution and, all the more, special typologies of the societies of pastoral nomads proper. The Morton Fried's conception includes four levels: egalitarian, ranked, stratified societies, and state (1967). By Elman Service, the number of such levels should be higher: local band, community, chiefdom, archaic state and state-nation (1971; 1975). The latter scheme has been time and again corrected, however, as a rule, the question of the specificity of the social evolution of the societies of pastoral nomads has been not particularly considered. At best, nomads are used as an example of the secondary tribe or chiefdom, the militarized character of their society and establishment of the pastoral state system on the basis of conquest of agrarian civilizations are noted (Johnson, Earle 2000: 139, 263-264, 294-301).

The subject of nomads is rather more around in the works of the world-system approach's supporters (Chase-Dunn 1988; Abu-Lughod 1989; Hall 1991; Chase Dunn and Hall 1997; Chase-Dunn, Hall, Turchin 2003 etc.), however, the standpoint according to which the nomads are considered in these works is beyond the scope of this paper.

As a rule, in the studies of the Western authors specially engaged in problems of the social-cultural evolution of nomads, a lack among the nomads of intrinsic needs to establish firm forms of the state system, cyclic character of political processes, appearance of perspectives of the stable development only in the case of symbiosis with farmers (Lattimore 1940; Khazanov 1984; Fletcher 1986; Barfield 1989; Golden 1992; 2001 etc.).

The much greater attention to the problem of the nomadism periodization within the framework of the world history has been given in the Marxist and, especially, Soviet literature. However, within the framework of Marxist approach, the researchers have classified nomads by proper modes of production (it appeared from this that the similar to each other steppe empires of Hsiung-nu, Turks and Mongols were divided into three different groups – slavery, early and mature feudal states) or have disclaimed the state of nomads (see details on this discussion in: Khazanov 1984; Gellner 1988; Krajin 1992; 2002b 2003, etc; Bondarenko et al. 2003).

However, in the framework of the Marxist and neo-Marxist approaches, the interesting idea of the *nomadic* mode of production has been advanced which has challenged a correctness of the universalist constructions based on the interpretation of only settled-agricultural societies (Markov 1967; Bonte 1981; 1990; Masanov 1991 etc.). Subsequently, other constructions placing emphasis on the conquest (xenocratic) character of nomadic empires (Krajin 1992; 2000) appeared.

Many researchers have also written of the internal typology of nomadic societies. The majority of schemes were based on the extent of inclusion of nomadic society into the sedentarization and acculturation processes of the settled-agricultural civilizations (Wittfogel, Feng 1949; Tamura 1974; Pletneva 1982; Khazanov 1984; Krajin 1992; 2000; Barfield 2000 etc.). As for the complexity of pastoral societies, the nomadologists identify usually the decentralized and centralized states (Markov 1976; König 1981).

I believe that the complexity degree of pastoral nomads had more levels of taxonomy. Among the nomadic societies, three groups could be identified:

1. acephalous segmentary clan and tribal formations;
 2. secondary tribe and chiefdom;
 3. nomadic empires and 'quasi-imperial' pastoral polities of smaller sizes.
- (Krajin 1996).

A change-over from one level to the other could take place both in one direction and in opposite one. The limit of increasing the evolutionary complexity is nomadic empires. This was an insuperable barrier determined by the ecological conditions of arid zones of the Old World. Here, the significant peculiarity of the nomadism evolution is a non-conformity of the political system transformation with other criteria of the complexity growth. The political system of nomads could easily evolved from the acephalous level to more complicated organizations of

power and vice versa but formal indicators as increase in population density, complex technologies, increase in structural differentiation and functional specialization were instead essentially unchanged. When transforming from tribal pastoral systems to nomadic empires, only a growth in the total population (due to the addition of conquered people) takes place. The political system becomes more complex and the total number of hierarchical levels increases.

As to the complication line, any evolution could be related to either conquest by nomads of farmers and migration to their territory or development among the pastoralists sedentarization processes under marginal natural conditions or processes of industrialization in the modern history. There were no other variants in the history.

Methodology

Nomads could be classified, for example, by the economy type subdividing them into the Eurasian horse-breeders, Afro-Asian camel-breeders, East-African pastoralists, northern reindeer-breeders and mountain yak- or llama-breeders (Khazanov 1984; Barfield 1993). One could classify nomads by the extent of mobility and large quantity of most various schemes was created on the basis of this criterion (Masanov 1995 etc.).

At the same time, we can consider nomads using a degree of complexity of their society and social-political organization. However, how can be revealed that the society under consideration is more complex than the other and what criteria should be a basis of the similar classification, all the more, that the same polities (for example, Hsiung-nu empire or Chinggis Khan's empire) have been considered by some researchers as the existing states while they were only pre-state formations for other scientists. Possibly, the cross-cultural methodology was less subjective. Just the supporters of this methodology have had to compare various cultures of our planet and to determine criteria of such comparisons. These investigations have taken the form of a number of the known publications for this subject (Carneiro 1973a; Murdock, Provost 1973 etc.) and famous Atlas by George Murdock (1967), HRAF, and Atlas of Cultural Evolution (Peregrine 2003).

The methodology of the authors of the above works is based on the single-line interpretation of evolution the main criterion of which is a growth of the organizational complexity. According to these concepts going back to the ideas of the classic evolutionism of Herbert Spenser, the cultural evolution should be determined as follows:

change from a relatively indefinite, incoherent homogeneity to a relatively definite, coherent heterogeneity, through successive differentiation and integrations (Carneiro 1973b: 90).]

However, it is generally agreed that the evolution is not one-line. Many of the evolution channels do not lead to the growth of complexity, the barriers on the path to increasing the complexity are simply huge and, finally, the stagnation, decay and even downfall are so common phenomena for the evolution process as the forward growth in complexity and development of the structural differentiation. The main criterion of evolution is the qualitative transformation of the society from one structural state to the other (Claessen 2000).

It is difficult not to agree with the above. Indeed, the one-line evolutionism has its heuristic limits. However, this is not to say that other methodological approaches are free of disadvantages. Moreover, some ways are suitable to explain and interpret some questions while it is more desirable to use other methodologies to solve other problems. Because this paper is aimed to determine the level of the stage complexity of the pastoral nomads' societies in comparison with other societies, it is worthwhile to use such methodology that allowed to compare the societies of different chronological periods, economic-cultural types and regions using the same criteria.

To realize the aim made, we will use one of the above-mentioned works written by George Murdock in co-authorship with Caterina Provost (1973). In this paper, the authors aim at determining a criterion of the complex society. They have chosen ten of the most significant from their point of view criteria of the cultural complexity: (1) writing and records, (2) fixity of residence, (3) agriculture, (4) urbanization, (5) technological specialization, (6) land transport, (7) money, (8) density of population, (9) political integration, (10) social stratification. Each of the variables has been evaluated using the five-score scale from 0 to 4 (see details Murdock, Provost 1973).

The authors have coded information for 186 societies of all regions of the world. According to their idea, total sum of scores should demonstrate the society complexity. It is clear that the obtained digits are relative. One cannot evaluate the society complexity only on the basis of a simple arithmetic summation. The authors themselves acknowledge this, paying attention to a quite funny fact by which the Russian culture was estimated by them at 38 of 40 maximum scores while the ancient Babylon and Rome at 39 scores. One score was taken away from Babylonians and Romans because they have not used the mechanical transportation facilities whereas the Russian were short of two scores due to a low population density (*ibid.*: 388).

But Murdock and Provost have not pursued the objective to establish a rating of the human cultures and civilizations. They attempted to show only general tendencies in the social evolution. Here, they have realized the positive result. The societies of hunters-gatherers are at the very bottom of Table 3 "The sample societies in Rank Order of Overall Cultural complexity" (for example, Tiwi -2, Kong Bushmen - 2, Hadza - 0). The segmental societies have slightly higher quantity of scores (Masai, Gilyak - 9, Yanomamo - 8). The sum of scores for

chiefdoms is still more (Tonga – 20, Trobrianders – 16). The topmost position is occupied by the states and empires (Chinese, Japanese – 40, Babylonians, Romans – 39, Turks, Russians, Koreans – 38 etc.).

All of this is, on the whole, quite logical. Practically, all the technologically and culturally complex societies are in the upper part of a “list” of Murdock and Provost. The typological series in which the societies are located is of importance rather than the particular position of each of them. With these general principles in mind, Murdock and Provost have divided all of societies into four groups of complexity (1973: 391):

1. low complexity – 0-9 scores;
2. lower middle complexity – 10-19 scores;
3. upper middle complexity – 20-29 scores;
4. high complexity – 30-40 scores.

It is interesting that, earlier, independently and using different method of computation, the similar study was carried out by Robert Carneiro (1973a: 846, 853). Looking through both lists where we are dealing with the same examples, one can make sure that the number of coincidences is more than could be expected (Murdock, Provost 1973: 390). It is obvious that it confirms a correctness of the methods of authors of both publications. Consider now how do fall the societies of pastoral nomads into this pattern.

Sources

In the base of Murdock and Provost, 7 societies of pastorals and nomads are presented among 186 societies. They are given in Table 1. The first column represents the ordinal number of a society in the general list, third one – region (A – Africa, M –Mediterranean region, E – East Europe).

Table 1. Complexity level of pastoral nomads

No		Reg.	1	2	3	4	5	6	7	8	9	10	Total
034	Masai	A	0	0	0	2	3	1	1	1	1	0	9
041	Ahaggaren Tuareg	C	3	0	2	0	3	1	1	0	3	3	16
046	Rwala Bedouin	C	4	0	0	0	3	1	2	0	2	1	13
058	Basseri	E	3	0	2	1	3	1	0	1	3	1	15
065	Kazak	E	3	1	0	3	3	1	2	1	3	3	23
066	Khalkha Mongols	E	4	1	1	0	3	3	2	1	4	3	23
121	Reindeer Chukchee	E	0	1	0	0	3	2	0	0	1	1	8

(by Murdock, Provost 1973).

Let us comment this Table. In accordance with the Murdock and Provost scale, two societies (Masai, Chukchee) are assigned to the level of lowest complexity, three societies (Basseri, Bedouin, Tuareg) to the level of lower middle complexity and two societies (Kazakh and Mongols) to the level of upper middle

complexity. In accordance with classifications widespread in the anthropology, first two societies fall in to the so called acephalous, segmental societies. Three next societies correspond to the chiefdoms or stratified societies. Two last ones have more complex nature. All of this corresponds approximately to the above typology of nomadic societies (Kradin 1996) with the one proviso: instead classical nomadic empires, the nomadic societies of modern period were presented in the Murdock and Provost's Table which were subjected to the influence of the more developed agrarian civilizations. How do the most powerful nomadic societies – nomadic empires – fall into this pattern?

To answer this question, a new Table was constructed in which information of eight nomadic empires of Eurasia from Hsiung-nu to the medieval Mongols was included. When constructing the table, I have rested upon both my own studies of some empires of nomads (Kradin 1992; 2002a etc.) and investigations of colleagues (Wittfogel, Feng 1949; Fedorov-Davydov 1973; Egorov 1985; Fletcher 1986; Barfield 1989; Golden 1992; 2001; Trepavlov 1993; Kychanov 1997; Skrynnikova 1997; Klayshtorny, Sultanov 2000).

Table 2. Complexity level of nomadic empires

No		Reg.	1	2	3	4	5	6	7	8	9	10	Total
187	Hsiung-nu	E	1	0	1	0	4	3	1	1	4	2	17
189	Hsien-pi	E	2	0	1	0	4	3	1	1	4	1	17
190	Jou-jan	E	3	0	1	0	4	3	1	1	4	2	19
191	Turks	E	4	0	0	0	4	3	1	1	4	2	19
192	Uighurs	E	4	0	1	0	4	3	1	1	4	2	20
193	Khitan (Liao)	E	4	3	3	3	4	3	4	3	4	4	35
194	Mongol 1206	E	3	0	1	0	4	3	1	0	4	2	18
195	Golden Horde	E	3	2	2	0	4	3	4	1	4	4	25

Because many items in this Table could be interpreted in different ways, it is necessary to provide the appropriate explanations. As to the first indication (Writing & Records), I tried to evaluate an extent of developing records within the society under study regardless of the fact if the diplomatic correspondence with Chins has carried out. As applied to the Hsiung-nu, I believe that, un spite of attempts to introduce the Chinese written language in the time of Lao-shang Shan-yu (Taskin 1968: 45), it has not be widespread in the society. This demonstrates the well known fact of substitution of the Shan-yu seal by the Chinese envoys of the Emperor Wang Mang. In the closest circle of Shan-yu, nobody has been found who was able to read an inscription on the seal. The separate hieroglyphs on the ceramic vessels found in Ivolginsky fortes settlement suggest, more likely, the ethnic membership of the residents of this settlement rather than a development of written language among the nomads Hsiung-nu (Kradin 2002a: 80-86).

The Hsiung-nu knew the mnemonic means (1 score). This could be demonstrated by reference to Ssu-ma-Ch'en information. By his data, the Hsiung-nu elite has traditionally met in Tailin to count up and check people and cattle

(Taskin 1968: 40). To a large degree, this resembles the description of appropriate customs of Jou-jan:

“There has been no written language for records, therefore, commanders and chiefs have approximately counted up the number of warriors using sheep’s droppings to do this but, later on, the Jou-jan have well learnt to make records with the help of notches on a wood” (Taskin 1984: 269).

The *notches* themselves could be interpreted as unwritten records (2 scores). Their use was characteristic not only of the Jou-jan but, by analogy with Wu-huan of Hsien-pi (Taskin 1984: 63, 327) although some representatives of elite of the Hsien-pi society knew the Chinese language and ideographic writing (for example, Ke-pi-neng). Among the Jou-jan, the number of persons knowing the Chinese language was much more (ibid.: 269, 289). Therefore, the Jou-jan society, as the Golden Horde, where with taking Islam the Arabic written language has been adopted should be assigned to the societies using the written language of other people (3 scores). Turks, Uighurs and Kitans had their own written languages (4 scores).

In the XII century, Mongols had no written documents. Heu have used so called by the Chinese chroniclers *marks* or *notches* (Munkuev 1975: 52-53). Since 1204, Mongols have used the Uighur written language. In 124 chapter of “*Yuan shih*”, the biography of Uighur Ta-ta-tung-a working for the Naiman khan Ta-yang. After defeat of the Naimans, he was taken prisoner by Mongols and began working. He was entrusted to teach the Chingghis Khan’s offsprings and some khans to read and to write. True, it is not clear whether they have taught the Uighur language or have written in their native language with the Uighur letters (Munkuev 1975: 125-128). Only later on, in 1220s, after going over to the Mongols of large quantity of the Chin’s functionaries, the Chinese hieroglyphic written language (ibid.: 52-53) became to us. Thus, a degree of written language development among Mongols by 1206 is needed to be evaluated at 3 scores.

Many nomadic empires under consideration were, to one or other extent, acquainted with the settled way of life. On the Mongolia territory, the sites and unfortified settlements of Hsiung-nu were known (Hayashi 1984). The Hsien-pi leader T’ang-shih-huai has resettled to the Lao-haho river shores about 1000 families of Wo-jen people in order to they have engaged in fishery (Taskin 1984: 80). Early in the VI century, the Jou-jan have built the town of Mumoch’eng (ibid.: 290). The Uighurs have also engaged in the construction of fortresses and have erected in the centre of modern Mongolia their capital – town of Ordu-Balyk (Har Balgas). The extent of urbanization of the Kitans (Jagchid 1981; Ivliev 1983) and residents of the Golden Horde (Egorov 1985; Fedorov-Davydov 1994) has been much higher.

For this reason, as for the second indication (Fixity of Residence), I tried to be founded on the mode of life of the most population of the society under study. Taking into account small number of the settled population, Hsiung-nu, Hsien-pi, Jou-jan, Turks, Uighurs and Mongols were assigned to the societies with monadic system of settlements (0 scores). About only $\frac{1}{4}$ of Kitans has led the nomadic and semi-nomadic life (Wittfogel, Feng 1949: 58). The elite and government have also moved periodically to five capital towns. For this reason, the degree of the settled mode of life in Liao has been estimated as settled but inconstant (3 scores). More than 100 sites were known in the Golden Horde but it seems that a share of urban population was there, on the whole, low. However, taking into account the specificity of ecology of the East-European steppes assuming the semi-nomadic character of economy, one can evaluate the degree of settled mode of life in the Joche Ulus at 2 scores.

The determination of the degree of agriculture development (third indication) presented no special problems. Here, I started from the assumption that a presence of the settled settlements supposes an exercise of agriculture or truck farming (1 score). The similar settlements of Turks are unknown (0 scores). About $\frac{3}{4}$ people of Kitans have been engaged in the intense agriculture, however, almost one million of people has had only embryos of agriculture (Wittfogel, Feng 1949: 58). For this reason, the degree of agriculture development in Liao was evaluated at 3 scores. In the Golden Horde, a meaning of agriculture was evidently more than 10% but, nevertheless, the leading part in the rural economy has been played by the cattle-breeding (2 scores).

Filling out of a column of the forth indication (Urbanization) proved to be relatively complex. This was related to the fact that, in a number of societies, different types of social organization occurred – small in number communities of nomads and considerable in size communities of farmers and townsmen. Here, I had to be guided by the fact what of the form of social organization was most widespread in the society under consideration. Because of the pastoral nomads of Eurasia, the community of small size (less than 100 people) is characteristic (Bacon 1958; Krader 1963; Khazanov 1984; Cribb 1991; Barfield 1993 etc.), all of the societies under study, except Kitans, were assigned to the simplest form (0 scores). The empire Liao has consisted of Chinese to the extent of about $\frac{2}{3}$. The urbanization degree was there evaluated at 3 scores.

Considering the fifth indication (Technological Specialization), it is necessary to base on both archaeological data and the written sources. The archaeological materials (except Jou-jan, the monuments of culture of which are not found so far) confirm that of all the above societies, a presence of metallurgy, weaving, pottery is characteristic. Describing the Ukhuans – contemporaries of Hsiung-nu and Hsien-pi – the Chinese chronicler notes that they have had metallurgy, weaving, pottery:

The adults know how to make bows, arrows, saddles, bridles, to forge arm from iron and metals, are able to embroider on leather, to make patterned embroideries, to weave woolen cloths (Taskin 1984: 327).

The similar characteristics could be also found with respect to the medieval Turks, Mongols and even nomads of modern time (Kradin 1992: 49-50). For this reason, the level of handicraft development should be evaluated at 4 scores.

It is quite another matter, how much were these technologies developed as compares with the settled-agrarian civilizations. In many societies of pastoral nomads, the handicraft has not become a specialized economical subsystem. Quite often, the nomads have captured the most qualified part of craftspeople at the time of raids to the neighboring countries or in the course of conquests. The experience of the cross-cultural comparison of the level of the handicraft activity development in the nomadic societies and agrarian-urban civilizations of the East shows that nomads were inferior on this indication to their settled neighbors (Alaev 1982: 27).

Filling up of the column for the sixth indication (Land Transport) presented no special problems. Of all selected societies, the use of both animals and wheeled traffic is characteristic (3 scores).

Only Liao and Golden Horde have had their own money (seventh indication). Of other nomadic empires, the use, first of all, of home livestock as an instrument of exchange is characteristic.

As for the eighth indication (Density of population), it is necessary to be founded on that population of nomadic empires of Hsieng-nu, Hsien-pi, Jou-jan, Turks was approximately identical (within 0.8-1.5 millions people [see Kradin 2002a: 71-79]) and, at the same time, comparable with the population of Mongolia at new time – slightly more than 1 people per sq. American mile (1 score). Judging from § 202 of *Secret History of Mongols*, Chinggis Khan had 95 commanders of one thousand horsemen and ten thousands guardsmen. Because each adult man (about 20% of population) was a soldier, then, even taking into account so called *forest Mongols* not included in the lists of thousands, total number of Mongols at a time considered was not more than 500-6000 thousands people (i.e. less than one man per one sq. mile [0 scores]). The Liao population was 3.8 millions people (Wittfogel, Feng 1949: 58). A dividing of this value by the approximate area of the country gives, as a result, about 7 people per one sq. mile (3 scores). The Golden Horde population density was slightly more than 1 people per sq. mile (Ivanov, Vasilyev 1995: 57-60).

When calculating the number of levels of the political integration, it is needed to be guided by the fact of availability in the nomadic empires of the decimal system. In this case, it makes no difference whether the local ail = *ten soldiers* or clan = *a hundred soldiers* is used as the lowest level of hierarchy, the total number of the hierarchy levels is characteristic of the most complex societies

- three and more levels of hierarchy is characteristic of the state subdivided into regions and districts - 4 scores.

When filling up the column for the last indication (Social Stratification), it is necessary to take into account that of all the nomadic empires included in the sample, a division into elite and ordinary nomads is characteristic. In particular, it is pronounced in the appropriate social terminology: *begi* and *kara budun* (black people) among Turks, *khans*, *noyons* (aristocracy) and *karachu* (commoners) among Mongols etc. At the same time, there has been no caste division in the societies under consideration and the slavery among the nomads of Eurasian steppes has had undeveloped character (Nieboer 1910; Khazanov 1984; Kradin 1992 etc.). Therefore, the most nomadic empires were evaluated at 2 scores (two strata's but slavery and castes are not developed). The determination of the social stratification development level in the Golden Horde presented some difficulties as it has included a considerable percentage of the urban population in addition to pastoral nomads but was also evaluated at 2 scores. This is related to the fact that, first, the special literature does not provide examples of existence of more than two levels of social stratification (Fedorov-Davydov 1973; Egorov 1985 etc.) and, secondly, in spite of the wide spreading of slavery, it had no hereditary character (Poluboyarinova 1978: 36-37). As in the Hsien-pi power, a man of the common people (Tan-shih-huai, Ke-pi-neng) could become a ruler, the degree of development of social stratification in this society was estimated at 1 score. Only in Liao empire, there has been multi-level social structure (Wittfogel, Feng 1949) having more than three strata different from each other (4 scores).

Discussion

Three following questions are considered as most important for discussion: (1) internal typology of nomadic societies by the complexity extent; (2) nomadic empires and state origin in steppes areas (3) difference of nomads from settled societies.

First of all, it should be remembered that Murdock and Provost mechanically divided the sample of 186 societies into four groups of complexity by the number of scores with a step of 10 units. However, in reality, a division into the complexity levels with quite other frameworks is beginning to emerge. The simplest societies in the Murdock and Provost sample are local groups of hunters-gatherers. Second in complexity segmental societies have about 10 scores including those, from among pastoral societies, of Chukchi-reindeer-breeders (8 scores) and Masai (9 scores). The chiefdoms are between 15 and 20 scores with some deviations in the both directions (for example, a simple chiefdom of Trobrianders – 16 scores, more complex ones (Tikopia, Samoa) – 18 scores, Tonga – 20 scores). This group includes the majority of examples of nomadic societies discussed in the paper: Basseri (15 scores), Tuaregs (16 scores); Hsiung-nu and Hsien-pi (17 scores),

Mongols (18 scores), Jou-jan and Turks (19 scores), Kazkhs and Uighurs (20 scores). The Bedouins have slightly lesser sum (13 scores). The Khalka Mongols of modern history have gotten 22 scores while the Golden Horde 25 scores. The most complex society has been Liao dynasty (35 scores).

Thus, one can say of several levels of the cultural complexity of pastoral nomads included in the sample: (1) segmental acephal societies of stock-breeders (Chukchi, Masai) – less than 10 scores; (2) secondary tribal formations (Bedouins) – 13 scores; (3) chiefdoms and nomadic empires and traditional societies of nomads of modern history (Basseri, Tuaregs, Hsiung-nu, Hsien-pi, Mongols, Jou-jan, Turks, Uighurs, Kazakhs, Khalkha-Mongols) –from 13 to 22 scores; (4) nomadic empires of the *tributary* and *transitional* types with different sectors of the settled-urban economy (Golden Horde, Liao) – 25 and 35 scores respectively.

In principle, it is in conformity with the majority of classifications. More difficult is the question of the fact how should be the level of the political complexity of societies assigned to the second group (from 13 to 22 scores) determined. Even Tuaregs (16 scores) are assigned by some authors (Pershits 1976) to the early class societies while other researches (Johnson, Earle 2000) determine Basseri as chiefdoms (15 scores). As for the nomadic empires and nomads of modern history, here, a spectrum of opinions is still wider. The discussion of many years concerning the specificity of the social relations of nomads, as indicated above, never came to drawing-up of positions acceptable for the majority of scientists.

However, the settled-agrarian societies located in the Murdock-Provost classification nearly at the same level of complexity are interpreted by scientists in different ways. If, as for Samoa (18 scores – more than for Hsiung-nu and the same as for Mongols in 1206 – by the way the tribal confederation of Hurons had the same amount of scores !!), the majority of authors agree that it is a chiefdom (Bargatzky 1988; van Backel 1991) then, with respect to Tonga, some researchers believe that it is a classic chiefdom (Kirch 1984) while the others consider that it is already early state (Claessen 1991). The opinions are also different with respect to Ashanti (24 scores): in opinions of some authors, it is a “segmental” state (Sautholl 1953) while the others think that it is pre-state formation (Popov 1990). In the same group of complexity, Ifugao (21 scores) fall who had three-level social stratification but the stable centralized political institutions were not established.

Nevertheless, from the analysis of Table 3 (Murdock, Provost 1973: 389) follows that, on the basis of total number of scores, the most nomadic empires should be, more likely, assigned to the chiefdoms or societies being in the course of transition to the state system rather than to the established early states. Slightly larger number of scores (26) is characteristic of those societies which had more complex, multi-polity structure and, quite often, were determined as empires – Songhai (Kubbel 1974) and Inka (Johnson, Earle 2000; Earle 2002 etc.).

It is interesting that Dmitry Bondarenko and Andrey Korotayev came to analogous conclusions when they carried out the cross-cultural study of a model of the *early state*. They used the collected data of 21 early-state societies systematized by Claessen by 51 signs (Claessen, Skalmik 1978: 533-596) to construct the computer data base and analyzed it using the factor analysis. One of the tasks of authors was a check, on the basis of empirical material, of the H. Claessen and P. Skalnik typology who have divided the early-state societies into inchoate, typical and transitional. As a result of ranking of the societies used in the Henri J.M. Claessen and Peter Skalnik sample, two nomadic empires (Scythians and Mongols) presented in the sample proved to be on the verge between the inchoate and typical states (Bondarenko, Korotayev 2003: 112).

At the same time, the interesting picture was found. Among so called inchoate early states, such societies as Vikings, Hawaiians, Tahitiians and Ankols which are usually assigned to chiefdoms rather than to early states were found. However, it is not accidental if it is analyzed what features are allotted for the *inchoate* early state. According to Claessen and Skalnik, it is characteristic of the latter: 1) predominance of clan relations; 2) officials lived at the expense of a share of re-distribution gathered by them; 3) there was no legal codification; 4) there were no special judicial authorities; 5) re-distribution, tribute and requisitions were not strictly determined; 6) poor development of administrative machinery (1978: 22, 641).

At the same time, these signs are characteristic of the chiefdom rather than of the state. Only with a transition to the more complex level of *typical* early state, the signs of the state system proper – special officials, judicial machinery, written code of laws etc. appear (ibid.). For this reason, I believe that it would be more properly to identify *typical* early state, *transitional* early state, *traditional* (or, by Claessen, mature) pre-industrial state. Moreover, as Claessen does not take into account differences in the degree of the chiefdoms' complexity in his typology, one can assume that so called *inchoate* early states, by Claessen, are, in essence, so called *complex* and *supercomplex* chiefdoms.

Thus, the conclusions of Bondarenko and Korotayev paper confirm the fact that it would be not quite properly to assign the nomadic empires of Scythians and Mongols to the classic early states. Actually, the latter are between the chiefdoms and early states. Possibly, the fact that the Hsiung-nu power which had also the signs of both pre-state society and early state but, to a larger degree, has corresponded to the super-complex chiefdom (Kradin 2002b) has found itself actually side by side with the Chinggis Khan empire of 1206 (18 and 17 scores respectively) on the scale of the cultural complexity, according to Murdock and Provost.

The last of problems considered in this paper could be characterized as a revealing the most typical features of the cultural complexity of nomadic societies differentiating them from other regions and cultural areas. Toward this end, Table

from the paper of Murdock and Provost with inclusion into it additionally of data of 7 nomadic societies from their sample as well as my data of 8 Eurasian nomadic empires was used.

I has not become to summarize this data together because the F. Galton's principle was broken in my sample – all these societies have existed on the same territory and one could not theoretically disclaim the possibilities of cultural diffusion although I am not a follower of the idea of a presence of succession between the ancient and later nomads of the Central and Inner Asia. Nevertheless, the tendencies characteristic of the sample of 7 nomadic pastoralists (furthermore, NP) correlate with tendencies observed in the sample of 8 nomadic empires (furthermore, NE). This allows to assume that the case in point should be the universal features of the evolution of nomadic societies rather that a succession regardless of their habitats and degree of cultural complexity.

Table 3. Average index of cultural complexity of regions

		A	C	E	I	N	S	NP	NE
1	Write	0.2	3.3	2.0	1.0	1.2	0.7	2.4	3.0
2	Residence	3.1	3.4	2.7	3.6	1.9	2.0	0.4	0.6
3	Agriculture	2.8	3.0	2.6	2.8	1.3	2.3	0.7	1.3
4	Urbanization	1.6	2.2	1.6	1.5	1.5	1.1	0.9	0.4
5	Technology	2.7	3.2	2.7	1.2	1.0	1.8	3.0	4.0
6	Transport	0.1	1.6	1.5	0.5	0.8	0.3	1.4	3.0
7	Money	1.5	2.4	1.9	1.8	1.2	0.4	1.1	1.8
8	Population	2.3	2.6	2.2	2.6	0.9	0.9	0.6	1.1
9	Polit. Integration	2.1	2.5	2.4	1.8	1.2	1.4	2.4	4.0
10	Stratification	1.5	2.7	2.0	1.3	0.8	0.6	1.7	2.1

(according to Murdock, Provost 1973) with addition of the last columns.

Legend: A – Africa, C – Mediterranean region, E – East Eurasia, I – Insular pacific, N – North America, S – South America, NP – nomadic pastorals, NE – nomadic empires.

The results obtained are quite interesting. The first feature lies in the relatively high level of the record system and written language development among nomads. On the whole, it is second only the Mediterranean region. When the conclusions of some investigations according to which such indication as the written language is not always related to the already existing state system (Shtaerman 1989; Berent 2000; Korotayev et al. 2000 etc.) are considered, one could assume that the stateless society should be not always primitive and, therefore, the civilization presumes not necessarily a presence of the state system. From this point of view, it is time to refuse the stable stereotypes determined since the classic evolutionism and generalized by W.G. Childe according to which the origin of civilization should always be accompanied with an appearance of written language, urbanization, developed social stratification and state. The nomadic

societies provide an illustrative example of necessary to correct the generally accepted ideas.

The second conclusion is a quite evident. As for the degree of development of the settled life, urbanization, agrarian sector of economy, population and population density, the nomads were, to a great degree, inferior to their settled neighbors. However, they have compensated this by the quite high level of technology (second place to the Mediterranean region), relatively high level of economy marketability (trade was always one of the most significant and prestigious kinds of nomads' activity), development of the transport infrastructure based not only on the use of the large quantity of animals but also on the advantages of the flat spaces with minimum quantity of obstacles.

However, it should be meant in mind that the general cultural potential of the society is not always in conformity with its military potential. The Eurasian nomads not only often watched closely the technological progress in the military science and were quite often inventors of innovations in this field but also were distinguished by the economic and political organization more adapted to the military mode of life. In contrast to their settled neighbors, they could painlessly detach the large quantity of men for campaigns. The tribal organization has facilitated the task of political mobilization. A presence of large quantity of the saddle animals has made the army of nomads mobile and invulnerable while the concentration within the limited space and in the shortest possible time of a great number of manpower has created for nomads significant tactic advantages.

The third peculiarity lies in the fact that the nomadic pastoralists (NP) had a quite high index of political centralization (2.4). This index is equal to that of people of the East Eurasia and slightly lower than the index of the Mediterranean region people. At the moment, I can not say whether it is caused by any significant reasons or it is a result of a limitedness of the sample of data. On the other hand, a quite high level of political centralization of nomads (2.4 scores – somewhere between the simple and complex chiefdoms) suggests that the great part of nomads having such saddle-animals as horse and/or camel were characterized by the sufficiently complex form of social-political organization.

And the last conclusion. The index of political integration of both nomadic pastoralists and nomadic empires was one order of magnitude higher than the index of social stratification (2.4 and 1.7; 4.0 and 2.1 respectively). This give all grounds to assume that, on the whole, processes of polygenesis in the nomadic societies have passed slightly ahead of development of social stratification. Possibly, this was caused by the absence of the stable sources of accumulation and storage of considerable productive resources in the nomadic societies, peculiarities of ecology, thereupon, one could be deprived of the whole of livestock right away.

Conclusion

The results of the cross-cultural study of 15 societies of nomads show that among the nomads and pastoralists, approximately three-four levels of cultural (and political) complexity can be identified. The simple societies are segmental acephal ones having no government systems. The next stage is the secondary tribes, confederations of tribes, simple chiefdoms. Even more developed structure is characteristic of the complex and super-complex societies. The last societies are presented on a substantial scale by the nomadic empires as well as quasi-imperial polities of somewhat lesser size (like Tatar khanates after the collapse of Golden Horde), independent and semi-dependent khanates of nomads in Modern time (Kazakhs, Kalmyks etc.). Those nomadic empires (*tributary* and *transitional* in my typology [Kradin 1992; 2000a]) which included the agrarian population are most complex.

The average cultural complexity of *typical* nomadic empires is approximately at the same level as that of so called complex chiefdoms of the settled-agrarian societies or, at the most, polities being on the threshold of the state system establishment. From my point of view, it would be more correct to call the similar societies of nomads as the supercomplex chiefdoms (Kradin 1992; 2002b). Of the latter, the high degree of centralization, development of social stratification, embryos of urbanistic and even monumental construction and, sometimes, written language. These chiefdoms have had the complicated system of naming of chiefs and functionaries. The rulers were in diplomatic correspondence with the neighboring countries, entered into the dynastic marriages with the kings of the agrarian states and khans of other nomadic empires. From viewpoint of the neighboring settled-urban civilizations, such nomadic societies were perceived as the independent objects of the international political relations.

Could be the super-complex chiefdoms established by the settled agrarian nations? It is known that the populations of complex chiefdoms are estimated, as a rule, in tens of thousands people (see, for example: Johnson, Earle 2000: 246). However, the population of the super-complex chiefdom amounts many hundreds of thousands people and even more (nomadic empires of Inner Asia – up to 1-1.5 millions people). Territory of the super-complex nomadic chiefdoms was much more than areas of simple and complex chiefdoms of farmers (of nomads, such population density is characteristic that is typical for pre-hierarchical types of society and chiefdoms of farmers). At the same time, on the territory comparable in sizes with any nomadic empire, several times larger number of farmers who could not manage without the state could reside.

A government by so great space in the society of nomads has been facilitated by the specificity of the steppe landscapes and availability of the saddle animals. On the other hand, a general armament of nomads caused in particular by their dispersion, their mobility, economic autarchy, militant way of life in the course of long historical period as well as a number of other factors have prevented from establishing control over the pastoral tribes and individual nomads on the side of

the top levels of the power of nomadic societies. All of this gives the grounds to assume that the super-complex chiefdom, even if it were not characteristic of only nomads form of political organization, it has been just this society which has received the widest spreading

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