

Excavations in Gnezdovo near Smolensk

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Gnezdovo archaeological complex is situated at the Western Russian border, about 13 km from one of most ancient Russian towns, Smolensk. It is known as one of the largest archaeological sites of the period of state formation in Eastern Europe. As early as at the beginning of the 20th century two hill-forts bordered by extensive non-fortified settlements were fixed in association with about 4000 mounds, the latter forming some strictly outlined cemeteries. The history of Gnezdovo studies commenced more than 125 years ago, but only in the late forties of the 20th century it had become rather regular and purposeful. The nucleus of the complex is comprised of the central hill-fort surrounded by a settlement and cemetery with more than 3000 mounds, divided into two mound groups; a small mound group situated on the opposite Dnieper bank is also a part of the named nucleus. A few more mound groups concentrated around small settlement in the mouth of one of the Dnieper tributaries were revealed to the west of the central settlement.

As a result of many years of studies it was established, that mounds and settlements were synchronous and nearly all were dated as belonging to the period from the 9–10th century up to the beginning of the 11th century. The primary non-fortified settlement in the central part of the site gradually transformed into a fortified centre of the crafts and long-distance trade with the peak of its prosperity at the middle to second half of the 10th century. The excavations resulted in the finding of inhabited buildings and workshops, the latter related to bone, non-ferrous and ferrous metal processing. Defective and half-finished articles, crucibles, casting moulds being clustered in certain

areas of the settlement comprised a significant part of findings. Gnezdovo jewellers manufactured different ornaments of Baltic and Scandinavian type; the peculiarities of Scandinavian and Slavonic blacksmith handicraft are distinctly traced in the products of iron processing (Eniosova 1999; Pushkina/Rozanova 1992). The pottery produced by Gnezdovo craftsmen is characterised by typical Slavonic forms.

The polyethnic and socially heterogeneous composition of the permanent Gnezdovo population is strictly documented by the materials of mound excavations. The cremation burials are predominant but a significant part of the mounds contain inhumations, with a good deal of chamber-graves (Zharnov 1992). The topographic separation of different ethnic burials was not observed. Ethnically peculiar decorations are also almost uniformly distributed within the settlement area. The role and significance of the polyethnic settlement controlling the route “from Varangians to the Greeks” is also demonstrated by the abundance of numismatic materials and the concentration of coin hoards dated predominantly to the middle of the 10th century and jewellery (Pushkina 2000, 215–224). The largest settlement area covering about 16 ha is also corresponding to the period of its prosperity. The size and general character of Gnezdovo archaeological site stands against a number of small rural settlements over the area of 2–3 ha associated with a few dozens of mounds. The monument scale and materials obtained after its study allow us to compare it in terms of several criteria with such northern European proto-urban centre as, for example, Birka (Bulkin/Lebedev 1974).

A new period in Gnezdovo studies began 1995 and was characterised with a combined method of investigations. In 1996–2001 the project was supported by the Russian State Science Foundation, so a number of investigations on soil science, dendrochronology, paleobotany etc. were conducted. The studies were performed at the same time within the area of the central settlement and certain adjacent mounds. The aim of the project included the reconstruction of the paleolandscape, the settlement border contouring as well as the evolution of their changes, the improvement of settlement intensive period dating, the collection of materials characteristic of the economical activity of its population.

Two main discoveries were made during the Project: ancient arable land was detected and areas with central settlement cultural layers were newly found.

Traces of ancient arable land are situated below the Dnieper mound group to the west of the settlement at the margin of the first terrace above the flood-land. The traces of some arable instrument were observed along nearly 30% of the excavated mounds. According to the palinologic data the plough furrows contained the pollen of wheat, some species of weeds as well as plants peculiar of pasture land. At the same time, a number of wheat, barley and rye grains were detected within the cultural layers of the settlement: the palinologic analyses showed the remarkable admixture of hemp, the latter being reported in several archaeological sites of the same period in Northern-Western Rus' (Zazovskaya/Bronnikova 2001, 199). It is worth while to point out, that the traces of arable land are exclusively rare findings in the synchronous sites. Such traces were described only twice; below the cultural layers of ancient Novgorod and ancient Moscow and never within the areas occupied by mounds.

According to the preliminary conclusions the ancient field was situated approximately 1.5 km from the central settlement and presumably was abandoned because of the cemetery growth in the middle of the 10th century.

Special studies of the soil structure and the composition of several excavated mounds, belonging to different mound groups, allowed us to improve the standard burial rite scheme in Gnezdovo and many similar mounds of the same period of ancient Rus' history. According to a generally accepted point of view, firstly

the area of a future burial was prepared by "cleaning by fire", then the burial pit or the chamber-grave was excavated, in other cases the cremated remains were transferred to the ash layer behind the burial area; finally the mound was erected. All our studies show that the mound base contained the burial turf or the ash. We should point out, that a small patch of the ancient terrain with remnants of similar buried turf was found within the fragments of repeatedly rebuilt buildings dated to the second half of the 10th century.

One of the main events in the history of Gnezdovo studies is evidently the discovery of the occupation deposits within the Dnieper flood-land. Firstly it changed the knowledge of the settlement area and topography. Secondly, the layers situated below the first terrace is gravely spoilt by the repeated ploughing. Finally, the moist soil contains some wooden fragments, this fact allowed us to apply the dendrochronologic method, and for the first time in the Gnezdovo studies the wooden objects were identified (Pushkina/Murasheva/Nefedov 2001).

During three years of excavations (1999–2001) an area of flood-land directly adjacent to the first terrace and part of the terrace slope were studied, its area being 96 square metres. The cultural layers at the flood-land part were overlaid by loamy deposits of 50–60 cm thickness of natural alluvial origin. The undisturbed occupation deposit on the terrace slope is overlaid by the redeposited ploughed material from the terrace. At the surface of the cultural layers under the ballast a number of green furnace tile fragments were disclosed. It was established, that tiles of such type began to be used in Smolensk at the end of the 16th to the beginning of the 17th century. The appearance of tiles in Gnezdovo could be explained as the result of Catholic bishop Pyotr Parchevsky' residence within the central hill-fort in the 17th century. Discoveries of tile fragments at the cultural layers buried surface allow us to claim that the Dnieper flood-land was not subjected to regular and intensive flooding till up to the middle of the 17th century. Evidently the abrupt changing of the Dnieper hydrologic regime commenced not earlier than the aforementioned period, and only after the 17th century the originally inhabited area had begun to be liable to flooding. Recent Dnieper spring floods still completely cover the flood-land and partly a slope of the first terrace

above the flood-land. These floods affected the ballast layer formation which overlaid the occupation deposit and preserved the latter from the successive mechanical disturbance. The investigation of the layers overlaid by the ballast allowed us to make a reconstruction of the development of the area. The lower part of the deposit is presented with the thick (up to 60 cm) sand layer (horizon 5), clean sand layers being alternated with sand enriched by humus. Presumably, a certain old channel or a swampy mould stretching along the Dnieper terrace slope was located on this place up to its filling up as a result of the improvement of the area. Some chaotic clusters of chipped thick branches, pieces of small tree trunks were found within the area in question. Perhaps these present the remnants of bridges, which repeatedly crossed the swampy mould. A small wooden deck consisting of sharpened tightly packed stakes (of secondary usage?) with lengths in the range of 45–135 cm was disclosed. Some wooden objects were found in the sand layer, especially the arclike rib and a stick with incisions (“counter stick” – fig. 1) are of peculiar interest. The described sand layer is overlaid by the peat (horizon 4) of 25–30 cm thickness. The origin

of such a thick layer could be either natural or antropogenic. Evidently the terrain under consideration was temporally overwettet and served as an area for depositing building debris because the peat layer contains a significant fractions shiver, wood chips and thin branches. First light buildings were erected at the surface of the peat layer (horizon 3) marked by the traces of dense clay patches with thin twig imprints forming a lattice. Supposedly, those were remnants of walls presented in a form of wicker skeletons covered by clay. Despite the absence of clearly identified buildings, the abundance of artefacts, especially a large number of glass beads, allow us to expect intensive activity of the inhabitants at the initial stage of its building development. High abundance of charcoal fragments and pieces of baked clay indicate that the buildings were destroyed by fire. The upper layer (horizon 2) consists of the traces of buildings also eliminated by fire: this layer is related to the downfall of proto-urban “classical” Gnezdovo. The traces of at least two buildings were revealed within horizon 2, both being presumably of frame construction as the traces of pole pits were not found. One such building is associated with a very dense clay patch of 170 x 170 cm in dimension. A



Figure 1.

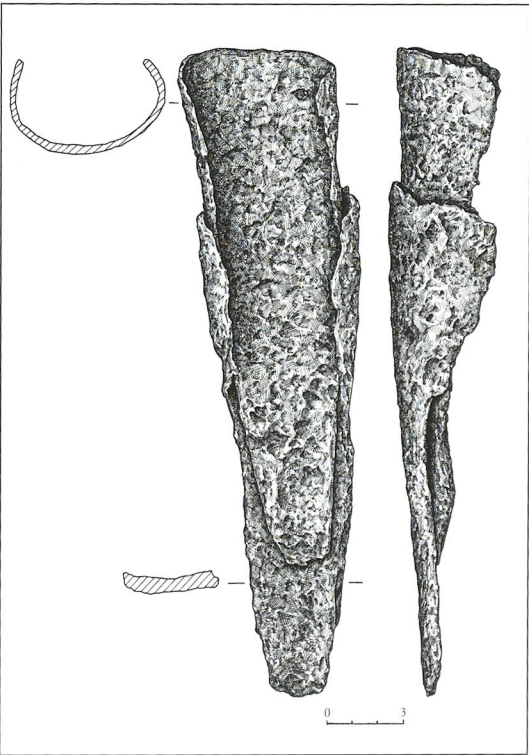


Figure 2.

large amount of stones were sited on this clay patch, some of them being roasted. Evidently those stones and clay could be interpreted as the remnants of some heating construction of unclear structure. A thin ash layer was observed inside the clay, but its low thickness as well as the absence of heating traces do not allow us to read the clay patch as a remnant of an arched oven. Possibly clay served as a hydroisolation base underlying the stone oven. Near this building a small arched oven (60 x 60 cm in dimension) erected on the wooden deck was discovered. Presumably it was used for economical or manufacturing aims, e.g. for bread baking. One coin, attributed as a Samanid dirhem, was revealed within horizon 2 (Nukh ben Nasr, 943–954 A.C.). Also a pair of ploughshares (fig. 2) was found in the named horizon, being the first details of cultivation instruments during the whole period of Gnezdovo archaeological studies. These ploughshares are slightly asymmetric and were put one into another. The studied terrain has a surprising grouping of Scandinavian amulets: those are presented with a pendant of strike-a-light shape and two pendants in a form of a tiny spear and a dagger correspondingly.

The most upper horizon of the cultural layer (horizon 1) has a small thickness and is located just below the ballast; it is interpreted as a destruction product of the underlying lower part of the cultural layer impregnated with charcoal and organic matter. Several fragments of ceramics dated at the 11th to the beginning of the 13th centuries support the hypothesis of the prolongation of peoples activity at Gnezdovo area, even after the termination of the active stage of this huge proto-urban centre. The functioning of the settlement was not completely interrupted: the character of the settlement changed dramatically.

Thus the complicated stratigraphy of the studied area leads to a conclusion of several periods in its development. The dendro-chronological dating of wood samples from the sand layer give the age of wood cutting in the range of 938 (?) up to 986 (?). Supposedly the filling up of the swampy mould or a channel was related to the middle to second half of the 10 century. The complete set of artefacts, especially the ceramics and glass bead collections allows us to date the building of the area under investigation at the end of the 10th to the beginning of the 11th century.

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