## THE MOSKVA RIVER BASIN IN THE IRON AGE–MIGRATION PERIOD

### NIKOLAI A. KRENKE

### Abstract

The article gives a brief overview of recent achievements in the study of Djakovo-type sites located in the Moskva river basin. The chronological time frames are from the eighth to seventh centuries BC to the sixth to seventh centuries AD. The most important inferences are based on the results of the excavations of the Djakovo hill-fort carried out from 1981 to 1987. The abundant finds correspond well to the radiocarbon dates. Two peaks of human activity at Djakovo-type sites occurred in the fifth to the third centuries BC and the first to the fourth centuries AD. Agriculture and cattle breeding formed the economic basis. Bronze ornaments and clay cult artefacts prove the idea that the population of the Moskva river basin had a tribal identity in the first half of the first millennium AD.

Key words: Djakovo hill-fort, radiocarbon dates, ornaments, textile pottery.

### Introduction

We now have strong archaeological arguments to speak about several cycles of population history of the Moscow region. Each cycle had its beginning, peak (peaks) and end, which may be traced by the number of sites, finds and palaeobotanical evidence. The cycle dating from the eighth (seventh) century BC up to the fifth (seventh) century AD played a very important role. It is known as Djakovo culture. The valley was filled to capacity then. The valley lands were densely populated (Fig. 1).

The goals of this article are to present new arguments for the dates of this 'Iron Age cycle', its structure, ethnic interpretation, land use and the evolution of the cultural landscape.

Our knowledge about Djakovo-type sites (the term was coined by A. Spitsyn in 1903) has grown greatly over the last 25 years because of new excavations and new methods applied. Djakovo-type sites occupied the Moskva river basin and the neighbouring area, within the basins of the Upper Klaz'ma and the Upper Volga. The story began in 1889–1891, when the excavation of Djakovo hill-fort was carried out by Vladimir Sizov, who was accompanied by two advanced scientists, Dmitrii Anuchin and Alekhei Kharuzin (Sizov 1897).

The key Djakovo hill-fort site was studied again between 1981 and 1987 (Krenke 2011). The reason was very strong. No hill-fort known in the region has such a thick (three metres) stratified cultural layer.

The cultural layer of Djakovo hill-fort could be divided into three main parts: 1) buried soil with finds from the very beginning of the Iron Age; 2) the lower layer with finds from the Pre-Roman Iron Age; 3) the upper layer with finds from Roman times to the Migration Period (Fig. 2).

The upper part of the cultural layer was eroded because of natural processes. Thus, some finds dated to the Migration Period were found in the mixed layer.

The remains of dwellings were investigated during the excavations of the Djakovo hill-fort. We could see floor surfaces overlapping one another, and fireplaces which were like sandy pillows framed with wood or clay constructions. Lines of post-pits and trenches from dwelling walls were visible against a background of virgin soil (Fig. 2).

The Djakovo-type settlements were tied very strongly to the valleys of the main rivers (Moskva, Pakhra, Istra, Ruza, Ozerna), and to the mouths or lower streams of their small tributaries. The area within the Moscow city borders could be used for a case study. About 40 sites dating from the Iron Age are located here (Fig. 3). They formed several clusters. Each cluster consists of a hill-fort (or two hill-forts of different ages), and sites of a smaller size without defence constructions. The distance between clusters is no more than five kilometres. Not all the clusters have been completely investigated. A great number of small sites have not been found yet. Some of them have been destroyed, others are hidden under alluvial deposits in the flood plain.

The total number of sites known in the Moskva river basin is 281. The number of hill-forts is about 80 (Fig. 1). They are organised (with some exceptions) in a linear (zig-zag) system along the main river valleys. Certainly not all sites have been found. The true number is no less than 500, according to my assessment.



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Fig. 1. A map of Djakovo-type sites along the Moskva river basin: 1 a detailed map of the Pakhra basin; 2 a detailed map of the Zvenigorod area.



FOOTMARKS OF THE EVERYDAY LIFE OF SOCIETIES IN EARLY URBAN SETTLEMENTS AND CITIES

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Fig. 2. The Djakovo hill-fort: 1, 2 a section of the cultural layer (a upper layer; b lower layer; c buried soil); 3 a plan of the hill-fort, the area excavated in 1981-1987 is marked; 4 the remains of long houses on the surface of virgin soil (drawing and photograph by N.A. Krenke).



Fig. 3. A map of Djakovo-type sites within the limits of the city of Moscow.

### The chronology of Djakovo-type sites

The dates for Djakovo-type finds were proposed on the basis of artefact analysis in the 1970s (Djakovskaja 1974). Now we have a large list of radiocarbon dates. The total number is more than 220. We have radiocarbon dates for 18 Djakovo-type sites. The Djakovo hill-fort is in first position. It has more than 100 dates (Krenke, Sulerzhitsky 2006).

Radiocarbon dates from Djakovo-type hill-forts prove very clearly that the main period of their life covers an interval from 2500 to 1600 radiocarbon years BP (noncalibrated). We could see after the procedure of adding the probabilities of calibrated dates that one sigma interval (68.2%) has the borders 550 BC to 400 AD. The collection of dates has two peaks. Possibly this is the indirect reflection of two peaks of settlement activity in the Moskva river basin.

The dates from the Djakovo hill-fort have a clear correlation between the depths of samples and their age. Adding the probabilities of calibrated dates gave the following result: the ancient period has the borders 550 to 100 BC (24.5%); the late period has the borders 50 BC to 450 AD (43.7%) (Fig. 4).



Fig. 4. The results of radiocarbon dating: 1 sum probabilities for 221 dates from 18 Djakovo-type sites (including the Djakovo hill-fort); 2 sum probabilities for 125 dates from the Djakovo hill-fort.

An important result of recent excavations is the discovery of sites dating from the transitional to the Iron Age. These sites had a primitive defence system: only ditches, without ramparts. The ceramics are very recognisable. Pots were decorated with the oblique imprints of a thin stick (Fig. 5.15). The dates are the same as for the samples of charcoal from the bottom of the ditches or for the carbonised scale on the surface of pots found there. All these dates are about 2500 <sup>14</sup>C years BP.

Pottery with textile imprints (Fig. 5.9, 12, 13) is the main attribute of the culture of the lower layer of the Djakovo hill-fort. The forms and decorative motifs on this pottery had already lost the Bronze Age traditions. Bone working dominated. Imported glass beads give clear dates of about the fourth century BC.

Important changes took place around the second to the first centuries BC, when the lower horizon of the upper layer formed at the Djakovo hill-fort. Bone working lost its dominant position. By now, most of the implements were made of iron. Changes in ceramics were also drastic. Pottery with textile imprints was replaced with smooth surface ware (Fig. 5.10), and motifs made by finger imprints became widespread (Fig. 5.11).

The upper layer of the Djakovo hill-fort has a very important middle horizon, the so-called horizon with enamels. Radiocarbon dates prove that the age of this horizon is no later than the third century AD. The distribution of imported glass beads fits this date very well. Pots from the horizon of enamels are very recognisable. Their attributes are a smooth surface, decorative motifs, the forms of the rims, and the shape of the neck and shoulders (Fig. 5.6-8). Tableware with badly polished surfaces appeared (Fig. 5.7). An important issue is to understand the origin of this style. Is it 'a common east Baltic style' (E.A. Shmidt), or a tradition which had its roots in late Scythian/Sarmatian pottery?

Visible changes in ceramic style took place in the fourth to fifth centuries AD. Black polished ware appeared (Fig. 5.3). The rims became straight (Fig. 5.1, 4). Cannelure accentuated the transition from the rim to the shoulder (Fig. 5.2).

The not numerous series of imports and local items support the arguments that some Djakovo-type hill-forts still functioned as late as the sixth or even seventh centuries AD (Fig. 5.1-4). They are all concentrated in the middle stream of the River Moskva and the River Pakhra. Thus, we may propose that the area covered by Djakovo-type sites shrank.

The subsistence strategy of Djakovotype site communities

The flotation of seeds from the cultural layer and pollen studies prove that agriculture in the Moskva river basin was rather developed in the Iron Age. Barley, millet, wheat and flax were cultivated. Pollen diagrams show the progress in forest clearance. Cattle breeding and hunting/fishing also played a very important role.



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Fig. 5. The evolution of pottery from the Djakovo hill-fort: 1-4 the fourth to the fifth centuries AD; 5-8 the first to the third centuries AD; 10-11 the first century BC to the first century AD; 9 the second century BC; 12-13 the fifth to the third centuries BC; 14-15 the seventh to the sixth centuries BC (photographs by N.A. Krenke).

We obtained a new result in the reconstruction of landuse structure. A hill-fort together with smaller sites formed an entity within a landscape cluster with natural borders. This settlement structure had a focal point, the hill-fort. Smaller sites located on promontories were connected to arable fields. A 'yard' or lowland territory within borders of natural relief surrounded by the sites was also an element of this settlement structure. This settlement-yard cluster was the main (high rank) element of a general settlement structure within the river valley.

# The burial rites of Djakovo-type site peoples

Up to now, this question has not been made properly clear, but we have made some progress. The remains of a cremation were found in the mid-1960s at the hill-fort near Zvenigorod. The archaeological context of this find was very unclear. Human bones in anatomic order were found at the Troitskoe hill-fort. Radiocarbon dates for them prove their age at about 2,000 years. A burial was found in 2008 at the Dunino-4 site (Krenke et al. 2010; Dobrovol'skaia 2010). It was a collective cremation. The remains of human bones belonging to three individuals, without any artefacts, were hidden in a small pit. The date is no later than the fifth to the third century BC, so the pit was covered by a cultural layer of this age. We can reconstruct a very complicated burial rite with several stages as the maceration of bodies, cremation of bones, locating them in a shallow pit from which they could be easily transported out by spring water.

### The Djakovo-type site identity

Items of art dated to the early phase of the Iron Age show the existence of a local style. Carved bone handles from the Scythian/Sarmatian world had penetrated to the River Moskva–Upper Volga region, but they did not stop the development of a local style. The engraved bone plaque from the Borsheva hill-fort is most impressive (Fig. 6.15). The birds, horses and 'fences' carved on it are repeated on other items (Fig. 6.16, 17).

The culture of the River Moskva sites and Upper Volga sites dating from the fifth to the third centuries BC had a lot of common attributes (bone artefacts, clay figurines and weights, ceramics). Later we could see the process of 'culture formation' within the territory of the Upper-Middle Moskva river basin.

In the first century AD, the inhabitants of River Moskva sites had developed specific forms of bronze ornaments. Umbone-shaped pendants are the most diagnostic for the first to the second centuries AD (Fig. 6.12, 13). An important attribute of this style was the decorative motifs made from little balls aggregated into combinations (Fig. 6.14). This style of ornamentation evolved in the second and third centuries. New forms were generated. Most typical is X-shape ornamentation, constructed as an aggregation of semi-spherical small element (Fig. 6.7, 8) pendants with the motif of volutes in the centre. They were typical of River Moskva culture, but they were distributed to neighbouring lands as well. Long-distance trade and other types of contacts may be responsible for this distribution.

The Sarmatian influence reached River Moskva sites about 400 kilometres to the north from nomad material. We might propose that this influence was very important for the development of Djakovo culture in the second to the third centuries AD. Bronze plaques with symbols (*tamga*) of the Sarmatian Aspyrgian clan were found at River Moskva sites (Fig. 6.6). Plaques with a human scheme were also a manifestation of Sarmation influence. A type of polished tableware (Fig. 5.5) could be an imitation of Sarmatian thrown pottery.

The development of a local style of ornamentation went on in the third to the fifth centuries AD. Pendants made in this style have a set of diagnostic traits (Fig. 6.5, 9). These are holder, volutes, dual rope, and pairs of small balls (*zern* in Russian). We can find a continuation of this style in the Medieval cultures of Finnishlanguage-speaking tribes such as Merja and Ves'. This is an argument to think that the later inhabitants of the Djakovo hill-fort were more Finns than Balts.

River Moskva culture in the final stage of its development had a very specific set of clay finds: figurines and plaques (Fig. 6.10, 11). These cult (?) objects had a concentration in the Moskva river basin. They were probably a specific religious manifestation of the local population.

Specific ornaments and cult clay finds provide strong reasons to think that the Moskva-river valley inhabitants had their own tribal identity. Unfortunately, we cannot guess their name. An attempt to search for the answer to this question in the writings of Herodotus (Smirnov 1987) does not work.

The Dark Ages covered the period dating from the seventh to the tenth century AD. We have only scarce archaeological evidence, such as hoards of Arabic coins, and settlements with Slavic handmade pottery with an unclear lower date.

Filling the blanks between the cycles and mapping the cultural borders are a task for future investigations. These borders may be looked on as fronts dividing areas with different characteristics. An example of this

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Fig. 6. Finds typical of a Djakovo-type settlement located in the Moskva river basin: 1-4 are dated from the sixth to the seventh century AD; 5, 7-11 are dated from the third to the fifth century AD; 6, 12-14 are dated from the first to the second century AD; 15-17 are dated from the fifth to the third century BC; 1-3, 6 are imports, all the others are a manifestation of the local style; 1-3, 4 stone; 5-9, 12-14 bronze; 10, 11 clay; 15-17 bone. 1-6, 8-11 Djakovo hill-fort; 7 Lukovnja hill-fort; 12, 13 Dut'kovo hill-fort; 14 Kruglitsa hill-fort; 15 Borsheva hill-fort; 16 Mamonovo hill-fort; 17 Babushkino hill-fort (drawings and photographs by N.A. Krenke).

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approach was proposed by Valentin Sedov 40 years ago (Sedov 1971). We should go further.

### Conclusions

The chronology of Djakovo-type sites now has a very strong basis, such as radiocarbon dates, sets of imports, and stratigraphy of hill-forts. The first fortified settlements to appear in the Moscow area have dates of about 2,500 radiocarbon years ago, for example the eighth to the seventh centuries BC. The population density grew sharply (by three or four times) by the fifth to the third centuries BC. Agriculture and cattle breeding formed the economic basis. A cultural transformation took place in the second to the first centuries BC. We might propose the infiltration of newcomers, but it is still unclear exactly what area they came from. Anyway, Djakovo-type hill-forts flourished at the beginning of the Christian era. The process of the ethnic consolidation of the River Moskva population had a manifestation in the creation of bronze ornaments, the style of pottery, and cult objects made of clay. Artefacts made in the Moscow region spread in the second to the third centuries AD as far as Finland, Estonia, the Upper Volga, the Vladimir area, and the Middle Oka river basin. Influences from the Sarmatian world reached the inhabitants of Djakovo-type sites. New waves of influence, or even newcomers, reached the region in the fifth and sixth centuries AD. We can see the changes in pottery design. Stone moulds for casting ornaments from tin became widespread (Fig. 6.4), imports appeared from remote lands (Fig. 6.1-3) and the Baltic region as well (Fig. 5.3). The collapse of the whole settlement system took place no later than the seventh century AD. The population density decreased so drastically that it became archaeologically invisible. Nevertheless, a lot of pre-Slavic place names and river names have been preserved in the Moscow area, which means the continuation of a tradition.

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### MASKVOS UPĖS BASEINAS GELEŽIES AMŽIUJE – TAUTŲ KRAUSTYMOSI LAIKOTARPIU

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#### Santrauka

Djakovo tipo paminklų chronologija dabar turi labai rimta radiokarboninių datų, importinių dirbinių ir piliakalnių stratigrafijos pagrindą. 1981-1987 metų Djakovo piliakalnių tyrimai suteikė daug informacijos datavimui atlikti, kultūros ypatumams išskirti ir gyvensenos rekonstrukcijoms (1-6 pav.). Pirmosios itvirtintos gyvenvietės Maskvos areale, remiantis radiokarbono datomis, skiriamos VIII-VII a. pr. Kr. Gyventojų skaičius V-III a. pr. Kr. sparčiai augo (tris ar net keturis kartus). Žemės ūkis ir galvijų auginimas sudarė ekonomikos pagrindą. Kultūrinių permainų įvyko II-I a. pr. Kr. Permainos greičiausiai buvo susijusios su naujai atėjusių žmonių infiltracija, bet kol kas tiksliai vis dar nežinoma, iš kur tie žmonės galėjo ateiti. Pačioje I tūkstantmečio pradžioje Djakovo tipo piliakalniai klestėjo. Maskvos upės regiono etninės konsolidacijos apraiškos yra bronziniai papuošalai, keramikos stilius, moliniai kulto objektai. Maskvos regione II-III a. po Kr. pagaminti daiktai paplito Suomijos, Estijos, Volgos aukštupio, Vladimiro areale ir Okos upės vidurupyje. Sarmatų pasaulio įtakos pasiekė Djakovo kultūros gyventojus. Nauja įtakų arba net ateivių banga atsirito į regioną V-VII a. Tai matyti iš keramikos gamybos pokyčių. Paplinta akmeninės alavo papuošalų liejimo formos, pasirodo importinių dirbinių iš tolimų regio-

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NIKOLAIA. The Moskva River Basin in the KRENKE Iron Age-Migration Period nų, taip pat ir iš Baltijos jūros regiono. Visos Djakovo kultūros gyvenviečių sistemos žlugimas įvyksta ne vėliau nei VII a. Gyventojų skaičius drastiškai mažėja ir tampa archeologijos metodais nefiksuojamas. Vis dėlto daugybė Maskvos regiono prieš slavus atsiradusių vietovardžių ir upėvardžių patvirtina tradicijų tęstinumą.

Vertė Audronė Bliujienė

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