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**HISTORY OF TOWN-BUILDING
IN OLD RUS'**

6TH – EARLY 11TH CENTURIES

The emergence of towns in Rus' had certain original features, although there were also things in common with the history of West European urbanisation in the Middle Ages.

Historians traditionally subdivide the European urban system into three zones associated with the boundaries of the former Roman Empire. The internal zone centred on the Mediterranean included southern France and Italy; the middle zone covered the territory between the Rhine and the Danube up to the geographical boundaries of Roman urbanisation; the external zone, where there were no Roman settlements, lay to the north-east. It is the latter that Old Rus' belonged in.

Urban life evolved in about the same manner within each of the zones. Towns developed along similar lines in Britain and southern Germany, Switzerland and Austria in the middle zone. During the Dark Ages following the fall of Rome that area saw primarily the re-use of Roman cities. Many of them did not function continuously but withered and re-emerged. Very few urban entities can be said to exist uninterruptedly; one of them is Paris at the site of the former Roman Lutetia, which became a capital city in 507 and throughout the subsequent centuries was the centre of royal and church rule, and also of crafts and trade.

In the early centuries A.D. the cultures of the forest and forest-steppe zones of Eastern Europe had no direct contacts with the then civilisations, with the developed urban system, nor did they have towns of their own. At the dawn of our age, at the time of the Zarubintsy culture, the area had both fortified settlements, *gorodishches* (hillforts), and unfortified ones, *selishches*.

They were small, with an area of up to 1.5 hectares and 5-12 dwellings and outbuildings each, and stood on high riverbanks. Promontory hillforts located at river confluences or elevations formed by rivers and ravines were escarped, that is, protected from the mainland side with earthworks and deep ditches.

Settlements were located close to one another in a sort of clusters, which is seen as a reflection of tribal structure. Dwellings and outbuildings were occasionally situated at different places within the settlement. Dwellings were rectangular semi-dugouts (averaging 4 by 4 metres) with a hearth in the centre. In the middle reaches of the Dnieper the walls were frame-and-wattle, daubed and whitewashed (as were those of Ukrainian cottages later). In the upper reaches the dwellings were different: the walls were made of logs locked into the grooves of vertical posts. There must have been log cabins as well. Roofing was made of straw or reeds placed on posts, and root cellars were dug out next to dwellings.

Most of the numerous settlements of the Chernyakhov (pre-Slavic) culture of the 3rd-5th cc. were unfortified. Just a few *gorodishches* fortified with a ditch and earthworks from the mainland side are known. They had stone structures, too. The late Scythian tradition was improved as defensive fortifications were built. The design of the earthworks at the Bashmachka *gorodishche* in the lower reaches of the Dnieper consisted of two stone walls with clay filling¹.

The Alexandrovka *gorodishche* in the same area could have towers in addition to earthworks with a stone wall.

Selishches were usually built up in rows along river banks (up to one kilometre long and 80-100 m wide), and only rarely were houses placed in two or three rows. There were long surface stone and wooden structures with a floor area of up to 40 sq. m. Those large houses similar to old German dwellings were divided into heated and unheated sections. They could be used to accommodate assemblies, prayer sessions, etc. Stone structures were possibly food storages. They had double stone walls with the space between them filled with stone, too, making the whole up to 0.5 m thick. Another widespread type of dwelling was the semi-dug-out commonly found in Europe with piers and wattle and daub between them. Earth sleeping ledges or benches lined the walls. Kitchen middens or, occasionally, stoves (semi-spherical with a flat hearth) were arranged in wall openings; stone stoves were found in western regions. However, simple centrally positioned fireplaces were more common.

Settlements of the pra-Slavic Prague culture (5th-7th cc.), spread over vast areas to the west and south of the Kievian Dnieper area, were mostly small *selishches* (0.5-1.5 ha), occasionally headland *gorodishches* with semi-dugouts (of up to 20 sq. m) having gable plank or straw roofs. Their walls were log or, more rarely, post-supported structures, and they had earth floors, sometimes covered with wooden planking. Sleeping ledges cut out in the solid wall and occasionally faced with wood ran along the sides. Surface log houses must have had a similar layout. Stone or adobe stoves in a corner were a characteristic ethnographic

feature of Slavic dwellings; fireplaces were also common in the western areas, as were surface outhouses.

As crop farming progressed and the soil became depleted, the Slavs had to move on to new sites, so their dwellings usually huddled close to one another. Ribbon building in their settlements was rarer. One example of the latter is Rashkov in the middle reaches of the Dnieper, a large settlement of the 5th-7th cc. *Selishches* by rivers and lakes were the principle type of settlements in northern and north-western Rus'. *Selishches* with pole houses and sunken fireplaces in the centre of dwellings prevailed in the Krivichi lands in the upper reaches of the Dnieper and on the Western Dvina. The Ilmen Slovians had surface log houses with stone stoves in the corner. One of the more noteworthy 6th-7th cc. hillforts was the Zimno *gorodishche*, which stood on a headland between two deep ravines on the high bank of the Luga River, a right tributary of the Bug² (its pyramid-shaped area was 135 x 64 x 14 m). It was protected on all sides by wooden walls of stacked logs fastened by vertical posts, which were fortified by earthworks from the outside. The central part of the *gorodishche* was not built up. Remnants of long multi-chambered surface houses with fireplaces were found along the fortification walls. Archaeologists unearthed weapon fragments, silver and bronze ornaments, household utensils and craftsmen's tools at the site.

Zimno could have been the administrative seat of the chief of a Slavic tribe (the Dulebs?) with his *druzhina* and a centre of ironmongery and jewellery-making³. According to another version, it was a community center, with the long houses hosting various assemblies of community members and providing refuge from armed invasions to people from nearby unfortified settlements (one of them found 250 m away from the *gorodishche*).

The Tushemlya *gorodishche* in the upper reaches of the Sozh River (Smolensk Region) dated the 6th-7th cc. likely was a similar temporary haven. Its oval site measuring about 800 sq. m on a headland bordered by two ravines was protected on the perimeter by two earthworks with wooden fences on top. Three more earthworks with similar wooden fences were raised from the mainland side. On the inside there was a long log structure backing onto the wall; it had a 4-4.5 m wide gable roof and was partitioned into 7-8 rooms, some of which had central fireplaces lined with stones while the others were used for household needs. A sanctuary – a round pad with poles along the edge and a big pole in the center (for the chief idol?) was in the heart of the headland part of the *gorodishche*⁴. As M.P. Kuchera has demonstrated, *gorodishches* differed from the point of view of both layout and purpose and/or functioning⁵. For example, one of the safe haven *gorodishches* was Khotomel, an 8th-century settlement in the lower reaches of the Goryn River, a right tributary of the Dnieper in its middle reaches. It consisted of the *gorodishche* per se and a *selishche* with semi-dugouts and adobe stoves and had a burial ground with funerary urns. The *gorodishche* site (30 x 40 m) is surrounded with a circular bank, a second arch-shaped bank and a ditch. The fortified part was used as a temporary safe haven, which is suggested by the lack of a cultural layer in the middle of the site. Remnants of a long surface public building were found next to the bank, too, which suggests that the *gorodishche* was most likely a community centre.

What is called sanctuary *gorodishches* have been discovered in various regions, including the Smolensk and Pskov areas, Polesie along the Pripyat River, and at the Rzhavintsy village in Ukrainian Cis-Carpathian. *Gorodishches* with an area of under 15 m in diameter that were not suitable for habitation and could hardly have been used as safe havens must have performed the functions of sanctuaries⁶. The cultural layer is virtually absent from such *gorodishches*, instead there are stone-paved ashpits (traces of fires with animal bones, etc.). Fires were also made on banks and in ditches. The site of the 9th-10th century *gorodishche* at the Rzhavintsy village is 23 m in diameter. It is surrounded by two concentric banks with paved spots for fire-making and two ditches with low-sloped walls. Long (about 25 m) surface houses stood between the banks, and fractured animal bones have been found inside them. A crudely worked four-faceted stele stood in the centre of the *gorodishche*; it must have been an object of worship, but was dumped into the ditch after the rites had been discontinued. Rites could also be performed in haven *gorodishches*, such as Khotomel.

The Izborsk (Truvorovo) hillfort in the Pskov land⁷ was a tribal and major crafts centre of a Krivichi group; it had a multi-ethnic population. The hillfort (with an area of about one hectare) on a high promontory (45 m high) was fortified from the mainland side with an arch-shaped bank of solid clay and stones of up to 6

1. Smilenko, 1982.
2. Sedov V., 1982, p. 14.
3. Jlymix, 1972.
4. Sedov V., 1982.
5. Kuchera, 1999.
6. Rusanova, Timoshchuk, 1993.
7. Sedov V., 2007, pp. 758, 841.

m high and a 3 m ditch and from the headland with a low bank. There was a square (for assemblies?) of about 25 m in diameter in the centre of Izborsk. Along with Slavic surface log houses (from 3.5 x 3 to 4 x 4 m) with wooden floors and adobe stoves in a corner it had dwellings with adobe floors and fireplaces that belonged to non-Slavic people. Homes were huddled together.

In the Dnieper area the situation changed but little in the late 7th – middle 8th centuries, with unfortified settlements of 0.5–2 hectares still prevailing. Settlements were founded at elevated sites on terraces above flood-plains and therefore did not require strong fortifications. A sort of exception from the rule is the Pastyrskoye hillfort on the Sukhoi Tashlyk River in the basin of the Tyasmin, a right tributary of the Dnieper (Cherkassy Region, Ukraine). The population of that major crafts centre with an area of some 25 hectares used ancient fortifications, among them ditches and banks, going back to the Scythian times, without renovating them⁸.

Rectangular semi-dugouts were the main type of dwellings. The hillfort housed iron smelters, a smithery and a communal grain storage. Archaeologists have discovered traces of jewellery-making (tools and several troves of silver ornaments) and pottery (polished ware).

Unfortified settlements remained the main type of settlements on the left bank in the middle reaches of the Dnieper, where a culture that came to be known as Volyntsevo emerged in the late 7th century. Scythian-period banks and ditches were used even at major hillforts, such as Bititskoye. The dwellings were semi-dugouts with pole-supported or, more rarely, saddle-notch log walls and gable roofing; the entrance was stepped or sloped. Stoves were arranged right in native soil, their roofs made from shards of pottery stored in advance. In addition to semi-dugouts, archaeologists have found there a large round sunken yurt-like dwelling, which is evidence of the residence of Khazars (representatives of the Saltov culture) at the settlement. The outbuildings were not sunken into the ground; they had wattle and daub walls and adobe floors. There were large structures with remnants of iron-smelting furnaces.

However, there is no reason to argue that those settlements were economic centres and hubs of commercial routes to other regions, near and distant. Handicrafts were made primarily to meet local needs or serve as barter items.

At the same time in the late 6th – early 7th centuries Europe saw the rise of trade and crafts.

Cities built at the sites of Roman settlements began to regain their important role in middle zone. They included, for example, Canterbury, London, Winchester and York in Britain. Archaeologists believe that as early as the 8th century London with its port within Roman walls could serve as both an administrative and a commercial centre⁹.

Along with that there emerged new cities in the wake of the economic boom, that is, the development of trade and crafts. Usually located next to Roman fortresses on river banks or on the seaside, they could have no fortifications. Such cities resembled the ancient emporium, that is, the commercial centre. In written sources they are known by the Latin word *portus*, and since the 7th–8th cc., when British cities began to be involved in international trade, mostly through French hubs, the syllable “vik” appeared in their names as an equivalent of the German word for a bay (and a settlement in its vicinity).

Depending on the local economic, political and geographic conditions new urban centres could function and grow, but under certain circumstances there occurred a “city transfer”¹⁰. Several new seasonal trading stations appeared on the Baltic shores in the early 8th century, with Ribe on Jutland’s west coast and Lidköping in the south being especially important. They also included the Paviken and Visby on the Island of Gotland. One essential condition for the growth of such a city was its location at a crossing of commercial routes, at transshipment stations, piers, seasonal barter centres or crafts communities; another important factor was the availability of a suitable river or sea harbour to match the status of a territory where commercial operations enjoyed appropriate legal and physical protection. Buildings were used as temporary premises and were grouped in individual “clusters”. The planning axis was the coastline if trade was conducted through both waterways and land routes, or the main street where warehouses and craftsmen’s shops could be comfortably located.

At the early stage of the growth of such a city its layout with the balanced division of its territory reflected the social equality of its residents. In Ribe shallow ditches dividing virtually undeveloped sites were identified. With time the emergent social hier-

archy made itself felt in the location of homesteads relative to the assembly or commercial square, the citadel or the ruler’s residence¹¹. Excavations in central Sweden indicate that the structure of “new cities”, including street layouts and plans of plots, homesteads and houses, was gradually changing. Such changes were especially pronounced in the location of the residential unit, which initially nested along the main street (Phase I), then shifted to the centre of the homestead (phases II and III) and, finally, became part of the multifunctional complex whose main façade overlooked the street (Phase IV). These changes, on the one hand, reflected the growing influence of wealthy residents and, on the other, were a sign of the growing importance of public areas. Reality introduced new elements into the structure of the mediaeval city. Alongside the ruler’s residence and the commercial square there appeared temples, which made the urban fabric markedly more complex. The city space became divided into several zones of influence. Political rule grew stronger, making an immediate impact on the layout.

In the second half of the 10th century, when the local rulers began to tighten their control of commerce, the city started to combine the functions of a political and ideological centre and a commercial hub. Students of mediaeval Norse cities link the area of a city to the number of functions it performed (including administrative, political, religious, commercial and artisan ones) and the balance between them. For example, Lund traces its origins to the small commercial and artisan settlement of Uppåkra, which came into being at a crossing of several roads in the 9th century. Its layout was little different from that of other communities. Relocated to a new place, Lund became a major Norse urban center: it housed the royal palace and the mint, the seat of the archbishop of East Denmark and the see of Scandinavia as a whole, including Iceland and Greenland. The layout of the city was structured within earthworks and the main street leading to two city gates. The city was divided into blocks by the 22 dominant churches.

The growth of the urban system was shaped by the specialisation of individual regions due to geographical factors and economic traditions. The start of urbanisation processes in the external zone, which had not had any city-building tradition at all, is linked to the growth of trans-continental trade eastward and southward in the 8th–10th centuries. Urban centres in the western and eastern parts of the Baltic region began to establish direct links. According to written sources, Birka merchants visited Dorestad and Frisian craftsmen and merchants appeared in Ladoga. All this is evidence of robust economic growth.

Since most of the quality goods, such as weapons, rich fabrics and objects of precious metals and stones, were produced outside the regions, the new Baltic cities became links between the internal and the middle zone, on the one hand, and the trade systems of the Abbasid Caliphate, on the other¹². The “vik”-type settlements were built next to hillforts or episcopal seats and occasionally at virgin sites, but always at strategic sections of river, sea or land routes. They had marketplaces, warehouses and lodging houses for itinerant merchants. They were protected and serviced by mercenaries from among the locals or foreigners, who were known as the Vikings to the west of the Elbe and the Varangians to the east¹³.

These cities of a new type differed from others, first, by the population numbers, second, by building density, with the layout close to regular¹⁴ and third, by the fact that they were home to tradesmen and to artisans of different specialties who made their products for mass consumption. One example is the archaeological site known today as Hedeby. It appeared on the border of Northern Germany and Scandinavia, between the tribal lands of the Danes, Frisians, Saxons and Obotrites around the Schlei inlet of the Baltic Sea. The area saw brisk trade between the Frisian lands through southern Denmark with the Gauts and Swedes¹⁵.

In the early 9th century the Frankish empire overwhelmed the Saxons living on the Lower Elbe and secured access to the Baltic Sea. Following the conquest trade relations picked up in the Baltic lands and merchants obtained privileges from the Frankish state. Christian missionaries followed the merchants eastward. Starting from the Baltic region, merchants went as far as the major centres of the Islamic mediaeval civilisation and trade, among them Baghdad, Bukhara and Samarkand. The “specialty” was primarily weapons and fur sales. There was transit trade in slaves, cattle, Baltic amber, arrows, mail-armor, decorations, honey, wax and even birch-bark along all the routes. In return Islamic silver flowed into Eastern and Northern Europe. Finds (primarily caches of coins) show that in the late 8th century Eastern Europe became

8. Khvoiko, 1905, pp. 93–104; Braichevsky, 1951, pp. 155–64; Braichevsky, 1952, pp. 163–73; Braichevsky, 1955, pp. 67–76;

9. Even at that time there were quite a few European cities in which government institutions and centres of trade and crafts coexisted

10. Slavs and Norsemen, 1986, p. 76.

11. For example, when comparing the layout of the Swedish city of Birka in its closing phase and that of another Swedish city, Siguna,

12. Magdeburg on the Elbe had a special role to play in that system. It is mentioned in the 805 chronicles (Magdeburg, 1974, S.

13. Pritsak, 1997, vol. 1, p. 89.

14. Excavations indicate that the settlement with an area of slightly more than 10 hectares could have a population of up to one thousand.

15. Jankuhn, Wachholtz, 1956. Berichte, 1969; Jankuhn, 1986.

a hub of international commerce. The earliest troves of dirhems, found on Gotland Island in Sweden and in Staraya Ladoga¹⁶, date from the 780s, the time the Umayyad-Khazar wars ended.

European merchants had to spend effort and money to develop a transcontinental system of roads on the East European plain to reach major trade centres. That infrastructure was needed to support the functioning of strongholds that served as both seasonal staging posts and sites for the exchange of goods and for their transshipment and storage. The mission was all the harder since in the 7th-9th centuries the traditional hillforts and unfortified settlements continued to be the main types of human habitation in the area.

In the early 9th century the Volynsevo culture in the forest zone of Eastern Europe, on the left bank of the Dnieper, was succeeded by the Romenskaya (Romny) culture, which was close to it and at the same time coincident with another culture layer, the Luka Raikovetskaia relics. The Romny culture for its part was close to the Borshevo culture in the Don basin. Habitation in those cultures was typified by headland hillforts and unfortified settlements on high ground that were grouped in "clusters" of 3-7 to 9 in each at 2-5 km apart. Hillforts were protected by a circular system of banks and ditches, with earthwork occasionally topped by walls of logs wedged between paired poles; stone facing of the walls was rarer. Dwelling units were semi-dugouts with walls faced with half-timber and stepped entranceways, over which mud rooms were built. Adobe stoves or fireplaces were arranged in the corners of such dwellings and benches ran along the walls.

Characteristically, dwellings and middens are "bunched together", without any delineation of backyards. Street planning appeared at a later stage, however¹⁷. In the 10th century estates began to be built at hillforts (Gornal and others).

For a long time historians considered only two ways of the emergence of cities. Under one scenario cities grew out of communal centres, such as shrines or haven fortresses, which transformed into administrative centres as the tribal nobility progressed towards feudalism. According to the other, the nucleus of urban development was the fortresses built by central authorities at new sites. Intended, like castles, to support and consolidate the new social system, they attracted more and more residents and grew into cities¹⁸. It was also admitted that some of the cities were the result of a long evolution, in the course of which aggregations of initially autonomous villages merged into cities due to "the benefits of location and convenience of communal life"¹⁹.

Naturally involved in tribal life, they were also used as co-ordination centres for tax collection from the local population. Arguably, it was in this way that Kiev, Chernigov, Pereyaslav and other south Russian cities emerged].

Studies show, however, that most of the 7th-8th century hillforts were abandoned and cities/administrative centres were built at new sites. The few exceptions were Izborsk, where major construction work changing the city topography and general outlook was done in the first half of the 10th century following a devastating fire. Once a tribal centre, it became a two-part early mediaeval city. Its headland part with a square became the citadel of the prince's *druzhina*, fenced off along the perimeter with a strong wall of oak logs with a gate. No traces of artisan work have been found within the citadel: only household utensils, ornaments and weapons have been unearthed. Artisans lived in the outer city (suburb), protected on the mainland side by an arch-shaped bank of clay with a stone wall along the top and a ditch. The layout of the hillfort was divided into streets and all the dwellings were log-houses. The numerous finds made in the outer city layer indicate that residents pursued ironmongery, bronze casting, jewellery, and bone and stone cutting, while finds of Arab and West European coins, balances, weights and other imported items testify to the development of trade.

Developed crop farming in southern Rus' suggested that these cities emerged earlier than in the north. They were considered centres of crop farming areas, which explains intensive urban growth around Kiev. Incipient crafts and trade were not assigned any important role. The presence of a "bunch" of cities between the upper reaches of the Volga and the Klyazma River was also ascribed to the same causes. Scholars argued that trade only created the conditions for the thriving of larger cities²⁰ and totally ignored the functioning of the Dnieper waterway.

This concept, which gave no consideration to the role of trading stations such as Timerevo, Shestovitsy or Gnezdovo, could not explain the mechanics of such a massive supply of goods to the Orient as to enable Europe to receive so much silver in exchange. Excavations of the past few years have helped to answer this question. It appears that urbanisation in Rus'

in the 8th-10th centuries was a far more complex process than previously believed: along with settlements of the traditional types, trading settlements were beginning to play a more and more important role. They were the nodes of the infrastructure of trade routes. The Varangians (known as "al-Rus" in Oriental sources and "Rus" in old Russian ones) greatly contributed to the establishment and development of trade contacts. Familiar with Baltic trading centres, they began to set up bases for their commerce across Eastern Europe.

The formation of a single system of communications and, consequently, the unification of the north and south of the vast territory on which the state of Eastern Slavs was to emerge in the late 9th century must have been preceded by a period when the two areas had been developing autonomously. Archaeological studies make it possible gradually to identify the original characteristics of each of them. For example, it can be assumed that different techniques were used in the north and the south to make work implements. The same is true of the non-ferrous alloys used: brass prevailed in the north and tin and lead tin bronzes in the south. Till the 10th century modelled pottery (alongside wheel-made ceramics) was commonplace in the north while in the south modelled pottery had virtually gone out of use.

Settlements were built up and developed differently as well. Wood and earthwork fortifications were used in the north but rarely; by far most of the settlements were unfortified. In the south settlements were markedly larger and population density and landscape development levels considerably higher than in the north. Settlements in the south were of different types while in the north most of them nestled close to rivers²¹.

Along with that there are reasons to believe that the northern economy was more commodity-based, which could be an indication of the active involvement of the population of Northern Russia in trade. Part of the explanation of this is the fact that settlements in southern Rus' similar to the northern "proto-cities" of Gnezdovo, Ladoga, Rurikovo Gorodishche and Timerevo have been explored less thoroughly.

This circumstance also prevented an objective evaluation of the role and place of the "vik"-type settlements in the emergence and development of southern Russian cities. Sometimes they are compared with the well-known hillforts of the 6th-7th century Slavic period, such as Zimno in Volhynia or Pastyrskoye. Though located in farming areas, they were major centres of various crafts, including metal smelting and processing, pottery and jewellery-making. However, those settlements are too far removed in time from the mass emergence of cities in the middle reaches of the Dnieper. The lack of solid continuity between the archaeological layers associated, on the one hand, with the proto-Slavic and Slavic cultures and, on the other, with the Kievan Rus' period also makes such suppositions far less plausible.

"Vik"-type settlements appeared first in Ladoga and then within the mainland, along the main rivers: Rurikovo Gorodishche at the site of future Novgorod, Timerevo and Sarskoye in the upper reaches of the Volga, Gnezdovo in the upper reaches of the Dnieper near Smolensk, Chaadayevskoye Gorodishche near Murom, Krutik near Beloozero, Shestovitsa outside Chernigov and a number of others. Judging by archaeological data, trade and crafts were developing hand in hand in those parts. Thanks to such settlements the Slavic tribes became involved in international trade and established economic and cultural ties, which in turn promoted changes in their entire lifestyles²².

The chronology of the new settlements and the precise trade routes in Eastern Europe in the late first millennium A.D. remain the subject of scholarly debate. The argument that the geopolitical backbone of the early Russian state was the common north-south axis of the originally autonomous parts centred on the Ilmen and Dnieper areas sounds particularly forceful. Cartographic studies of the discovered Baltic and Norse artefacts and troves of Oriental silver suggest before the mid-10th century Norsemen used different ways to reach the

Upper and Middle Dnieper areas²³. For example, the strategic route which relied on the key strongpoint of Gnezdovo in the area of Smolensk long barrows passed through the Upper Dnieper and along the Dvina. The Shestovitsa trade station emerged on an important section of the so-called Khazar route. Starting with the late 9th century traffic along that route is traceable by finds along the Desna, Seym, Seversky Donets and Don rivers. In Shestovitsa itself Norse artefacts were found alongside Byzantine and Oriental ones in grave goods dated to the late 9th – mid-10th centuries.

Settlements of the new type had a different structure. One of them was Aldeigia (or Slavic Ladoga), an ancient Russian

16. The actual volumes of trade between the Orient and Western Europe can be judged from the amount of Islamic silver dirhems

17. A thorough study has been done at the Novotroitskoye hillfort (Sumy Region, Ukraine). Altogether 50 sunken dwellings with outhouses

18. Dovzhenok, 1968, pp. 37-45.

19. Karger, 1958, vol. 1.

20. They also included Novgorod-Seversky, Liubech, Vyshgorod, Putivl, Belgorod, Roden, Plesnensk, Voim, Yuriev (see: Archaeology of

21. Tikhomirov, 1956, pp. 58-63.

22. Makarov, 2005, pp. 6-7

23. Sedov P., 1999/2.

trade and crafts centre, which appeared not later than the mid-8th century²⁴ in the lower reaches of the Volkhov as the main stronghold at the starting point of the two great trade routes “from the Varangians to the Greeks”, the Baltic-Volga and the Baltic-Dnieper routes²⁵. Traces of unfortified settlements along them testify that in the 8th-9th centuries those lands were inhabited and extensively cultivated.

The original settlement was located on the narrow strip stretching from the Ladozhka River mouth along the left bank of the Volkhov to the Pobedishche highland. The nucleus of that proto-city was the headland between the Ladozhka and the Volkhov and the Zemlyanoye hillfort to the south. A suburb adjoined the fortified core of the settlement. Burial mounds were arranged to the north and south along the river bank. In addition, 8th-10th century in-ground burials and 10th-11th century barrows were found in the vicinity of the original Ladoga.

In the 730s-850s Ladoga had a dominant status on the Baltic-Volga route and could be a central factor in unifying Slavic and Finnish tribes, such as the Ilmen Slovenians, the Chudes, the Merya people and the Vepsians. In addition to the Slavs, Ladoga also housed Norsemen, Finns, Balts and Western Slavs. Trade was thriving with the Chudes to the south-east of Ladoga and tribes in north-eastern Europe.

In the 830s-840s the settled area (10-12 hectares) of the unfortified suburb continued to grow and houses rose on the other bank of the Ladozhka²⁶. The settlement was a bunch of stand-alone homesteads. There were dwellings and, perhaps, even guesthouses for visiting merchants and craftsmen. Living quarters were surrounded by outbuildings, workshops and sheds. Remnants of courtyard flooring and pavements have been found, which indicates that the settlement might have seen the development of estates. Along with large bicameral houses (up to 120 sq. m) with stoves in the middle and cold anterooms in the German tradition, there were small square log-houses with stoves in the corner, which were traditional for the Slavs²⁷. The Zemlyanoye hillfort was the site of smith's, bronze-casting, glass-making and bone-cutting workshops, boatyards and houses of the nobility, who traded and collected taxes-in-kind. Archaeologists have found a street which in the 10th century was home to glass-making, bone-cutting and amber workshops; each of the unearthed structures yielded objects testifying to the pursuit of one or more types of jewellery-making.

Fortifications must have appeared on the headland at the time Ladoga had become the Konung's seat and, as some researchers believe, the capital of Northern Rus'²⁸.

By the late 9th century three parts of the Ladoga layout could be clearly identified: the headland stronghold, the earth hillfort in the south and the settlement on the Ladozhka left bank, about 50 m away from the shoreline. At the time there were at least 60 buildings grouped into estates²⁹. The riverside was divided, just as in Swedish Ribe, by shallow ditches into plots of equal size that were about 6 m wide. The ditches were intended for hauling boats up onto dry land. The plots abutted the bank, where there must have been piers for the boats (that was a typical feature of the layout of early North and East European cities). Remnants of a bicameral house have been found on one plot and a furnace, pit and ironworking shop on another.

In the second half of the 10th century the “bunched” city planning gave way to the street layout. Homestead estates in the suburb were fenced off. Stretched along the north-south axis, they formed the riverside street. The settlement was an agglomeration of individual homesteads, which consisted of bicameral dwelling houses with rectangular fireplaces in the centre of one of the chambers, cold antechambers and outhouses around. There was one original feature about Ladoga: in the 9th-10th century layers “big houses” (up to 160 sq. m), consisting of the main heated chamber and an outer gallery around the house, have been unearthed. At the shorter sides of the house were adobe cooking and bread-baking stoves. Ladoga students believe that such buildings were a sort of merchant guesthouses which were used by merchantmen's crews to wait out the winter season, attend fairs and repair their ships.

In addition to the above sections, the settlement included three clusters of mounds that formed a sort of sacred zone on both banks of the Volkhov. A chain of these mounds edged the river bend on the north and stretched downstream all the way to the Lyubsha hillfort. The earliest burials, the Plakun barrows dated the 860s-870s, are on the low right bank just across from the citadel³⁰. Another group of barrows paired with the first one stands on the high Volkhov bank in the Pobedishche *urochishche*

next to Zemlyanoy Gorod. The third group of barrows (mounds), which are up to 4-5 m high and which close the river vista from the north, includes what is known as “Olegova mogila” (Oleg's Grave), which is clearly visible from anywhere in Ladoga.

The mounds on the Volkhov banks and in the Ilmen area were rather complex structures, and their shape was predicated not only on the funerary ritual, but also on their role as objects of worship. The base of such a mound is set in rings of closely fitting large boulders. The number of such rings varies from one to three, each up to 1.5 m wide. The inner part of the base was faced with small slabs. The space between the boulders and the slabs was filled with pebbles and crushed stone and covered with slabs. The mounds were raised in two or three stages because over time ever new remains were added to the burial site. They formed a sort of tiers, and the top of each of them paved with stone and occasionally had a distinct, more often triangular geometrical shape. Sometimes stones were used as a sort of facing to reinforce the lower slopes of the mounds. The steep bank of the mound next to the village of Michael Archangel in the lower reaches of the Volkhov, on its high left bank, initially was 5 m high and up to 6 m in diameter at its top paved spot. Eventually, it was banked up by another 2 m, and at the third stage reached a height of 9 m³¹.

“Oleg's Grave” is over 5 m high and more than 30 m in diameter. In plan the territory of the huge mound resembles a 40 m long triangle. The grave itself was at the top, its sides marked by two rows of stonework of neatly laid boulders, closely fitted together and converging towards the foot of the grave³². The dominant location of the mound in the Ladoga landscape lends credence to the view of the researchers who believe that in the absence of other complex heathen structures of worship in the area their role could have been played by the burials of revered ancestors³³.

The Ladoga Volost stretching for several dozen kilometres along the Lower Volkhov was protected by small hillforts from the south, north and west. For example, as early as the mid-8th century a small (60 x 70 m) stone-and-earth fortress, Lyubsha³⁴ appeared at the site of the earth stronghold of the Finno-Ugrians to protect Ladoga against raids from the north. The closest parallels to Lyubsha are Slavic fortresses in the Danube area and Poland³⁵. The route on the Volkhov to the south-east was controlled by a fortress on the Syas River near the village of Gorodishche and Kholopii Gorodok in its upper reaches. In the 9th century wood-and-earth fortifications were built at Rurikovo Gorodishche near Lake Ilmen³⁶.

There is a Varangian legend associated with them: when asked to rule, Rurik first settled in Ladoga and then built Novgorod in the upper reaches of the Volkhov, not at the site of the Novgorod Kremlin (citadel), but 2 km to the south, at Gorodishche, upstream of the Volkhov.

In the 9th-10th centuries Gorodishche was the first proto-urban settlement near the Volkhov source. Its area totalled 6-7 hectares, and its central part was fortified with a ditch and, most probably, a bank. The residents were mostly Slavs and Norsemen, warriors of the Russian princely *druzhina*. Remnants of surface post-supported dwellings and bread-baking stoves, similar to those found among the Balts, have been unearthed at Gorodishche.

Excavations indicate that the parts of the territory that were Novgorod proper – the so-called ends – began to be built up in the 10th century. The early estates were put up right on the plough-land, as in Ladoga. The earliest layers at the site of the future city have been uncovered neither in the Novgorod Kremlin (citadel) nor at the site of the future Novgorod “ends”³⁷.

Studies of Novgorod's cultural layer suggest that the earliest city was a combination of three settlements that were the forerunners of the future “ends”: Slavensky, Lyudinsky and Nerevsky. Therefore, the early Russian city formed as a result of the synoecism of several settlements. The oldest of them came to be named Gorodishche, or the “old town”, and the new one, which emerged in the 10th century, Novgorod. They are assumed to have had their own fortifications. Initially they were built up with estates, with both surface log-houses and outbuildings fenced off.

The passage from the Volkhov and West Dvina system of international communications to the Dnieper one in the 10th century was controlled by the Gnezdovo settlement outside Smolensk, one of the major strongholds on the route “from the Varangians to the Greeks”.

The Gnezdovo layout changed dynamically over its lifetime. The earliest traces of habitation have been found on the right bank of the Svinets River (western unfortified settlement), on the

24. Bulkin, Zatspeko, 1990, pp. 117-123; Zatspeko, 1987, pp. 87-83.

25. Wood and other organic matter is preserved in the Volkhov area cultural layer, so dendrological dating puts the oldest Ladoga

26. See: Brandenburg, 1896; Lebedev, 1985/1, pp. 45-46; Lebedev, 1985/2, pp. 205-210; Kirpichnikov, 1980, pp. 44-1.

27. Machinsky, 2003, p. 29.

28. Ryabinin, 2002 (see also a survey of production complexes from Staraya Ladoga excavations: Bessarabova, 2001), pp. 214-29.

29. Mochinsky, 2003, p. 32.

30. Petrenko, 1985, pp. 83, 95.

31. Nazarenko, 1985, p. 157; Nosov, 1985, pp. 147, 155.

32. Sedov V., 1982, pp. 61-3; Petrenko, 1980, pp. 69-76.

33. Lebedev, 1977, p. 181; Lebedev, Sedykh, 1985, No. 9 (No. 10), p. 16.

34. Lebedev, 1982, p. 23; Lebedev, 1985/1, p. 46; Platonova, 2000, pp. 110-3; Svirin K., 2006, pp. 231-51.

35. Lebedev, Sedykh, 1985 (No. 16), p. 17; Petrenko, Shitova, 1985, pp. 181, 185.

36. Machinsky, 2003, p. 28.

37. Nosov, 1990; Nosov, 1996/1, pp. 5-17; Nosov; Goryunova, Plokhov, 2005.

left bank, in the river plain and in the centre of the fortified settlement. On the mainland side it was fortified with a bank and a ditch. The unique landscape must have played the decisive role in the choice of location for Gnezdovo: there was a broad flood-free river plain at the outlet of a small Dnieper tributary, which formed a high promontory and two small lakes that could be used both as an inner harbour and reserve water sources for smelting processes.

Kurgans are clustered on both banks of the Dnieper, with their groups referred as Tsentralnaya, Lesnaya, Glushchenkovskaya, Dneprovskaya, Olshanskaya, Pravoberezhnaya Olshanskaya and Levoberezhnaya. The height of most kurgans is 1-1.5 m, and only few of them rise to 4-7 m. They are rounded, although there occur rectangular ones as well. The Gnezdovo cultural landscape was dominated by the so-called large kurgans (2-9 m high), which usually contained Norse boats with cremains.

Clearly, Gnezdovo was a large river port with a sophisticated waterfront infrastructure. Early on it was most probably Lake Bezdonka, connected by a small creek to the Svinka (Svinets) River, that was used as the harbour, and also a system of decks used to get to the water. Later on (perhaps, starting with the second half of the 10th century) the port function was mostly taken up by the riverside, where a tar making pit and remnants of sunken structures (probably warehouses) have been discovered.

The artisan production zone was clearly defined, with jewellers' and smiths' shops located in the east and west unfortified settlements and in the hillfort. There are traces of many reconstructions and changes of specialisation, yet the overall layout principles persevered. Apparently, the sites of artisan workshops were on the grounds of large and wealthy estates. A fragment of a boundary furrow between neighbouring estates has been found. Later on more than one strong fence was put up in its place. That furrow could have divided the land into parcels as was done in Ribe, Ladoga, Kiev and other settlements. The composition of finds at the site, including luxury goods (such as fragments of Byzantine amphorae and fine glass vessels), testifies to the wealth of the estate owner. A long trench with pole pits along the edge, which has been explored in the east unfortified settlement, could have served as another boundary of the estate.

Modelled pottery found in the hillfort, the west unfortified settlement, in the river plain and near Lake Bezdonka is associated with the "early" Gnezdovo. Even early layers indicate that the population was multiethnic: Slavic (Romny – Middle Dnieper) pottery was found alongside objects such as a wooden thole of a Norse boat and Baltic trapezoid pendants. Studies in the river plain part of the settlement suggest that it was not uniform but had separate zones for different uses.

Gnezdovo thrived in the second half of the 10th century, when it reached its maximum size. At that time even sites that had been previously considered uninhabitable were built up, such as a damp hollow next to the terrace, which was filled in with sand and developed.

Since wood virtually has not survived in the settlement's cultural layer, information about its house-building system and associated architectural tradition is very scarce. Clearly, both sunken structures (dugouts or semi-dugouts) and surface houses were built. Sunken parts of dwellings are of different shapes (oval, round, rectangular), depth and size³⁸, yet no traces of stoves or hearths have been found in any of them. One explanation is that sources of heat could have been located in the surface parts of the structures. It cannot be ruled out either that the finds were remnants of small seasonal facilities that did not require any heating.

The sources of the semi-dugout building tradition in Gnezdovo are not quite clear. On the one hand, sunken dwellings were typical of the Romny culture; however, Romny-type dwellings had specific adobe stoves, which have not been found in Gnezdovo. On the other hand, sunken structures were widespread in South Sweden, where most of them were not dwellings, but workshops and outbuildings (Gardelosa community). Since many of the Gnezdovo residents were Norsemen, the northern origins of this house-building practice cannot be ruled out.

Surface buildings must have varied as well. A wooden "hen" (a log with a hook supporting rain gutters) is evidence that there were log houses. There were post-supported (as suggested by numerous holes in the ground) and wattle-and-daub structures of dwellings. The practice of using wattle in the Middle Dnieper area could have been borrowed either from the south (Khazar Khaganate) or from the north, where in the Viking Age it was widespread in Dublin, York and elsewhere. Traces of a wattle

mat have been discovered in the river plain part of the settlement; such mats were used extensively to improve settlements in the lands of the Western Slavs and Vikings (York).

Timerevo in the Upper Volga area and Shestovitsa on the Desna River are typologically similar to Gnezdovo. However, the infrastructure of the route "from the Varangians to the Greeks" involved not only settlements immediately along the banks of the main waterways. The area of Smolensk on the Dvina River, for example, as early as the 10th century already had a full-scale system of hillforts that were neither administrative centres nor part of the farming economy. The fortresses of Surazh, Kasplya, Verzhavsk, Zagoskino and others in the Western Dvina basin, which had no fertile land, controlled a vast, rather desolate but strategically sensitive territory with a ramified system of numerous waterways. Such fortresses could only be built on the initiative of a central authority³⁹.

The upper reaches of the Volkhov-Volga part of the route "from the Varangians to the Greeks" present a similar picture. Scholars link the intensive development in the area of hillforts, many of which were far away from the main areas of settlement and economic activity, to Princess Olga's campaigns (recorded in the chronicles) to the Msta and the Luga in 947 and the intensive formation of state territory, which at the time had Novgorod as its centre⁴⁰. One such hillfort was Malyshevskoye Gorodishche on a spur of the bedrock bank of the Belaya River 6 km upstream of its inflow into the Msta. The settlement of that place has been traced directly to the construction of fortifications. It had a relatively small area (60 x 75-90 m) and was protected by an earthwork and a wall from the mainland side. The fortifications running along the top of the earthwork rose for at least 6 m. The dwellings and outbuildings in a single row of wooden cages (*klet*) formed part of the earthwork structures. The hillfort had a vacant square in the centre⁴¹. Hillforts of this type are also from South and West Rus' monuments.

Today virtually the only well-studied monument in South Rus' that could be classified as an early urban-type settlement associated with the development of international trans-continental trade is the Shestovitsa complex. The site of archaeological excavations 18 km away from Chernigov towards Kiev has long provoked the keen interest of students of early Russian cities. The presence of Norse-type artefacts in kurgan burials has put Shestovitsa alongside those East European early urban centres (among them Gnezdovo, Rurikovo Gorodishche, Ladoga, Timerevo and Sarskoye Gorodishche), the studies of which have prompted a revision of the Norsemen's role in the history of Old Rus'.

Kurgan burials with features of a specific burial rite have been found at Shestovitsa. In case of both inhumation and cremation the body or ashes of the deceased were placed into a "chamber", i.e., a specially prepared underground timber structure. Chamber burials are usually associated with the Varangians, referred to as the Rus' in chronicles, who are believed to have formed a special group of East Slavic society, one ethnically linked to Scandinavia but gelled into a community on the territory of Eastern Europe⁴².

The settlement layout is of special interest. It stood on a floodplain bench stretching along the right bedrock bank of the Desna. The southern part of the bench (the Korovel urochishche), which forms a narrow band and is the closest to the bedrock bank, was the site of a 120 x 150 m hillfort surrounded by an earth bank. To judge by the cultural layer chronology, an unfortified settlement stretching along the main street/road running along the river towards Chernigov-Kiev, was the first to appear on the terrace in the 9th – 10th centuries. By the end of the 10th century it had taken up the entire terrace. It was not until the turn of the 12th century that the hillfort took shape. There were large gaps in the development of the highland part of the Shestovitsa complex, which probably is an indication of seasonal habitation.

The artisan suburb Podol of Shestovitsa lies on the bank of the small Zherdova River, a right tributary of the Desna. The site was settled in the 10th century. Scholars believe that Podol residents were engaged in river boat repairs and outfitting, a major commercial sector of the period. There were parcels clearly divided by small ditches dug out in solid ground⁴³. Such parcelling out of the territory indicates that individual plots could be used for stockpiling large shipments of goods brought in for barter or trade.

The remnants of structures found at Shestovitsa are one more distinguishing feature of that settlement. What archaeologists saw little resembled the usual structures of that period in the Middle Dnieper area. Measuring at most 16 sq m, they were

38. Yashin, Aleshkovsky, 1971, pp. 32-61.

39. For example, one of the excavated structures is more than one metre deep and measures 2.2 x 2.2 m.

40. Nefedov, 1998, pp. 250-9.

41. "Olga goes to Novgorod and establishes settlements along the Msta, and also duties, and more obligations and duties along the

42. Konetsky, 2003, p. 30.

43. Androshchuk, 1999, p. 12.

oval, round or elongated. Virtually no stoves have been found, although there are remnants of adobe braziers. The best studied structure, which yielded significant archaeological material, was a mere 1.8 x 1.4 m in size and almost rectangular in shape. Such structures were most likely used as temporary workshops or storage facilities. Numerous finds and parallels with structures in the Baltic areas and North Russia prompt the suggestion that Shestovitsa must have been an important transit harbour on the river route. The inflow of silver into the Desna area could bifurcate at Shestovitsa, with one channel going on towards Kiev and the other towards southern and northern Zamglai, which afforded the only passage “to the Radimichs”⁴⁴.

The link between Chernigov and Shestovitsa gives an idea of the relationships between early urban-type trade settlements and tribal centres that later on evolved into political power centres. Permanent trade settlements that formed the backbone of the commercial system of Rus', took shape from the second half of the 8th century to the middle of the 10th century. Starting with the second half of the 10th century, as state structures grew stronger, Christianity spread and new economic areas emerged on the basis of budding domestic economies, the local elites began to tighten their control of trade. The cities' functions changed as they started to double as commercial and political centres⁴⁵.

In the same period when the early “druzhina” burials appeared at Shestovitsa, Romny culture settlements continued to thrive in the Chernigov area. There the large *druzhina* kurgans with Varangian burials dating to the 10th century are evidence that in the new historical circumstances Chernigov had a better potential for development: it became a major administrative centre controlling and protecting an important trade route. Perhaps, it signified not just the emergence of a new syncretic urban culture in Kievan Rus', but also the merger of several functions, including economic, administrative and sacral, in one centre.

Facts show that unlike the old tribal centres – hillforts of the early Slavic age – the early southern Russian cities were not just the centres of farming areas and sites of tribal sanctuaries. Their image formed through the blending of local traditions and outside influences, and they had much in common with West European cities. The idea of a capital city voiced by Prince Svyatoslav Igorevich, who ruled in Kiev in the first half of the 10th century, has a touch of “mediaeval urbanism”: “I don't like sitting in Kiev but want to live in Pereyaslavets on the Danube: that is the middle of my land where all the riches flow: gold, silk/canvases, wine and various fruit from Greece, silver and steeds from Bohemia and Hungary, and furs and wax, honey and slaves from Rus’”⁴⁶.

The Prince's knowledge of exporters and goods shows that most probably management of trade rather than trade per se was a major aspect of his rule. He looked for ways of using armed force to control and rearrange goods flows to his benefit.

Naturally, as the territorial interests of the state grew and extended, and especially following the adoption of Christianity, the rulers revised their views of the role and place of cities in the state system. While shoring up their dynastic rule politically and legally, princes begin to formalize their territorial claims as well. They turn their attention from urban centres to land estates. It was only at that time, in the second half of the 10th and the early 11th century, that the urban centres built or captured by them earlier took on an entirely new function of the node of an emergent hierarchy of satellite cities.

It was believed until recently that their layout reflected certain attributes of feudalism, including the division of society into estates and its hierarchic organisation. This concept was strongly supported by the belief that cities in Old Rus' were built by princes rather than merchants and other enterprising individuals. This textbook city consisted of two parts: the citadel, which usually included the old original settlement, and the merchant and artisan suburb. The well-fortified citadel was the seat of military and political power as represented by the prince and his *druzhina* and sometimes the repository of tribal cult objects symbolising the link between the centre and the tribe with its daily life. Compared with the citadel, the suburbs were considered a secondary feature, one that emerged in the 10th century or later as a result of urban development and the separation of crafts and farming. The rise of suburbs was spurred by the growing demand for crafts; that was also reflected in the social structure of the population⁴⁷.

Although scholars considered the suburbs to be almost entirely dependent on supreme authority, certain special aspects of self-organisation on their territory were recognized.

For example, the very structure of the city with its “ends” and street-based layout was seen as evidence of the persevering tradi-

tions of communal/tribal organisation of life. It was admitted that “street” organisations had existed in cities ever since their foundation and that eventually in some of them (such as Novgorod) they gave birth to the *veche* (popular assembly) form of governance⁴⁸.

In addition to the territorial communities which had city-related duties, were self-governed and chose their “street wardens” to represent the residents in relations with the authorities, historians singled out another social structure that influenced the make-up of early cities, namely, artisan and merchant corporations. Merchants, potters, jewellery-makers, carpenters, goldsmiths and so on – over a hundred different crafts can be counted in large cities – used to choose residence by trade⁴⁹ and the city population kept growing with new arrivals attracted by the different crafts practiced in the artisan suburbs.

The nearly round or oval outline of the old Russian city is assumed to have evolved mostly spontaneously over time. Settlement growth was easy to manage: one more parallel street was laid out and lined with standard ribbon buildings. This clear-cut and consistent structure with one principal centre and several subordinate ones and the explicit orientation of the streets from the citadel to the city gate and on to external roads plus sporadic building within individual sections was considered by many researchers to be the most typical feature of the old Russian city⁵⁰. This concept of the evolution of the early city layout was applied to settlements in both southern and northern Rus'. Archaeological studies of the past few years in Kiev have prompted a new look at it.

The beginning of Kiev's history is usually dated to the late 5th century, the starting point being the discovered settlements of the Prague-Korchak culture. Many scholars believe that this culture (associated with the Slovenians) brought together the Raikovetskaia and Penkovka Slavic cultures of Right-Bank Ukraine. Therefore Kiev with its mix of archaeological cultures (including Zarubintsy, Chernyakhov, Kiev and others), traces of which have been found in the central part of the site, was considered the first East Slavic center meeting the definition of the city.

One of the focal points of that concept was the chronicle entry of the *Tale of Bygone Years*, which described the founding of Kiev by three brothers and a sister. However, it cannot be used for addressing scholarly issues, let alone objective dating. The historical authenticity of the personality of Kii and events associated with him has never been explicitly interpreted in historiography.

Nor is it quite clear which group of the Prague-Korchak type relics should Kiev's early urban life be associated with. For a long time most of the researchers gave preference to finds from the Old Kiev Hill (Starokievskaya Gora), but finally the Castle Hill (Zamkovaya Gora) was recognized as the site of the original ancient settlement and prototype of the future Kiev citadel⁵¹. The Old Kiev Hill was ascribed the honour of being referred to as the “city” per se because it had a far larger area (compared with the Castle Hill) meeting the prospects of future urban development⁵². However, it cannot be stated with certainty whether those finds are evidence of a dramatic population growth or of the shift of the settlement from the Castle Hill to more promising sites, that is, the Old Kiev Hill. It cannot be ruled out that the same estate was “relocating” from one ridge of the Kiev hills to another more than once. Such cases have been recorded by researchers of similar antiquities⁵³.

It has been suggested based on the excavated traces of fire and ruin at the sites of Korchak relics occurrence that the Old Kiev Hill settlement and other possible Korchak settlements in the area were abandoned following an armed invasion. The Avars are known to have appeared in Eastern Europe in 560. Their invasion is believed to have been one of the factors to provoke the exodus of the Middle Dnieper populations westward. Perhaps, this is the reason why few archaeological artefacts that could be dated to the 7th century have survived in Kiev. The question of continuity of Prague-Korchak type relics and those of the subsequent Penkovka culture is still open. An analysis of the ceramic shards found at the Castle Hill⁵⁴ shows that the cultural layer with Korchak artefacts with the 6th century upper dating limit was overlaid with horizons of Penkovka culture pottery dated to the very late 7th–early 8th centuries⁵⁵. A number of other artefacts found at the Old Kiev Hill also belong in the 8th century⁵⁶.

In the late 8th century the Luka Raikovetskaia culture became dominant in the Right Bank Ukraine while the Volynitsevo culture prevailed in the Left Bank Ukraine. Individual finds from that period in Kiev can be associated with both cultures. However, we still have no idea of the buildings or their layout of that

44. Wooden fences were eventually put up in their place.

45. Androschuk, 1999, p. 92. The dating of the Oriental coins found in burials tally with the campaigns of the Rus' against the Caspian

46. Nosov, 1995/2, p. 268.

47. Tale of Bygone Years, 1997, col. 117.

48. Tikhomirov, 1956, pp. 47-51.

49. Shchapov, 1975, p. 20.

50. Such fundamental feature of the internal organisation of the ancient Russian city as the combination of in-city allotments and artisan

51. Barkhin, 1986, p. 21.

52. Finds at the Castle Hill that belong to the Prague-Korchak culture include pottery sherds dated, according to L.P. Rusanova's

53. Tolochko, 1983, p. 24. Traces of a structure of the Prague-Korchak archaeological culture have been studied at the Old Kiev site. A stove

54. aran, 1998, vol. 3. Further proof of this assumption is the fact that no other traces of structures have been found (on a thoroughly

55. Found way back in 1940.

56. Shcheglova, 1987, p. 8.

period in the Kiev urban development zone. One reason could be certain special methods in early Slavic crop farming, namely, the extensive use of land clearing to open up new areas. As a result, fields had to be moved to new places every 10-15 years, which could imply the relocation of settlements as well.

As attempts were made to establish continuity between Upper Town settlements, excavations at the Castle Hill revealed a 40 cm thick sterile loam layer dividing the horizons associated with early Slavic cultures and the time of Old Rus'. According to the excavations journal and published reports, that layer covered "the early Slavic horizon" dating to the 6th – 7th centuries, while the 9th – 10th-century layer was on top of the sterile layer⁵⁷, which means that the latter should be dated the 8th century. This conclusion absolutely overturns the earlier concept that in the second half of the 8th century Volyntsevo culture monuments appeared at the very heart of Kiev, "taking over" urban development from their predecessors⁵⁸.

The Volyntsevo culture people could have hardly developed most of the Upper Town areas, in particular, at the Castle, Old Kiev, Kudryavets and Detinka hills. We can only talk about the hillfort and its ditch and bank girding a small site on the main plateau of the Old Kiev hill. It stood till the early 9th century, and in the middle of that century there appeared burials of a large kurgan necropolis that were "set" right into the backfill of the ditch of the hillfort⁵⁹. The thick layer testifying to fading human activity on the upper plateau of the Castle Hill was most likely the consequence of the dramatic activation of geological processes on that territory in the late first millennium A.D. This hypothesis is based on studies of the geomorphic characteristics of the fast-changing cultural layers of Podol⁶⁰. In view of the topographic proximity of the Castle Hill and the Podol right down the slope it is highly probable that the two phenomena are directly linked.

The isolation of the Castle Hill took little time. The sterile layer of the hill could only be formed by the erosion of soil from the subsided section of higher-up neighbouring areas⁶¹. Steep ravines became an obstacle to communications between the hill and other parts of the Upper Town, although the hill remained one of the more favoured settlement sites. The chronology of the Upper and Lower Town settlements shows that the most active phase of the natural calamity that made life difficult both at the Castle Hill and on Podol began roughly in the late 8th century and lasted to the end of the 9th century, that is, about 100 years.

Confronted with the elements, the people had to keep building. The first settlement of Podol started when landslide processes had somewhat subsided, or rather, when their adverse effects had temporarily eased. A structure studied at the Zhitny Rynok (Rye Market) in 1973 was dendrochronologically dated to 887. It was found more than 10 m below the present surface directly at the foot of the Castle Hill. The next building horizon at Podol is dated 913. It was in the late 9th century that the first burials were made at the large kurgan necropolis of the time of Old Rus' (Necropolis I, according to M.K. Karger's classification), a few burials of which found themselves in the backfill of a ditch of the earliest hillfort on the Old Kiev Hill.

The intensification of natural processes could have impacted significantly on the topography of the settlements, in particular, contributing to the loss of its "dominant" position by the Castle Hill (the hillfort on the Old Kiev Hill also disappeared by the mid-9th century).

In the late 9th century the development of Kiev's urban structure became more coherent. First, the entire plateau of the Old Kiev Hill became one large kurgan necropolis. The first group of kurgans stretched from the walls of the oldest hillfort in the northwest to the natural boundaries, ravines, in the west and south. The part of the hill over a ravine that divided the future "Vladimir's city" and "Izyaslav's city" had a place reserved for the sanctuary known from a 945 chronicle record (the oath of "the pagan Rus to the Greeks" "on the hills where Perun stood"). The second group of kurgans was located on the territory of the future St. Demetrius's Monastery and St. Michael's Golden-Domed Monastery. Finally, the third group was on a vast plateau of the future "Yaroslav's city", stretching virtually to the Golden Gate.

Second, the territory of Podol saw mass-scale urban development. In spite of all the discomfort caused by landslides and flooding, by the mid-10th century the entire Podol territory became an area of orderly urban construction with a well-developed layout.

As a matter of fact, a huge mediaeval city emerged at that place during the 10th century⁶². It was started right on the river bank, at the terrace above the river plain. The terrace stretched

between the steep slopes of the shoreline and the Dnieper tributary Pochaina, which offered a comfortable harbour for river boats.

Studies of the Podol cultural layer have shown that, in addition to human activity, there were other factors actively impacting on the evolution of that layer. Roughly one-half of it consists of belts of clean river sand, clay and loess. The energy of the hills which surrounded Podol in the south and the west caused the river valley terrain to transform. Here, a terrace formed in the valley going down to the Dnieper and grew broader as more and more soil was washed up by the river. Since the terrace appeared on a narrow sloping strip, its expansion was restricted by the slope on one side and the river on the other. In the turbulent flood seasons the river would overflow the entire valley, bringing in a mass of sand and stones. As a consequence the residents of Podol frequently had to flee their homes. Such periods were rather short but impactful: the entire built up area would get covered by drifts, which in places were up to 1.5 m high. Whatever people were unable to carry away would be buried in sand. When the situation returned to normal, people had to build new homes and rehabilitate their estates and neighbourhoods.

Excavations have shown that the Podol residents grew used to that eventful life, marked by continuous battle with the elements. This is confirmed, in particular, by intensive construction after every sand drift during a relatively long period of time (9th – 12th centuries). Altogether 14 sand drifts of varying intensity hit that area from 913 (the dendrodating of the earliest excavated timber structure) to 1131 (the chronicled beginning of the construction of the Church of Dormition Pirogoscha).

The aggregation of stratigraphic data and their correlation with dendrodating opened up prospects for drawing up a detailed chronology of all the horizontal tiers of the cultural layer⁶³. The earliest of them lying at the depth of 11.5-12.5 metres is dated 880s-920s, the following tier, a metre above, the period up to the early 11th century. The third tier lying below 8 m is dated 1040s. Structures built in the mid-11th century and found at the level of the fourth tier (7-7.8 m) were again covered by thick sand drifts in the early 12th century.

Interestingly, sand drifting virtually stopped after the construction of the Pirogoschi Church. This is confirmed by the absence of any traces of them above the level of the church entrance. Over the 218 years between the settlement of the area and the construction of the church the Podol daylight surface rose by over 10 m, whereas in the 869 years between the church construction and the time of writing this paper it went up by little more than 2 m⁶⁴.

Since the terrace under the Podol development sloped down towards the Dnieper, it took much effort and many resources to strengthen the shoreline, which virtually coincided with the edge of the terrace. Excavations on Khoriva Street in 1985 revealed a system of wooden structures over the entire excavated area. It consisted of three parallel rows of cant board cages⁶⁵. Similar structures were found in other areas of Podol; usually they were parts of the main shoreline fortifications or lined the banks of affluent fast streams running downslope into the river.

Interestingly, these water control structures, which resemble the wooden frame for shipping freight over shallows or river vessels, were part of the estates in places adjacent to hazardous spots. Some of them stretched deep into the riverside territory⁶⁶.

Studies of estate boundaries indicate that the fences were rebuilt 12-17 times, yet the layouts persevered over the centuries. Identified shifts within or without the estate (for at most 1-1.5 m) were probably caused by more momentous changes, such as modifications in the course of the stream running through Central Podol or shifts of the Dnieper-Pochaina shoreline. The fast carry-over of ground was due to snow melting and intensive precipitation; as ravines grew larger, streams began to be formed. Although the banks were shored up, streams changed course swiftly and repeatedly, making people move the fences.

All the finds in the early horizons of Podol settlement over the 10th century indicate that the front of estate development was shaped along the street running from north-west to south-east, and also from the foot of the Castle Hill towards the Dnieper. The former direction coincided with the edge of the abovementioned terrace, while the terrace itself had a very complex shape and stretched not so much along the Dnieper as on the east-west axis. And that was also the orientation of the Podol street layout.

The second line of development (with the earliest dating of 887), which was perpendicular, running from south-west

57. An anthropomorphic fibulae, a cast star-like earring and a bronze bracelet with round hollow notched ends found in the southern part of

58. Kozłowska, 1947, pp. 145-6.

59. The advocates of the evolutionary model countered that with a new concept: now they date the rise of the well-known hillfort

60. Zotsenko, 2003, p. 7.

61. The instrument-aided stratigraphic analysis of Podol on a large section of the river bank shows that its cultural layer consists

62. For a while the lower part of the Castle Hill accumulated the soil washed down from the main plateau. Eroded soil flooded the

63. Sagaidak, 1996.

64. Based on the 1970s-1980s study of a collection of timber found in excavations on Podol, a dendrological scale was compiled

65. Clearly, the system balance was disrupted by external impacts, and the released energy pushed huge soil masses into the valley. After that

66. The cages spaced at 1.6-2.6 m were fastened to the ground by stakes driven into the ground at the corners both on the inside and

to north-east, formed around a small affluent river going in the same direction towards the Dnieper. The crossing of the main streets on the Podol layout has the richest cultural layer, which is evidence of vigorous life in that area and suggests that it could be the site of the market and assembly square mentioned in the 1068 chronicle.

Studies of Podol development in the 10th century suggest the conclusion that its specific layout is indicative of a marketplace rather than any other type of settlement. It was rather large (about 120 hectares) and densely built up. It was a new structure for the entire Dnieper area. The river or, rather, the harbour was the focal point of attraction for the people. The stability of the main components of Podol development testifies to the sustainability of the social structures which functioned there.

The Podol layout had two focal points: one was between the Pochaina bank and the foot of the Castle Hill and the other on the territory of the so-called Flat Part of Podol between the Pochaina right bank and the feet of the nearby hills. The first street with a regular layout probably began to take shape on the road linking the two focal points and led to the Borichev Descent in the north and the north-western descent leading to the Shchekavitsa hills⁶⁷.

The Borichev Descent leading south-east is mentioned in the chronicles under 945. It went (according to our hypothesis) from central Podol to the site of the future Three-Saints Church⁶⁸ (which replaced a pagan sanctuary) and the 10th-century St. Basil Church in the Upper Town.

The other descent leading to the west and north started at the site of a church dating to the first half of the 12th century⁶⁹ and passed along the Yurkovsky Ravine towards Vyshgorod and Belgorod. Today it is possible to compare it with Ugorskoye, mentioned in an 882 chronicle entry about the murder of Askold and Dyr. The two descents were also used by Lower Town residents to the barrows at the upper plateaus of the Old Kiev and Lysaya (Bald) hills (necropolises I and II).

The important role of Podol's main street is therefore obvious. It ran along the river and reached the descents leading in the opposite directions from the city. The northern and southern sections converged on the city's central square, the legendary *Torogovishche* (Marketplace). The street was also intended as a smooth approach to the river as the main axis of in-city communication, which was navigable throughout the year thanks to the continuous inflow of Dnieper water. At that time the founders of the city on the Pochaina took care to foster trade links, as evidenced by the development of the shoreline. Narrow, but affluent rivulets and streams coming from the valleys provides additional communication links. The areas along the main and side streets were divided into quarters within which homesteads were built. A quarter had not fewer than four homesteads, each measuring 300-320 sq. m.

Observations of the formation of Podol's sacral landscape are also of interest. The St. Elijah Church known from the chronicles could be built there way back in the mid-10th century⁷⁰.

It marked the direction of the Borichev Descent⁷¹. Next came the first stone building mentioned by the chronicler as the St. Nicholas Church "in Ugorskoye"⁷². We can now discuss also the predecessors of Christian churches within the Podol development in the 10th century. The 2003 excavations of an urban quarter in Central Podol revealed remnants of an early 12th-century wooden Christian church, which scholars associate with the *Turova Chapel* mentioned in the chronicles of Kiev developments under 1146⁷³.

An earlier large structure (with over 7 m long walls) was discovered at the site; it stood in the front part of a homestead. The frame of the older section of the structure, dated the 970s-980s, was made from vertical posts and horizontal boards. Structures of this type are believed to have been used for assemblies and, perhaps, for performing religious rites. Such "halls" were rather common in early mediaeval Norse cities. A similar structure has been found in Ladoga.

The Prince's residence was initially extraterritorial with respect to the Podol settlement. At the time the first Rurikids came to the city and till the last quarter of the 10th century (the rule of Olga and Svyatoslav Igorevich) the princely "city" most likely stood on the Castle Hill since all of the Old Kiev Hill was taken up by the kurgan necropolis. The homesteads of members of the Prince's court could also be located there⁷⁴.

At the time of the rule of Oleg, Igor, Svyatoslav and Vladimir Kiev firmly asserted itself as a capital city, and in the late 10th century Kiev's administrative function and its role as the bulwark of political power and the driving force of the spread of Christianity grew dramatically. Along with that, pagan temples and barrows were razed wholesale to make room for urban

development, and earth fortifications with a gate were built. The Upper Town became a fortress demonstrating the might of the Kiev Prince. The monocentric structure of the city began to take shape, which was reflected in its layout. The former Necropolis I on the Old Kiev Hill (on its northern edge) gave way to the Prince's chambers and the main Christian temple, the *Tithe Church* dedicated to the Theotokos⁷⁵. "The city of Vladimir" had one main street lined by allotments of equal size under the homesteads of the Prince's closest lieutenants.

Yet initially the new complex looked not so much a city as a large princely court within a city. It was of a representative nature, which was characteristic of North European administrative centres, such as Sigtuna in Sweden. However, we do not know whether it had the official status of the capital city. Perhaps, there was no such thing at the time. This is confirmed by the struggle for supreme power between Yaroslav and his elder brother Mstislav, who had prevailed in battle and came to rule the entire left bank territory. After ascending the throne in Chernigov, Mstislav engaged in extensive construction and vigorous administrative activities. He built the Cathedral of the Transfiguration of the Saviour, which was larger than the famed *Tithe Church* in Kiev, and established a church organisation which, perhaps, had equal rights with the Kiev-based church structure. Some scholars believe that in this way he was explicitly setting Chernigov in opposition to Kiev.

As for Kiev, its status of the capital of all Rus' had to be supported by the development of the new urban complex founded by Yaroslav in 1037 at the so-called beyond-the-city field, known in historical literature as "the city of Yaroslav". According to indirect evidence of the late 11th century, its capital status was corroborated by its transformation into the common dominion of the Rurik dynasty that ruled Rus'.

Yaroslav revised the system of succession and also changed the topography and layout of Kiev. He bequeathed the city to three brothers as their common property, which greatly impacted on the city's topography. In the subsequent period the Upper Town became an amalgamation of autonomous princely settlements, namely, the "city of Vladimir", "city of Yaroslav", "city of Izyaslav" and "city of Svyatoslav"⁷⁶.

At the same time the territorial division of Podol remained virtually unchanged throughout that period: its streets and lanes had persevered since their very establishment. Streets that had appeared in the late 9th – early 10th centuries ran in the same direction and the fences that marked the boundaries of the homesteads stood in place. Just as other structures, over the centuries they had been restored and rebuilt after fires and floods along the same lines (save for insignificant shoreline variations, shifts in stream courses and the restoration of homesteads on new horizons because of sand drifts).

After the kurgan necropolis on the Old Kiev Hill was closed for burials, funerals could be performed according to the old rite on the territory of Necropolis II next to Podol's second centre, near the St. Nicholas Church "at Ugorskoye". At the same time in the early 11th century the first Christian cemetery was founded in Podol, next to one of the streams crossing its territory from west to east almost over the Pochaina bank⁷⁷. By that time the Lower Town had reached its maximum size of about 180 hectares. New streets lines with more homesteads were added. The construction of stone churches was complemented by the appearance of domestic wooden churches⁷⁸.

Which turned over a new page in city history as the social and political situation changed dramatically.

Kiev's layout much resembles that of North European cities. However, during the subsequent periods of its growth, especially during the reign of Yaroslav the Wise, Byzantine influences on its structural planning prevailed. Nevertheless, further studies of the city plan of that time, especially the configuration of estates, can yield material for drawing parallels with mediaeval European cities. For example, excavations in 1984 made it possible to study a large section of a main street of the "city of Yaroslav" going from the St. Sophia Cathedral to the city's west gate. Artefacts from these excavations are of the Norse type. Parts of the city territory adjacent to that street had boundaries in the form of small ditches dug in solid ground, as in Visby and Ribe. This reminds us that the wife of Yaroslav the Wise was a Swedish princess, daughter of the Sigtuna konung. Immediately involved in shaping the royal dynasty, she could not have remained indifferent to the image of her capital, and the planning of cities in her homeland could serve as a model.

The bulk of imported Norse items in Kiev of the 9th – early 11th centuries came from Podol and the so-called flat land adjoin-

67. Such structures were found along the Obolonskaya St. in 1987.

68. In recent publications I supported what I think a well-grounded supposition that Ugorskoye, first mentioned in the chronicle in 882 as

69. Built in the 12th century.

70. Sagaidak, 2005/1, pp. 6-25.

71. Collected Russian Chronicles, 1998, vol. 2, col. 41-42.

72. Sagaidak, 1991, p. 22.

73. Collected Russian Chronicles, 1998, vol. 2, col. 17.

74. "...And so gathered all Kievans at the *Turova Chapel*" (ibid, col. 321).

75. The city's military administration remained headquartered on the Castle Hill, on and off, till the mid-17th

76. In the West old cities were superseded by new ones also in the second half of the 10th century. In southern Scandinavia Lund

77. Sagaidak, 2005/1, p. 22.

78. Sagaidak, 1991, p. 96.

ing it from the north-west, and also the Old Kiev Hill rising above Podol together with part of the Mikhailovskoye Plateau and the future “city of Yaroslav”. The finds from the Castle Hill offer less evidence of Norse and “Kievan Rus” physical links. The north European artefacts found in Podol and on the Castle Hill were originally connected with residential and utility complexes of the Upper Town and formed part of Kiev’s Necropolis I grave goods. Finds of such artefacts dated to the 9th – 11th centuries shifted to the area of princely palatine ensembles, church and monastery homesteads and the residential and utility complexes of the Kiev nobility⁷⁹. Therefore, the finds of Norse items of the 9th – 11th centuries in Kiev mark out the city’s territory, including Podol, the Castle Hill, which was the administrative centre at the time, and the large necropolis at the site of the future Upper Town. The assemblage of items in the said troves indicates their association with the Norsemen. However, there is evidence of reverse associations as well⁸⁰.

All these facts testify to firm links between urbanisation processes in Eastern and Northern Europe.

Today we have no archaeological evidence to support the hypothesis that the southern Russian city, primarily such as Kiev, evolved from an old tribal or inter-tribal centre. The precise cartography and chronology of the finds of the second half of the first millennium A.D. on the territory of the Upper Town, in the so-called nucleus of urban development, suggest the conclusion that there are no traces of direct transition from the relics of the Prague-Korchak type associated with the Right Bank tribal grouping of the Slavs to the archaeological cultures of the 7th – 8th centuries (Volyntsevo and others) representing the Left Bank and southern tribal groupings. The nature of finds yielded by excavations at residential and utility complexes is not indicative of any attempts to form urban-type structures. Rather those were ordinary farming settlements the residents of which used land clearing techniques and therefore had to relocate periodically. Settlement on the Old Kiev hill somewhat stabilized following the construction of a hillfort in the late 8th century, but it was a new population group from the Left Bank Dnieper. The hillfort lasted till the mid-9th century and gave way to a necropolis. At the same time no assemblage of Romny culture relics associated with the Severian population of the Left Bank of the late-9th – 10th centuries has so far been found in Kiev.

Fundamental changes in Kievan city-building and, therefore, in social life came about in the late 9th – early 10th centuries. The reason apparently was major economic shifts, including trade and barter over long distances, and also crafts. Archaeological material from Podol paints a graphic picture of this process. The organisation of the city plan and the characteristic features of urban estates and house designs make it possible to trace the city back to the early urban settlements of the outer zone of European urbanisation. It is important to note that the layout of Podol along the main street running parallel to the shoreline puts that southern Russian city on a par with early cities in Rhineland, on the British Isles and in Scandinavia, where this type of layout prevailed.

The rise of the “city of Vladimir” and the “city of Yaroslav” in Kiev’s Upper Town in the late 10th – early 11th centuries should be related to the age of the emergence of new “administrative” cities, called for by the need to centralise political power, buttress the ruling dynasty and baptize Rus’. Changes in Kiev’s layout were a reflection of the budding of power in the Old Russian state. The city continued to develop as the capital of a medieval state.

79. Remnants of one such church were excavated in 2003 near an originally built up site (3/7 Mezhygorskaya St.).

80. About 70 Norse artefacts dated to the 9th – 11th cc. have been found at 64 sites on that territory.

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