

To what extent have long distance goods and merchants penetrated into the hinterland of trading settlements along the river routes between the towns of Chernigov and Lyubech, in the tenth century?

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Abstract

This study aims to look at the extent to which trade and long distance exchange had penetrated into smaller settlements along the river routes between the towns of Lyubech and Chernigov, in the tenth century. The study uses existing excavation reports from the area to compile a database of finds and settlements. Presenting the data in a compiled form in English for the first time, this study looks to determine the ways goods may have travelled in the region and the origin of the goods.

Table of Content

Abstract-----	2
Table of Content -----	3
Table of Figures -----	6
Acknowledgements-----	10
Declarations-----	11
1. Introduction -----	12
Research Question-----	12
Structure -----	12
2. Literature Review -----	15
Normanism -----	17
Anti-Normanism-----	18
Recent developments within the theoretical debate -----	19
Rus before and up to the tenth century -----	23
Trade in Rus lands-----	30
Trading settlements -----	33
Chernigov Principality-----	36
Chernigov-----	36
Lyubech-----	38
3. Methodology -----	40

Area of Study -----	40
Data Selection-----	40
Problems and Issues-----	44
4. Settlements in the study -----	46
5. Settlement Analysis-----	60
Settlements by area-----	60
Fortifications of Settlements and Associated Necropolises -----	68
6. Finds Analysis -----	74
Settlements with trade activity -----	76
Settlements with Manufacturing Activity-----	83
Settlements with domestic and agricultural activities-----	88
7. Synthesis-----	93
Comparison of find groups-----	94
Pogosts on the Chernigov-Lyubech route -----	95
Classification of trading settlements-----	98
Local connections and movement of trade -----	104
8. Conclusion-----	111
9. Areas for Further Study -----	113
List of Appendixes-----	115
Images of finds -----	115
Table 1: Table of Finds from settlements-----	120

Table 2: Table of finds from Necropolises -----	133
Definitions -----	138
Bibliography -----	140
Published Works -----	140
Unpublished Works -----	148

Table of Figures

Figure 1 - Slavic Tribes In The East In The Ninth To Eleventh Centurie. -----	24
Figure 2 - Axe From Shokshovo, Burial Mound 1-----	29
Figure 3 - Gaming Pieces From Shestovitsa, Mound 98-----	33
Figure 4 -Chernaya Mogila Excavations By Samokvasov-----	37
Figure 5 - Coin From Chernaya Mogila. -----	37
Figure 6 - Swords From Chernaya Mogila-----	38
Figure 7 - Schematic Plan Of Lyubech -----	39
Figure 8 - Rogoshh And Associated Tobaev Necropolis -----	49
Figure 9 - Structure 11 In Trench 6 Of Vipovzov Archaeological Complex-----	50
Figure 10 - Location Of Maliy Listvin-----	51
Figure 11 - Layout Of Maliy Listvin-----	51
Figure 12 - Schematic Plan Of Lgov-----	53
Figure 13 - Schematic Plan Of Stariy Bilous 2-----	54
Figure 14 Location And Extent Of Yamishhe -----	55
Figure 15 Schematic Plan Of Smogilovka -----	56
Figure 16- Peresazh With Possible Area Of Settlement Extent-----	58
Figure 17 - Studied Area-----	59
Figure 18 – Territorial extent Of Settlements In The Tenth Century-----	61
Figure 19 - Rogoshh Fortifications In The Later Stages Of Settlement Development -	63
Figure 20 - Maliy Listvin Fortifications -----	65

Figure 21 - Location Of Settlements Which Have Been Identified As Having An Area Greater Than 10,000 Square Metres -----	66
Figure 22 - Settlement Distribution According To Size-----	67
Figure 23 - Location Of Settlements With A Gorodishhe -----	71
Figure 24 - Location Of Elovshina In Relation To Chernigov -----	72
Figure 25 - Fortified Settlements With An Area Greater Than 10,000 Square Metres -	72
Figure 26 - Settlements With A Necropolis-----	73
Figure 27 - Tenth Century Southern Rus Pottery Rim-----	74
Figure 28 - Settlements With Only Ceramics Finds -----	75
Figure 29 - Single Finds Per Settlement In Alphabetical Order-----	75
Figure 30 - Bells From Lgov Posad Dated To Tenth – Eleventh Centuries -----	77
Figure 31 - Bells From Novgorod, As Analogies Of Bells From Lgov Posad. -----	77
Figure 32 - Location Of Settlements With Trade Related Goods-----	78
Figure 33 - Pendants From Rogoshh And Analogy From Vladimir Region -----	79
Figure 34 - Finds From Mound 2 Of Rogoshh Necropolis In Tabaevka -----	80
Figure 35 - Bronze Grivna From Maliy Listvin -----	81
Figure 36 - Settlements With Manufacturing Activity -----	84
Figure 37 - Location Of Settlements With Manufacturing Activity-----	85
Figure 38 - Collection Of Beads, Temple Rings And Earrings From Lgov -----	86
Figure 39 - Settlements With Metal Slag-----	88
Figure 40 - Settlements With Domestic And Agricultural Activities -----	89

Figure 41 - Location Of Settlements With Domestic And Agricultural Activities-----	90
Figure 42 - Keys Dated To Tenth Century From Dwelling Number 2 Of Rogoshh ----	91
Figure 43 - Food Related Production (Subset Of Figure 41)-----	93
Figure 44 - Location Of Settlements With Finds Numbering Above 20-----	95
Figure 45 - Demand Cones In Central Place Theory -----	101
Figure 46 - Possible Trade Settlements -----	103
Figure 47 - Network Of Settlements When Connected To Three Nearest Places -----	105
Figure 48 - Connections With Three Closest Settlements By River Routes -----	106
Figure 49 - Settlements Within A 10 Km Radius Of Maliy Listvin And Rogoshh ----	107
Figure 50 - Settlements Within 5 Km Of Each Other -----	109
Figure 51 - Trading Settlements -----	110
Figure 52 - Fibula From Rogoshh Dwelling Number 2 -----	115
Figure 53 - Bronze Buttons From Maliy Listvin Gorodishhe -----	115
Figure 54 - Maliy Listvin Arrow Head From Gorodishhe -----	115
Figure 55 - Maliy Listvin Gorodishhe II -----	116
Figure 56 - Maliy Listvin Ceramics From Stratigraphic Layer 8 -----	116
Figure 57 - Ceramic Finds From Zleev -----	116
Figure 58 - Tenth Century Ceramics From Structure 1 In Stariy Bilous 2 -----	117
Figure 59 - Ceramics From Ustye -----	117
Figure 60 - Ceramics From Klonov Structure 3 -----	117
Figure 61 - Worked Bone From Porub Burial 1 -----	118

Figure 62 - Ceramics From Mound 1 Of Porub Necropolis ----- 118

Figure 63 - Selection Of Ceramics From Pushkino----- 119

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Declarations

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

1. Introduction

Research Question

The overall aim of this study was to find out to what extent long distance goods and merchants have penetrated into the hinterland of trading settlements along the river routes between the towns of Chernigov and Lyubech, in the tenth century.

In order to do so, the first objective was to look at a number of settlements in the area and analyse the records on artefactual material from them. Based on the created data it was possible to analyse and evaluate the settlements and links between them.

The second objective put forward in order to achieve the aim was to analyse and evaluate the paths of trade goods in the studied area. Having taken into account the artefactual assemblages of the examined settlements and their topographical layout, the study looked for patterns between settlements as indicators of the movement of goods.

The patterns of distribution of goods and settlements which emerged were used to put together models of trade in the area. The nature of the study only allowed for the creation of preliminary models, but ones which were able to create a basic system with the data available.

In order to achieve the first objective, a number of criteria needed to be met. The settlement in the studied area needed to be determined and classified. They were then separated according to the quantity of finds associated with long distance exchange that was found within them. Then, links between the groups and individual settlements were assessed. This was done through achieving objective two and isolating the goods which had originated from long distance exchange, establishing their origin and analogies. The gathered information was examined for themes and brought together to determine if anything could have been said about the movement of goods within the settlements of the studied area and the wider world.

Structure

This study has a ten chapter structure. The chapters have been organised to produce a natural flow of information, centred around the research question. The chapters were set out to: present the aims and the framework of the study; provide a historiographical setting for the study and the historic background of the region; present the data and

settlements involved in the study; provide analysis of the data and create models of trade movements and settlement usage. All of this is done in the following chapters:

Introduction

The introduction section includes the research question, aims and objectives of the study. The purpose of the section is to set out the framework for the rest of the study and provide a way to determine the success of the study in answering the questions set out in the research framework.

Literature Review

The literature review provides a setting for the study. This section sets out the historical framework within which the study is set and covers the main theoretical differences of the major contributors to the study of the period in question. This section goes into a deeper overview of the studied area, providing information of the historical events in the region and the debates that they have created.

Methodology

The Methodology section deals with the issues of data selection and analysis. It sets out the academic and geographical limits of the study, providing reasoning for the selections. The issue of data selection is discussed with a precise date range being provided, as well as the origin of the data.

The analysis method is selected for the data included in the study and any problems which may, or have appeared in the process of conducting the study are discussed and solutions provided (if known).

Settlements in the Study

This sections lists and briefly describes the settlements in the study. It also provides schematic diagrams and details on location of settlements.

Settlement Analysis

This chapter utilises the data of the study to establish and discuss the settlements included in the study. An introduction to the history of long distance settlements is provided and their known connections are discussed.

The settlements not traditionally seen as participating in long distance exchange (i.e. settlements not mentioned in the chronicles, or settlements not named by researchers as participating in long distance exchange) are introduced and their typical characteristics are presented. Possible connections between settlements are discussed based on the land and water way connections between them.

Finds Analysis

The finds included in the study are discussed in this chapter. Starting with the finds from established, or known, nodal settlement and moving on to the other settlements in the study, finds are grouped by type. Analogies between the finds of the study are found and their possible geographical and cultural origin is presented.

Connections between finds are discussed based on their typological characteristics and origin.

Synthesis

Finds and settlements are brought together. Models of geographical connections between settlements and finds are considered. Models of finds movements are created, based on previous settlement and finds' origin discussions. These models are used as a base for determining the background and origin of the traders who came to the region, based on the known information on the identities of traders. A model for the identification of trading settlements is created.

Conclusion

Discussions and findings are brought together to answer the questions posed in the research agenda, aims and objectives of the study. Areas for further research are discussed, as well as limitations of the current study.

Areas of Further Study

This section takes into account the limitations of this study in order to establish possible avenues for further research within the framework of the research question. Furthermore, avenues to expand the research question are explored and possible additional research questions are presented.

Appendix

The appendix provides additional data on the settlements in the study. This includes data tables gathered from excavation reports used within the study. Furthermore, images of selected finds and possible analogies from other settlements are presented. The purpose of this is to provide additional points of reference for the study, as well as to present the research material in a more visual manner.

2. Literature Review

Historical debates on the origins of Rus and Russia have become a highly politicised affair. It is impossible to go into a discussion on the history of the Rus without encountering the “Russian Problem”. That is to say, not to have come up against the discussion among one of the two schools of thought on the subject. It is thus necessary to, first and foremost, introduce this discussion prior to examining the area of study in an historical context and prepare the reader for the discrepancies between theoretical positions of the academics and authors mentioned in this project. Only after this, is the historical overview provided with the necessary adjustments to a particular theoretical standpoint.

Such an approach aims to provide the reader with the necessary ability to maintain a degree of scepticism about a theory on the development of Rus which runs through this study, with the knowledge that there are alternative standpoints.

Furthermore, one must remember the difference between the Rus state and the Rus people. The Rus state was the land mass under the control of Kiev. This stretched from the Baltic Sea to the Black Sea and from the Western borders of Modern Ukraine to Moscow and beyond. As for the Rus people, this term can include the individuals mentioned in the Primary Kievan Chronicle who formed the Rus state, as well as the ordinary inhabitants of the Rus state. Where possible an effort has been made to offer clarification on the definition of the term at the point of use.

The question of attitudes to Russian historical problems can be dated to the eighteenth century and the disagreements within the Russian Academy of Sciences between Lomonosov and the cohort of “western” academics within the academy in the

eighteenth century. The division was caused by the opinion on the ethnic origins of the Rus; whether they were of Slavic origin, as thought by Lomonosov, or of German-Scandinavian background. The followers of pro Slavic attitudes came to be called Slavists, or Anti-Normanists, with those favouring the Scandinavian origin having the name Normanists. This debate became the dominant feature within the discussion on the origin of Rus, transition from which was only possible following the movement away from Marxist positions of historical determinisms in the 1990s.

September 6, 1749 saw the birth of the Normanist against Anti-Normanist debate, which began with the speech of Gerhard Muller, entitled '*Origines gentis et nominis Russorum*'. In his speech, Muller highlighted the links between the Rus, Scandinavians and the Germanic peoples that were visible in the accessible literature of the time. With it the rift in historical theory on the origin of the country began. With opposition to such interpretations and pressure from the Empress and academics such as Lomonosov, the theory and its material were destroyed (Pritsak 1977, 249-250). However, the argument remained and as at the time there was little information available bar the Early Medieval Chronicles, the argument stagnated until the late nineteenth century.

Among supporters of the Normanist theory are famous historians and archaeologists such as Pirenne (1974, 47-55), Klyuchevskiy (1987, 172-186), Klejn (2009), Grygoryev (2005), Motsya (2003), Martin (1995), Duczko (2004), Androshchuk (2012), etc. These names represent the main arguments within the field of Normanism, as well as the main academics working within the geographical framework of this study, and provide an overview of the variations within the theory. The Anti-Normanist group is more limited to Eastern Europe and has historically been dominated by individuals who identify themselves as of Slavic origin. Often these were Imperial and Soviet academics, with fewer contemporary archaeologists taking this standpoint. Among its supporters are Tikhomirov (1959), Grekov (1947; 1953), Vernadsky (1963) and many other Soviet and Russian archaeologists and historians such as Rybakov (2004), Stankevich (1962), and Blifeld (1977). These academics predominantly represent the Soviet school of thought, and although they differ on details- come to broadly similar conclusions on the ethnic origins of the Rus. The differences between the two theories have dominated academic discussion on the origin of the Rus state and its ethnic composition during the period of state formation. An overview of the debates of the two groups can be found in much of the literature concerning the period, with a detailed summary provided by the collection of contributions in the book "*Expulsion of*

Normans from Russian history” (Фомин, 2010). As such, below are the summaries of the two views.

Normanism

Although the details in opinion within the Normanist camp vary, some believe a Scandinavian involvement, others a Baltic one, others still a Finnish descent, the idea of the foreign intruder, or reformer remains the same. It may be pointed out that only academics which hold the opinion of a Scandinavian origin of Rus can call themselves Normanists. However this study bases its allocation of academics to a particular group based on the group with which the authors themselves identify.

Klyuchevskiy has been an influential Normanist for the last one hundred years. An academic of Imperial Russia he was a strong believer in the role of trade and Scandinavian influence in the formation of the Rus state. It was his theories that have been “disproved” and debated by Rybakov and Tikhomirov, on the Anti-Normanist camps. According to Klyuchevskiy, Scandinavian traders would penetrate or form towns in Slavic lands as merchants. They would eventually come to dominate the native population and take over, as was the case with Novgorod (Ключевский 1987, 144). The Varyagi (or Vikings) would impose their own leader and rule over the territory as occurred in Novgorod (Ryurik) or Kiev (Askold and Dir) (Ключевский 1987, 145) and eventually evolve into the Christian Rus of Vladimir the Great. The difference between the Slavs and the Rus is highlighted by the mention by Constantine the VII of the two having completely different languages to the point of having dual names for the Dnieper rapids.

Of course, the material for studies at the time was largely historical and Western opinion was in many ways similar for years to come as it was based on largely the same material. Henri Pirenne, an early twentieth century academic who produced theories on the formation of towns in Western Europe in the Early Middle Ages had similar views to Klyuchevskiy. For example, Henri Pirenne’s view of the Scandinavian involvement in Eastern Europe was one of an extension of their trade with the Mediterranean, in an effort to get to Constantinople. There the Scandinavians, ‘or rather the Russians (to give them the name by which the Slavs knew them)’ would trade with the empire ‘regulated by treaties’ (1947, 24) through ‘entrenched camps along the Dnieper’ (ibid, 23). Although having largely similar ideas with Klyuchevskiy on the role of trade in Rus state formation, Pirenne touched on the semantics of names and terms for the Scandinavians,

another heated topic of debate which is illuminated from a Normanist point of view by S. H. Cross. He compares the similarities between the Finnish terms for Sweden and Swedes (Ruotsi, Ruotsalaiset), the old Swedish word for rowing (roþer) and the name Rus as an indicator of the Swedish origin of Rus (1946, 510-511). Furthermore, he discusses the term Varangian and the Scandinavian term for partners in an overseas expedition (vaeringjar), Greek (varangos) for a mercenary soldier of Germanic decent and the (varjagi) term for the Germanics on the Baltic coast and the Rus mention of 'Varjagi from beyond the Sea' or Scandinavians in the Chronicles (1946, 511). Through this, a link with Sweden is formed.

Anti-Normanism

Anti-Normanists see the formation of Rus deriving from economic developments, much the same as Normanists, however with differences as to the origins and the effects of these economic developments. The most influential Anti-Normanists of the twentieth century have been Soviet historians who based their theories within the concept of Marxist historical dialectic.

Earlier works on Anti-Normanism by such academics as Grekov (1953) have attributed the formation of the state to developments of Votchina, or hereditary estates, among the wealthy, or boyars. This in turn would capitalise on less wealthy peasants and employ them as a workforce, destroying the tribal and clan boundaries during the creation of an early medieval equivalent to a middle class. After all, in the trade agreement with Byzantium of 944, 10 out of 12 names of boyar and Knyaz lines were of Slavic origin (Захарова 1989, 26). This theory would be amended by Tikhomirov (1959) as it would emerge that the boyars did not appear as a force for another hundred years, until the late tenth- early eleventh centuries. The amended theory would be of a Knyaz, or princely power, establishing through tribe mergers and creating a tax system, which funded the military and other means of state formation. This is further supported by Gorskiy, who notes that a Druzhina, or an armed retinue, appears in the Slavic lands in the eighth century, before the appearance of the Scandinavian element and would enable the enforcement of the later taxation (Горский 1986, 86).

As for trade, to dispel the "myth" of Scandinavian traders being influential in the formation of the state Rybakov references an 'eastern geographer' who mentions Rus traders as a 'type' of Slav (Рыбаков 2004, 73). The mention of three Scandinavian brothers (Ryurik, Tuover, Sineus) being called upon to take the helm of Slavic tribes he

attributes to a similar story being present in English and Irish mythology referenced in Widukind of Corvey's annals of an Britannie embassy to the Saxons with the offer of the throne.

Recent developments within the theoretical debate

Recent archaeological and historical works have presented a picture of the development of Rus which falls out of the more simplistic opinions of the Normanist and Anti-Normanist debates. It has emerged that the process of state creation was a much more drawn out process with regional differences in the southern and northern Rus. It is taken by some that the period of state formation began twenty to thirty years prior to the appearance of Rus in Byzantium as mentioned in the chronicles of the time and ended with the Christianisation of the state by Vlodimir the Great (Макаров, 2012), whereas archaeological material from northern Rus suggests that the period of state formation may have continued into the eleventh century. The evidence for this is in the expansion of settlements of northern Rus and the formation of Novgorod (Hocob, 2012).

Prior to the appearance of Rus in the chronicles there is no mention of Slavs crossing the Black Sea, as such it can be assumed that this crossing is most likely to have happened on Scandinavian type long ships. The first of such crossings is mentioned in the form of a raid by Askold and Dir in 860 (866 in the Primary Kievan Chronicle (Захарова 1989, 13)). The non-Slavic names would indicate a most probable Scandinavian provenance of the two leaders. In a later raid by Oleg in 907 and the treaty that followed, the Rus and traders were mentioned separately (ibid, 18) and are given the title of ambassadors. Perhaps this is indicative of the Rus as a ruling entity and traders being of varying ethnicity. Furthermore, the second agreement of Oleg with Byzantium featured such names among the ambassadors as Karl, Ingeld, Farloff, Truan, Frelaff, Karn, Ruar, and Ruald (ibid, 20), all having similarities with Scandinavian names.

The influence of Scandinavians in the Rus and the numbers of Scandinavian warriors in the period of state formation has also provided new evidence for more complex process of state formation. In a recent assessment of the sizes of armies which journeyed to Byzantium, Teresshenko has used the data from known druzhina burials and possible ship sizes to provide numbers much smaller than mentioned in the chronicles. With a typical necropolis of a druzhina station containing 20-30% of military burials, Supruti had a garrison of 40, Gnezdovo of 50-60 which is similar to the 40 people of Birka

(Терещенко 2014, 102). These numbers are comparable to a single Viking ship of up to 70 people and records of Cossack ships show sizes of around 18 by 3 metres, which is similar to the Viking sea ships, and can theoretically support the figure of the chronicles which states a Rus ship size of 40 crew (ibid, 109). This also indicates that the alterations made to Scandinavian ships which allowed them to navigate the waters of Eastern European river did not impact on the size of crew. Resulting from this, the raids and armies of Rus reduce to: between 8,000 to 14,000 in the Askold and Dir raid on Byzantium in 860 AD; between 4,000 to 7,000 in 907 AD Byzantium raid by Oleg (down from 2,000 ships mentioned in the PKC and proposed 80,000 men (Захарова 1989, 17); 1,000 Scandinavians and 3,000 Novgorodians in Yaroslavl's army in the war against Svyatopolk (ibid, 111). These numbers paint a picture of a much less numerically dominant Scandinavian presence and imply the development of domestic economic and social factors in state development alongside Scandinavian military subjugation.

The process of tribute gathering and creation of vassals as a basis for state formation has also seen new light in the context of southern Rus. A study by Fetisov and Shhavelev indicates a prolonged existence of the Radimichi and Vyatichi tribes outside of Kievan control. They note that whereas the 885 AD campaign saw Sever being forced to pay tribute to Kiev through military means, Radimichi were negotiated with and until 1030 or 1070 AD they were an independent tribute paying tribe rather than a fully included part of the Kievan state (Фетисов and Щавелев 2012, 126). This autonomous state of Radimichi seemingly continues into the 1090s as they do not feature in the division of lands between the offspring of Vlodimir Monomakh after his death (ibid, 127). As for the Vyatichi tribe, they stipulate that the mention of Monomakh traveling through the lands of Vyatichi in the end of the eleventh century meant that at that time they were still a fully or, at least semi, independent tribe with a political and social identity – the final inclusion of which is dated to the twelfth century (ibid). This new interpretation sets the lands of Sever and Chernigov as the borders of political control of Kievan Rus, with lands east of it being affiliated to Kiev but still functioning with a degree of independence. This also presents the area covered by this study as a border area of Kievan lands.

The Rus feature among the writings of Arabic authors and their homeland is discussed widely '*Ibn Fadlan and the Land of Darkness: Arab Travellers in the Far North*' (Ludne and Stone 2012) and '*Rus in the Light of Foreign Sources*' (Коновалова 1999)

provide a good overview of Arabic writings on the subject of Rus and Slavs. Translated accounts on the origin and differences between the two provide a clear separation between the groups. Ibn Rustah describes the Slavs and the Rus separately, telling of the Rus who live on an island, raid the nearby Slavs and use Frankish swords (ibid, 47-49). A similar description is given by al-Maqdisi, who also describes the Slavs as sun worshipers [the God Yarilo] and the Rus as living on an island bordering Slavic lands (ibid, 50). This island has been interpreted as being Ryurikovo Gorodishhe called Holmgarth in Icelandic Sagas, a trading post near lake Ilmen, on the Volkhov river (Ludne and Stone 2012, 234). Furthermore, the account the Rus by Ibn Fadlan of the weaponry of the Rus (ibid, 45) is supported by the archaeological finds of Frankish weaponry associated with Scandinavians in Slavic lands.

The mentions of Rus by Fadlan can be dated to 920s, and show the dominance of Ryurikovo Gorodishhe at the time of the travels as opposed to other Rus settlements in the area. This account fits in with the new data available from the research around the lake Ilmen and the Volhov River.

Archaeologically, Scandinavian presence can be traced first and foremost through weaponry and decorative items of jewellery. A selection of catalogues has been created, providing information on the parameters and provenance of Scandinavian items found on Rus lands. These include a variety of items found in Staraya Ladoga, in Northern Rus (Kirpichnikov 2004) and a large variety of items found in Novgorod and Gnezdovo, both large trading posts on the routes from Byzantium and the Middle East (Кайнов 2007) (Мурашева et al 2007) (Андрощук 1999). Furthermore, Scandinavian items are further present in trading centres of Southern Rus and in particular in the area relevant to this study: in Kiev, Lyubech and Chernigov (Бондарь 2013).

There are strong links between the Scandinavian trade centre of Birka and the Rus, links indicative of a relationship beyond trade. Birka is one of the major Scandinavian emporia of the Early Middle Ages. A hub of trade between the north and the rest of the world, with goods from the Middle East, Western Europe, Eastern Europe, Africa and distant Asia. Although it is certain that Birka and Staraya Ladoga would have traded prior to the formation of the Rus state along with the trade of silver and glass beads which came from the Eastern countries through Russia (Sindbaek 2012, 151), it is arguably the tenth century which saw the greatest interaction which would coincide with the period of state formation. Before Birka ceased to exist in the 970s (Ambrosiani

2008, 98) there was an influx of silver which had reached the highest amounts yet, in Arabic coins as well as in hacksilver or “*weigh-money*” (Sindbaek 2012, 151-152). The increase in hacksilver could even be linked to the early Rus measure of Grivna which was used as means of currency (Янин 2009, 214-228). In the tenth century we also see the appearance of Rus coinage in some Scandinavian hoards (Gullbekk 2012, 165), although only briefly due to the small life span of Kievan currency prior to the division of the state among the sons of Yaroslav the Wise (Греков 1953, 108). In Rus we also see a closer attention being paid to the trading towns (pogosti). Pogosti become seats of great princely or Knyaz power (Androshchuk 2012, 531) which is shown through the appointments of men close to the Knyaz persona in charge of these settlements. No longer are there freedoms for men of the Knyaz retinue to take control of towns independently, as happened with Askold and Dir. This is a system well known to Sweden where royal holdings were always close by to the trade settlements, if not necessarily always controlling from within (Sindbaek 2012, 155). Furthermore, this also resonates with the rise of the Knyaz power prior to the tenth century, as has been pointed out in the research of Tikhomirov.

A link between Scandinavia and Rus, as well as the merger between the two can be seen in the names and written evidence of the tenth century and its legacy in the eleventh century. It is likely that a process of assimilation occurred with the Varyags who, even if they came to Rus as raiders, soon became traders (Pirenne, 1947) and settled. This is not just seen through the Scandinavian names representing the only ethnic group for the Rus during the signing of the 907 and 912 (or 911 (Shepard 2012, 499)) treaties with Byzantium (Захарова 1989, 18-22). Birch bark letters at Novgorod, as well as graffiti on the walls of St Sofia in Kiev (of a man called Hakon or Yakun), show Scandinavian names written in Cyrillic (Androshchuk 2012, 532, 535).

The size of the Rus state, the differences in external trade partners and tribes which inhabited Rus land require an approach that differentiates between developments in the North and South (Носов 2012, 93). This is the reason behind the focus on archaeological material predominantly Southern Rus within this study. However, the specific differences and the studies of similar projects in Northern Rus also require a mention. Structural differences in dwelling construction and stylistic differences in agricultural and jewellery items have been noted numerous times and are covered by Makarov in his work, as well as the similarities between the two regions (Макаров 2002). The differences in the density of population between the North and South have

also resulted in different functions and hierarchy of settlements, as has been explained by Motsya, (2004). Furthermore, the two areas have had a different approach to monetary exchange. With areas of Northern Rus displaying signs of western coinage as well as Eastern Dirhams, whereas southern Rus shows predominantly Dirham usage as well as Kievan minted Rus coinage being used in the tenth and eleventh centuries which potentially coincides with the limits in supply of eastern coinage (Янин 2009, 172-173, 183-190). These differences need to be taken into account when considering the development of state formation in the two regions of Rus, as well as the simple geographical variation between the Polesye regions of Southern Rus and woodland and steppe regions of Northern Rus.

Rus before and up to the tenth century

The story of the Rus begins in the year 860 AD, according to the Primary Kievan Chronicle (PKC), the most significant written source on the history of the Rus state in the pre-Mongol era. In that year, the Rus appeared at Constantinople (Захарова 1989, 11). The Chronicle itself references a Byzantine source and provides no further information on the nature of this appearance, the numbers of the Rus, or who they were. Never the less, the history of the Rus begins from this point.

According to the PKC, prior to the appearance of Rus, there existed a series of tribes which populated the area from the Black to the Baltic Sea. To the East of modern day Kiev were Drevlyane. Polyane occupied the land South and North of Kiev, along the Dnieper. Those settled on the Rivers Desna, Semy and Sumla were called Sever, or Severiane, or Severians (figure 1). These names and locations were passed down to us through the PKC (Захарова 1989, 2-3). These tribes were characterised by a single, or at least similar, language as well as cultural traits. There are some who see these tribes as the basis for the future state of Rus. A tribal union of Polyane would adopt the name of one of the tribes in the Union (Rus or Ros) and become the state of Rus (Рыбаков 1982, 284). However, there is no evidence, archaeological or historical for this interpretation, and a focus on the PKC would show a different series of events. Similarly, a tribal union of Krivichi, Radimichi, Vyatichi and Sever has also been speculated based on the similarity of material cultures through pottery styles and dwelling construction (Григорьев 2012)

Examining the chronicles, a Ukrainian academic – P. P. Tolochko came to the conclusion of a feudalisation of the Slavs in the region, from the eighth to the ninth

centuries. Citing an unreferenced chronicle, Tolochko notes a division between the classes of serfs, “better men” and Knyaz (1987, 18). Although a hierarchical division is a part of the feudal structure, it does not necessarily imply any ties to the land or extensive land ownership. This would come much later.



Figure 1 - Slavic tribes in the East in the ninth to eleventh centuries, after Кярпов 2014, figure 5

The PKC tells of the Northern Slavs paying a tribute to the Varyags. In the year 859, growing weary of the payment they expel the Varyags, only to ask them to return and govern three years later. This invitation was made to a particular type of the Varyags, the Rus. It is worth noting that in 860 at Byzantium the Rus were not mentioned as

Varyags. It is this point which would fuel much of the controversy over their origin. “Our land is great and generous, but there is no order” reads the text of the chronicle in the invitation to the Rus (Захарова 1989, 12). The invitation was answered by Rurik and his two brothers, Sineus and Truvor, who took up seats of power in Staraya Ladoga, Beloozero and Izborsk, respectively.

The names of the three brothers have been greatly debated without a definitive conclusion being reached, for a number of centuries. Non Slavic origins of the names cannot be disputed (Куник 1903, 10) but nor do they necessarily reflect true Scandinavian names. Tolochko notices the similarity between the words Sineus and “Sine hus” meaning his household, and Truvor and “thru voring” meaning his faithful or his retinue (1987, 20).

The chronicler goes on to tell of two of Rurik’s men, Askold and Dir, traveling to Constantinople with a retinue of Varyags, but halting and taking Kiev on the way. Not pursuing the initial task they settled in the town with a “multitude of Varyags”. These two lords would be murdered in 882 by Oleg, to whom Rurik left his son as ruler of the Rus following his death. This event in itself is a point of controversy. It is unlikely that Oleg and his large fleet, as described in the chronicle, would not have been noticed on approach to Kiev, or that the murder of Askold and Dir would have given him the right to govern in Kiev. It is more likely that the nobility of Kiev moved to rid the town of the rulers who were not related to the line of Rurik for a more favourable and noble alternative. The reasoning could have been the prevention of later attacks from Oleg or favourable trade relations (Ibid 24).

From the year 882, according to ПКС, begun the period of state formation in the Rus. Oleg is described as having subdued the surrounding Slavic tribes, began to establish settlements and demand tribute and tax. One of these settlements is thought to have been Vipolzov, on the River Desna (Коваленко et al 2008, 10). The settlements set up by Oleg acted as posts for the purpose of control over the indigenous population and the collection of tribute. Having to relay reports and funds to Kiev, these settlements were located along rivers. Water ways were the main means of transport and communication. Rus was covered in forests and swamps which could harbour bandits and wild animals. Rivers provided a speedy and relatively secure way of travel.

While Kiev was the capital of the Rus state, the role of Novgorod in the North needs to be addressed. Despite subtle differences in monetary systems (Янин 2009) as well as

chronological differences in settlement development (Ночов 2012), the two regions formed a single state with cultural and political unity following the period of state formation. This can be attributed to the ethnic makeup of the ruling classes as well as the wider social movements within the area. The similarity between the location of Novgorod and Kiev should also be noted. Located on elevated positions the settlements dominate the area surrounding them. Kiev “locks” the passage along the Dnieper as the Rive Desna joins the greater water route and provides a controlling point for the movement of travellers south – towards the Black Sea. Novgorod, located on the intersection of the Volhov River and Lake Ilmen and similarly “locks” the northern Slavic lands from further networks south of the town (Толочко 1975, 19).

Archaeological work on the Ilmen Lake has unearthed a more gradual and staggered development of settlements and transition of power in the area. The primary role in state formation in the area was played by two centres: Ladoga and Ryurikovo Gorodishhe. Located on the Northernly point of the Slavic world, Ladoga was at the intersection of the Sea and continental communication routes. Especially considering that Viking travellers regarded the River Neva as an extension of the Northern maritime area, and indeed the lake Ladoga to which it connects the Finnish gulf is seemingly endless compared to the narrow ways of the gulf.

Ladoga dates back to the eighth century and the remaining structures for the eighth to the tenth centuries reflect on a smaller size as well as the seemingly multicultural constitution of the settlement. Presented there are two types of dwellings. One type is a rectilinear form (sized 5x5 or 7x8 metres) wooden dwellings with a hearth located in the middle of the structure and possibly with an open roof. The origin of these structures is not entirely known however similarities between eastern finish and Scandinavian structures of the time have been made. Another type are sunken dwellings sized 4x4 or 5x5 metres and a hearth or oven located in a corner of the structure. These are synonymous with Slavic dwellings of the North (Ночов 2012, 104).

Due to a lack of sufficient arable land in the proximity to Ladoga, the settlement remained of largely a manufacturing and trade orientation to which a large artisan area is testament. The settlement has produced a large metalworking workshop dating to 750-770 which catered for a variety of styles and is among the unique discoveries of the settlement. Ladoga is also credited with being the point of origin of Scandinavian

artisan styles and production techniques such as the triple package knife system (Kirpichnikov, 2004).

As for the population of Ladoga, the settlement has had a substantial Scandinavian population, represented by a largely male collection of burials in Plakun, near to the settlement, dating to the ninth – tenth century. The burials have a characteristically Scandinavian chamber process. Ladoga can be considered as a Scandinavian post in the Rus where families of Norse origin would have resided. The link is further illustrated by the PKC identifying it as a wedding gift of the Swedish king to Yaoslav the Wise upon his marriage to his daughter Ingergerd (Hocob 2012, 107).

However due to a low concentration of population surrounding Ladoga and the inability of the settlement to control tribute and trade taxation, Ryurikovo Gorodishhe was the centre of Northern Rus. Unquestionably dated to the ninth century, the settlement continued to be the seat of the Novgorod rulers and their stately residents. The long distance connections of Ryurikovo are represented through extensive collections of Scandinavian combs, Arabic coins, byzantine jewellery, etc. (Nosov 1987, 76-78). The settlements boasts a bronze coin of Emperor Theophilos (829-842) which had no monetary value but would have acted as a token of travels to Byzantium (Hocob 2012, 111). These tokens are found in only two other locations: Gnezdovo and Birka. Thus they represent the earliest direct evidence of the “Varyangians to the Greeks” trade route.

The structures found in Ryurikovo are directly related in their layout and structural formation to the structures discovered in Ladoga and Novgorod. Dendrochronology of the wood revealed their dates to have been 889, 896, 897, 944 and 947 AD, providing clear evidence to the chronological existence of the settlement as well as the possible construction stages within it (ibid, 113). Discoveries of gorodishhe fortifications of Ryurikovo have also had analogies in Kiev, in the form of oak multi-layered structure dated to the eighth- ninth centuries (Nosov 2007, 35)

Scandinavian finds are also present in great abundance (Nosov 2007, 28). Their quantity surpasses that of Ladoga and is on par with Norse trade settlements such as Birka. Items like grivnas with Tors hammers, amulets of Valkyries and amulets with runic inscriptions are unlikely to have been traded items and most likely represent a section of population with Scandinavian routes or at least with a high regard for the Scandinavian style.

Ryurikovo Gorodishhe, its location among surrounding Slavic settlements and links with external trade partners could not have been left unnoticed by the Scandinavians and the first Rus seats of power are set up here. In the middle of the tenth century and towards the south of Ryurikovo and upon the latter corners of Novgorod, settlements began to form on the high ground surrounding Volhov River. Novgorod itself has its beginnings in the tenth century; however the placement of Perun statue in the proximity to Ryurikovo gorodishhe, in Perin indicates the existent importance of the settlement (Hocob, 2012, p. 99). The mentions of Rus by Fadlan can be dated to 920s, and show the dominance of Ryurikovo Gorodishhe at the time of the travels as opposed to other Rus settlements in the area.

If Ryurikovo Gorodishhe was predominantly a trade and artisan centre along the main communication route between Northern and Southern Rus, the new settlements springing up in its vicinity in the tenth century had a visibly different function, one of administrative control over the agrarian population of the local area and functionality as the centre of the Rus state in its northern territories (Hocob 2012, 100). Scandinavian finds do not feature as prominently in Novgorod and written sources refer to Scandinavians as mercenaries and traders – people with a traveller/nomadic lifestyle. The transition from trade orientation and tribute towards taxation and administrative functions is seemingly completed by the creation of the Sofiyskiy cathedral in Novgorod in the eleventh century, thus marking the end of the state formation process in the area (ibid, 117-119).

At a similar period as the existence of Ryurikovo Gorodishhe and the beginnings of Novgorod, we see a process of a network formation on the rivers Rpen, Klyazma and Pokolayka which have been found to be more numerous than previously thought. In this area, settlements were thought to have been not later than the tenth century. The archaeological sites in the area total 112 dating from the Iron Age to early medieval period. They include four Gorodishhe, 84 villages, 18 instances of concentrations of medieval ceramics and 5 burial mound necropolises. During the investigations 2730 finds have been discovered (Makapov et al 2013, 65-67). The existence of an established network of settlements in the region was a positive factor for the creation of Vladimir-on-Klyazma administrative centre in the region (ibid, 79). As for the external links of these settlements, Dirhams without brackets were found in the regions as well as in the Shokshovo necropolis nearby, which have analogies in Gnezdovo, Shestovitsa and Kiev (ibid, 232). As such the area has shown to be a developed social and trade

network which has taken the interest of Knyaz administrations, as further indicated by the finds of an axe with a stamp of Kievan rulers (figure 2).



Figure 2 - Axe from Shokshovo, burial mound 1 (Макаров et al 2013, figure 10)

It was also in this time that the Rus acquired their own language- thought to be a combination of Church Slavonic used in the Bulgarian Kingdom, from where Kyril and Myfodiy (the founders of Old Slavic language) came from, and East Slavic languages (Worth 1975, 2). The language was, according to PKC, a source of contention at the time and required an intervention from the Pope to declare his acceptance of Christian texts being written in other languages (Захарова 1989, 15).

In the beginning of the tenth century, the first treaty between the Rus and the Byzantine Empire was signed. This event can be considered as the first appearance of the Rus from the Kievan lands on the international stage. This followed a raid and siege of Constantinople by Oleg in the year 907, by PKC. Byzantium was to pay a yearly tribute as well as making a payment to every person present of 12 grivnas, a large sum considering the quantity of people required to siege such a large city. This was followed by a treaty in 912 which put in provisions for trading privileges as well as exchange of prisoners and assistance to shipwrecked merchants (Ibid 20-22). It is possible that provisions for military assistance were also later added as 700 “Rus” fought on the side of Byzantium in the war against the Arabs in Crete (Толочко 1987, 26).

The tenth century was also the point at which the Rus had begun adopting Christianity. Although sources tell of Christians in the Rus in the first quarter of the tenth century (Ibid 42), the first Ruler of Kiev to become Christian was Olga, in the year 955 (Захарова 1989, 36). Interestingly, her son, Svyatoslav completely rejected the religion

and followed the Slavic pagan Gods. Furthermore, the christening of Olga had no effect on the rest of the state. It was only in 988 that Svyatoslav's son, Vladimir, denounced his lifestyle of mistresses and debauchery and was baptised, as well as baptising the people of Kiev (Ibid, 61-64).

The tenth century had also seen the demise of tribal and clan structures and also hailed the formation and creation of the Rus state, and the beginnings of urbanism. "The contrast between the town and village begins concurrently with the transition from barbarism to civilization, from a tribal structure to the creation of state" (Маркс & Энгельс 1920, 12) and it is this change we see in Rus with the creation of state, differentiation between village and town and formation and entrenchment of Feudalism. An example of the feudal state in Rus is given by Grekov as the appointment and the division of noblemen between the various strongholds of the Rus (Греков 1953, 98) and the transition of local power from tribute gathering trade centres like Ryurikovo Gorodishhe to the administrative hubs like Novgorod (Носов 2005, 20).

It could be argued that the tenth century had also seen the peak of long distance exchange finds in Rus lands. This can be seen from the numbers of finds in Ryurikovo and Novgorod where the tenth century sees the highest level of Scandinavian goods (Nosov 2007, 28). Gnezdovo and Shestovitsa have also shown a peak of activity in this period (Скорород 2007, 145). The discovery of settlement networks and extent of communication between settlements in lands distant to Kiev also indicates a heightened activity in this time period (Макаров et al 2013).

Trade in Rus lands

The participation of Rus in trade activities is beyond doubt and is agreed by a variety of historians from diverse camps of theoretical opinions on the origin of Rus. Trade activities in Rus lands included local exchange as well as participation in the wider long distance systems of exchange. Irrespective of the theoretical or political agenda of academics, trade in the Rus state was a point of common agreement. No matter who the Rus were or how they lived, exchange happened. This is not to say that the role of trade in state formation had a similar level of consensus.

At, perhaps, its most northern point is the Rus settlement of Staraya Ladoga. Located on the far east of the Baltic Sea, Staraya Ladoga is considered to be a nodal point in the eastern section of the Viking network on the Baltic (Sindbæk 2007, 126). Whereas the role of Ladoga in state formation has been discussed above, it is worth mentioning the

links and trade activities which occurred at the settlement. Staraya Ladoga's links to Scandinavia are further strengthened by a workshop found there which was casting copper ornaments with analogies in Birka (Kirpichnikov 2004, 186). Dated to the early tenth century the workshop was most likely producing copies of a valuable ornate brooch which is thought to have had stylistic influences from the British Isles. The Vikings were the only group in the Baltic Sea which undertook such long distance journeys as to bring British stylistic influence to the shores of Staraya Ladoga.

The most commonly known trade route through Rus lands is the "Varyangians to the Greeks" route through Ladoga, Novgorod, Gnezdovo and Kiev, among many other settlements. The evidence for the existence of this route is numerous. One example is the token of travels in the form of Byzantine coins. Ryurikovo Gorodishhe boasts a bronze coin of Emperor Theophilos (829-842) which had no monetary value but would have acted as a token of travels to Byzantium. These tokens are found in only two other locations: Gnezdovo and Birka. Thus they represent the earliest direct evidence of the "Varyangians to the Greeks" trade route (Носов 2012, 111). Among other finds are evidence from Gnezdovo which host a variety of Scandinavian and Byzantine finds, including coinage, amphorae and elements of jewellery (Фетисов 2013, 117).

A different route took travellers through the Rivers of Northern Belarus. Controlled by the town of Polotsk, the rivers of Dnepr, Neman and Dvina provided a connection between the trade coming towards Kiev from the South and the markets of the North. A sign of the presence of Scandinavians is the first documented in PKC ruler of Polotsk, a Scandinavian by the name Rogvolod (Самонова 2010, 26).

Coming down from the rivers of Belarus and Polotsk, traders ended up in the lands of Kiev and Chernigov. In Kiev, the Scandinavian influence can be seen in the finds of grave goods of the tenth century. In upper areas of the town these finds included 6 gold Scandinavian type bracelets, as well as single finds of brooches, swords and other items associated with Scandinavian attire (Androshchuk 2012, 528). Although the presence of Scandinavian artefacts in these settlements is well documented and catalogued (Androshchuk & Zotsenko 2012), the presence of these traders is less known in the hinterland and the periphery of larger settlements. However, even here we can see a trail of Scandinavian finds and ethnicity.

In the region of the study, the presence of Scandinavian traders has been established and an example of one of the signs can be seen in Shestovitsa, a settlement which is not in

the studied area but only 18 km down stream of Chernigov, on the River Desna. Shestovitsa is a well-known archaeological site within the region. Archaeological complex of Shestovitsa is located in the region of Chernigov, to the South East of the modern village, bearing the same name. The history of excavation of the complex goes back to the nineteenth century. Influential works on the site include publication by Smoylichev, Stankevich (1962), and Blifeld (1977). Since the 1980s the site has been excavated by a team of archaeologists from the National Pedagogical University of Chernigov. Reports of the findings and conclusions of the excavation team can be gauged through the publications of archaeologists Kovalenko (Коваленко et al, 2012) and Skorohod (2007).

In 1946 excavations were conducted at the site of archaeological complex of Shestovitsa by Y.V. Stankevich of the Institute of Archaeology of Academy of Science of USSR. She excavated 2 trenches on the settlement and 7 burial mounds of the necropolis (1962, 6). Mound 6 (mound 98 under Blifeld (1977, 170) contained a burial of a man and a woman with a horse. The chamber was located at a depth of 1 metre, with a depth of 1.5 metres from the chamber edges. At the bottom of the chamber skeletons of a man and a woman were found.

Among the finds within the burial, 26 glass gaming pieces were located (Станкевич 1962, 24-25). In the south-western edge of the chamber, the pieces were found near the metal frame of a wooden bucket. Of the pieces: 24 were of a round shape and were divided by colour, the remaining two pieces were described as anthropomorphic (of them only one blue piece survives to the present day) (figure 3). The 24 pieces were of blue and yellow glass. The gaming pieces have been described as Byzantine in a later publication (Комар 2012, 353).

Hnefataf pieces and boards are a relatively common find within the Scandinavian world. Glass pieces were found in Birka graves 624, 986, 524 (Arbman & Stolpe 1940, 147, 149-150). Amber Hnefataf pieces have been found among the boat grave at Skamby (Rundkvist & Williams 2008, 83) and antler, shale, jet and chalk pieces were discovered in Viking York (Mainman & Rogers, 2000, 22565-22567). Despite their frequency, the game is attributed to a higher class of leisure activity, implying a higher social status, as is shown by the material and craftsmanship of the pieces.



Figure 3 - Gaming pieces from Shestovitsa, mound 98 (Komap 2012, figure 14)

Grave goods included in the burial may provide an insight into the identity of the person buried. The wealth of the person is beyond question, considering the presence of Byzantine jewellery of the female. The grave also included a scramasax and an iron axe, a relatively cheap and versatile weapon/tool, and is most likely indicative of a merchant trader. The chamber burial and the assortment of grave goods points to the Scandinavian origin of the individual.

This example of a single grave in a settlement along one of the river trade routes provides an idea of the presence and abundance of Scandinavian goods and goods with other origins. Furthermore, the grave goods had indicated that the person in the burial may have been of a Scandinavian origin. As such, it is a suggestion of the saturation of the area with traders, traded goods and people and items of foreign origin.

Trading settlements

A particular type of settlement that dealt with the systems of long and short distance trade was the pogost. It was a type of settlement which fulfilled the function similar to the emporia of Northern Europe. This is the type of settlement that we may come across when examining the finds and excavation materials from the Chernigov region. Considering the possibility of these settlements existing in the studied area, proximity of known pogosts to the area and the importance of the debate on the settlements in Rus historiography, it requires an introduction.

The question of the existence of pogosts in Southern Rus is debated, as well as the meaning of the term itself. Klyuchevskiy saw the settlements as deriving from the term used for a “gostit” (rus. Гостить), meaning a rest station. In his opinion these settlements played an important role in the formation of trade links and routes at the primary stages. Only after serving as trade settlements did these towns develop into administrative hubs (Ключевский 2003, 224-225). Alternatively, Presnyakov saw the role of pogosts as trade settlement as inflated and emphasised their administrative functions- including tribute gathering (Пресняков 1993, 309-310).

Tolochko P.P and Tolochko A.P. in examining pogosts, came to the conclusion that they did not exist in Southern Rus. This was based on the dating of the settlements like Shestovitsa, Gnezdovo and Timerevo to the ninth century whereas the appearance of pogosts is usually associated with the first half of the tenth. In fact in the tenth century these settlements already appear to be on the decline (Толочко & Толочко 1998, 80-81). An opposing view to this is provided by A. P. Motsya. He sees the existence of pogosts in Southern Rus as entirely real and attributes to them the administrative features of tribute gathering and storage. Moreover, in his view, these settlements would have been surrounded by a group of smaller settlements from which tribute will be gathered and the main means of sustaining the settlement will come (Моця 2003, 201).

The scope of this investigation cannot cover the debate on the existence and function of pogosts fully. A good historiographical analysis of the problem is provided by A.N. Bondar. He provides a number of features, or attributes, of a pogost. The first of these is that a pogost would be located in a densely populated area in order to act as a hub for the surrounding settlements. The significance of this is the ability of the settlement to act as a nodal point for trade distribution. Secondly, the existence of a gorodishhe and an open terrace, or posad was highlighted. This would indicate the presence of artisan crafts and manufacturing, thus allowing the settlement to actively participate in trade. Furthermore, it would have a defensible structure in the gorodishhe, which can be used to protect the settlement as well as house a garrison which would have been used to gather tribute from the surrounding area and other military activities. As a third point, a pogost would need to be located in a commanding position, so as to dominate the area. This would give a pogost an opportunity to control the nearby transport routes. This can be a dominant position along a road, or at a high point of a river route. Fourthly, the presence of an extensive necropolis with burial mounds in their hundreds and rich burial goods is also a factor of a pogost. This would mean a prolonged use of the settlement or

a large scale of activity at the settlement. A nodal point of trade is expected to have a large amount of activity as well as a trade activity which would involve high value items, which eventually ended up as burial goods in the necropolises of these settlements (Бондарь 2013).

Based on these criteria, a pogost becomes a well-fortified settlement with the ability to sustain itself beyond the demands of food with developed manufacturing of artisan goods. The pogost also acts as a link, a node between the smaller settlements in its vicinity and the wider world, while maintaining a control over the goods and resources that pass through it.

When talking about settlements that deal with long distance goods and trade, it was the pogost settlements in Rus that fulfilled this role. As such, settlement in the study will be examined not only for the presence of elements which are relevant to trade in the area but also for the features of a pogost in order to determine the possible points of penetration of goods into the wider periphery and of the Rus countryside.

This study is aware of other varieties of settlement classifications which existed within Rus. Any settlement has the possibility of being involved in trade activities and it is worth to mention these divisions. The most well-known historical hierarchical division of Rus administrative settlements separates settlements into three types: volost, pogost, verv. The qualities of the pogost have been described above; however it is worth presenting the other types of settlement and administrative divisions. Volost is the largest division which is understood to be a territory under a Knyaz rule rather than a settlement. It is most commonly considered to represent an equivalent of modern administrative regions, such as the Chernigov region. Verv is thought to have been a smaller rural hierarchical division and likely to have been a village administrative centre with judicial capabilities. Notably, Yaroslav's "Pravda" mentioned that should a member of a verv was to be found murdered, the whole verv was to pay a sum to the family of the individual (Юшков 2002). This may suggest a small number of individuals within a verv and the scarcity of population usually associated with rural settlements. It is on these principals and divisions that a large majority of Ukrainian archaeologists base their research on pogost settlements and settlement hierarchy.

In the past twenty years archaeological material has been bolstered by bio archaeological studies of fauna as well as geological surveys of areas around known and proposed settlements in various locations around the former Rus territory. The outcome

of these studies has been a greater understanding of the agrarian activity in the Rus and the resultant socio economic hierarchy in the context of settlement (Макаров 2007, 8) as well as new discoveries in the transition of power from settlements to new centres, as has been discussed on pages 27-29. However, this study is unable to rely on more detailed archaeological material and is focusing on the presentation of the material from the 24 settlements and a basic level of analysis which was allowed by the archaeological material available.

Chernigov Principality

Focusing on the area of the study, we move to the Chernigov region. This section aims to introduce the towns which feature in the study, as well as important archaeological features within them, providing a more localised and precise setting for the study and acquainting the reader with the settlements in question.

The study of the Chernigov region in the tenth century began in the nineteenth century, with great strides being made by D. Samokvasov in the second half of the nineteenth century. However the history of Chernigov goes far beyond that. The first written record of the town is in the year 907 (PKC) when the settlement is named second after Kiev in the treaty between Oleg and Byzantium, following a raid on Constantinople. The ruler of Chernigov is said to be appointed by the Kievan Knyaz. Not just a settlement, Chernigov controlled a territory, collecting tribute and organising levies. The controlled area under Chernigov is mentioned as the lands of the Sever tribe, according to the PKC. However, it is known that at certain points in its history, Chernigov was even controlling the Tmutarkan area which covered eastern Crimea and the Taman peninsular of modern day Russia (Коваленко 1989). Even without the distant provinces, Chernigov principality was known to have had 63 settlements, through written records alone (Михайлова 2010, 175).

Chernigov

The town of Chernigov has been substantially excavated over the last hundred years. The first substantial research in the town was conducted by Samokvasov (1908). His work included the excavations of the Chernaya Mogila. They were conducted using the 'well' method of excavation through the centre of the burial (Самоквасов 1916, 4). This method has since been criticized for the potential to miss out large sections of the mound. However, it was the methodology of the time and it allowed for the mound to be preserved to modern day. The excavation established that the mound was a multiple

burial with the principal inhumation being placed in a chamber, a Nordic ritual. Among the grave goods were a number of items which had originated in distant geographical locations and could have reached Chernigov through means of trade and exchange. These included an idol of Thor, Byzantine coinage and swords, among other items (ibid, 11, 20). The grave is dated to the tenth century; however an earlier date has been suggested due to the possibility of an earlier, yet unexcavated, burial below the studied level.



Figure 4 -Chernaya Mogila excavations by Samokvasov (1916, figure 2)

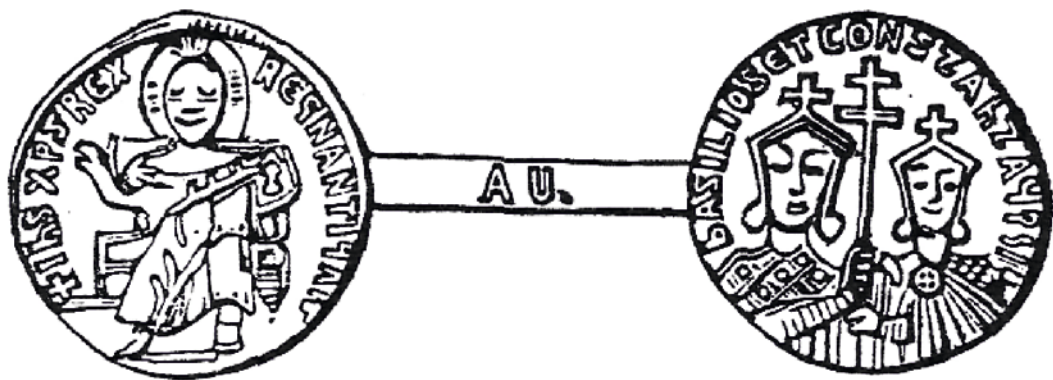


Figure 5 - Coin from Chernaya Mogila. Inscription reads Basilios et Constant on the side with the image of the Emperor and his son, and image of Christ enthroned on the other (Самоквасов 1916, figure 10). The coin depicts Emperors Basil 1 and his son Constantinus 866-886 AD (Akerman 1834, 452)

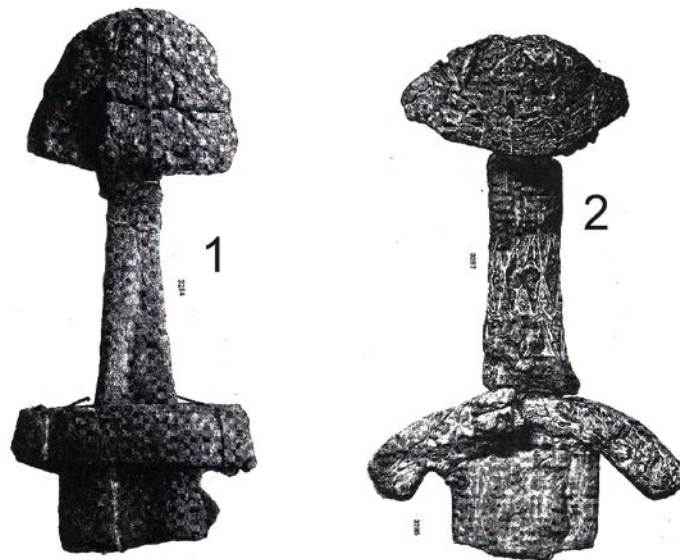


Figure 6 - Swords from Chernaya Mogila, image 1 after Самоквасов 1916, figure 25.

Image 2 after Самоквасов 1916, figure 26

The early medieval town of Chernigov was known to have had a number of churches as well as a substantial *posad*. A bank and ditch was created around the Knyaz seat and palace, and a large part of the Early Medieval town. The settlement had a number of burial mound fields to the West and North of the settlement, along the roads to Lyubech and Kiev (Коваленко 1990). The period of wealth for the town, in the pre-Mongol Rus, was the eleventh century, where as in the tenth century the town had an important role to play in the formation of the Rus state. The settlement is not mentioned in the PKC along with other settlements prior to 907, some 25 years after Kiev and at least 45 years after Novgorod. However, the settlement appeared second to Kiev in the Byzantine treaties of 944 and 907. Furthermore, the settlement does not figure later in the divisions of seats for the sons of Knyaz Vladimir. Kotlyar suggests that this could be due to the settlement playing a role in the formation of the Rus state through enforcement of Knyaz rule but being of lesser importance following the conquests of Oleg and Igor (Котляр 2013), only really becoming an administrative and power hub in the 1020s. Never the less, Chernigov was still a recognised centre at an international level following the Byzantine treaties.

Lyubech

Excavations at Lyubech began in early twentieth century, however notable work was conducted by Rybakov in the late 1940s and 1950s (Музыка 2010). The town is first mentioned in the Primary Kievan Chronicle in the year 882, as a seat of power which was conquered by Knyaz Oleg. Located on the River Dnieper, it occupied an important

position for trade and was able to direct goods via rivers Bilous, Muravlya and Strizhen – avoiding Kiev and the taxes that would have been placed on goods passing through the town.

The settlement of Lyubech has a fortified gorodishhe, excavated first by Rybakov in the first half of the twentieth century, and still being explored by E.M. Veremeychik (1995). These excavations have been able to establish different structures and other elements of the town. Above all the work at Lyubech has been focused on the fortress and defensive structures. The settlement two sections of fortifications (Figure 3), overlooking the Dnieper River which reached up to the edges of the settlement ditch and bank (Веремейчик et al 2012). Surrounding the fortified gorodishhe, which most likely had a garrison of 250 warriors, were unfortified posads (Куза 1996, 81). The gorodishhe had a permanent fresh water source in the form of wells, preventing a quick siege defeat (Кондратьев 2008, 36).

After the tenth century the settlement had also developed a substantial church to the south of the gorodishhe. It was established on the site of caves built by St. Antoni, the creator of the caves in Kiev Pechersk Lavra and the caves at a church in Chernigov (Руденок & Новик 2010). Antoni, who himself was from Lyubech, had put the town in the midst of early Rus monastic tradition.

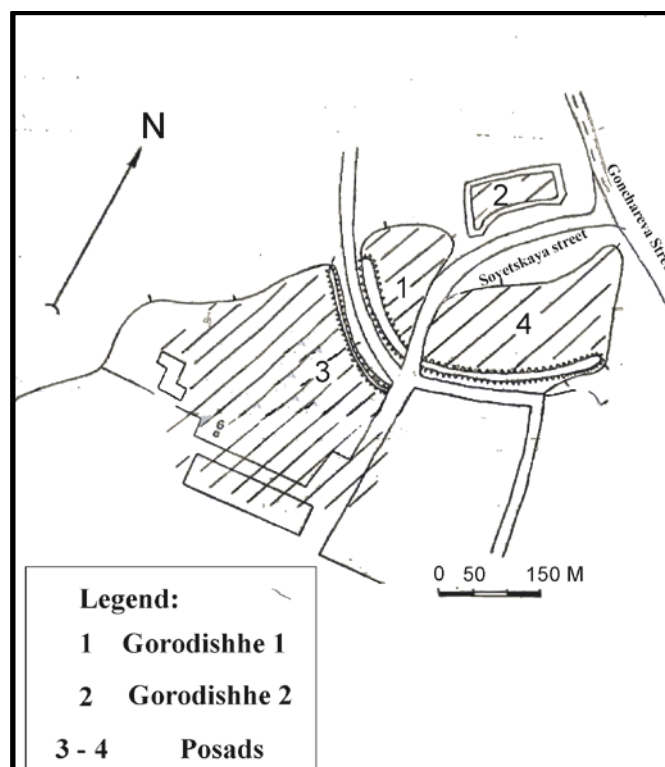


Figure 7 - Schematic plan of Lyubech, after Казаков et al, 1990, figure 1

3. Methodology

Area of Study

The geographical area of study is located in the modern day region of Chernigov, Ukraine. The focus of the study will be twenty four settlements dated to the tenth century AD, located within 60 km from the rivers Strizhen, Muravlya and Bilous. Rivers Bilous and Strizhen run from the north of the Chernigov region into the river Desna, on the Western and Eastern side of Chernigov, respectively. The river Muravlya runs from within 20 km west of the source of the river Bilous and into the river Dnieper. The area also has rivers Svishen and Borzdna, which run parallel to Muravlya and may be used to extend the scope of the study. North of the studied area is the Zamglay marsh system. One of the largest in Ukraine, it existed in the tenth century and would have been difficult to traverse (in figure 17 the marsh system is represented by the green polygon). The settlements in this study are Dolzhik 1, Elovshhina, Hmel'nitsa, Kezi 3, Klonov, Lgov, Maliy Listvin, Mutichev, Mutichev 1, Noviy Bilous, Peresazh, Petrushki, Porub, Pushkino, Repki 3, Rogoshh, Siberezh, Smogilovka, Stariy Bilous 2, Tamarovka, Ustye, Visokin, Yamishhe, Zleev and their associated necropolises, as well as the necropolis in Tabaevka associated with Maliy Listvin.

Data Selection

The study was conducted using excavation reports provided by the Institute of Archaeology of Ukraine archived in the Expedition Fund. The Institute holds records of excavations conducted in the Chernigov region from the beginning of the twentieth century. However, as material from before the Second World War is mostly absent, and previous excavations at most archaeological sites are referred to in the introductory sections of future reports, this study has focused on the reports produced from the year 1989 up to 2009 as well as earlier reports of Rybakov from the 1950s and 1960s as well as a surviving report of Blifeld from 1949. Within the Institute of Archaeology, limited access is granted to excavation reports for the first five years of their existence it is the limit for open access of the reports by members of the public without prior written consent from the authors, set out in the internal rules of the Institute. The choice of reports for the study was based on the availability of reports from the Institute of Archaeology and all available relevant reports were included in the study.

The Expedition Fund of the Institute of Archaeology of Ukraine has provided excavation reports used for this study from their archives on request, during the period of 26 to 30 of May 2014. Wherever needed, permission to use particular reports was obtained from the authors and was deposited with the Institute of Archaeology. A letter from the Head of Archives of the Institute of Archaeology was provided to verify access to archives and the obtaining of permission to do so. A copy of the accessed material is held by the Expedition Fund, who will be able to verify the quantity and type of material used for the study.

The data included settlements which were present in the tenth century, but may not have been exclusive to that period. A note was made, where possible, of the longevity of a settlement for the purpose of clarification. The dating of settlements has been taken from the excavation reports, which traditionally base their dating on pottery finds from the archaeological sites. However, other methods such as dating through typologies of associated finds from other settlements are also present in some of the reports. Only the material which has been identified as being of the tenth century has been included in the study. Material earlier than the tenth century has been included if found, and so indicated in the reports, in the context of tenth century finds which may indicate a prolonged use of the finds up to the tenth century. Later materials were not included as they fall beyond the remit of the study, limited by the time period of the tenth century. Although finds of tenth century in association with later finds may indicate a prolonged usage of a feature which began in the tenth century, it may also mean a prolonged usage of the find rather than the location. The geographical area of study has been described in the Area of Study section.

Of the aforementioned settlements, a selection of available information has been recorded. A table of settlements was created and located in the Table of Settlements section of the Appendix, which contains all the information that was used for the creation of this study, referring to the studied settlements. The Appendix also contains schematic plans of settlements for which this information was present in the excavation reports, as well as images of selected finds with some possible analogies.

The information included the name of the settlement, the finds which were mentioned in the excavation reports of the settlement. Together with that, information on any known analogies was included to act as a link with the wider world and provide an indicator of possible trade links. The type of artefacts that were included were: pieces of jewellery,

metallic objects of any kind, textiles and fabrics, worked animal bones fragments and assemblages, worked natural stone pieces, remains of standing structures, unworked animal bones, ceramic objects other than pottery (spindle whorls). Although amphorae fragments have been included in the study, this was not extended to other pottery fragments. The reason for this limitation can be found in the Settlement Finds section, however some images of pottery from selected settlements can be found in the Appendix section to act as a guide for the types of pottery found in the settlements.

The information on the size, period of existence of settlements as well as the type of archaeological examination conducted has been included in the settlement descriptions in the Settlements in the study section on page 45.

Following the compilation of data tables and a map with the location of the studied settlements, the process of data analysis was conducted.

The composition of settlements was examined. These included: waterfront structures, division between gorodishhe and posad, extensive associated necropolises. The existence of waterfront structures is indicative of river faring which may have been used for trade purposes. Similarly, the division between a defensive hub, or gorodishhe, and the traditionally manufacturing centre of the posad implies a manufacturing potential of the settlement and the added importance of the settlement through the existence of a fortified area. Associated necropolises can provide information on the individuals who resided in the associated settlement as well as provide indications on the links of the settlement to the wider world through artefactual evidence. Furthermore, it can indicate the scale of activity at the settlement, based on the size of the necropolis. Settlements with these features are likely to have been hubs of activity and trade in the area. Furthermore, settlements with defensive structures were isolated as of a higher importance and mapped accordingly. The size of the settlement was used to give an indication of the scale of activities conducted at the settlement, which was then cross referenced to the associated necropolises and compared to other settlements of the period (eg. Birka, Timerevo, Shestovitsa).

Finds from settlements were examined and materials associated with long distance exchange identified. Beads are among these items. This includes decorative beads of any material. The reasoning behind this is that it has been stipulated that the fashion for coloured beads came to Rus from Scandinavia. Furthermore, it has been established that beads that arrived in Scandinavia from the Middle and Far East travelled along the

rivers of Russia (Ljungkvist 2012, 190). It is possible that some of these beads would have settled in Rus settlements along the way. This would not only provide us with an indication of the distribution of trade but also provide the scale of possible Scandinavian intrusion into the studied area as the bead trader could have been of Scandinavian origin. However, this study is aware of the tradition of jewellery making in the Rus and the possibility of any beads being manufactured on location (Kirpichnikov 2004) (Рябцева 2005) and having no direct relation to trade. Furthermore, jewellery items other than beads have been included. These are: lunnitsa decorations, pendants, temple rings, finger rings, necklaces and earrings. It is likely that items of jewellery would have been worn by individuals of a higher status, the kind of individuals one would expect to be active in trade, in the form of consumers or merchants. Also, the stylistic influences of an item of jewellery would indicate the cultural trends of the time, which may have been linked to interaction with a particular cultural group.

Pitch production and finds linked to it is another group of finds that was included in the study. Tar, or pitch production is associated with travel along the water ways as boats would need to be coated in tar to be watertight. An example of such production in association with long distance exchange was found at Shestovitsa, 18 km east of Chernigov (Скоруход 2011).

Trade related items in the form of weigh money such as grivnas, as well as traditional coinage, were included in the study, too. Although it is entirely reasonable to assume that money of any kind could have been used for a variety of activities including jewellery making, it can be a part of trade in the form of means of exchange. As such it may serve as an indicator of trade related activities.

Items associated with artisan and manufacturing activity of some kind were also included. These are items which would facilitate the production of household and other goods. This includes iron slag and smelting instruments, wood carving instruments and leather working instruments. The reason for this selection is to be able to gauge the scale of artisan activity in settlements and evaluate the relation of production of non-agricultural items and trade.

Animal bones and spindle whorls have been included in this study. This is to analyse the scale of visibility of agricultural activities and identify the settlements which were engaged with this activity.

In the next stage, finds and settlement data were brought together to produce a visual map based on the trade information from settlements and finds. The purpose of this was to create an understanding of the scale of trade and agricultural activity in the area as well as establish the means of transporting materials between settlements. This would fit in to the arguments discussed in the Trading Settlements section of the Literature Review regarding the existence of a basic economic system beyond the large settlements of Rus as well as providing information on the ethnic origin of the people who participated in the exchange of goods. Attempts will be made to determine the ethnicity through a model based on the types of finds from settlements and associated burials, and the analogies of these finds in other settlements with known references to ethnic identities of the people associated with the finds.

Problems and Issues

Data availability

Due to funding and time restraints this study was not able to produce original material for the investigation. Instead, the study relies largely on material from former investigations conducted from 1949 to 2009. As such, the study was only able to produce secondary research. Focusing on providing a new collation and analysis of existing data this study has attempted to produce new analytical outcomes from existing excavation data.

The study also presents the data in a new context of analysing activity in the rural areas of Rus, or hinterlands of larger settlements. The focus of archaeologists on larger settlements and settlements mentioned in early medieval chronicles within the studied region left a void in the smaller settlements which this study aimed to fill. Furthermore, presenting this material in English and in the United Kingdom allows this study to promote the research into the tenth century Rus archaeology in the UK. The majority of the material presented in this study is making its first appearance in an academic context in the English speaking world, allowing a greater insight into Rus archaeology as well as providing material for further analysis and comparison in other fields of archaeology. The secondary research nature of the study makes the material used appropriate to applications to further research as a set of compiled data on settlements research up to the year 2009.

Unfortunately for the completion of this study it was possible to obtain only a limited amount of data from the Institute of Archaeology of Ukraine, and further opportunity

remains to utilise other research material which was not deposited within the Institutes' Expedition Fund. This refers to the excavation reports produced by Ukrainian archaeologists Zharov and Zharova during constructions of oil and gas pipelines in the early 1990s, which are deposited elsewhere and are not available to participate in this study. Their work is only present in the study in the form of a single report (Жаров 1991) which does not cover the full extent of their work in the area. Furthermore, other material may exist of which this study is unaware.

Archaeological reports for the geographic area of this study, deposited from the year 2009 are located in the Institute of Archaeology of Ukraine. However, due to the need for individual permission of the authors, it was not possible to obtain them. Rather than including the available material from 2009 it was decided to frame this study in the time period prior to 2009. As such, later works are a clear starting point for any further research.

Data Access

Reports and diaries used in this study were obtained from the Expedition Fund of the Institute of Archaeology of the National Academy of Sciences of Ukraine, access to which was granted with the help of reference letters from John Schofield, Head of the Archaeology Department of the University of York and Mike Freer, MP for Finchley and Golders Green. Time constraints made it difficult to obtain scanned copies of archaeological reports and photographs were made instead. This has made some of the images from the reports lose perspective and scale, as such all images in this study are not to scale, unless otherwise specified. This does not apply to maps of areas from Google Earth. Taken as screenshots, they have a distance scale which did not get distorted and act as the true scale for that image. Maps and image from other publications should also be considered without a scale unless one is provided in the image.

Due to the events in Kiev in the early part of the year 2014, it was advised by the staff of the Institute of Archaeology that attempts to access the material should be left for the latter part of spring of that year. Because of this, analysis and processing of the material was impossible until May 2014.

Data Quality

The material included in this study was assembled from a series of reports of differing quality. Although the reports have similar starting criteria, having been created over a period of 70 years the rules and necessities for facts included in archaeological reports underwent revisions. This is a feature that is not present solely in reports on early medieval archaeology within Ukraine but a feature of archaeological reports in general and has been noted in works on rural settlements in the Russian Federation (Макаров 2007, 14). One of the most notable omission is that the area maps of the settlements were sometimes not included. Whereas they are a feature in the reports of Shekun and Veremeychik, they are often omitted from the reports of Zharov. This has led to the problem of having substantial difficulty in establishing the locations of some of the excavated settlements. This problem was exacerbated by the changes in names of settlements that have occurred during and after the fall of the Soviet Union. An effort was made during the course of the study to homogenise the evidence which was selected for the study. This included grouping settlements and sites through associated finds and topographical features.

Another omission from the reports was detail on the finds from the settlement. Most often finds are listed rather than described in any great detail. The detailed description of the finds is usually left by the authors for a later publication. This created difficulties in comparing finds based solely on the descriptions and characteristics available as there is a lack of uniformity.

4. Settlements in the study

The twenty four settlements used in this study are all located in the area between Chernigov and Lyubech. The selection process for the settlement is described in the Methodology section of the study. All of the settlements lay in an area of around 120 km sq., they are:

Elovshhina

Located on the left bank of the river Strizhen and in the northern part of the city of Chernigov, the settlement was first explored by Samokvasov and was found to have an

associated necropolis which has since been destroyed by agricultural activity. The settlement is represented by a gorodishhe and an associated inhabited area. The gorodishhe is located on the left bank of the river, on a headland some 15 metres above the river and is measured at 40 by 40 metres. Currently used for agricultural purposes which limits the amount of visibility of archaeological features and surface finds, which are however sometimes represented by fragments of ceramics, which are mostly dated to the eleventh to thirteenth centuries (Бліфельд 1949, 9). The gorodishhe is likely to have had a solely defensive purpose and was not in constant use, only serving as a defensive stronghold in times of danger. The gorodishhe has a small posad adjoining it (Куза 1996, 110).

Noviy Bilous

A site of a settlement and an associated necropolis. The settlement is estimated to be at 250 to 300 metres wide and 100 metres long. It is located along the road to the settlement of Stariy (old) Bilous and to the south of the modern settlement with the same name. Associated necropolis numbers 12 mounds but local residents inform of a large number which have been destroyed during WW2 and by agricultural activity (Бліфельд 1949), (Шекун 1989).

Rogoshh

Rogoshh is one of the dominant settlements in the study. The Rogoshh gorodishhe, first mentioned in the chronicles in the year 1159, is located on the left bank of the river Bilous and is distinctive in its location, down by the river front rather on higher ground. In some areas the river is directly approaching the ramparts of the gorodishhe. It is measured at 200 by 180 metres and has a circular shape. The ditch and bank are well preserved and was some 9 metres high, when first excavated in 1949 (Бліфельд 1949, 22). Excavations on the settlement had frequently encountered ditches and trenches of WW2. The gorodishhe was further damaged in the 1970s when a road was put through the northern part of the ditch and bank, completely destroying it. Archaeological investigations have established that the gorodishhe was established in the tenth century through ceramics finds of a fibula brooch, metal key and knives (Ibid, 25-27). It had two stages of development, highlighted by the appearance of an internal moat, which would have had no defensive properties but would have provided earth for the purpose of a speedy creation of an external ditch and bank. The location of the gorodishhe, so close to the water and the high levels of fortifications which have had stages of

development suggest that the gorodishhe would have been used to control the river traffic between Lyubech and Chernigov (Коваленко 1981) (Жаров 1991).

Excavations of the settlement have unearthed sunken dwellings and domestic structures. The majority of finds are dated from the eleventh to the thirteenth centuries, however tenth century material is present (Куза 1996, 110).

Tobayev

Tobaev necropolis is located on the site of the modern cemetery of the Tobayevka village, this has damaged the tenth century burials as later inhumations were dug into them. It has 40 burial mounds, including 2 which were excavated in 1881 by Antonovich (Бліфельд 1949, 27). In the absence of a nearby settlement, the necropolis is associated with the Rogoshh gorodishhe, which is located just 1 km away.

The necropolis is thought to have contained 24 mounds and was a part of a large burial group (Ibid 28). Of the remaining mounds, 5 are fifteen to eighteen metres in diameter and three metres high. The rest are five to eight metres in diameter and up to one metre high. All the mounds have been dated to the ninth and tenth century.

Beneath the necropolis a settlement, predating the necropolis was discovered. Represented by a cultural layer and the presence of ceramics, the settlement is estimated to have existed during the period from second century BC to the second century AD (Бліфельд 1949) (Коваленко 1981) (Жаров 1991).

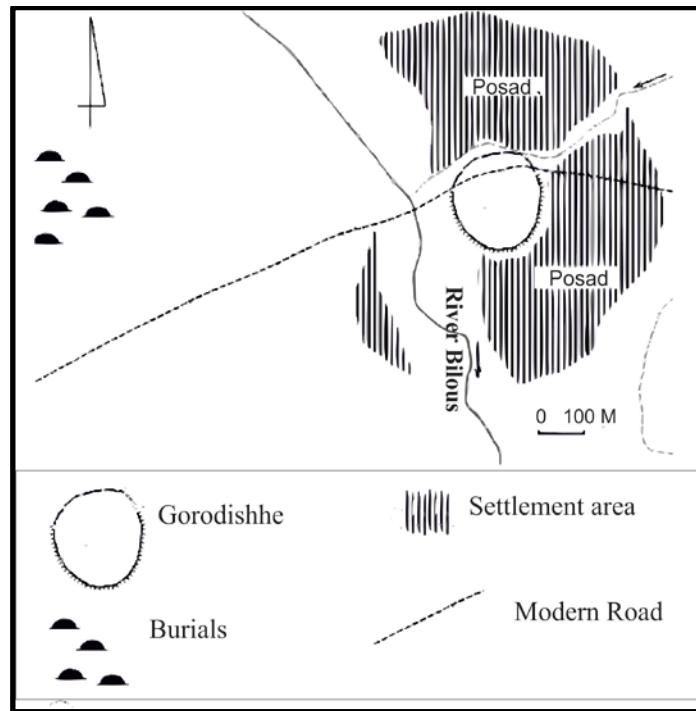


Figure 8 - Rogoshh and associated Tobaev necropolis, schematic plan. After Бондарь А 2013, figure 1

Maliy Listvin

Another important settlement for this study, it was first mentioned in the chronicles in the year 1024. The settlement of Listvin has first been excavated by Shafonsky (1851), who described it as a ditch and bank near to the source of the River Bilous. Archaeological work has continued on the settlement since and is now being carried out by A. Bondar (2013). The settlement was found to have two gorodishhe on either side of the River Bilous. The earliest existence of the settlement has been dated to the tenth century through associated pottery and permanent structures (Коваленко 1980, 6, 11, 16) and has produced finds of a knife made using the triple layered system associated with Scandinavian smithing, and a non-ferrous ring (Бондарь 2012, 26).

Maliy Listvin consists of two gorodishhe, two adjoining settlements and two necropolises (Жаров 1991). Listvin is widely known among the Rus archaeologists of the area. It was the site of the battle between Yaroslav Mudriy and Vladimir Tmutarkanskiy in 1024, an event which is seen as having ended the myth of Scandinavian military dominance, in the same way that the battle of Stamford Bridge of 1066 arguably ended it in England.

The first gorodishhe is located on the intersection of the rivers Bilous and Glinenka. It has an oval shape, measured 85 by 70 metres, and is surrounded by a ditch and bank. Through archaeological material, the earliest date for the gorodishhe is the tenth century (Коваленко В 1980, 14).

The second gorodishhe is located on the opposing bank of the river Bilous, it is measured at 105 by 90 metres and is located from 3 to 8 metres above the river. This gorodishhe is also surrounded by a bank, 2 to 3 metres high. Archaeological material provides the tenth century as the time for the first human activity and settlement. It was in the tenth century that the first fortifications were created. It continues to exist until the twelfth century. The settlement was noted for having sunken dwellings the likes of which have also been found in Vipolzov (figure 9) as well as a jewellery workshop (Куза 1996, 110).

A sizable settlement is located to the west of the gorodishhe. Dated from the eleventh to thirteenth centuries, it seemingly fulfilled the function of a posad for the second gorodishhe. Unfortunately the associated necropolis has been destroyed by agricultural activity.



Figure 9 - Structure 11 in trench 6 of Vipolzov archaeological complex, dated to the tenth century (Мироненко and Скороход 2014, figure 1)

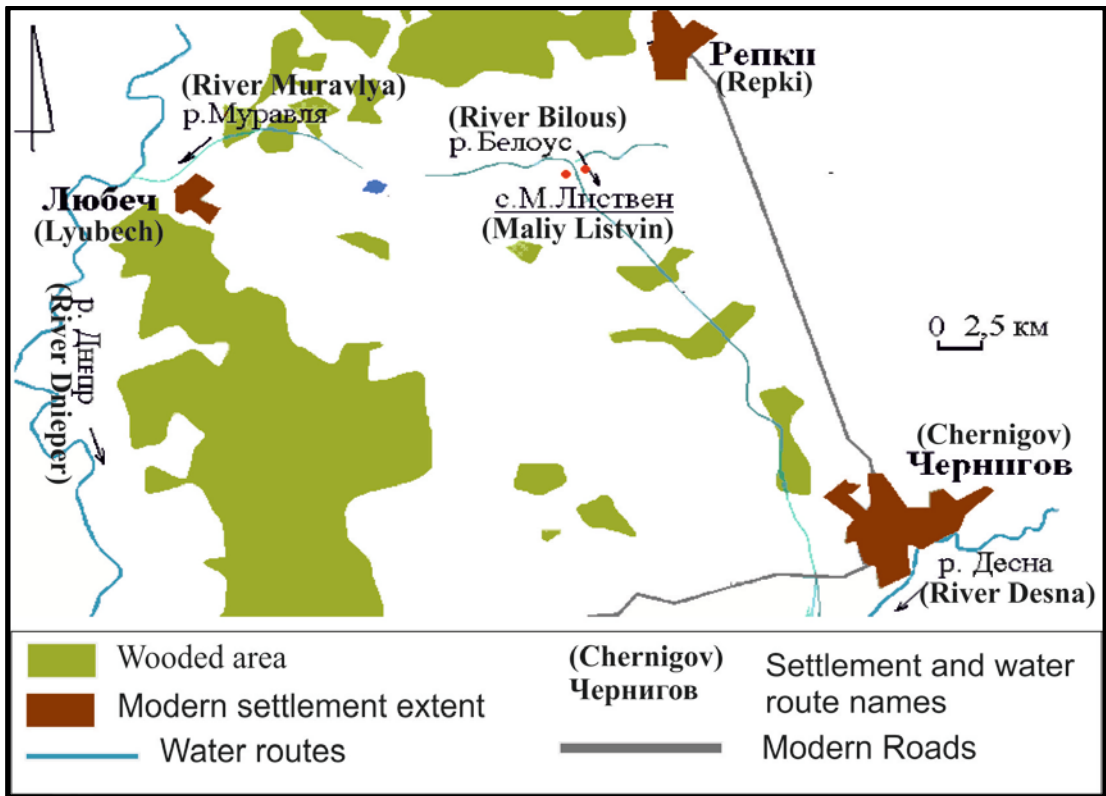


Figure 10 - Location of Maliy Listvin, after Бондарь 2012, figure 1

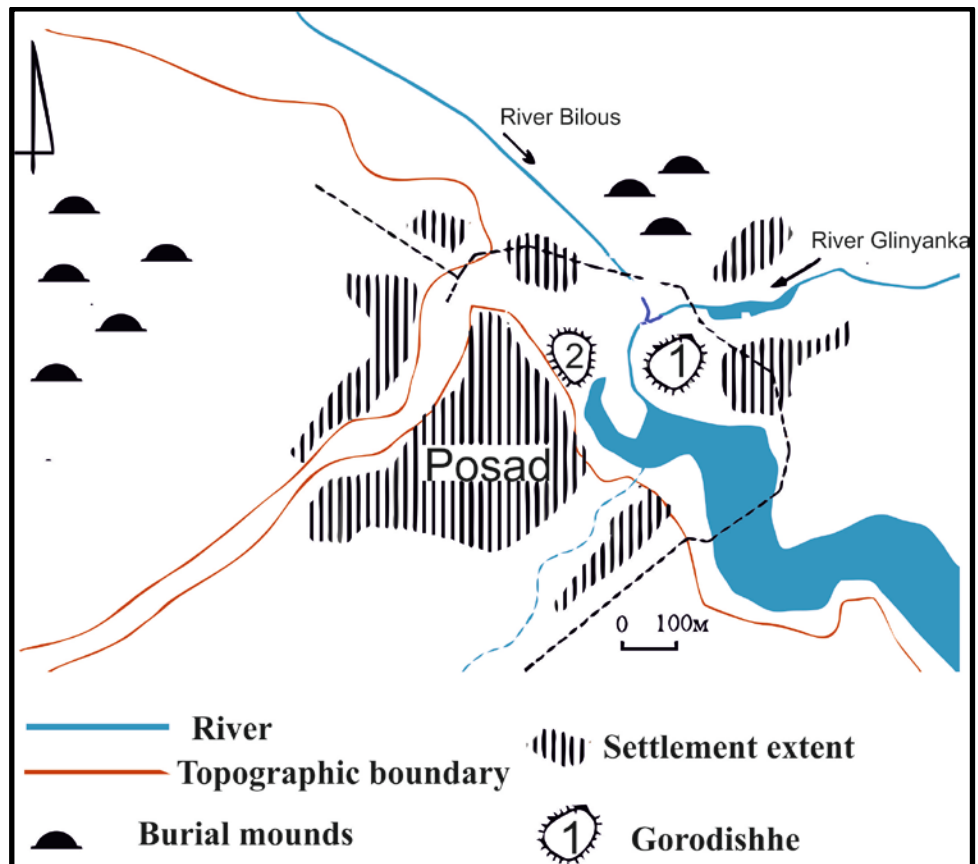


Figure 11 - Layout of Maliy Listvin, after Бондарь, 2012, figure 2

Repki 3

Located 1.5 km to the south west of the modern settlement of Repki and 100 metres from Repki-Lyubech road, this settlement is located on both banks of a now dried out stream [which would have fed into the Bilous River].

The settlement is dated through pottery finds from the tenth to the thirteenth centuries (Веремейчик 1987).

Mutichev 1

Mutichev 1 is located 2.5 km North West of a modern village bearing the same name. This settlement is placed next to a dried out stream which would have fed into the River Bilous. It is dated from the tenth to the thirteenth centuries through pottery finds.

The associated necropolis consists of 26 existing and 2 destroyed burial mounds. The largest mounds are located in the centre of the necropolis and measure 10 metres in diameter and stand 1.6 metres high, the rest of the mounds range between 3 and 8 metres in diameter. Some mounds have been damaged through illegal excavations (Веремейчик 1987).

Mutichev

Located in the middle of the modern settlement, the site dates from the tenth to thirteenth centuries according to pottery finds. It is associated with the nearby necropolis (Веремейчик 1987).

Zleev

The settlement is located 4.5 km North West of the modern village, on the south bank of the lake Korabliشه. It is measured to have been 150 by 80 metres and dates from the tenth to the thirteenth centuries (Шекун 1992).

Visokin

Located 300 metres North East of the modern village. The settlement has an area of one hectare and is dated through pottery finds to the tenth and eleventh centuries. On a nearby bank of the river Hohvla, 300 metres from the settlement, is located an associated necropolis which has been mostly destroyed by agricultural activity (Веремейчик 1987).

Lgov

This tenth century settlement is located 9.4 km to the West of Chernigov and is 0.5 km south of the Chernigov-Lyubech rail road. The settlement is located on the right bank of a dried out stream which would have run into the River Bilous and is measured 500 by 250 metres (Шекун 1992) (Веремейчик 1989).

First discovered in the 1940s, a hoard of silver Rus coins was discovered here in 1879. The excavations have yielded a large amount of jewellery items and evidence of tar productions which suggests river travel and river craft maintenance (Скороход 2011).

To the west of the settlement is a group of burial mounds associated with the settlement. The mounds are yet to be investigated and the prolonged existence of the site may position them outside of the timeframe of this study.

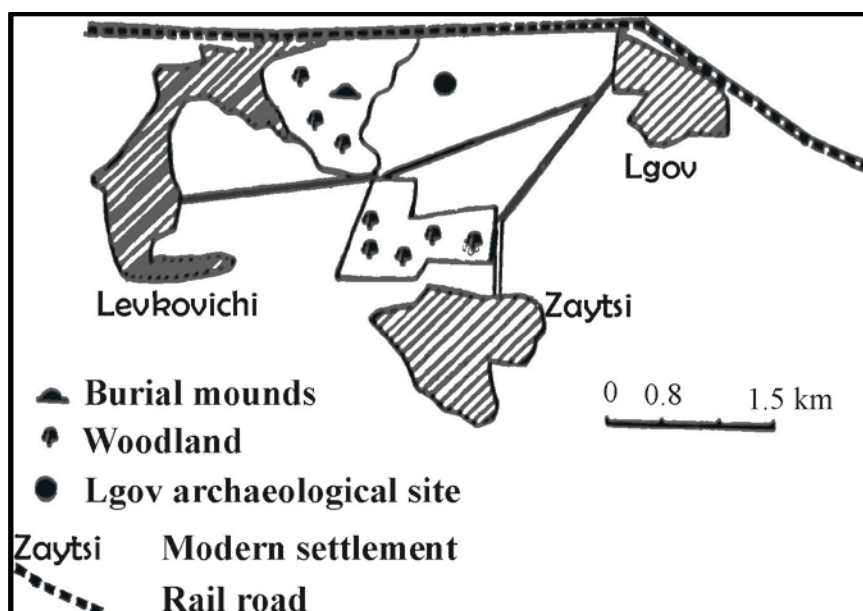


Figure 12 - Schematic plan of Lgov, after Веремейчик В. 1989, figure 1

Stariy Bilous 2

This settlement was first excavated in 1947 by Popko, as walk by investigation and no information of the extent of the site or dates were provided (Бліфельд, 1949, p. 5). Blifeld provides the first examination of the settlement in some detail as well as the first known finds from the settlement. In 1995 it was excavated prior to the construction of a building which would have destroyed the archaeological remains. It is located 2 km West of Chernigov, on the right bank of the River Bilous along which it extends for almost 1.5 km. The settlement is measured at 5 hectares. Finds range from ceramics of

seventh to third centuries BC, third to fifth centuries AD, and ninth to thirteenth centuries AD (Веремейчик and Жаров 1995).

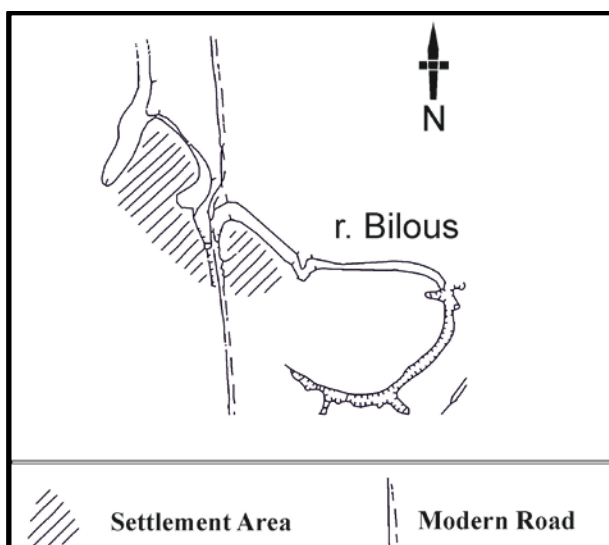


Figure 13 – Schematic plan of Stariy Bilous 2, after Веремейчик and Жаров 1995, figure 1

Ustye

Located 1.35km North West of the northern border of the village of Semaki, on the left bank of the River Muravlya, the settlement has an area of 2 hectares (Пильник 1990).

Petrushi

Petrushi is located 32 km North West of Chernigov and 16 km East of Lyubech. The settlement stretches along the Bank of the River Bilous for 100 metres and has an area of 4.5 hectares. The settlement was discovered in the 1970s and was found to have the earliest date of tenth century with the majority of finds being of eleventh to twelve centuries, according to pottery data (Шекун 1989, 10-17). The settlement existed until the thirteenth century (Веремейчик 1988) (Жаров 1991).

Siberezh

Siberezh is another settlement which is prominent in this study. This settlement was discovered in 1976 by Shekun and consists of a gorodishhe and an adjoining posad which covers an area of 9 hectares. It is located on the River Yakoman, which 2 km down stream flows into the River Bilous (Шекун 1992, 36-37). Rus ceramics are represented by fragments of pots and amphorae.

Hmelnitsa

Hmelnitsa is another settlement that features strongly. Located along the road Chernigov- Gomel, this settlement has an area of 18 hectares (Шекун 1996).

Yamishhe

Located 1.5 km South of the modern village and is placed on the right bank of the River Yakoman which runs into the River Bilous. Measured at 60 by 50 metres, the settlement has been damaged by agricultural activity (Пильник 1990).

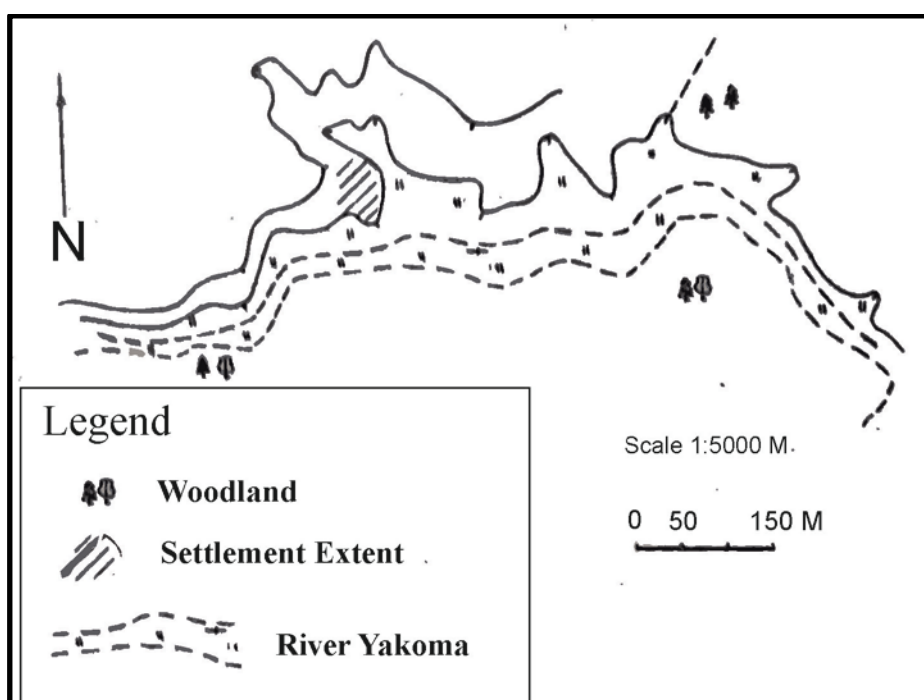


Figure 14 Location and extent of Yamishhe, after Жаров 1991, figure 4.

Klonov

The settlement Klonov is located near the River Vorzna and is, perhaps, the primary and first settlement among the grouping of settlements and necropolis within a 5 km radius of its location. It also features prominently in this study. It is located 12km south east of Lyubech and 800 metres East of the River Vorzna. Associated with the settlement are two necropolises of burial mounds: one 400 metres to the east of the settlement, the second 1 km to the east of the settlement. The First necropolis was completely destroyed, with the last 6 mounds falling to agricultural activity on the 1970s. A second necropolis, numbering 200 burial mounds is located 2.2 km away from the Klonov gorodishhe (Шекун 1987; 1992).

Ceramic finds along the right bank of the river, are dated to the tenth and eleventh centuries, with ceramics from the left bank dating from eleventh to thirteenth centuries (ШекуН, 1987, p. 2). During the rescue archaeology works prior to the construction of a gas pipeline through the settlement, nineteen structures dating to the tenth-eleventh centuries have been excavated. The total area of excavation was 1300 square metres (ШекуН 1987, 3).

Smoligovka

Located 4.3 km north west of Klonov, on high ground, it is 300 metres from the River Vorzna. The settlement is measured 450 by 200 metres and was inhabited from the tenth to the thirteenth century. The settlement was discovered in 1984 (ШекуН 1987; 1992).

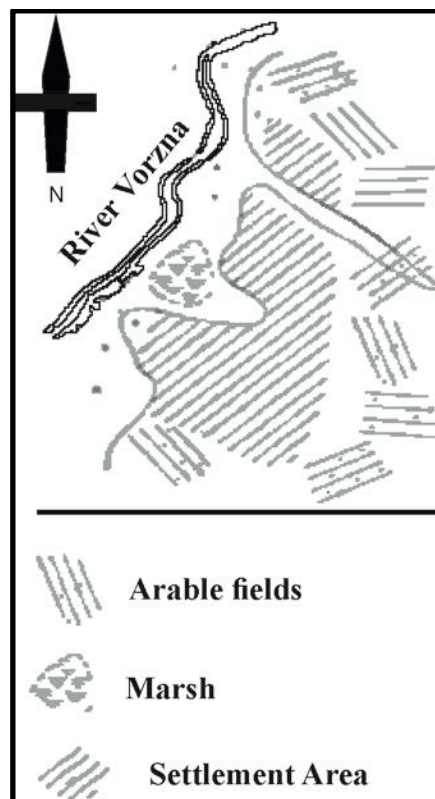


Figure 15 Schematic plan of Smogilovka, after ШекуН 1992, figure 19

Porub

Porub is yet another important settlement in this study. It was discovered in 1984. The gorodishhe is located 3 km south west of the village Klonov and is measured at 70 by 45 metres. The gorodishhe is located above the river Vorzna, at the point where it is joined by the river Lisitsa, and was likely to have been used solely as a defensive fall-back position (ШекуН 1992, 3). The gorodishhe has an associated necropolis, 300 metres north east of the settlement, on the right bank of the river Lisitsa. The necropolis

numbers 197 mounds. The larger mounds have good preservation of ditches with a depth of up to 1 metre (ШекуН 1987; 1992, 4). The size of mounds varies from 0.2 – 3.5 metres high to 3 - 14 metres in diameter.

In 1984 two burial mounds located adjacent to each other were investigated. Mound 1 contained a cremation on site. Mound 2 contained no finds or burial and was considered a cenotaph (ШекуН 1992, 5).

Pushkino

The archaeological site is located on lower ground, near the source of the River Vorzna. The archaeological site was discovered and first examined in 1984. The settlement has an area of 6 hectares, with an associated necropolis located 100 metres from the settlement, on the site of the modern cemetery. Burial mounds of the necropolis were damaged by later burials, with only one large mound remaining intact (ШекуН 1992).

Kezi 3

Located on a tributary of River Svishen (Bilous Basin) and 1.8 km from the north eastern boarder of the modern village, this settlement contains material from the tenth to the thirteenth centuries; however Bronze Age, early Iron Age and prehistoric material is also present. It is measured at 1.2 hectares (ШекуН 1992, 11) and in the summer the area of the site is ploughed and used as arable land.

Tamarovka

Measured at 140 by 160 metres, this settlement is located 1 km down-stream of the River Svishen from Kezi 3. The material is predominantly dated from the tenth to the thirteenth centuries (ШекуН 1992).

Peresazh

Peresazh has a limited artefactual selection but the position of the settlement has made it a dominant feature in this study. Located 500 metres from the modern village, this settlement is known from first investigations in 1978. The settlement lies on a stream, a tributary of the River Muravlya. The size of the settlement is 200 by 150 metres. The settlement has a substantial necropolis of burial mounds (Бондарь 2012, 324) (ШекуН 1992). In 2013 the possible extent of the posad of the settlement as well as a possible

location of a gorodishhe has been suggested by Bondar, however the location of these sectors is yet to be proven – especially the gorodishhe (figure 16).

The descriptions of the settlements as well as their locations are collected from the referenced excavation reports. Among some of the settlements a presence of long distance items, such as beads and currency is noted, as can be seen from the Finds Table in the Appendix.

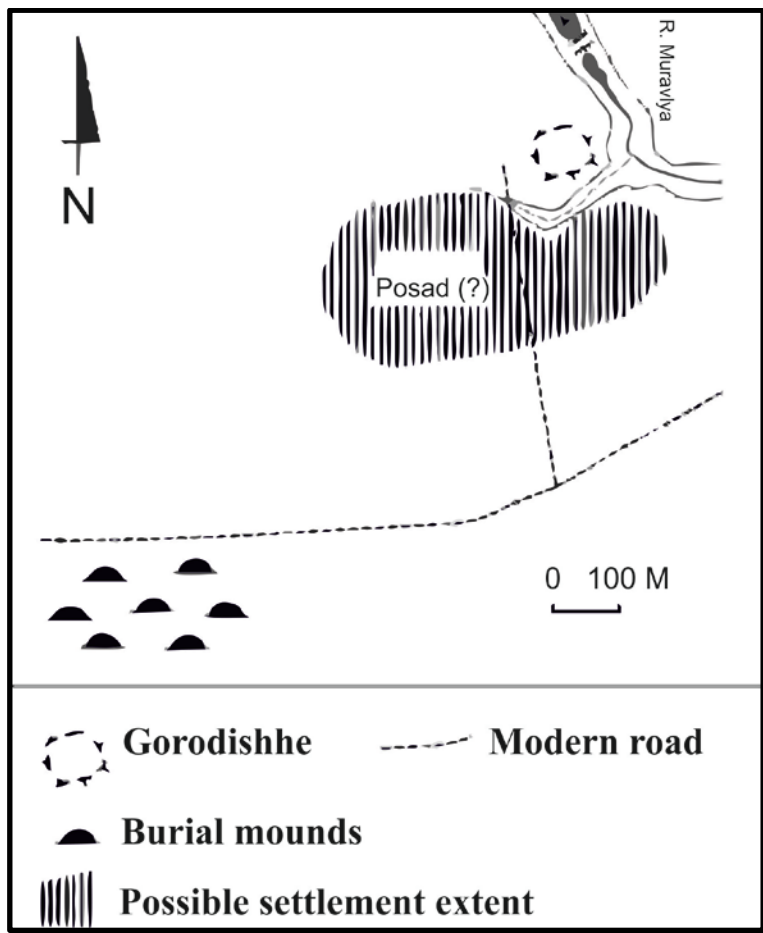


Figure 16- Peresazh with possible area of settlement extent after Бондарь 2013, figure 2

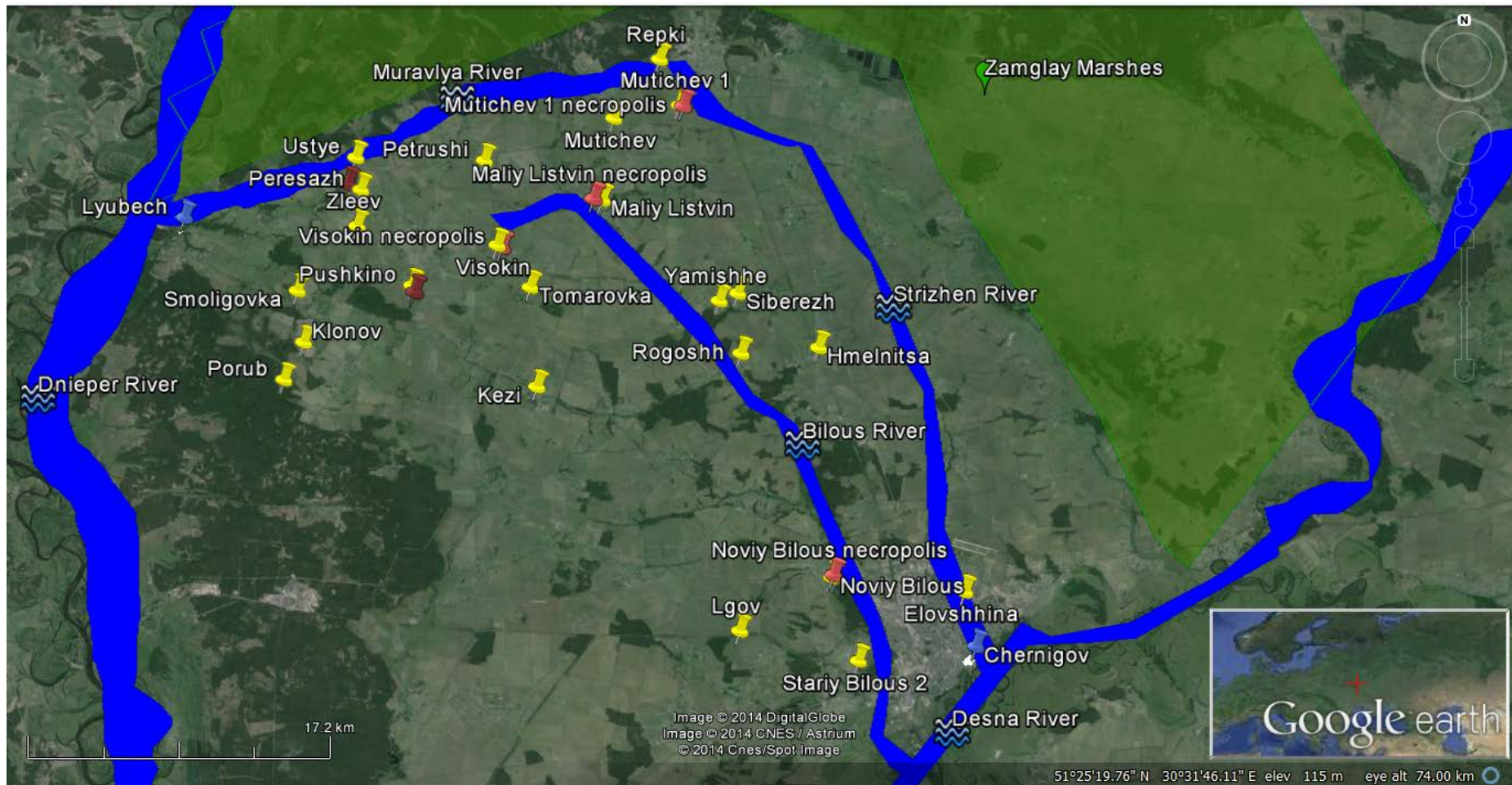


Figure 17 - Studied Area. Yellow markers represent the settlements analysed within the study. Red markers are the necropolises which feature in the study

5. Settlement Analysis

This section of the study looks at the data available for the selected settlements. As described in the Methodology section, the data includes area of excavation as well as any topographical features of the settlements and the geographical position of the settlement. The purpose of this is to examine what this kind of information can tell us about a settlement and whether any parallels can be drawn with settlements in different locations. Furthermore, whether based on the information in the area of study and the features of the settlements, a grouping can be made of the studied sample which would tell us more about the studied area.

Settlements by area

Some of the reports on the settlements in the studied area include details of the total area of the settlement. However, this does not mean that the settlements were excavated in total but only that the perimeters of the settlement are known through various archaeological investigations. The estimated total area of the settlement was calculated by the authors of the report and is based on trial trenches and topographical features which would indicate the end of the cultural layer relevant to the settlement in the tenth century.

The purpose of examining the area of the settlement is to provide a common means of grouping the settlements in the studied area. As such, settlements for which the total area is known can be compared on the number of finds and features that appear on them.

The settlements of which the total area is known are presented in figure 18. It is worth mentioning that the area of settlements at Lgov and Smogilovka are not representative of their real size. These settlements occupy a much smaller area than claimed by the reports, which incorporate other areas associated with the site and include possible later expansions of the settlements.

Of the 15 settlements in the table which contain accurate information; they can be broken down into two groups. Settlements greater or equal to 10,000 square metres and those less than 10,000. This division is made on the basis of areas of settlement which have a trade function in the same time period and in the vicinity of the Chernigov region. For example, Shestovitsa has a total area of 15 hectares (Скороход 2011, 1).

Similarly, Vipovziv, in the region of Chernigov, a settlement which is also recognised as a possible pogost, has the total area of around 25 hectares (Скороход 2012, 60). Makarov, in his research on settlements around Vladimir, has also singled out settlements of above 10 hectare in area as being ‘large’ and with frequent finds relating to trade and activity in the tenth century (Makarov et al 2013, 71). However, the 10,000 metre mark (or 10 hectares) within this study only serves to act as a model of what a larger settlement may cover. Eight settlements fall under the bracket of settlements with the area under 10,000 square metres. They are: Elovhhina, Kezi 3, Petrushi, Porub, Pushkino, Siberezh, Ustye and Yamishhe. Seven settlements have shown to have a area greater than 10,000 square metres. These are: Hmelnitsa, Maliy Listvin, Mutichev, Noviy Bilous, Peresazh, Rogoshh and Zleev.

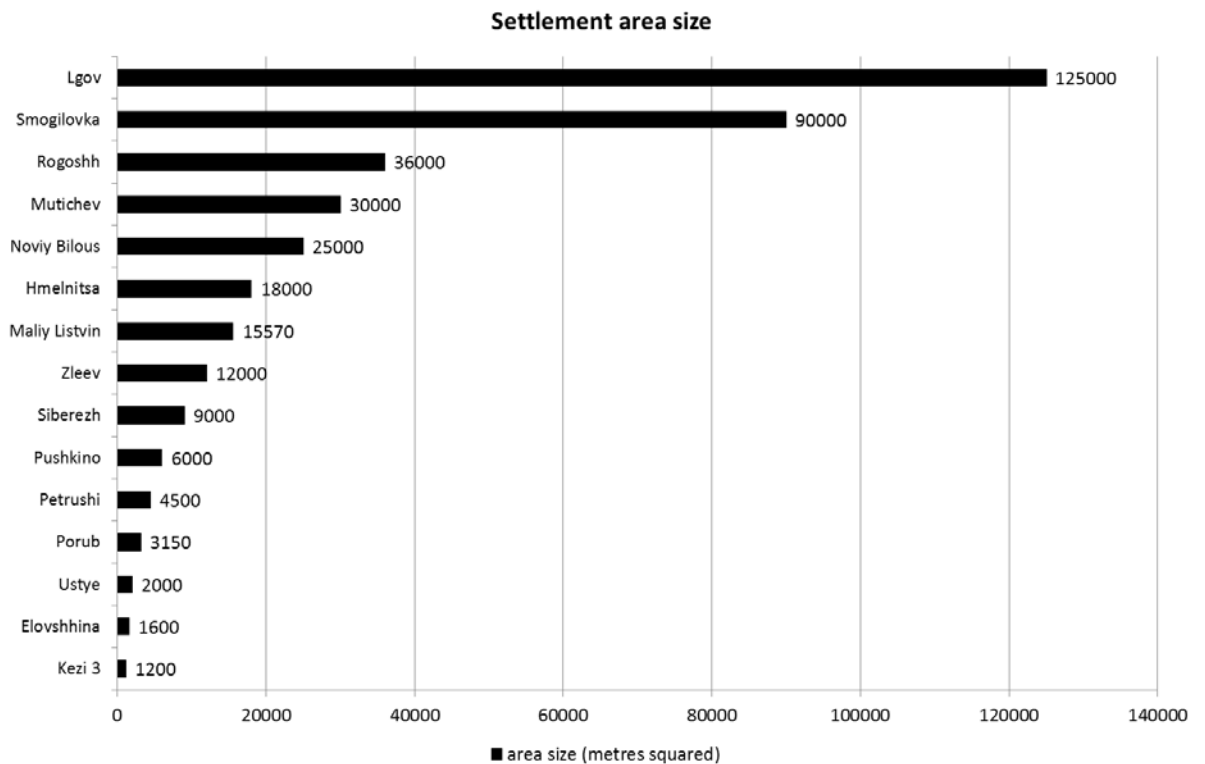


Figure 18 – Territorial extent of settlements in the tenth century. Only settlements for which data is available are present

From the distribution of the settlements in figure 21, it is worth noting that, all of the larger settlements are located on the rivers Bilous and Muravlya directly. As such they would have had better access to river traffic and would have had a direct opportunity to exchange goods should the possibility arise, although trade may not have been the only goal of these settlements. River travel would have allowed for a quicker way to communicate news, deliver resources and personnel between strongholds.

Coming out of Chernigov, the first of such settlements is Noviy Bilous. It is located around 8 km away from Chernigov, as the crow flies, and around 22 km via the rivers Desna and Bilous. This settlement does not show signs of fortification and was likely not to have had a gorodishhe. Based on the materials and stratigraphic information from the necropolis of the settlement, it is plausible that an early Slavic site was located on the same area in the first half of first century AD (Бліфельд 1949, 19).

The next settlements along the way are Hmelnitsa and Rogoshh.

Hmelnitsa is located on a tributary of the River Bilous and a tributary of the River Strizhen. As such, it could have acted as a point of contact for the two rivers and the traffic that passed along them. Although little is provided in terms of descriptions and evaluations of the settlement in the excavation reports, the 18 hectare size of the settlement and its positioning make it an ideal place for trade and communication between two local networks of the rivers Bilous and Strizhen. However, the settlement is also seemingly unfortified, although further excavations are needed to establish this fully. This would suggest a lack of administrative function of the settlement and, perhaps, a lack of a garrison.

Rogoshh, having a gorodishhe and a posad area is likely to have been a place of importance in the tenth century, if only in the regional context. It is the place mentioned as Orgoshh in the PKC(in the year 1159 AD) and, as seen in Figure 5 its location and fortification would have provided the settlement with a commanding position to control the river traffic and provide a safe haven for travellers. It is the kind of place that could have invited the custom of tradesmen, if not only for the fact that it maintained a garrison. It was uncommon for troops to cater for themselves and passing trade would have benefited from their reluctance to sustain themselves. It is worth noting that the associated necropolis is located in Tabaevka village, directly opposite Rogosh, on the right bank of the Bilous River.

The next point of call along the road from Chernigov to Lyubech is Maliy Listvin. It was a fortified settlement and saw the battle between Kievan Knyaz Mstislav and his brother Yaroslav for the seat of power in Kievan Rus in the beginning of the eleventh century. In the tenth century, the settlement existed as an unfortified posad which in the early part of the century developed a gorodishhe. The fortifications of the settlement were a lengthy and costly process (figure 20), one that would have only occurred in a

settlement of relative importance. This is further supported by the 15.5 hectare area (20 by some estimates (Бондарь 2012, 312)) which the gorodishhe and the posad covered.

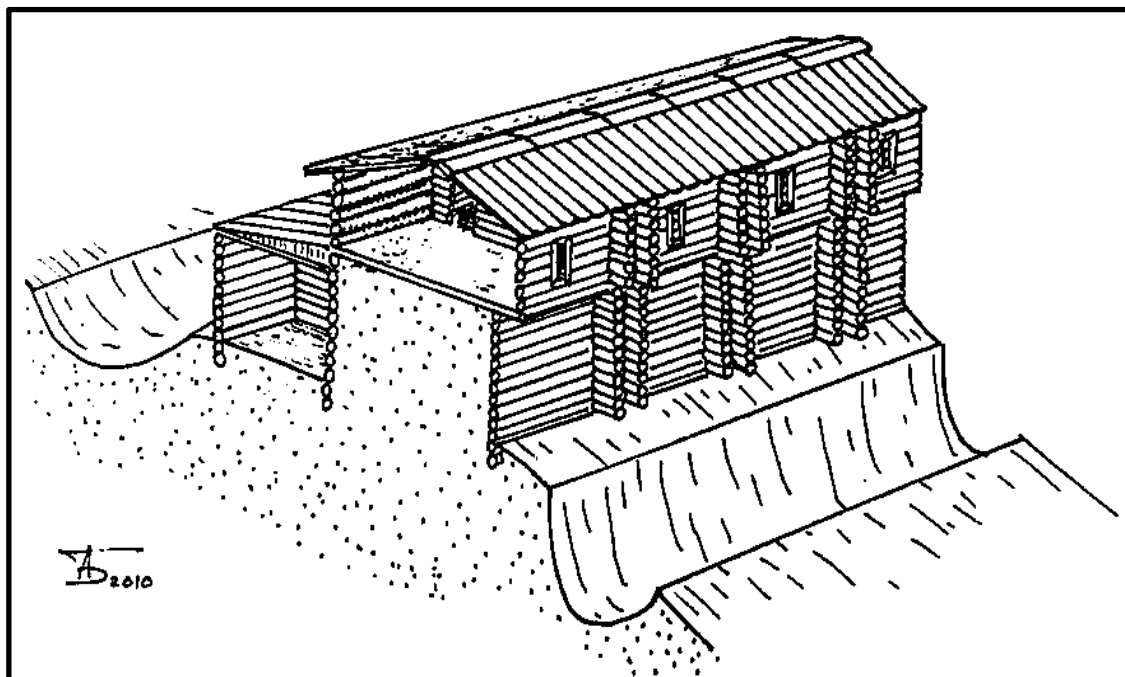


Figure 19 - Rogoshh fortifications in the later stages of settlement development.

Reconstruction, After Бондарь 2012, 309

The next settlement along the route is Mutichev. Much like Hmel'nitsa, it is located between the Rivers Strizhen and Bilous. The site has an associated necropolis and is currently thought to have been unfortified.

Peresazh, the next larger settlement along the route, is documented not to have had a fortified gorodishhe. This allowed Shirinskiy to classify the settlement as a village (1969, 100). However, the settlement has an extensive necropolis which is highly uncommon among villages and settlements which did not have a great deal of external contact.

Finally, the settlement of Zleev, located on a tributary of the River Muravlya, it is the final settlement with an area greater than 10 hectares, before Lyubech. The location of the settlement near to Lyubech may have limited its role as a settlement with external contacts and trade relations. It does not have a fortified area.

Perhaps it is worth mentioning the settlement of Klonov as well. Although the exact settlement area is unknown, it is thought to have been up to 7 hectares (Бондарь 2012, 314). This does not put the settlement in the group with the above settlements, however

it is fortified. Furthermore, the settlement has 2 associated necropolises, numbering 600 burial mounds together.

The size of a settlement is likely to determine the importance of the settlement. A larger settlement is likely to command more influence as it will be a larger market and a place of greater net tax revenue. This requires a provision that the wealth of the individuals in all the settlements is proportional to the size of the settlement. As such, a larger settlement is more likely to attract attention and come into frequent contact with other larger settlements. This would have meant that Rogoshh would come into contact with Maliy Listvin and Chernigov at a higher frequency than Porub or Kezi. This higher level of contact is likely to result or lead to greater levels of exchange.

Based on the location of the settlements and their size, we can make a number of observations. Settlements located at a point of intersection of means of travel are in an advantageous position compared to others. The flow of traffic through these settlements is likely to be higher, thus meaning a greater level of interaction with the wider world. A higher rate of communication is also more likely at larger settlements which are located on the path of major means of communication. In this case it is the rivers. This would mean that the settlements located on the River Bilous would have greater amount of communication than those located on its tributaries. These settlements, as can be seen from figure 22, are Rogoshh, Hmel'nitsa, Maliy Listvin, Peresazh, Mutichev and Zleev. Noviy Bilous is not included in this grouping due to its proximity to Chernigov. It is likely that goods would have travelled to Chernigov as it is a larger market and in very close proximity. Mutichev is another settlement left out as it is not on the river Bilous. Siberezh can be added to this list. Although it does not have an area above 10 hectares, it is only missing this qualification by 1 hectare. Like Hmel'nitsa, this settlement's location allows for the networks on the river Strizhen and the River Bilous to interact. It is likely that boats would have been pulled along the roads between the two rivers in order to cross them (Моця 2010) or goods would have changed hands and continued their journey with a different master at this location.

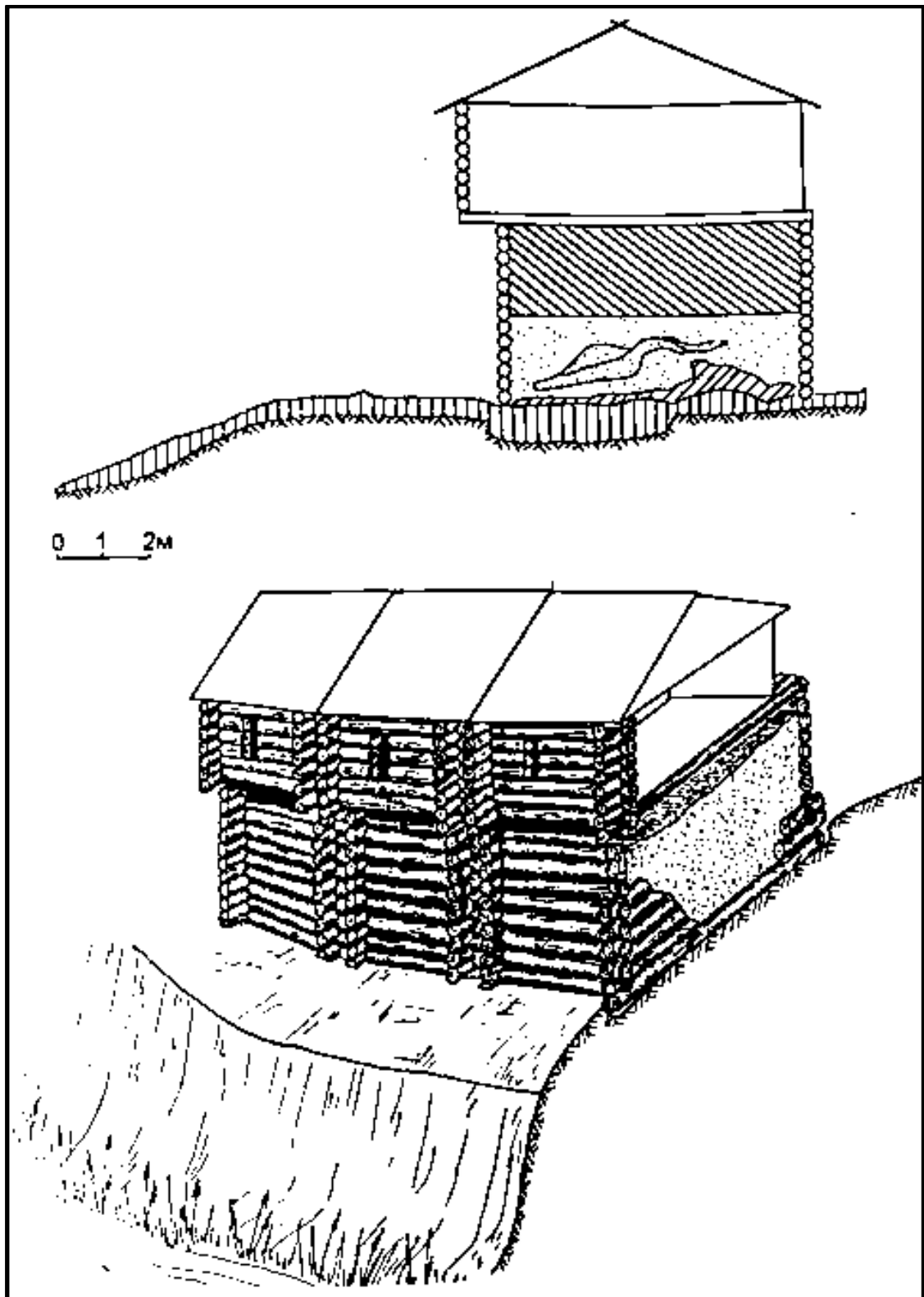


Figure 20 - Maliy Listvin fortifications. Reconstruction, After Бондарь 2012, 311

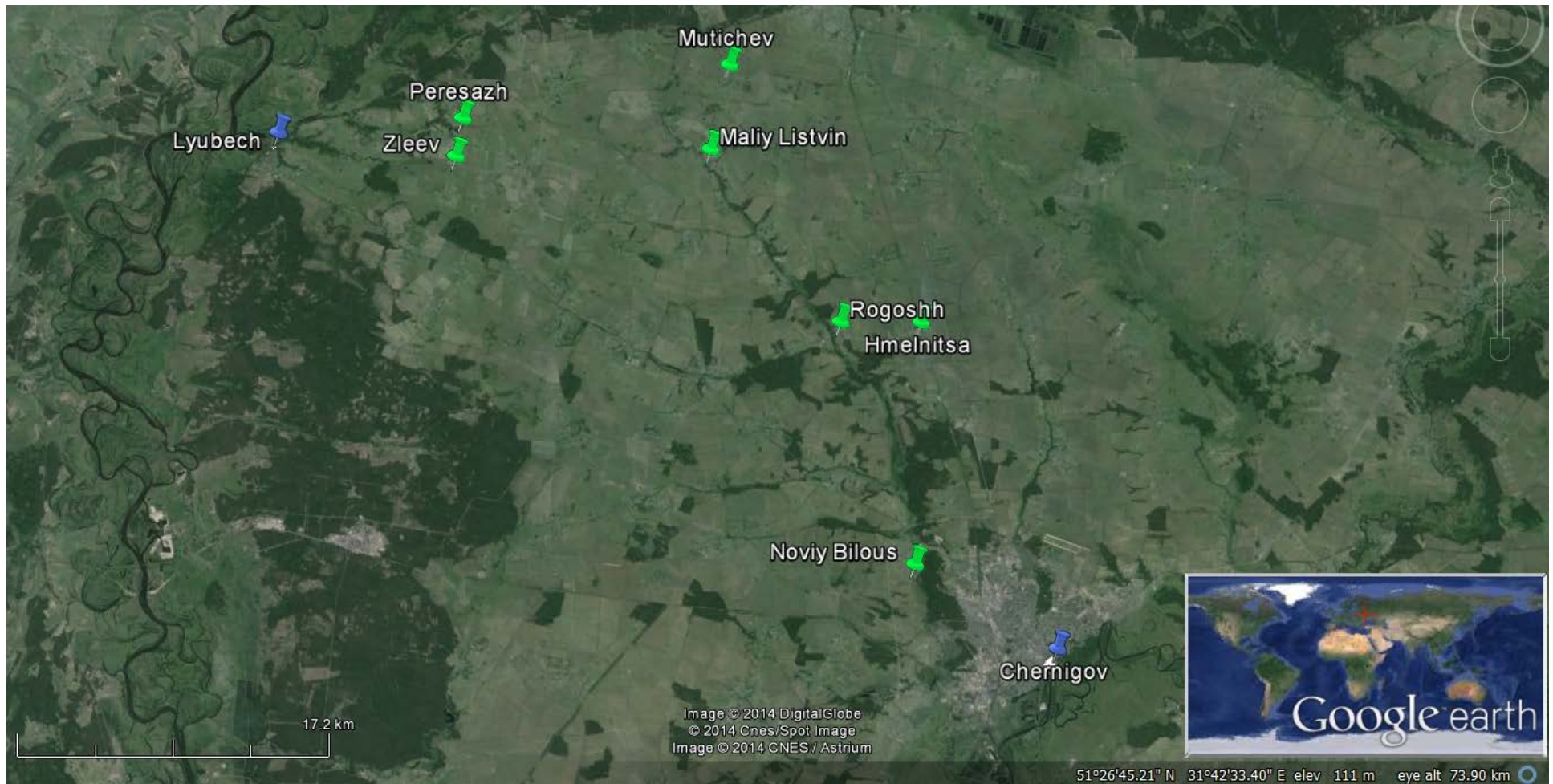


Figure 21 - Location of settlements which have been identified as having an area greater than 10,000 square metres

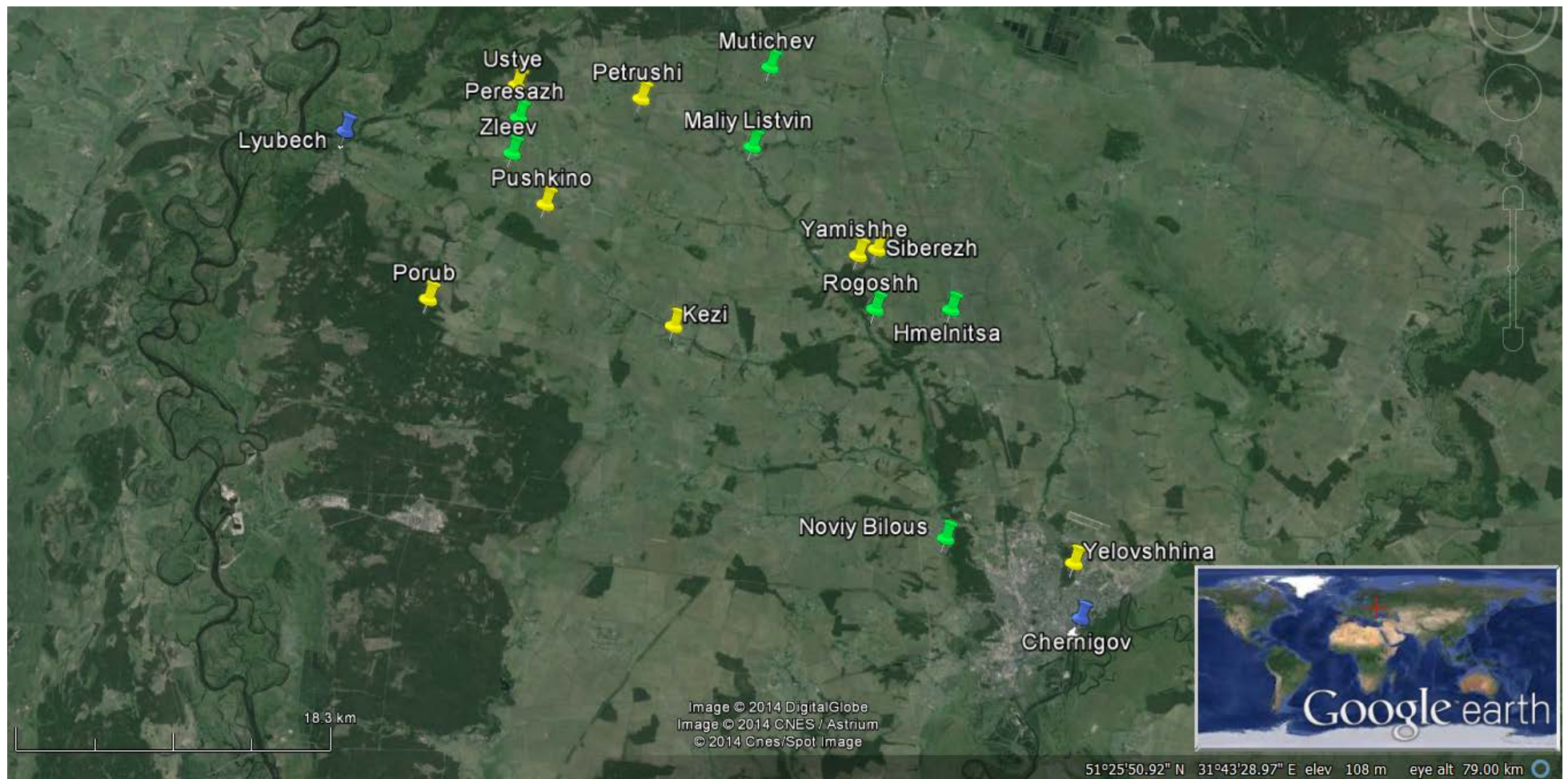


Figure 22 - Settlement distribution according to size. Green place markers – settlements with total area greater than 10,000 square metres. Yellow place markers – settlements with total settlement area less than 10,000 square metres

Fortifications of Settlements and Associated Necropolises

It is interesting to note that six of the settlements in the study have a gorodishhe. These are Elovshhina, Rogoshh, Siberezh, Maliy Listvin, Klonov and Porub. A gorodishhe is a fortified area of a settlement and would have required a lengthy and costly process of construction, even if it was only defended with earth ramparts and a moat. However, more typically, gorodishhe would have included a wooden palisade if not a more substantial defensive wall, as can be seen from reconstructions of Maliy Listvin and Rogoshh defences (figures 19, 20). These settlements are likely to have been of greater importance or of greater significance within the dynamic of the region as the expenses of constructing defences had to be justified by military and economic benefits that they provide. These can be in the form of protection for the residents of the settlement, which is more useful if the settlement is used as a market place or a point of great exchange which can be vulnerable to attack. A military benefit can be the force that the settlement could exert over the local area, usually through a garrison that resides within. The gorodishhes of this study are located on the Rivers Bilous, Strizhen and a tributary of the River Muravlya.

Elovshhina on the river Strizhen is the closest to Chernigov. Currently a protected park within the modern extent of the city of Chernigov, the gorodishhe is roughly 2.5 km away from the historic centre and Val (or ditch and bank) of the Early Medieval Chernigov (represented by the white polygon in figure 24). The gorodishhe is about 400m away from the road that led from Chernigov to Lyubech. This road ran along the course of the current Mir Avenue in Chernigov (Коваленко et al 2008). It is possible that the proximity to Chernigov limited the scope of development of the settlement. This could be the reason for the settlement having a recorded area of 1.6 hectares. A 40 metre by 40 metre gorodishhe could have served as an early warning system for attacks on Chernigov. Its location on the River Strizhen could have also served as a control post for river traffic prior to it reaching the town, or indeed to control traffic which was trying to bypass Chernigov through Rivers Strizhen and Muravlya.

Siberezh, located between the Rivers Bilous and Strizhen may have also fulfilled a defensive or controlling function. The settlement has a posad as well as a gorodishhe, which represent activities within the settlements which went beyond the basic defensive requirements or holding a garrison. Having a gorodishhe may mean that the settlement fulfilled a trade or administrative role, in the manner of tribute collecting. However, most importantly, a gorodishhe usually meant that the settlement had something worth

defending. As such wealth would have been present there and in all likelihood valuable goods would have travelled to the settlement or were made at Siberezh.

Maliy Listvin and Rogoshh are both located on Bilous and their defensive structures have already been discussed. Both settlements also have posads as well as having a prolonged lifespan. What is interesting to note is how the two settlements break up the journey from Chernigov to Lyubech. Rogoshh is located around 20 km from Chernigov and Maliy Listvin is located around 21 km from Lyubech. There is a 10 km distance between Rogoshh and Maliy Listvin. In the tenth century, the 30 km distance from Lyubech to Rogoshh, and Chernigov to Maliy Listvin would have been negotiable in a day by boat (Коваленко et al 2003). These settlements could have acted as rest stops for travellers. This is not to say that this was the only function that they fulfilled. Having a gorodishhe would have meant a greater importance of the settlement, beyond the function of a rest station. These settlements could have taken advantage of their positioning to attract local and distance traders to exchange their wares.

Not all of the settlements have an associated necropolis. The settlements that do not possess a necropolis, as well as those that do can be seen in figure 29. A settlement with a necropolis may have had a longer life span than one without. However, the only true indication provided by the existence of a necropolis is that the inhabitants practised the construction of burial mounds. This was the case with Scandinavian as well as Slavic cultures. It is worth noting that five out of nine of the necropolises lay on two of the larger rivers in the study, Bilous (that is Noviy Bilous necropolis, Tabaev necropolis which is associated with Rogoshh, Maliy Listvin necropolis, Peresazh and Mutichev 1 necropolises). These settlements would be expected to have enjoyed greater amounts of activity due to their locations; as such it is more likely that they would encounter greater numbers of deaths. The buried at these settlements do not need to have originated from these settlements, but could have died on their way to other locations which resulted in the deposition of items of foreign origin as grave goods. This was the case with Sigviðr who “*fell in Holmgarðr, the ship's leader with the seamen*” (Runedata, rune Sö 171).

The settlements of Visokin and Pushkino, together with their necropolises are located at, or close to, the source of a tributary of the River Bilous, with Visokin being no more than 4 km away from the source of the river Bilous itself. These settlements were likely to have been the final actors in the network of the area as they are located at a distance from the main communication means of the area and are unlikely to have had the ability

to distribute goods further into their hinterland. Their location allows for access of goods and material from these settlements towards the more nodal settlements like Maliy Listvin. The presence of a necropolis in these areas is more likely to signify a pagan burial practice of the local inhabitants rather than of passing travellers.

Unfortunately we do not have excavated material from all of the necropolises. While the Maliy Listvin necropolis is destroyed, the only ones that have been excavated are Porub, Tabayev and Noviy Bilous. Of the three, Noviy Bilous is the only one to have an inhumation, while the others have cremation burials. The cremations were done on an external location and the remains were transported for burial. This was a common practice among the Sever and Vyatichi tribes (Григорьев 2005).

The settlements Klonov and Porub are located at a distance from the Chernigov to Lyubech route. Despite this they still have a gorodishhe and associated necropolises, as located with red place markers in Figure 13. The necropolis of 600 and 197 burial mounds are quite substantial and suggest a large population or a prolonged use of the settlements. It is completely possible that these settlements, far from the regions river trade routes may have had garrisons for a different reason. The tribe of Sever was only subdued partially by Oleg in the 880s, according to the PKC. As previously noted, the area could have functioned as a border zone for Vyatichi and Radimichi tribes which only became fully controlled by Kiev in the eleventh and twelfth centuries (Фетисов and Щавелев 2012). Alternatively these settlements could have been among those that Oleg had allegedly established to control the local population and collect tribute.

It should be noted that the distance via water between Klonov is removed from Porub Smogilovka at a similar distance. Considering that Smogilovka was in use until the thirteenth century, it may be possible that Lyubech had a system of posts near the town. The distance between Klonov, Porub and Smogilovka is about 3.2 – 3.5 km this is the same distance as from Smogilovka to the River Muravlya.

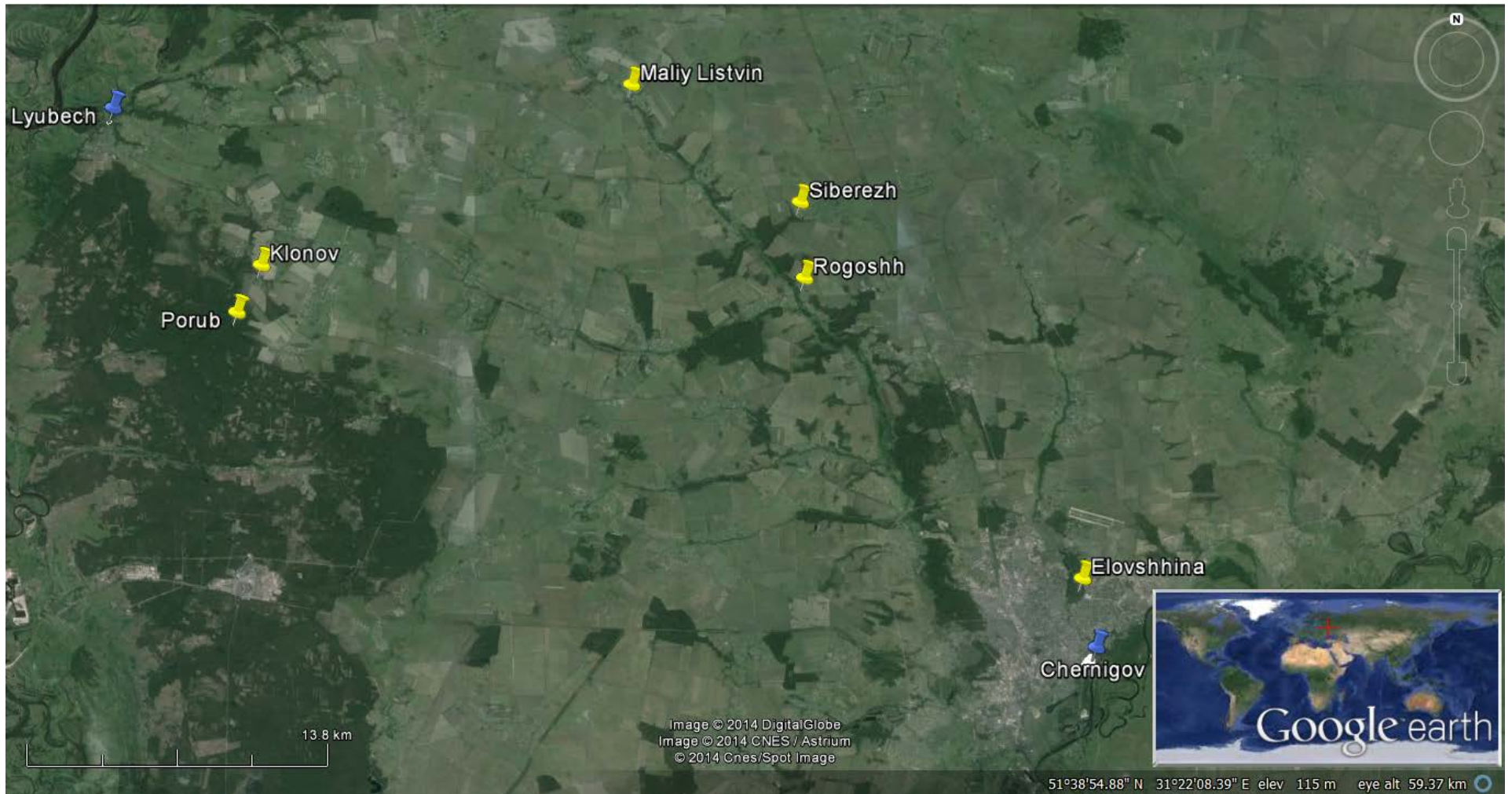


Figure 23 - Location of Settlements with a gorodishhe

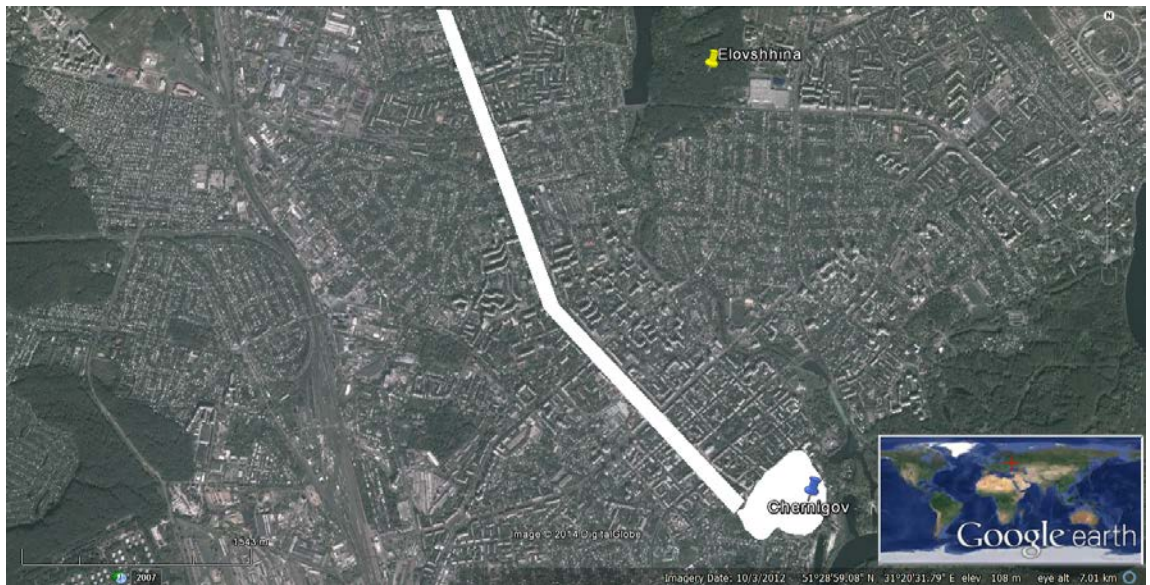


Figure 24 - Location of Elovshina in relation to Chernigov. The white polygon and blue place marker represent the extent of the town of Chernigov in the tenth century. North of Chernigov, the linear feature is the early medieval road to Lyubech

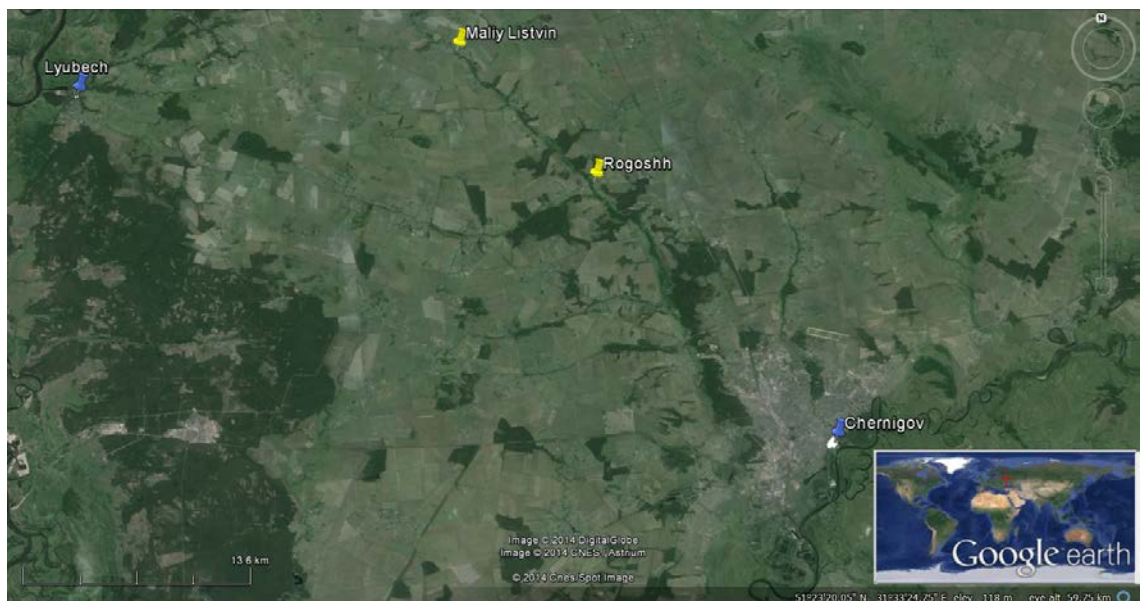


Figure 25 - Fortified settlements with an area greater than 10,000 square metres. These are Rogoshh and Maliy Listvin

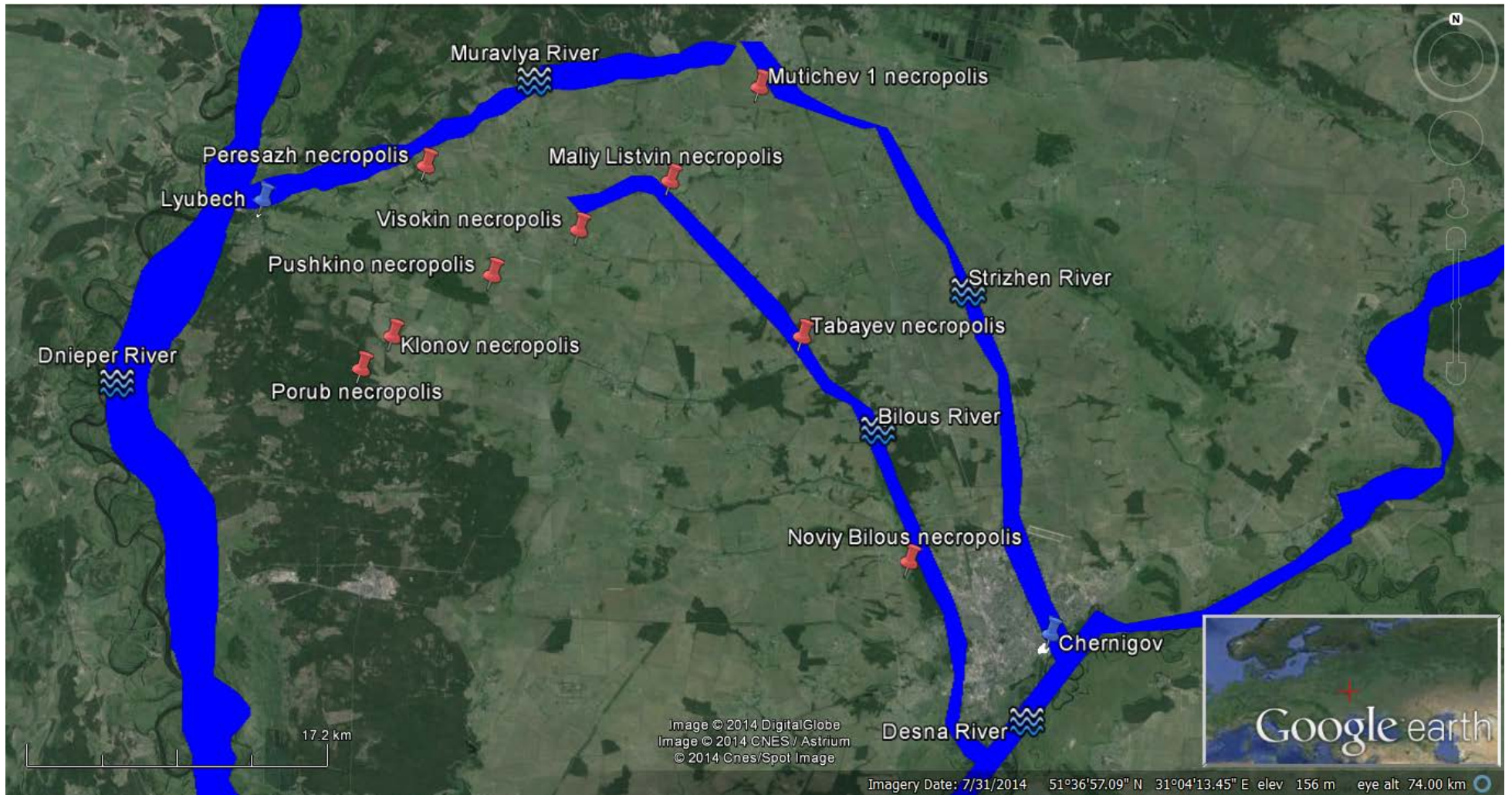


Figure 26 - Settlements with a necropolis

6. Finds Analysis

The vast majority of finds in the studied settlements is pottery. Rus pottery in the tenth century was mostly produced locally and very little Rus pottery travelled outside its point of manufacture. This is not to say that stylistically there was a large variation in the pottery of Southern Rus. At the turn of the tenth century Southern Rus had already adopted the pottery wheel and was producing finer and thinner ceramic objects, compared to the earlier ninth century hand formed equivalents. Furthermore, the tenth century jugs and jars in Southern Rus are characterised by a slightly turned lip on the rim of the pottery (figure 27). This rim would become more prominent and ornate in the later centuries, which provides an easy and quick dating method.

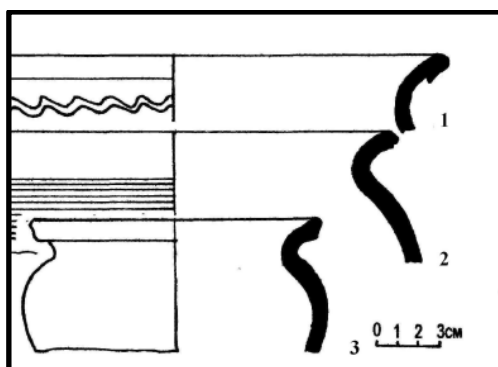


Figure 27 - Tenth century Southern Rus pottery rim, after Бондарь 2012

Pottery materials have been excluded from this study. The reason behind this is the frequent occurrence of pottery with little descriptive information. Pottery in the studied settlements may have been produced locally, or less likely, it could have been brought in from afar. However, it is most frequently described as Rus or tenth century pottery by the authors of excavation reports and we have no further material or descriptive information to go on. As described above, pottery was fairly commonly and frequently produced and would serve no clear benefit to this investigation.

Some of the settlements present in the study have only produced finds of ceramics. Although this clearly identifies the settlements as having existed in the tenth century, it does not provide any further analytical material for the study. These settlements are Repki 3, Mutichev, Visokin, Ustye, Yamishhe, Kezi 3, Tamarovka, Peresazh (figure 28) which composes one third of the total number of settlements.

A general overview of settlements is presented with a brief look at the quantity of finds present at each settlement. This is seen in figure 29. The purpose of this is to establish the settlements with the highest level of archaeological visibility as can be gauged through single finds quantity. Although this does not tell us that the settlements with more finds were more inhabited or had a higher level of activity, as we do not take into account the level of exploration of the settlements, this method allows us to estimate which settlements are more likely to dominate the discussion.

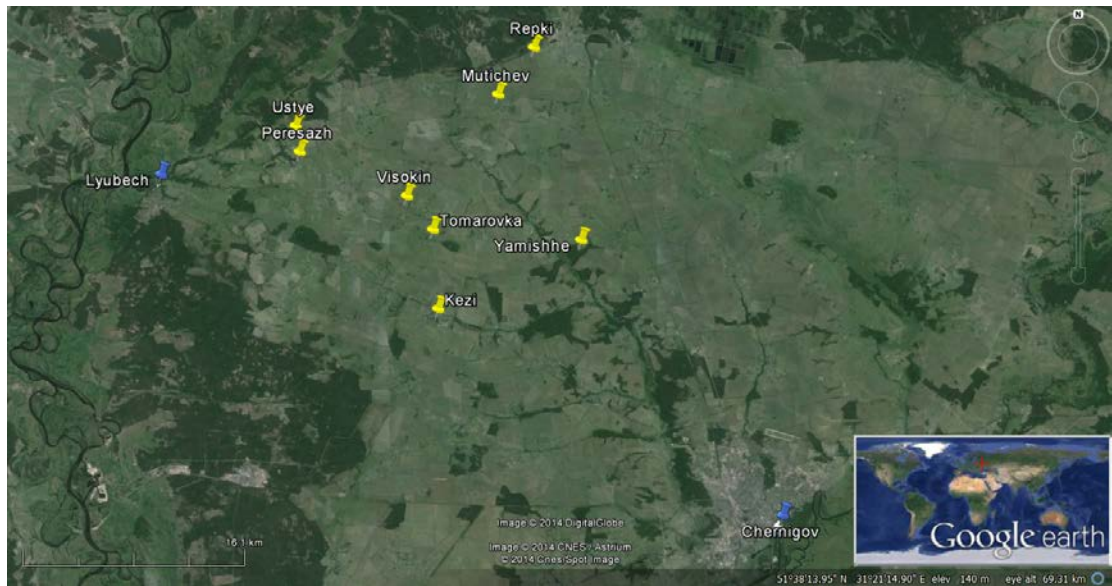


Figure 28 - Settlements with only ceramics finds

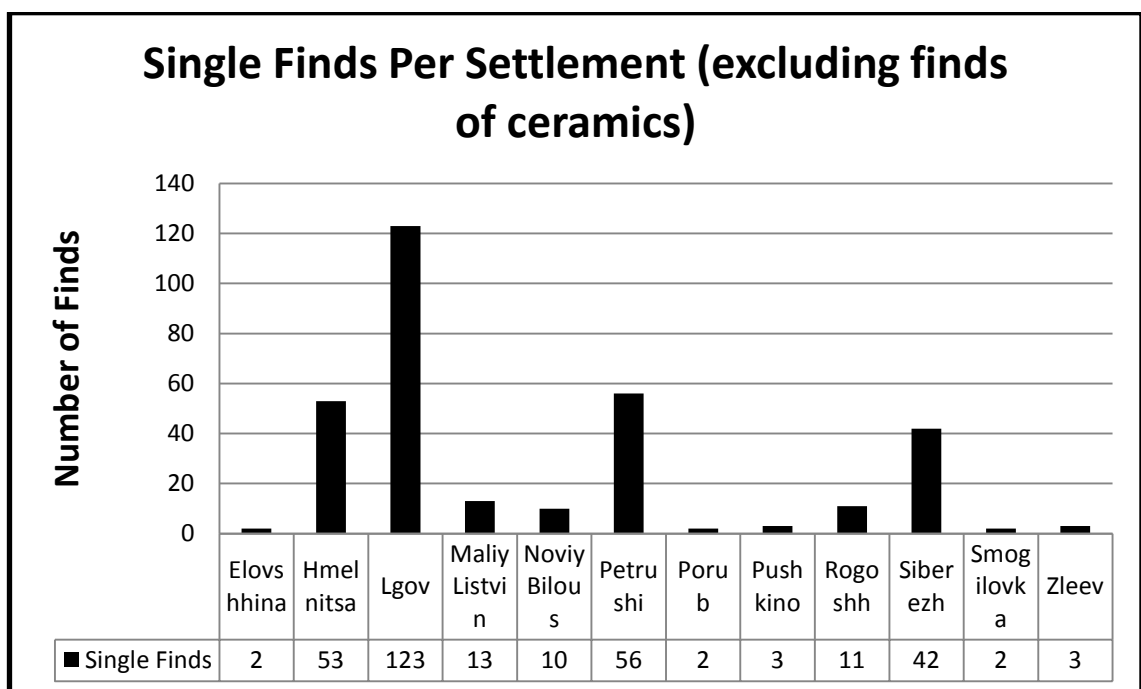


Figure 29 - Single finds Per Settlement in alphabetical order

Of the finds that are included in the study, a full list of settlements and finds can be seen in the appendix. However, to go through each individual find and settlement would be time consuming and result in too much data with little benefit. Instead, grouping settlements by type of finds may be much more effective. These groups cover the major activities of early medieval life. Settlements with finds relating to agricultural activity and animal husbandry, such as scythes, ploughs, animal bones of domesticated animals – were placed in one group. Those settlements which have evidence of trade activity were placed in the second. These have been taken to include scales, weights, glass beads and ornate jewellery. Those settlements which show evidence of metal working were placed in another group. Also settlements which showed evidence of manufacturing in general, be it metalworking, jewellery making, leather work or tar production, were also placed in a group. All of these groups are not mutually exclusive and a precise description of the items included in every group is given below. It is reasonable to think that a settlement may have more than one activity being undertaken within its confines, and it is indeed so, as can be seen through the groupings of settlements.

Settlements with trade activity

By isolating settlements with finds relating to trade we are automatically assuming that they have had a role in trade activities. That is to say that a trader would come to the settlement or traded items would leave the settlement via merchants. Equipment of a trader or a traded item is likely to have been of value and would not have simply been misplaced by a passer-by. The purpose of this section is to present these finds in the context of the settlements where they were found and to determine if any links between these settlements may exist and if it may be possible to model a pattern of distribution.

Based on the data gathered from excavation reports the settlements which may have participated in trade activities, as gaged through associated finds are: Hmelnisa, Lgov, Maliy Listvin, Mutichev 1, Noviy Bilous, Petrushi, Pushkino, Rogoshh, Siberezh. Nine in total and just over a third of the total number of settlements.

Figure 20 provides us with a location of the settlements with trade related goods. It is worth noting that 4 out of 9 of the settlements are located on the river Bilous and one on a tributary of that river. Settlements of Lgov and Noviy Bilous are the closest to Chernigov. Lgov has numerous glass objects among its finds. These include beads and glass bracelets. Furthermore, the settlements produced a pair of bells which has an analogy found in Novgorod (Шекун 1992, 65) (figure 30). Also, 53 silver beads and 11

temple rings were found there (figure 38). Presence of silver and glass jewellery indicates towards a higher status of inhabitants, one which would have had a role in long distance trade, through their purchasing power, if nothing else. Furthermore, the settlement had evidence of tar manufacture. This, as indicated by Shestovitsa (Скороход 2011) would have been used to maintain river craft by ensuring they are watertight. Although water transport was not solely used for trade, it remains a possibility.



Figure 30 - Bells from Lgov posad dated to tenth – eleventh centuries. After Веремейчик, 1989, figure 4 (4-5)



Figure 31 - Bells from Novgorod after СЕДОВА 1981, figure 62 (1-5) as analogies of bells from Lgov posad.

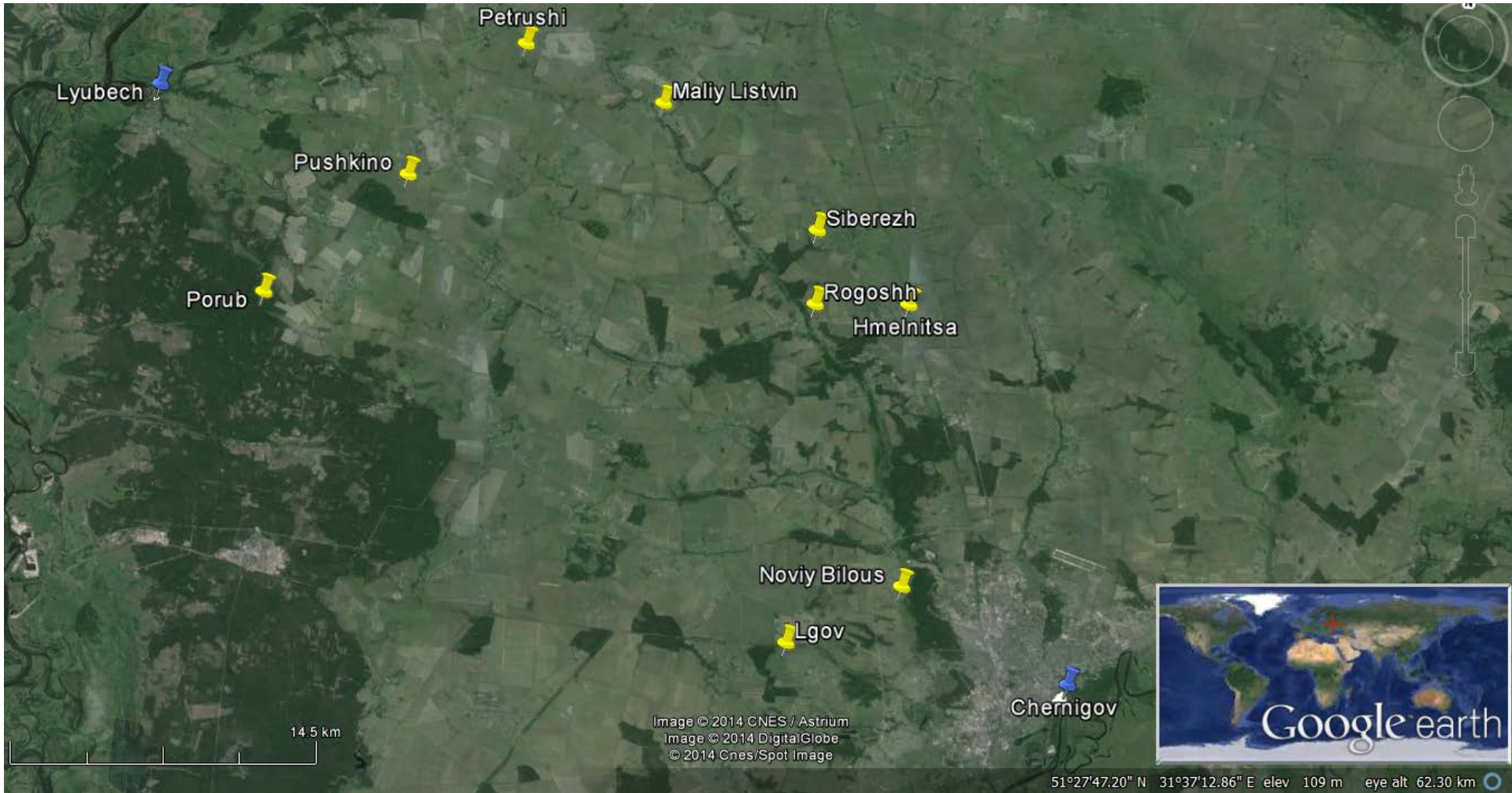


Figure 32 - Location of settlements with trade related goods

Noviy Bilous, located 22 km via rivers from Chernigov is the closest settlement in this selection from the town of Chernigov. Its trade status is determined by the presence of large numbers of bronze objects as well as amphorae. Although not definitively indicative of trade, amphorae would have been a comfortable vessel for the transportation of liquids for trade purposes. Furthermore, as there is no mention of stamps or origins of the amphorae and this type of vessel not being in common production in Rus, it is fair to suggest a foreign origin for the finds. Mutichev 1 also has finds of Amphora fragments.

The next settlements on the river routes from Chernigov to Lyubech are Rogoshh and Hmel'nitsa. Rogoshh has had a number of ornate bronze objects found, as well as items of jewellery (figures 33 and 34). Hmel'nitsa has produced 28 glass bracelets. It also produced finds of bronze jewellery, as well as a cross - an interesting find considering that Rus was not Christianised until the last quarter of the tenth century.



Figure 33 - Pendants from Rogoshh (left and centre, after Бліфельд, 1949, figure XXX) and an analogy from Vladimir region (on the right, Ахмедов, et al, 2012, figure 290). The Vladimir analogy is thought to be of a Fino-Hungarian style and dated to the tenth century. This is not to say that the two finds are exact matches, with the Rogoshh pendant being of a beaded style

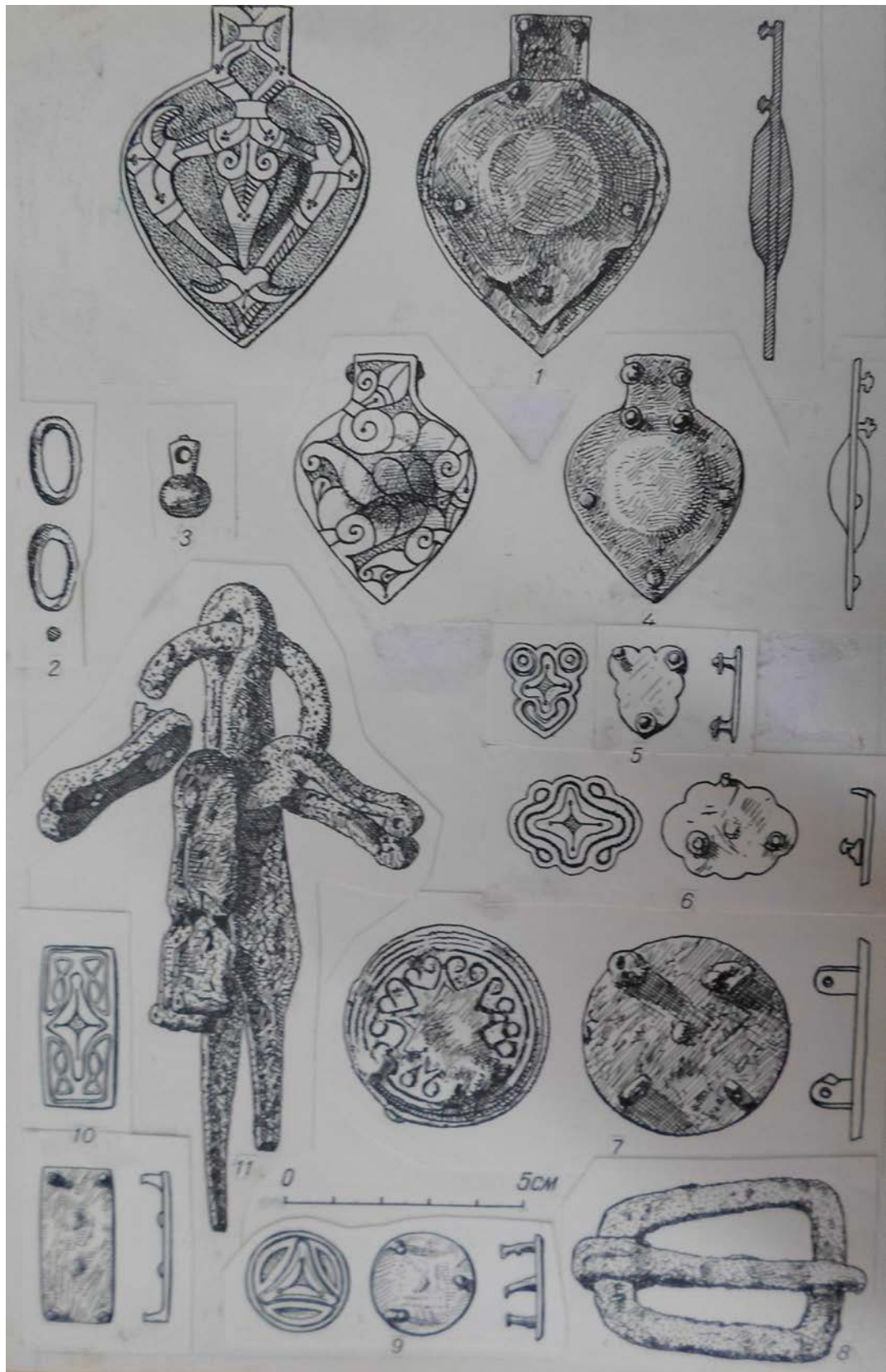


Figure 34 - Finds from mound 2 of Rogoshh necropolis in Tabaevka, dated to the tenth century by Blifeld (1949, figure XXXIXa). 1, 4 - 7, 9, 10- Bronze ornamental plates, probably from a sabretache; 2 – bronze ring, 3 – bronze button; 8 – metal buckle; 11 – unidentified metal object

Siberezh is the next settlement on the journey. It contained nine glass bracelets as well as assorted bronze jewellery and amphorae fragments. Although glass bracelets are not indicative of trade per se, that is to say they could have been manufactured at source, it is more likely that they were brought in from a larger settlement with developed manufacturing and trade areas. In other words, they are more likely to have been a product of specialised industry in a proto-urban place than of domestic production in a rural location.

The collection of goods from Maliy Listvin that is taken to be associated with trade for the purpose of this study include glass beads and rings, items of bronze jewellery and a bronze grivna, which is also traditionally seen as an item of jewellery work around the neck or arm (figure 35).



Figure 35 - Bronze grivna from Maliy Listvin, after Коваленко 1980, figure 13

Petrushi trade related ensemble is represented by glass bracelets, beads and silver plated elements of horse gear. It may be possible to add a mace to this collection. Although not connected to trade through economic means, a mace is an uncommon weapon in Rus, where an axe and much less a sword was used. This was much more likely to have travelled a certain distance to reach this location and was most probably a result of arms trade.

Pushkino is represented by fragments of amphorae and glass bracelets. It is worth mentioning the relatively small amount of finds reported in Pushkino in general. In a

similar position is Porub, which is only really present in this grouping due to the bronze objects found on the settlement.

The settlements which are located on the River Bilous have a noticeably richer collection of finds than Porub and Pushkino which are located on tributary rivers to Muravlya. If the finds from the necropolis of Porub are added to the finds from the settlement then there is no real shift in the variety and quantity of finds. The reason behind this may be that settlements further from Bilous may have weaker links than compared to those located on the river Bilous which would exhibit closer links to the markets of Chernigov. Chernigov was a settlement mentioned in the Oleg treaty with Byzantium. Furthermore, it was an important seat in Kievan Rus and commanded a dominant position on the silver traffic of the river Desna. As such, a closer connection to Chernigov would have opened the settlements on Bilous to the traders and markets of the town.

As for the addition of finds from necropolises to those of settlements proper, Rogoshh appears to have a richer selection of finds than before. Among the finds from the settlement is a bronze plate (Жаров 1991, 31). This plate would have been used as a decorative element of a helmet. An analogy of this was found in the Gnezdovo mounds by Sizov. Gnezdovo, a settlement on the Dnieper, was a large trading centre of Southern Rus (Мырашева et al 2007). Although the excavation report does not give details of the exact location of the analogy in Gnezdovo, this kind of connection allows us to visualise the links of the area with the wider world. It is possible that the owner of the helmet was someone who visited Rogoshh as well as Gnezdovo. Similarly, it is possible that the style was copied from one settlement to the other.

Rogoshh necropolis in Tabayev has also produced bronze plate which would have been used as sections of a sabretache (figure 34: 1, 4 - 7, 9, 10). This kind of bag has been known to frequently appear in conjunction with items of Scandinavian origin and style. These bags are present among the finds of Kiev, Gnezdovo and Shestovitsa (Терещенко 2012, 304) as well as being present in Birka graves; however they have a stronger link with the steppe nomads, the Khazars and the Volga Bulgars (Hedenstierna-Jonson 2009, 50, 53). Furthermore, Rogoshh has a find of a silver belt plate that has an analogy in Kiev, at the Church of the Tithes (Коваленко 1980, 27).

As for direct evidence of river faring which may have aided trade, Lgov is the only settlement out of those selected with such. Tar producers would have boiled and

extracted pitch from pines. Pitch would have been used in construction, as a sealant in ship manufacturing and maintenance as well as in the production of ropes (Скорород 2011, 99-100) (Коваленко et al 2009, 113).

By looking at settlements with trade items separately to the rest of the selection, we have established a trend in their distribution. All the settlements are located either on the River Bilous or at a point which would allow them to serve in a connecting fashion between two or more rivers in the area. The exceptions to this are Lgov, Pushkino and Porub. It is likely that traded items passed between Lyubech and Chernigov along the River Bilous where they would be traded at settlements along the river. In order to cross into the River Muravlya and continue along the journey traders would use settlements like Petrushi and Maliy Listvin which would offer yet another opportunity to exchange with the local population. In these settlements traders are likely to have stopped often or at regular intervals, allowing these locations to entice populations of smaller settlements in their surroundings to exchange their wares there. The exception of Pushkino can be due to the traded items finding their final resting place, or destination in this settlement. The action of trade could have occurred at a settlement along the Bilous and the final owner of the goods returned to Pushkino after the purchase. Porub, as discussed in Settlement Analysis (on page 67), may belong to a different network and it is much more likely that the presence of traded items there, is due to factors other than the movement of goods along the rivers between Chernigov and Lyubech. As for Lgov, the settlement is located on a tributary of Bilous, but relatively close to Chernigov. This settlement could have, like Petrushi, acted as the final destination for goods which were traded in Chernigov. However, the variety and wealth of finds indicates a usage which was of a higher hierarchical standing.

Settlements with Manufacturing Activity

Settlements with manufacturing activity have been defined for the purpose of this study as those that have finds relevant to a form of artisan or small scale production. These include materials relevant to: woodwork, metal work, jewellery making, glass work, stone work. Spindle whorls have been taken as indications of cloth production with the likelihood of it being wool cloth. Furthermore, waste and unfinished raw materials, such as glass fragments, are also included in this section. Finds such as tools and fragments of worked raw materials would allow a settlement to be placed in this section. As we can see from figure 36, these settlements are Lgov, Noviy Bilous, Petrushi, Pushkino and Smogilovka. In total five out of the twenty four settlements involved in the study.

By selecting settlements with these finds we aim to determine if there are any similarities in the settlements in order to create any links between them as well as gauge their links to settlements with evidence of trade activity.

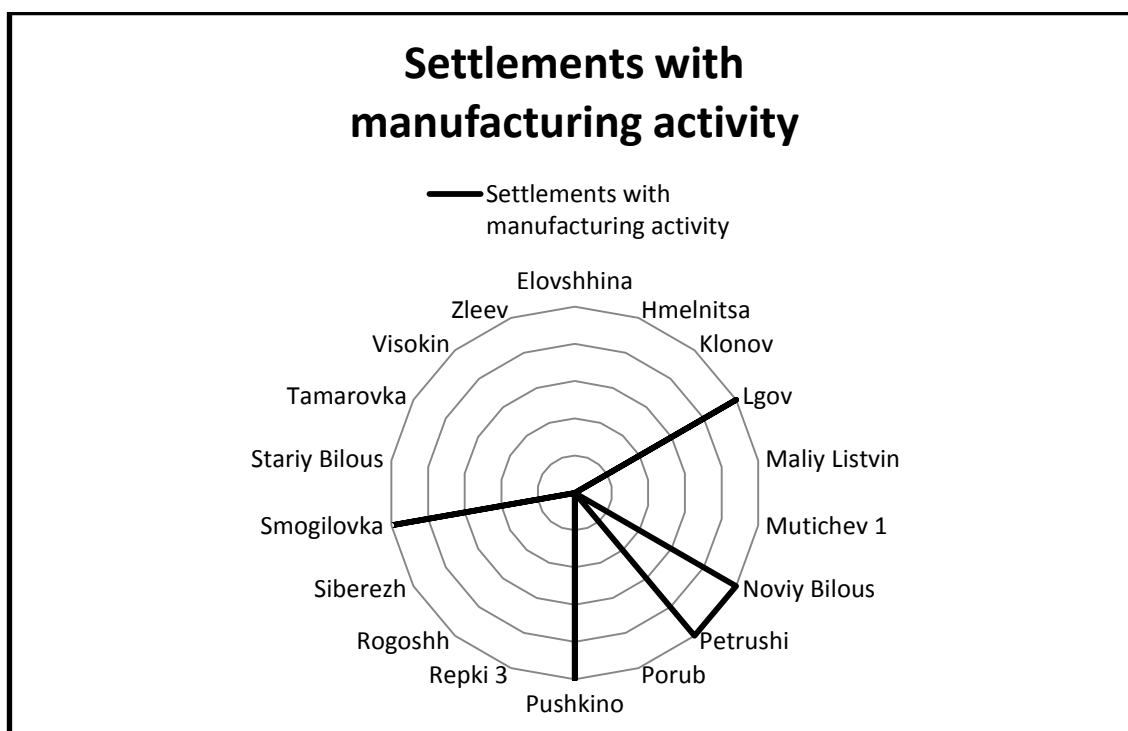


Figure 36 - Settlements with manufacturing activity, total of five settlements out of the twenty four which feature in the study

Noviy Bilous has evidence of iron smelting, represented by finds of slag. Smogilovka and Pushkino also have evidence of iron smelting through the presence of iron slag.

Lgov has finds relating to the production of pitch tar. Although this was already discussed in Settlements with trade activity section, it is worth pointing out that this was not a common activity for a settlement. It is much more likely that this evidence is representative of a specific link to river faring than to general use of river craft or household usage like fishing (Скоруход 2011, 99). It would have been a time consuming process to produce the pitch, one that would only pay dividend with a large scale of operation. Lgov also has evidence of wool spinning through finds of spindle whorls. Wool, being a major source of fabric for clothing and other needs, is present in most settlements through archaeological finds, including the majority of settlements in his study. Where it is not present in permanent settlements, it is safe to assume its existence and absence from archaeological record for other reasons.

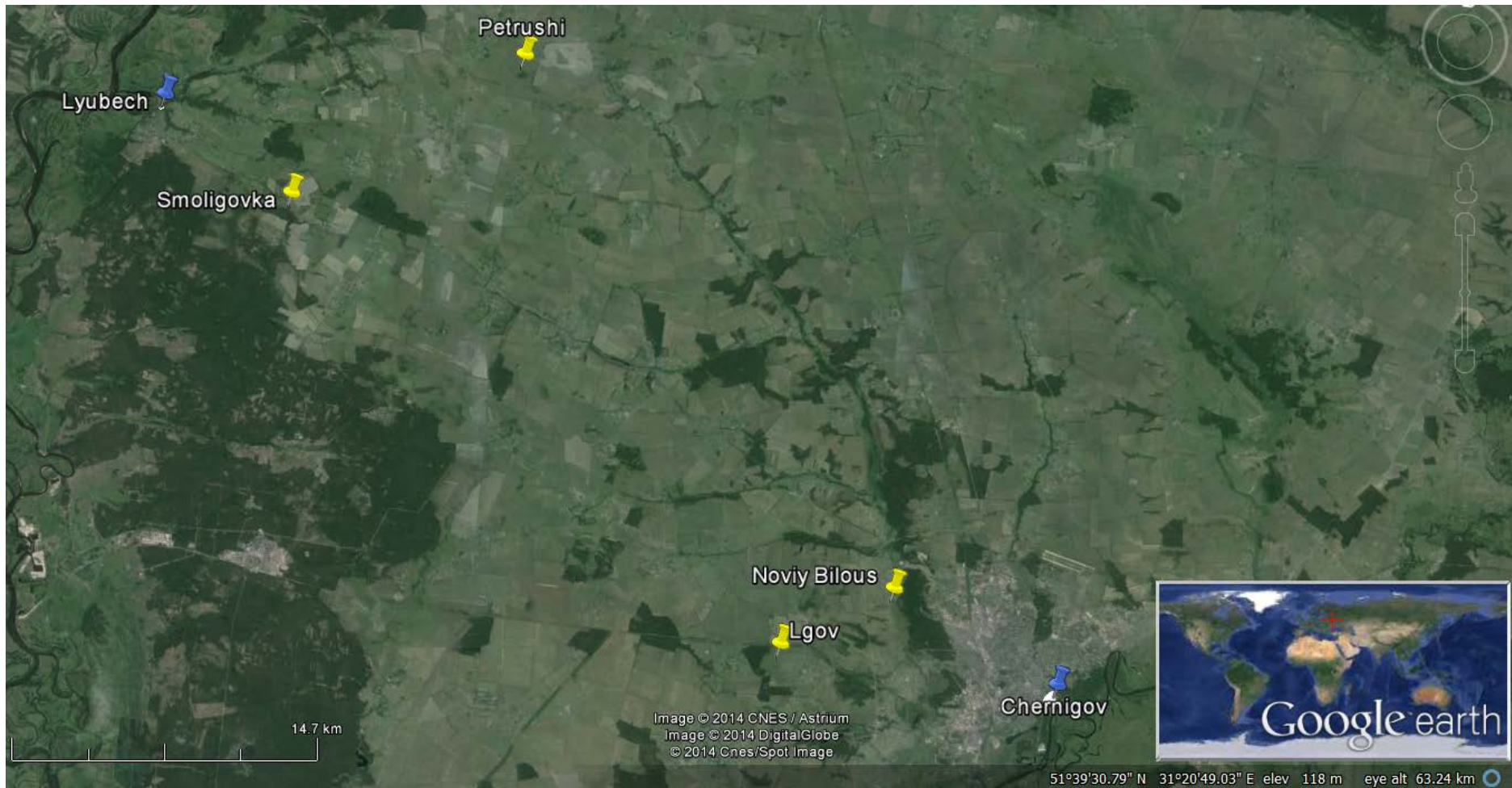


Figure 37 - Location of settlements with manufacturing activity

The presence of pitch production in Lgov is not in itself an immediate indicator of trade. Although pitch production in Shestovitsa was linked to trade activity on the settlement and the maintenance of passing trading craft (ibid, 99), it is possible that other uses existed. It may have been used for the maintenance of river boats that were used for other purposes such as fishing. When we come to look at the assemblage found at this settlement, we notice a large collection of items of jewellery. Beads, bracelets as well as temple rings and earrings like the ones represented in figure 38, show that there was wealth in the settlement. These factors could be indicative of a trade related activity. However, the position of the settlement does not easily apply it for the purpose of trading. A different reason may be behind this wealth and pitch production. It has been mentioned that the nobility of Kiev had residences outside of the settlement where they resided. Shestovitsa was once proposed as one of these residences (Коваленко et al 2003). Had this been the case, it is possible that a similar practice occurred in Lgov. A concentration of individuals linked to the Knyaz in Chernigov would have sufficient wealth and would only base residences near the town of Chernigov.

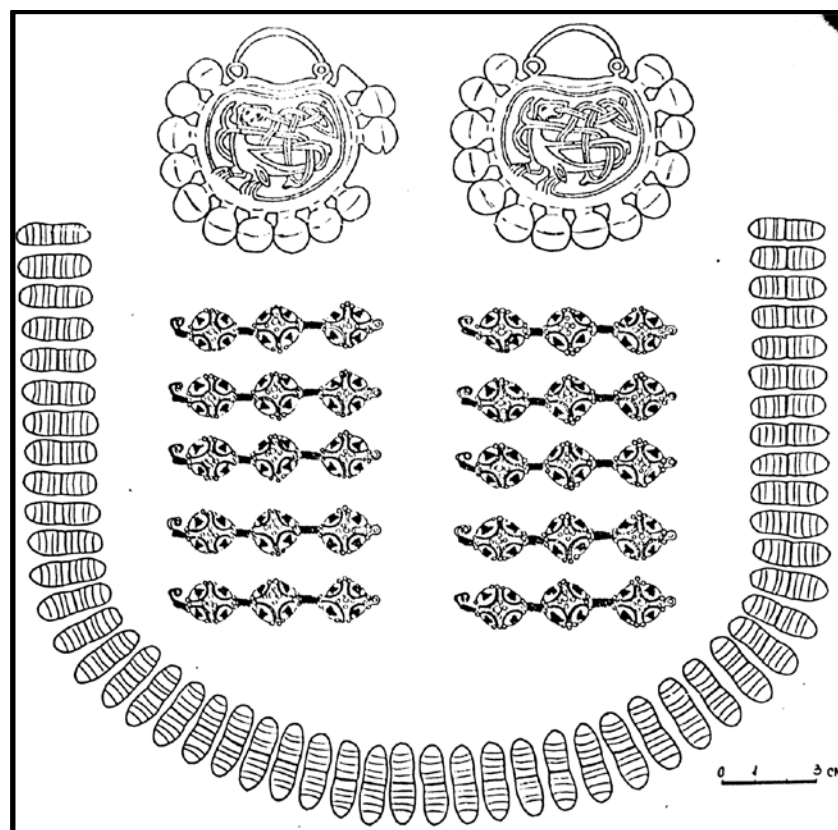


Figure 38 - Collection of beads, temple rings and earrings from Lgov, after Шлекун

Petrushi has an array of wood carving instruments. These include chisels and wood carving knives. Wood was the main building material in the Rus. In fact, fortifications were not built of stone but of wooden “cages” filled with soil, often up to 5 metres wide and tall (figures 19 and 20) (Бондарь 2012) (Коваленко et al 2010). As for dwellings and even churches, they were almost exclusively wooden, at least in their early stages of existence (Івакін et al 2010). As such, it is of no surprise to see evidence of such activity. Petrushi also has evidence of wool spinning.

It is thought that smithies and iron smelting practices were fairly common among settlements of all types in that period. As metal objects were the main tool, a smith would be the person responsible for their maintenance and manufacture. It is likely that a smith was present in most, if not all settlements (Ljungkvist 2012, 189). As such, it is not indicative of trade but of a prolonged use of a settlement as it would be a drain on resources to set up smelting and forging facilities at a temporary station.

It is, therefore a surprise when we notice that only three settlements – Smogilovka, Noviy Bilous and Pushkino (figure 39) are showing signs of smelting activities. Although this does not necessarily indicate that other settlements were of a seasonal, or temporary, nature – it becomes a possibility. Work of Bondar indicates that a smithy could have been removed from the settlement as was the case in his investigations of Rogoshh (Бондарь 2012, 317). There, a high concentration of iron slag and a nearby structure was found removed from the posad during his excavations in 2013. This smithy was dated to the eleventh century. Of course, the relative level of excavation should be taken into account, if possible when considering this possibility in other settlements. It should also be noted that the presence of iron slag is not a recognised indicator of functioning manufacturing areas and the permanency of a settlement. Androshchuk (2004) considered Shestovitsa a temporary settlement despite the frequent finds of iron slag (Скороход 2010, 18).

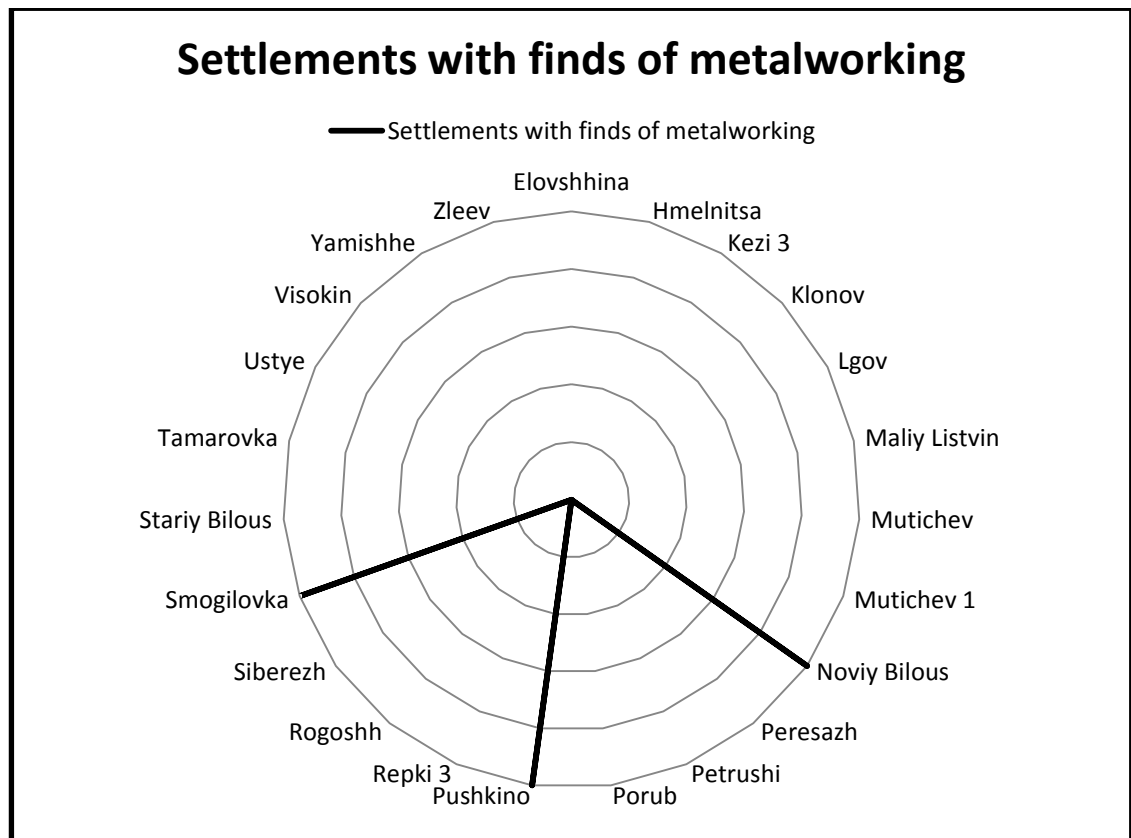


Figure 39 - Settlements with metal slag

Settlements with domestic and agricultural activities

Settlements included in this section are showing evidence of domestic related activities. That is: agriculture and animal husbandry and other activities related to food production. Furthermore, this includes cloth making. Settlements in this section are shown in figure 40, based on material finds such as: spindle whorls, animal bones, scythes, sharpening stones, knives, arrow heads and other hunting paraphernalia, fishing tackle, domestic appliances such as buckets. In total, nine settlements have shown to have these finds. The purpose of isolating these finds into a group is to determine if a link may exist between trade and agriculture in the studied area and to see if the settlements with evidence of agricultural activity display any traits which would allow us to determine if others had similar activities.

Hmelnitsa had 18 finds of spindle whorls. Although this is not indicative of a manufacturing area in the settlements, it does suggest a prolonged period of habitation in the settlement as wool spinning would have occurred to meet the demand of a permanent population due to wool being a common source of cheaper textiles for clothing (Larsson 2008, 183). The presence of spindle whorls is also likely to mean the presence of domestic animals for wool growing. In contrast to Hmelnitsa, Klonov has

only one find of a spindle whorl. However the settlement did have bovine bones as well as large charcoal deposits discovered there. Cows would have been a domesticated animal and although it is impossible to say the exact purpose and quantity of the animals at the settlements- it is certain that they were there.

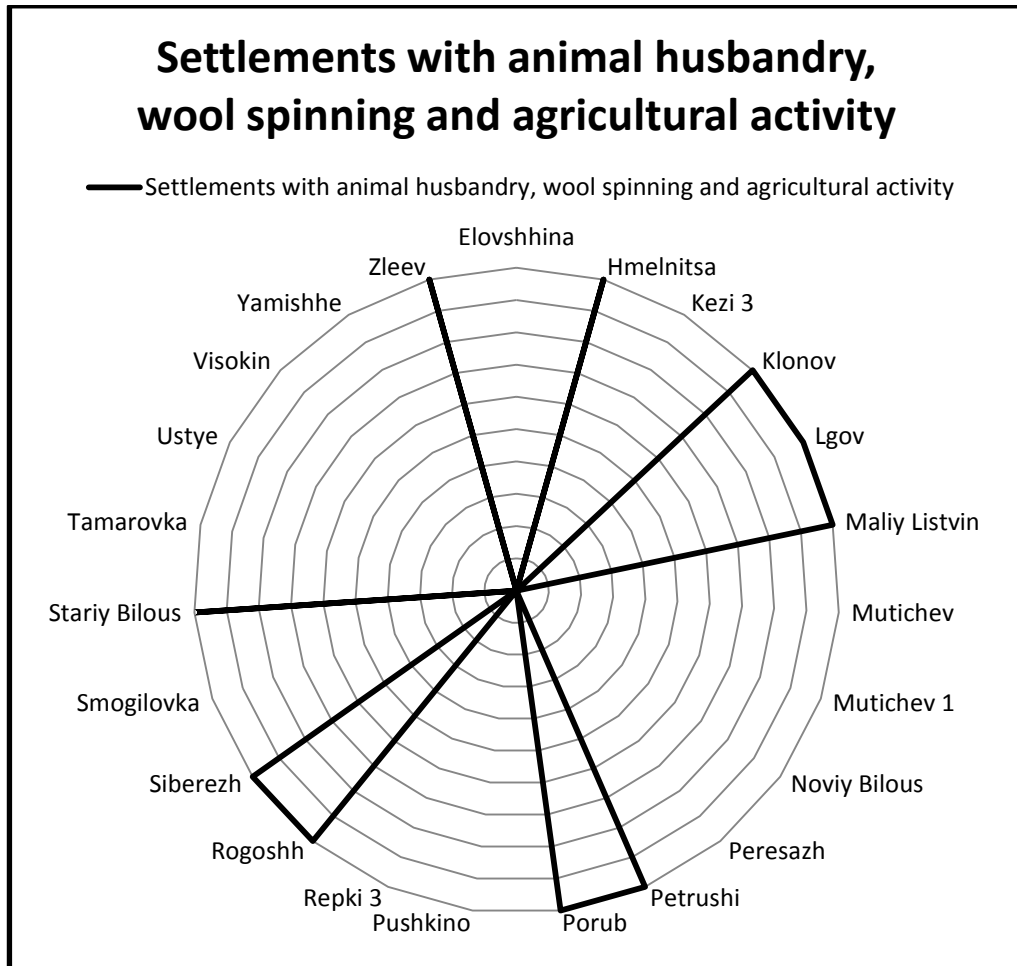


Figure 40 - Settlements with domestic and agricultural activities

Lgov also has a heavy presence of spindle whorls, 12 in total. Furthermore, the settlement has produced finds of bucket sections as well as numerous knives. Buckets are undoubtedly household items, however knives are a different matter. A knife was a tool first and a weapon second. It was a feature found behind the belt of almost every person.

Maliy Listvin produces an array of finds. Animal bones – although only indicative of the fact that animal bones were deposited at the settlement, it can be suggested that animals may have been kept at the settlement. It could be that these animals were hunted, considering the finds of arrow heads. Maliy Listvin also provided finds of knives, bucket fragments and spindle whorls.

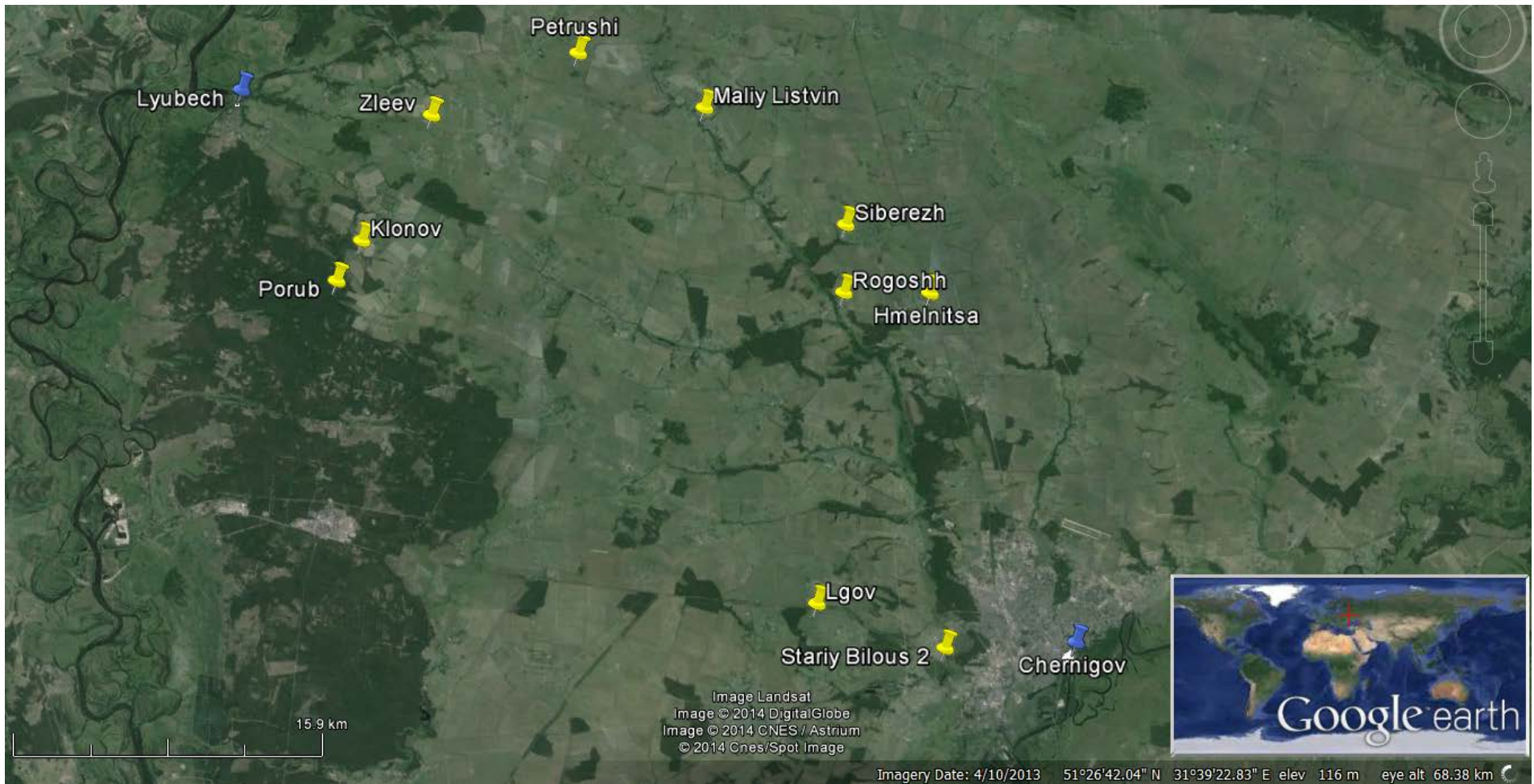


Figure 41 - Location of Settlements with domestic and agricultural activities, as decided by the location of finds attributed to domestic and agricultural activity within this study

Petrushi, like Maliy Listvin has finds of animal bones, arrow heads, knives and spindle whorls. However, here we also see fishing harpoons and fishing hooks among the finds. Fishing would have been a reliable food source at the time. Furthermore, it would not require a boat or other form of transport, as it may with sea fishing.

Porub has a scythe among its finds. It is the first undisputable evidence of agricultural activity in a settlement. At the time of the existence of the settlement, the majority of the army, or “druzhdina” would have consisted of Scandinavian mercenaries. It has been documented that they were reluctant to participate in agricultural practices, relying on the Slavic population to provide for them (Андрощук 1999, 197). This was described by Ibn Rustah in the *Book of Precious Records*. The arabic author mentions Rus as living on an island, not participating in agricultural activity but sustaining themselves through fur and slave trade (Коновалова 1999, 47-48).

Rogoshh has a collection of finds that we have already seen in other settlements. That is knives and sharpening stones for them, animal bones and spindle whorls. This settlement also has three finds of keys (figure 42). Although they can be keys to a lock, it is known for Scandinavian females to have a key as a symbol of womanhood and marriage (Vedeler 2014, 34). Similarly, Siberezh has finds of two keys, spindle whorls and knives.

Stariy Bilous has fragments of a bucket among its finds, not an uncommon find. However, it also has a detailed array of animal bones (Веремейчик and Жаров 1995, 3-5). They include bird, sheep, pig and cow bones. Although it does not necessarily mean that these animals were kept or grown at the settlements, at least we can suggest that they were eaten there. With a close proximity to Chernigov, Stariy Bilous would have been in a perfect position to supply food, including animals and meat to the town.

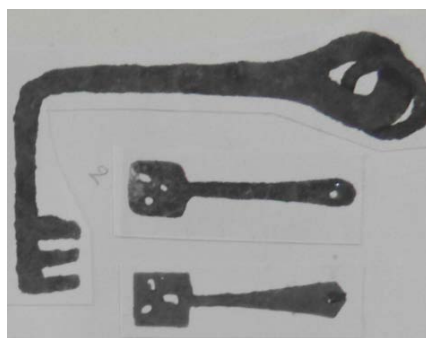


Figure 42 - Keys dated to tenth century from dwelling number 2 of Rogoshh. Бліфельд, 1949, figure XXX-1-3

Zleev, the last settlement in this selection, has finds of spindle whorls and sharpening stones. We infer the use of bladed tools and possibly weapons from these finds.

As such, most of the settlements in this group contain finds relating to textile production. It may be inferred that this activity was commonplace and occurred at a domestic level to satisfy the immediate demand of the household. This does not necessarily require the household to keep animals for wool, but simply to be able to purchase it from traders or other households.

In figure 41 we see settlements which have finds relevant to food production (animal husbandry, agricultural activity and fishing) with finds relevant to textile production being excluded. Zleev, Hmel'nitsa, Siberezh and Klonov are absent when compared with the settlements which appear to have evidence of domestic activities and food production when textile production is included. This would indicate that textile production is a more common occurrence according to the present archaeological record, than food production. This result can be due to the issues of preservation of agricultural tools and as well as the noted transition in Scandinavian settlements between food production and trade. Rural settlements in the Rus were deriving their main source of income from surplus food production (Макаров 2007, 63-64), but may have forgone this activity if the situation allowed for a greater engagement in trade activities, as was notably the case with some settlements surrounding Hebedy (Hamerow 2002, 171).

Unfortunately the reports which feature in this study do not provide sufficient information on the quantity of animal bones which were found. The information presented is either elusive of the quantity all together, as with Blifeld (1949, 14), mentions the weight of bones found, as with Shekun (1996, 25), or simply state the quantity of bones without information on weight, size, or type of animal (Блифельд 1949, entry 245). As such, it is impossible to compare these finds with data from other settlements from the tenth century. It should be noted that in the Georgiy and Ryurik gorodishhes 47 % of animal bones found were of pigs, 38% to large bovines, 6% to goats and sheep and 7% to horses (Носов 2012, 96). In Novgorod, 1 % of hand collected bones were of fish, 10% were of birds and 89% of other animals and mammals (Hamilton-Dyer 2002, 101). Considering the analogies made previously between finds of Lgov, Rogoshh and other settlements with Novgorod, it is possible that these settlements may have had similar deposits with possible regional variation of bird and fish species.

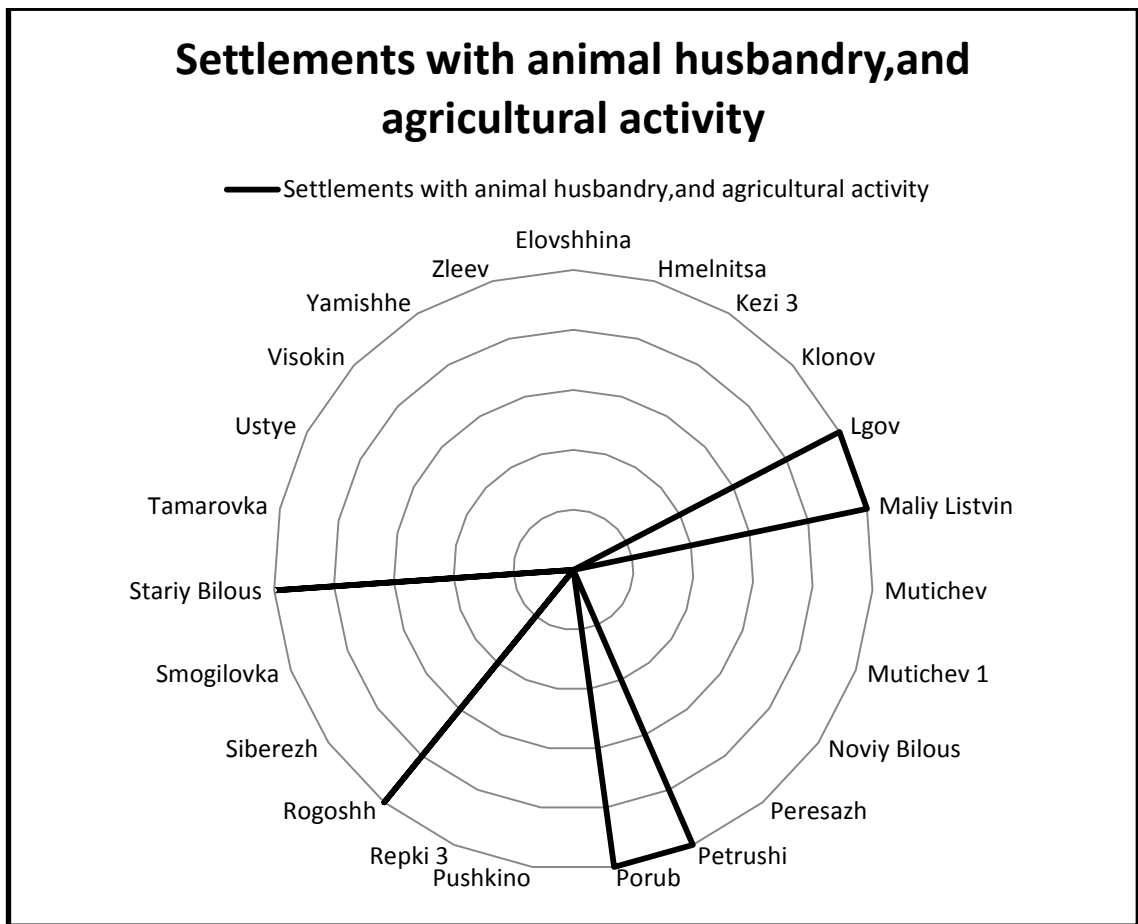


Figure 43 - Food related production (subset of figure 41). This figure shows the settlements with finds which have been attributed in this study to have a relation to the production of food

7. Synthesis

The data presented in the Settlement Analysis and Finds Analysis sections is by and large interpretations of raw data. These sections have allowed us to picture the settlements that are present in this study and to get acquainted with the material which has been unearthed by excavations. The purpose of the synthesis section is to bring the material already presented together, to form a cohesive picture of the settlements and the finds that they have produced. This section aims to utilise the known data of settlements in order to create a prognosis on the settlements involved in the process of trade.

Comparison of find groups

As a result of data collection from archaeological reports, settlements associated with trade related finds are known to us. However, as mentioned in the Problems and Issues section, the settlements in the study have not been fully excavated. As such, there is still potential for further discovery of archaeological material relating to trade. Without resorting to means of intrusive archaeology we can assess which further settlements display features of settlements which participated in trade.

Whereas the Scandinavian warriors which fought in Rus lands were not known to have cared for the production of food (as has been mentioned on page 91), this is not necessarily the case with trading settlements. While trading places could have relied on imported food, there is no reason for them not to participate in food production themselves, even if for sustainability purposes rather than surplus production. The same can be said for the production of different forms of textiles. However in the case of Rus this would predominantly be wool. Looking at the collection of settlements within the groups of trade and agricultural production we can notice repetitions. Siberezh, Rogoshh, Petrushi, Maliy Listvin, Lgov and Hmelnitsa appear in both groups. These settlements all appear along the River Bilous and would have been perfectly placed to conduct trade related activity, being in nodal positions along the Bilous River.

Interestingly, when we take away the production of textiles from the equation, there is a reduction in the settlements featuring in both groups. Hmelnitsa and Siberezh are removed. These settlements are both in a similar location, at the point where sources of tributaries of Bilous and Strizhen rivers lay. This allows the two settlements access to both rivers and makes them a perfect connecting point prior to the rivers reaching Chernigov. Similarly, these settlements can be places of final destination for goods.

Fewer similarities, but still worth mentioning are found between the trade and manufacturing groups. The repeating settlements are Pushkino, Petrushi, Noviy Bilous and Lgov. Pushkino, Petrushi and Lgov are located away from the three main rivers in the area; however they all have evidence of some kind of manufacturing activity. This may mean that these settlements were engaged in the process of production of goods which would be then sent off to be sold in other markets. In the case of Noviy Bilous, its proximity to Chernigov suggests that the manufacturing activity (metallurgy predominantly) is likely to have been orientated towards the demand of the neighbouring large town. The proximity of Noviy Bilous to the river Desna may have

increased the spread of its production further to the settlements of Shestovitsa or Vipolzov, located further downstream on the river Desna.

The frequency of repetition of a settlement in finds groups may be an indicator of a link between the process of trading and other activities. The highest level of repetition is in the groups with agricultural and textile making finds. Despite the highest level of similarity, it is unlikely that agricultural activity and trade have a common point. Although it is expected that a settlement would produce food for the purpose of sustaining life, this is expected of all settlements, not just trading centres. Where there is more expectation is in the crossover between manufacturing and trade activities. However, here we only see four settlements.

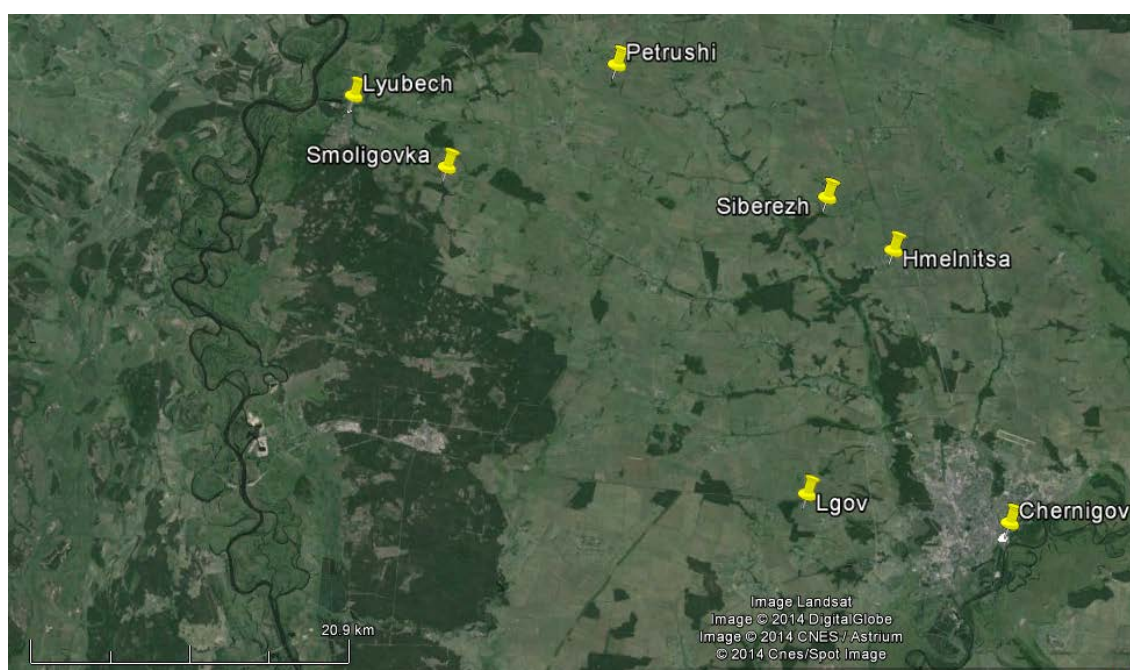


Figure 44 - Location of Settlements with finds numbering above 20

Pogosts on the Chernigov-Lyubech route

There is a difference, that has to be mentioned, between trading settlements and pogosts in particular, and settlements which merely have items identified as relevant to trade. A settlement with large quantities of finds of glass ornaments and jewellery, or bronze jewellery may not be involved in trade and long distance trade especially. These items may be produced domestically as the existence of glass workshops in southern Rus has been noted (Скороход 2010, 15). Furthermore, temple rings have been known to be a feature in Slavic dress and frequently appear among Slavic grave goods, including the Sever tribe (Рябцева 2005, 50).

A definition of a trading settlement is needed for the known information about studied settlements to be applied to it. Taking a Rus pogost as a model for a trading settlement in the area, and using existing examples of settlements which have been labelled as such (Моця 2003), we shall apply the settlement information against the criteria. The criteria of a pogost were outlined in the Trading Settlements section. They are: a settlement which is located in a densely populated area and acts as a hub for the surrounding smaller settlements; consisting of a fort or gorodishhe, and an open terrace or posad; have an extensive necropolis with burial mounds in their hundreds and rich burial goods; possess developed artisan and manufacturing areas; exercise control over the land and water routes nearby (Бондарь 2013).

A trading settlement should act as a hub. As such it requires other settlements around it. Considering the locations of settlements in the study and the aforementioned small attention paid to smaller settlements, it is certain that every single settlement in the study has other settlements in the radius of 10 km (Бондарь 2013, 104). This is partly due to the small study area of the investigation and partly due to the high concentration of settlements between the rivers Dnieper and Desna.

The settlements that include a posad and a gorodishhe are not a frequent occurrence in the study. As discussed in the Settlement Analysis section, less common are those that have a posad, gorodishhe and a necropolis. These settlements are: Rogoshh, Maliy Listvin, Porub and Klonov. Interestingly, two of the settlements are located on the River Bilous while the Porub and Klonov are on a tributary of Muravlya. It can be said that these settlements also exercise control over land and water routes nearby. Rogoshh and Listvin are located at the river front, with their gorodishhes being exposed to the River Bilous at least on one side. As for Klonov and Porub, they are located slightly away from the proposed main routes of traffic in the area. But still occupy a position to control river traffic.

Manufacturing activity is an area which does not appear to have occurred in any of the four settlements. Based on a lack of finds relating to the process of manufacturing, these settlements relied on goods brought in from other areas. Considering that these settlements occupied a position within a small trade route it may be that manufacturing areas in these settlements were not yet developed. Considering the presence of the markets of Chernigov and Lyubech within a day's journey from these settlements, it

may be that the absence of manufacturing was due to the transfer of these activities to the larger settlements.

A large trading settlement, the like of Chernigov, Gnezdovo, Timerevo or Birka is expected to have a manufacturing zone. As a place of great exchange and trade these towns acted as magnets for the artisans of the area and may even have attracted masters beyond the local hinterland. These settlements had networks that covered hundreds of kilometres. In the case of Birka, the settlement traded with Rus, Scandinavia, the Baltic coast as well as having finds originating from the Middle East and beyond (Андрощук 1999, 199). This kind of variety would have undoubtedly encouraged artisans to relocate there in order to sell their wares from their workshop. The same can be said for the podol of Kiev (Комар 2012, 316-317). A hub of trade with Byzantium, Kiev had a number of glass, jewellery and other workshops in the area below the fortified settlement, near the river Dnieper. However, for a small settlement in the Chernigov principdom, it is possible that the lure was not great enough for artisans to settle. Considering that even passing trade would have had to go through Chernigov and Lyubech, it made more sense to these craftsmen to work and sell their wares in these large towns.

Although the settlements along the route were unlikely to have been of pogost qualification, it is possible that they fulfilled a similar role on a smaller scale which goes together with the reduced area and significance of this route. Although it does allow goods to pass through a system of rivers from Desna into Dnieper, it is unlikely that a large trade caravan would have avoided the markets of Kiev. Even if we consider that avoiding customs which were stationed along river routes (Скоруход 2011, 5) may have been the purpose of such detour, traders with substantial quantity and value of goods would have most likely journeyed towards Kiev to participate in the trade that went on there. As for settlements along this route, they are much more likely to have had visitors with smaller amounts of goods where a percentage tax would have removed enough value from their wares to merit avoiding the customs. Also, it is likely that the inhabitants of the settlements along the route were traveling to the markets of Chernigov in order to purchase goods and sell their wares and may have stopped in other settlements along the way.

Classification of trading settlements

If the settlements in the study were not pogosts it is likely that they had different qualities. To determine what qualifying features a trading settlement in this route may have had it is best to examine the settlements with trading goods. Looking at the features of these settlements we can determine what were the most common among them. After determining these features, we can apply this criterion to other settlements in the area in order to determine their suitability for their participation in trade, taking into account the under-researched nature of the settlements in the studied route.

While it is speculative to suggest that certain goods originated or ended their trade cycle within settlements featuring in the study, the presence of trade goods within the studied settlements leaves the purpose of these settlements open to interpretation. Covering 70 km, the river route from Chernigov to Lyubech had a large amount of settlements along it. This study has 24 of them, however more have been excavated since 2009 and it is certain that some are still to be discovered, or discovered as belonging to this time period. The settlements presented in this study have features which indicate that they have had a role in the trade that went on in that area. Along the way ships and boats would have been able to mend damages and seal leaks. This activity was likely to have been directly related to trade as it was predominantly done along river routes. The settlements in the area have defensive features which set them aside from typical hinterland settlements. Settlements like Yelovshhina, Rogoshh and Maliy Listvin have defences which would have protected the settlement, if even as a deterring factor. Being time consuming and expensive to construct, these features would have had to have a clear reason behind their creation. Although trade may not seem like the obvious solution to this question, these settlements would have had a role to play in trading activity along the studied route. It is possible that these settlements acted as a point of tax collection or some form of custom house. Interestingly, Rogoshh and Maliy Listvin are located 30 km from Chernigov and Lyubech respectively. It may be that they were the posts of these towns, collecting tribute and duties, although there is no evidence whatsoever to back this claim within the studied region.

Looking at the locations of the settlements with trade related goods in this study; we can determine the most likely position of trading settlements. Located mostly along the River Bilous, the settlements occupy a river front position. Preference for trade positions should be given to settlements which occupy a position which allows them to participate in processes of further increasing the trade network. Hmelnitsa and Siberezh

are in such a position as they connect the Rivers Bilous and Strizhen. These two settlements must have fulfilled a similar role as they are not only similar in their location but also in their finds assemblage. The settlements Maliy Listvin, Mutichev 1 and Petrushi are also in a similar position. They fulfil the role of connecting the traffic on the rivers Muravlya, Strizhen and Bilous. As such, these 5 settlements fulfil a nodal function. Rogoshh and Peresazh are, at first glance, not located at a nodal point but can still serve as hubs of trade. The location of these settlements along the Rivers Bilous and Muravlya, respectively, allow the traffic on the river to stop for any business at these settlements. Rogoshhes location in relation to Chernigov and Lyubech, in conjunction with Maliy Listvin has already been mentioned and it is possible that these settlements have been used as a stopping point for trade that moved from one town to the next. Furthermore, Rogoshh is located between the mouth of tributaries on which Siberezh and Hmelnitsa are located. This allows the settlement to be the focus of any traffic that may have flowed from the River Strizhen into Bilous. This means that based on their location, settlements Maliy Listvin, Rogoshh, Siberezh, Hmelnitsa, Peresazh, Mutichev 1 and Petrushi can be taken as the model of trade settlements. Thus the criterion is for the settlement to be in an accessible position for trade, along the major communication routes or at points of their intersection.

It is likely that, as Bondar pointed out, a trading settlement would have a large necropolis of burial mounds. He provides the qualifier of settlements where burial mounds number in the hundreds. For a smaller route it is likely that fewer visitors will be passing through these settlements, with most trade going up the River Dnieper. As such, instead of hundreds, a necropolis in tens of burial mounds and above will be sufficient. The settlements that fit into this description are Rogoshh, Maliy Listvin, Peresazh, Klonov, Porub and Mutichev 1. Of these settlements, Peresazh, Klonov and Porub have not exhibited any artefacts that may be associated with trade. This means that the presence of tens of burial mound may be criteria for trade settlements in a small network, with Porub, Klonov and Peresazh being possible trade settlements.

The location of settlements Mutichev, Repki, Yamishhe and Ustye also suggests that they may be linked to trade activity. These three settlements only have finds of ceramics dating to the tenth century. The settlements of Mutichev and Repki are located in a similar position to the settlements Mutichev 1, Maliy Listvin and Petrushi. They are at a connecting point of the rivers Bilous, Strizhen and Muravlya. The two settlements are located on a tributary of Bilous, close to the former channel of Muravlya. Both Repki

and Mutichev show finds from the tenth to the thirteenth century, and although the existence and demise of these settlements is not covered by this investigation, their simultaneous existence in similar locations may mean a similar role of the settlements. Furthermore, Mutichev is also known to have a necropolis of burial mounds. There is no record on the quantity or features, or finds from the mounds. This shortage of information can be filled by further archaeological excavations in the area, but the signs are there for this settlement to have elements of trading activity within it. Ustye is located in the vicinity of Peresazh. Although not associated with a necropolis and only having an area of 2 hectares, this settlement may still have had interest from merchants. As for Yamishhe, it occupies a similar position as Rogoshh, being on the intersection of the River Bilous and the River Yakoman, on which Siberezh is also found. Considering the trade links of Siberezh and Rogoshh it is possible that Yamishhe may exhibit similar traits. However, as the settlement was destroyed by agricultural activity it is difficult to determine the activities within the settlement.

The settlements of Lgov and Noviy Bilous also have assemblages associated with trading but they are more likely to have fulfilled a different role to a nodal one. Their proximity to the settlement of Chernigov and lack of fortifications may indicate a supporting role for Chernigov. When considering the hinterland of a settlement and the ties of the settlements within it one immediately delves into the realm of central place theory and network analysis. The theory of central places was introduced by a German geographer, Walter Christaller. A simplistic explanation of the system is that in any given market there will be relatively few sellers of high threshold goods versus a high number of sellers of low threshold and range goods (Brown 1994, 71). In the context of this study this would mean a smaller number of settlements dealing with long distance exchange directly and a larger amount of settlements dealing with trade of goods originating in the local area, as seen in Figure 29. However, central place theory relies on a static model of the world and has been found to not fit the development of urbanism in the early middle ages (Sindbæk 2007, 61-62) and reworked adaptations of central place theory have been applied to archaeological sites in Scandinavia. However, it is not entirely possible to name the settlements in this study as being a part of the same network. Although they do form a geographical cluster with communication links between the actors, there is no clear indication of the direction of communication, nor of any particular links between the settlements. While settlements within the study share certain artefacts, like glass bracelets or glass beads, this does not imply that they have

communicated with each other. These items could have originated at that settlement, or more likely that they have been purchased from the same market hub. The towns of Chernigov and Lyubech are likely to have been such hubs. It is likely that the settlements located in the immediate vicinity of these hubs, of a distance of 5 km would be recipients of long distance traded items from the hub settlements rather than participating in trade directly. This was seen in the settlements surrounding Hedeby (Hamerow 2002, 170) and fits in with the model of pogost settlements which have been put forward by numerous authors (Бондарь 2013, 105), (Моця 2003, 200-201).

In the immediate vicinity of Chernigov is Elovshhina. A small gorodishhe with an adjoining posad, located on the River Strizhen, it has already been discussed that this settlement is likely to have served a defensive or administrative function relating to the traffic along the River Strizhen in the direction of Chernigov. As such, this settlement is removed from considerations for trading activity. The settlements of Porub and Klonov are too removed to be a viable part of the Chernigov Lyubech route. Although these settlements display some of the qualities of a trade settlement as already mentioned, their location makes it improbable that they were actors in the same network. As already shown in Classification of Trading Settlements and Figure 14, possible settlement locations near Lyubech Porub and Klonov are more likely to have formed the immediate hinterland of Lyubech and have been a part of a network associated solely with this settlement.

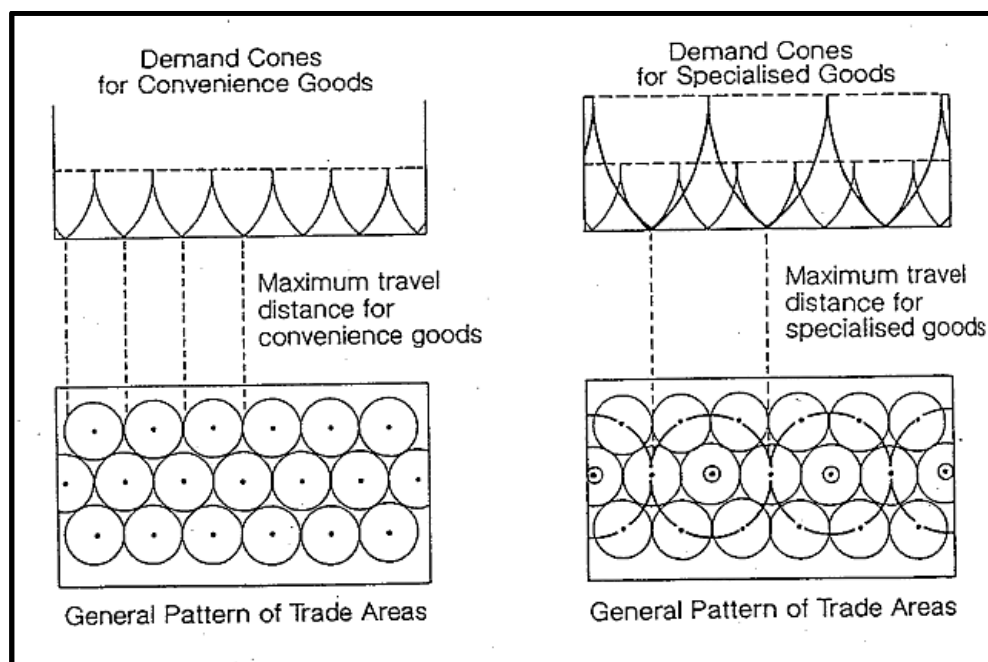


Figure 45 - Demand cones in central place theory (Brown 1994, 72)

Among the selected settlements for the study are those that exhibit finds that clearly associated those settlements with trading. Based on the features and artefacts of these settlements, a criterion has been put together which may indicate which settlements may also be associated with trade but are not showing signs of doing so through insufficient research and gaps in the archaeological record. These settlements need to be in an accessible position for trade, along the major communication routes or at points of their intersection; to have a necropolis with tens of burial mounds; and to be located at least 10 km away from a major town or settlement which may have acted as a hub in the local region.

The settlements which have been able to fill these criteria are Ustye, Peresazh, Petrushi, Maliy Listvin, Mutichev, Mutichev 1, Repki, Yamishhe, Siberezh, Hmelnitsa, Rogoshh. It should be noted that not all of these settlements have finds relating to trade. The settlements that do not are: Yamishhe, Repki, Peresazh, Mutichev, and Ustye. These settlements have been selected as settlements with potential links and can benefit from archaeological excavation to determine their role in the process of long distance exchange among the settlements in this area. It should also be noted that according to the outlined criteria, settlements Pushkino, Noviy Bilous, Elovshina and Lgov have not been included in this selection. These settlements have artefacts relating to trade among their collections. However due to their positioning, and other attributes they have not met the selected criteria of trading settlements.

Although this criterion is only a model of what can be done with the material available and uses very basic means of selection, it shows that lack of archaeological finds in a settlement does not necessarily remove it from being grouped in a preliminary investigation. As described in the Problems and Issues section, there is a discrepancy in the quality and amount of data for different settlements presented. The data that is available is the location and composition of settlements. The presence of necropolises is also mentioned. Based on this material the settlements in Figure 30 can be considered to have features relating to trade without distortion of differential visibility through the archaeological record. Unfortunately it was impossible to determine the level of excavations of all settlements as this data is inconsistent or absent across the participating excavation reports.

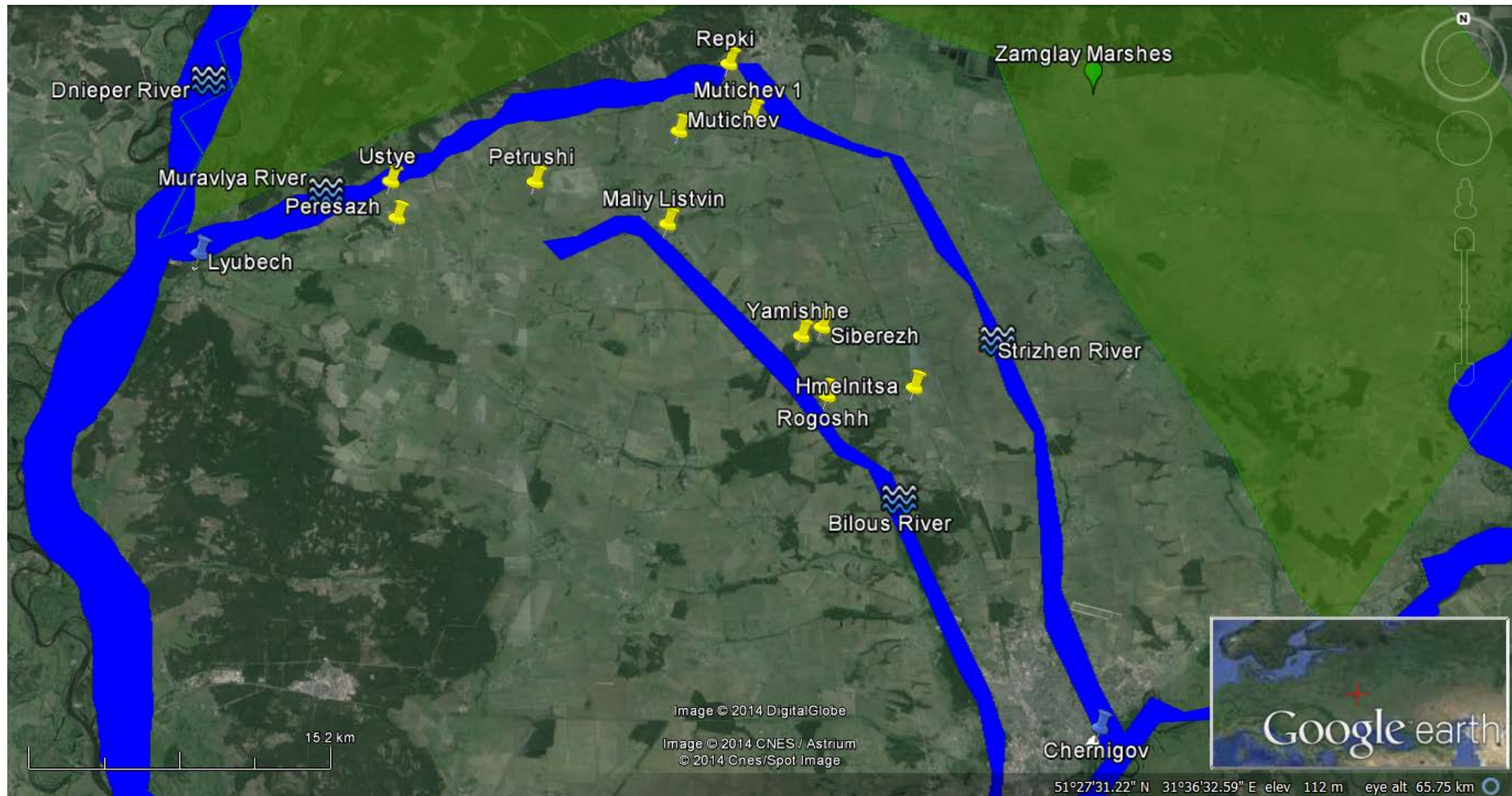


Figure 46 - Possible trade settlements, as decided in the Classification of trading settlements section and taking into account the differential visibility of finds

Local connections and movement of trade

So far the study looked at the settlements in the context of their topographical and artefactual features. This section aims to examine the means of communication between settlements. Although it is entirely possible to assume that every settlement in the study has had interactions and links with every other settlement, it is more likely that settlements have had a closer connection if they were closer geographically. If we consider that settlements are more likely to have a stronger connection with three closest settlements we get a model of links between the studied settlements. The reason behind selecting three nearest settlements rather than any other number is arbitrary and can be extended to a greater, or lowered to a smaller number. It is selected to provide an example of what may happen if settlements are linked with no other criteria than their straight line geographical proximity. Presented in figure 47 we can see that this model creates three independent networks of settlements. This is the result of clusters of settlements lying in relative isolation from the rest of the studied area. As can be seen from the figure, some settlements have more than three links. This is the result of settlements having three links of their own and other settlements being linked to them. This is the case with Pushkino. The three closest settlements to Pushkino are Visokin, Peresazh and Zleev. However, for Porub, Klonov and Kezi 3 – Pushkino is among the three closest settlements.

Using this model allows to gauge the possible links between settlements with little reliance on data. Basing the links on geographical location only allows us to link settlements closest to each other and create a mode of communications within settlements for which little data is available. The benefit of this is that further study within the area can focus on these modelled links in order to determine their existence as well as providing a loose framework which would allow grouping of settlements for the purpose of focusing further research. The benefit of creating such a model is to establish the settlements which may have a potentially stronger connection to other settlements, thus hypothetically having a greater role in local communication and trade networks. This method of modelling can be used when determining a selection of sites for further investigation, as a site with more connections is likely to offer more material and larger cross section of cultural attributes of the area.

This method of modelling connections between settlements is ineffective for a number of reasons. Firstly, there is no guarantee that settlements will have a connection to the three geographically closest neighbours. We know that the towns of Chernigov and

Lyubech had a connection yet through this system they seem completely unrelated. It is also possible that a settlement may have only two neighbours within a 10 km radius, with the third link being a much greater distance. This does not necessarily imply a tie between these settlements. Secondly, this does not take into account any arefactual and topographical similarities between settlements. We have established some settlements as trading settlements; however this is not represented in this model. Thirdly, this model does not take into account the means of transport between settlements. The connections are done on the closest straight line projection, rather than taking into accounts roads and river routes.

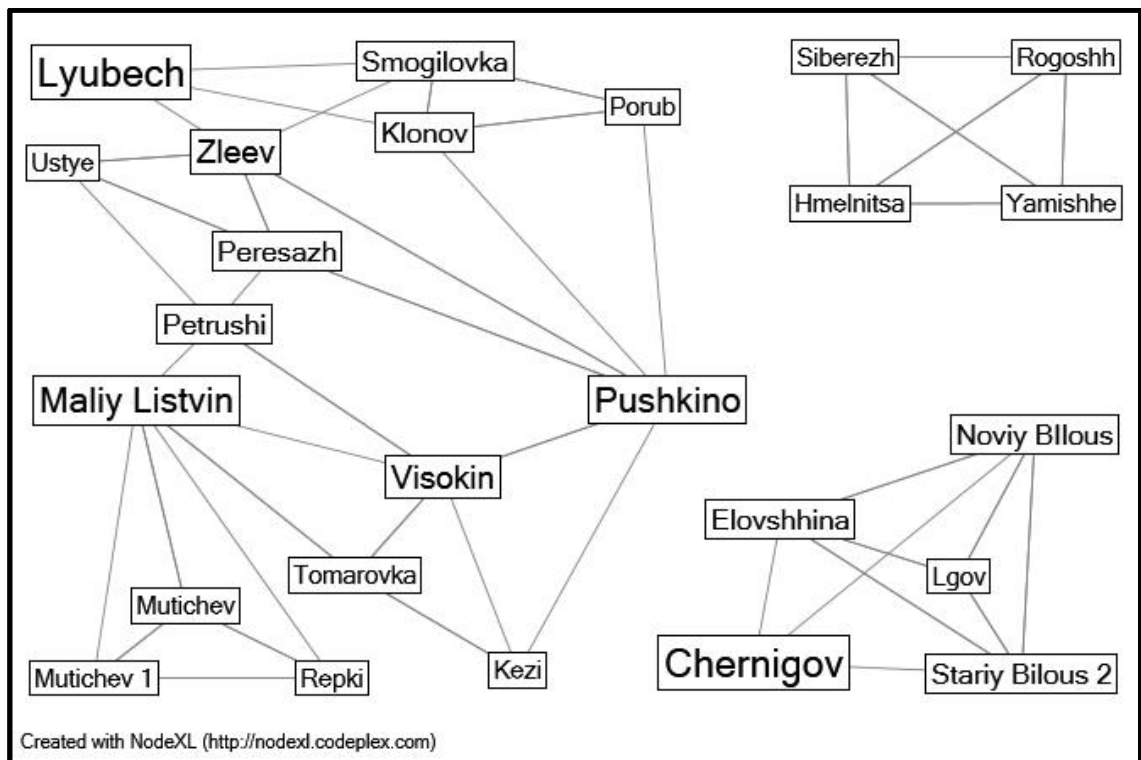


Figure 47 - Network of settlements when connected to three nearest places. This figure links settlements with its three closest geographical neighbours. Settlements can have more than three links as they would feature as one of the three links for another settlement which would not appear within the initial settlements selection

One of the ways to limit the shortfalls of the above model is to incorporate distances via river routes between settlements. As discussed before, this was a common way of transportation and is a more likely means of travel for traders. Furthermore, while the position of rivers in the studied area is known, it is not the case with the position of roads in the tenth century. As such, the model in figure 48 is a more accurate means of establishing the number of links between settlements.

What we can see from the created models is that Maliy Listvin, Rogoshh, Yamishhe, Petrushhi and Peresazh are the leaders in the quantity of links to settlements. The numbers of links are eight, seven, nine, six and six respectively. Out of the five settlements, three are within 30 km of Lyubech Chernigov and 10 km of each other. These are: Rogoshh, Maliy Listvin and Yamishhe. Interestingly, these settlements are located either in a nodal position or along the River Bilous. The nodal position is derived from the vicinity of the River Strizhen to the position of the three settlements as well as the proximity of the River Muravya to Maliy Listvin.

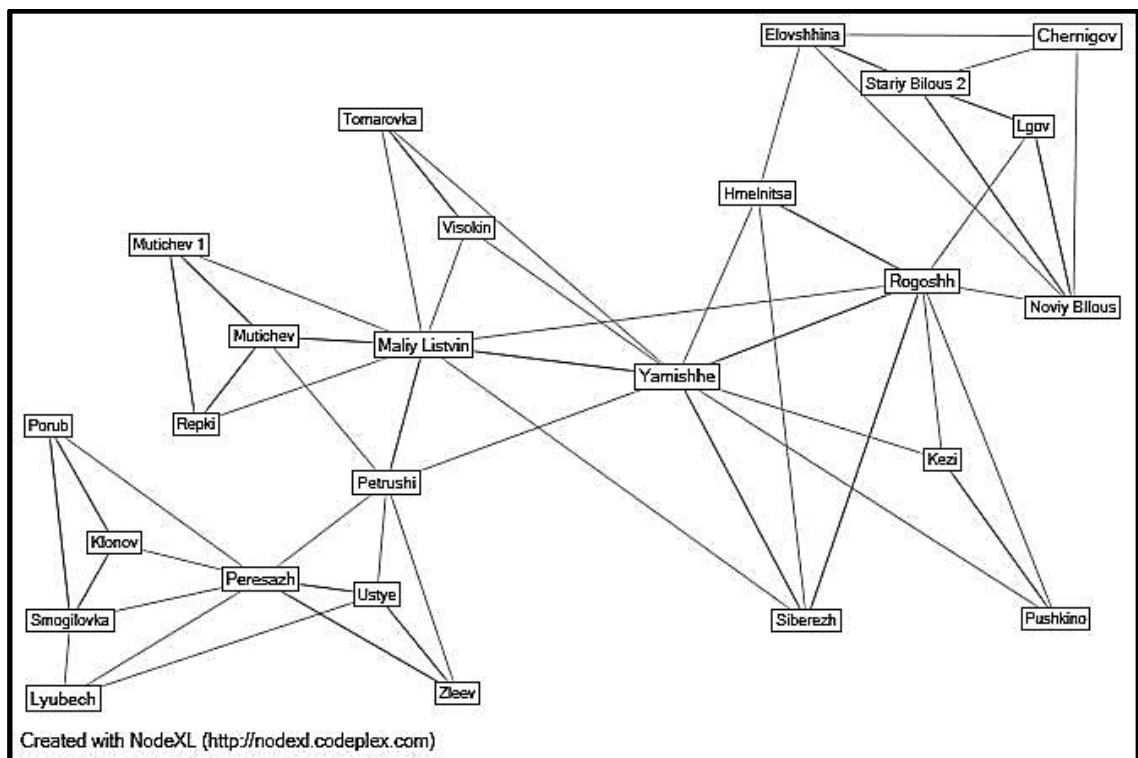


Figure 48 - Connections with three closest settlements by river routes. This figure links settlements with its three closest geographical neighbours via river routes. Settlements can have more than three links as they would feature as one of the three links for another settlement which would not appear within the initial settlements selection

Previously the possibility of links between the settlements Maliy Listvin and Rogoshh to Chernigov and Lyubech were discussed. This was presented in the light of similarity in distances between the two settlements to the two larger towns in the studied area. From this model we can see that these two settlements are likely to have played a role in the trade network of the studied area as they have such a high possibility of disseminating goods due to the quantity of settlements in their vicinity. This can be further seen from figure 49 where settlement within a ten km radius of Listvin and

Rogoshh are represented. A further point illustrated there is that Maliy Listvin has a greater number of links which entrenches its position as an active participant in the communications network of the area.

The outcome of this model is that we are provided with five settlements which can be the focus of future research. Also, we have determined that nodal positions and positions along the Bilous River are more beneficial for higher number of links. However, this still does not take into account the collection of artefacts found at the settlements nor a more geographically limited area of settlement communication.

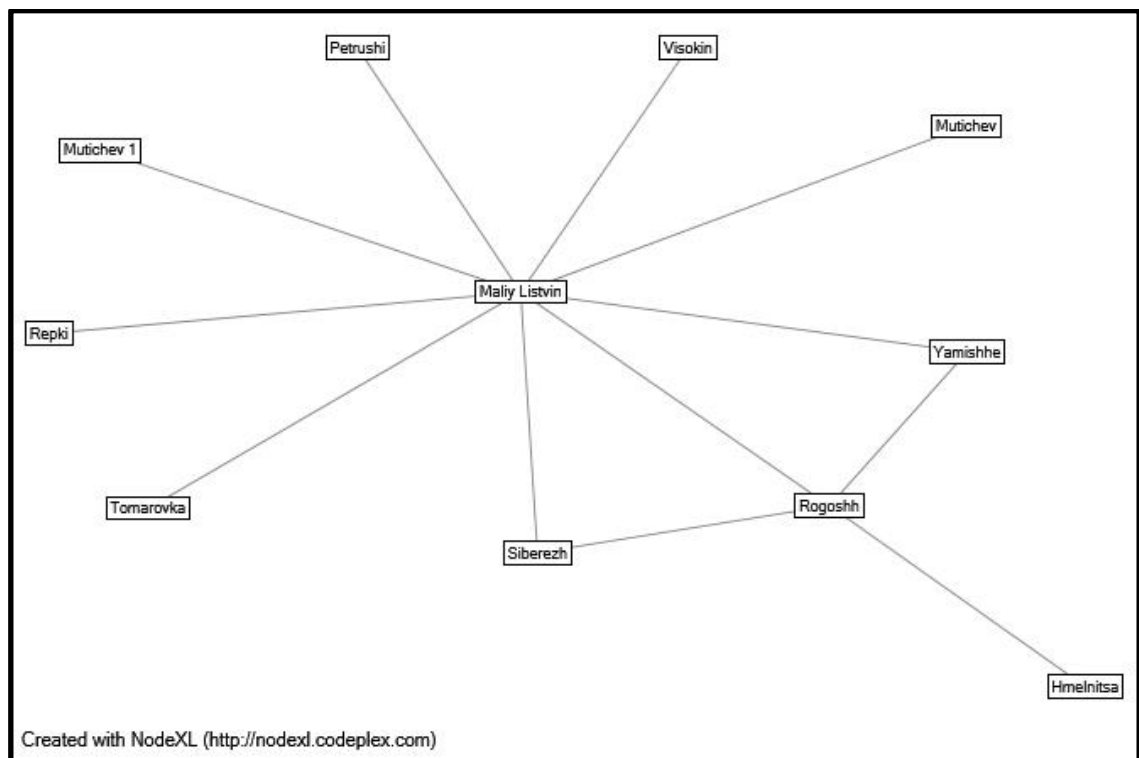


Figure 49 - Settlements within a 10 km radius of Maliy Listvin and Rogoshh measured as a direct straight line between settlements

When considering the geographical limitation of the model, we can limit radii within which settlements are likely to have a link. This is not to say that settlements which lie further are unlikely to have had direct exchange, but simply that settlements which are closer together are more likely to have had frequent interaction than those lying at a distance. While this was not necessarily the case with some networks at a larger scale, (Sindbæk 2007, 64-65), it is more likely that a villager would travel a day's journey to a neighbouring hub or a neighbouring village, rather than somewhere much further away. This is providing that the two locations serve the same purpose, which in this case may have been the exchange of goods. Considering the woodland terrain it is reasonable to

consider 5 km a good limiting distance. However, as figure 50 shows this provides us with no conclusive interpretative means.

Considering that this study set out to determine the paths of goods within the studied area, a model on connections between the studied settlements must incorporate a type or selection of artefacts that feature in the studied settlements. It is more likely that individuals would travel from one location to another for the purpose of exchange, than for any other reason. In this case travel is not solely limited to individuals who reside in the settlements in question but can include those that participate in professional exchange, i.e. traders. Based on previous interpretations of this study, the model will be based on the settlements which have formed the basis of the model outlined in Classification of trading settlements section. These settlements are Ustye, Peresazh, Petrushki, Maliy Listvin, Mutichev, Mutichev 1, Repki, Yamishhe, Siberezh, Hmelnitsa and Rogoshh. The purpose of this is to see how these settlements may have communicated between each other as well as with the surrounding settlements. Furthermore, although these settlements have been selected as those most likely to have participated in trade, it was based on a model. This is an opportunity to see what effect this model has within a network context.

Considering the aforementioned distance between Rogoshh and Maliy Listvin, this study will take the distance of 10 km as a guide for the radius distance from a trade settlement. Furthermore, as pointed out previously, due to no knowledge of means of travel, this will be limited to distances via water routes. Although this process adds an element which may bring an error into the model, by introducing a limit on the distance- it is a limit that has basis on the observations within the studied area. The distance between Lyubech and Peresazh and Chernigov and Noviy Bilous is roughly 10 km, making it more likely that this distance had significance in means of communication in the area. The introduction of a limit on the means of travel aims to further remove error in this model as while it is uncertain that river routes were taken – they provide the only sure way of measuring distance as position of roads is unknown.

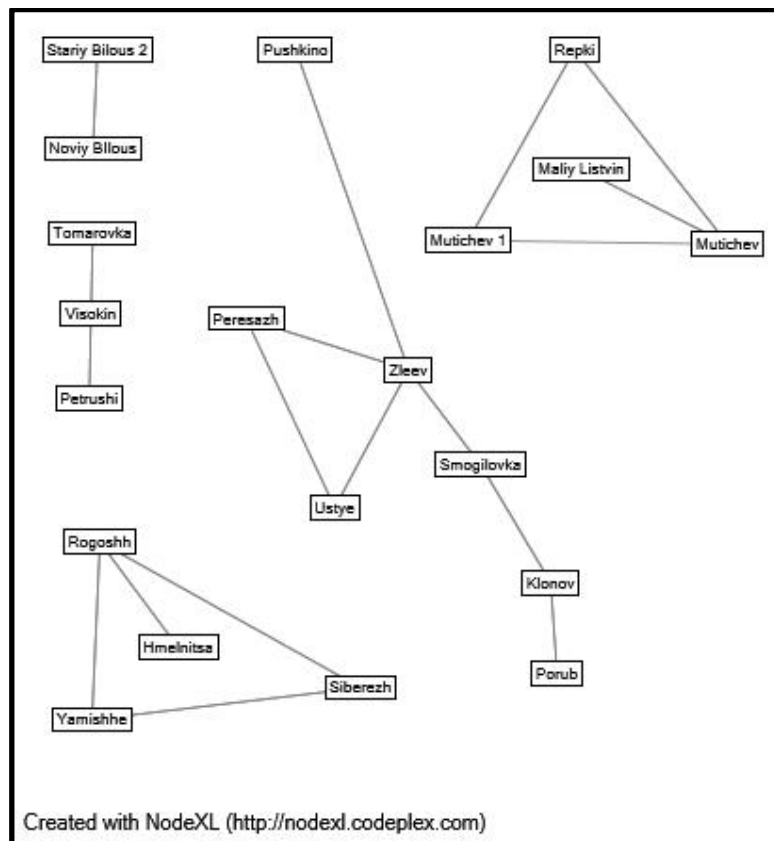


Figure 50 - Settlements within 5 km of each other. Measured as a direct straight line between settlements, this figure links settlements with its neighbours within a 5 km radius.

The resulting model is presented in figure 51. Of the possible trade settlements, Maliy Listvin has been shown to have the highest number of possible connections (6), followed by Rogoshh (5), followed by Yamishhe and Siberezh (4). All of these settlements are located on the River Bilous. This clearly demonstrates the preference of this river for placements of settlements. This model also further indicates the greater importance of Rogoshh and Maliy Listvin within the studied area, as can be seen through their greater connectivity.

If we were to input Chernigov and Lybech into this model, linking to the closest trade settlement, Chernigov would be connected to Hmelnitsa (with the total distance between them being close to 26 km) and Lybech would link to Peresazh or Ustye. This would mean that the quickest way for goods would be to move from Chernigov to Lybech would be through Hmelnitsa→Rogoshh→ Maliy Listvin→Petrushi→ Peresazh/Ustye. However, this system implies that the goods would stop at every settlement within the proposed network which is unlikely to have been the case. The importance of these 6 settlements is elevated by the model as they would be likely to

have had a greater level of contact with the wider world, and trade flow than others in the area.

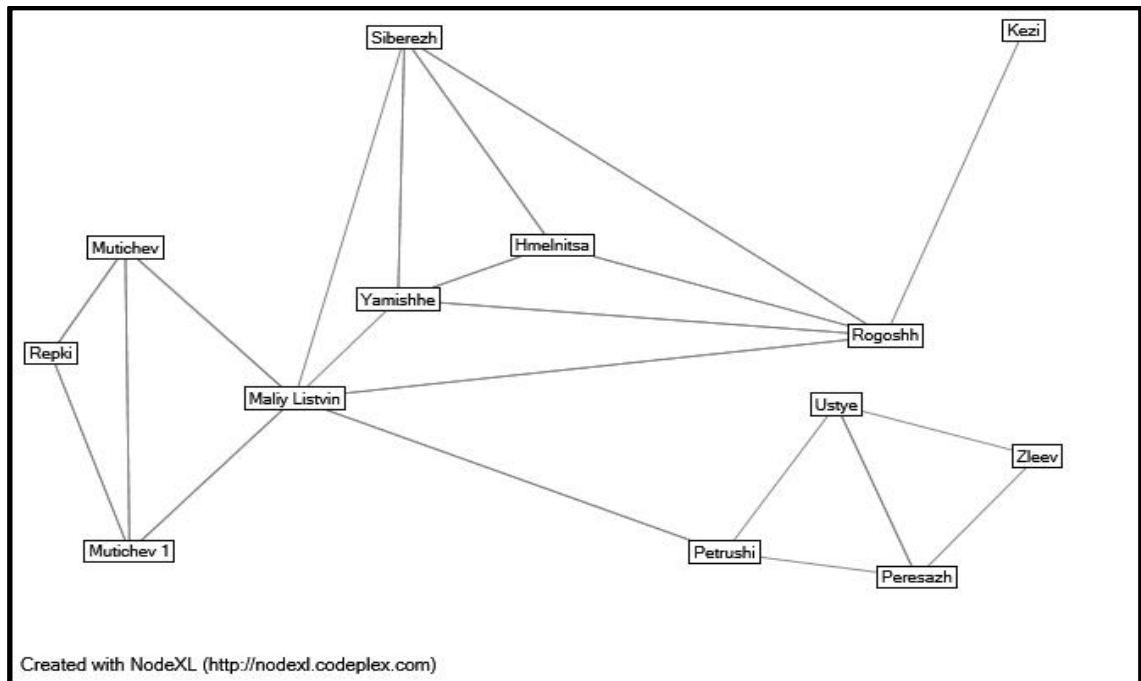


Figure 51 - Trading settlements. Possible trade settlements as decided in the Classification of trading settlements section are demonstrated with links to the nearest three settlements from them, within a 10 km distance of travel via water routes

These six settlements are likely to have been the points at which traders would have exchanged goods with the local population. Whether hubs, or nodes, or even posads, these settlements would have been the primary places of exchange within the studied area, with the exception of Lybech and Chernigov. According to the above model, goods would have flowed along the three main rivers of the study area and would have passed through these settlements first. Only after did these settlements disseminate trade goods into their hinterland settlements.

8. Conclusion

This study set out to examine the extent to which long distance goods and merchants have penetrated into the hinterland of trading settlements along the river routes between the towns of Chernigov and Lyubech, in the tenth century. In order to examine this, the study has analysed the material relating to the settlements- their location, finds and structure, in order to find any links between them. Attempts have been made to create models for movements of traded goods in the area.

In order to achieve these research aims and objectives the study used materials in the form of excavation reports from the selected geographical area. These reports are dated up to the year 2009 and were accessed through the National Institute of Archaeology of Ukraine. The reports were of differing quality and level of detail which proved to be a problem when putting together comparative material for the study. However, prior to the analytical phase, the reports were searched for records of excavation and settlements dating to the tenth century in the studied geographical area. All settlement and finds were recorded in the Finds Table section of the Appendix. This database was the prime source of material for the investigation of the selected settlements.

Some of the settlements in the study were deemed to have a role not related to trade. These settlements were Noviy Bilous and Elovshhina. The location of these two settlements is too close to Chernigov. It is much more likely that goods would have flocked to the larger town rather than the nearby smaller settlements. Furthermore, the location of Elovshhina and its composition indicated that it had less to do with trade and was much more likely to serve as a customs post or a defensive outpost by limiting the flow of traffic along the River Strizhen into Chernigov. As for Noviy Bilous, it may even have been a temporary settlement.

In the section on Settlement Analysis, a preliminary conclusion of the role in the distribution of trade among the settlements in the area was made. It was decided that settlements along the rivers Bilous, Muravlya and Strizhen were more likely to have had a nodal or transitional role whereas settlements along the tributaries of these rivers were more likely to have been the final destinations of goods. Places like Visokin, Pushkino and Kezi are located on tributaries of the River Bilous. Their position does not allow for an easy access of traffic that may have flown between Chernigov and Lyubech along that river. As such, inhabitants of these settlements would have been likely to rely on

the settlements along the River Bilous to provide a market which can foster trade between passing traffic and the inhabitants of the tributary rivers. The settlements along the tributaries of Bilous, Strizhen and Muravlya were likely to have been the final destinations of traded goods in that area.

The settlements with trade finds allowed us to identify that rivers Bilous, Muravlya and Strizhen were the most likely positions for a settlement with trade relations, as well as at intersections between these rivers. It would seem that settlements along the rivers could have benefited from the constant flowing traffic along the rivers and became a constant point of trade in that area. Similarly, points of intersection between the rivers would act as nodes and draw together, not only the traders who wanted to cross from one river to the next, but the inhabitants of nearby settlements. This section had also informed us that settlements along tributaries of the larger rivers were likely to have been the final destination of goods, that is places where goods would be used rather than sold on.

The position of some of the settlements indicated towards their nodal role in the communication network. Some of the settlements in the study were found to have been located at the intersection of the three major rivers in area. This meant that they could have had a nodal role in fusing the traffic along different rivers into one central location. Having combined this data with the information on finds from settlements as well as compiling model of network graphs of the area – six settlements stood out as having a more greater level of communication than others in the area. These settlements were Hmelnitsa, Rogossh, Maliy Listvin, Petrushi, Peresazh and Ustye.

Although it is not entirely possible to determine the ethnic origin of the individuals who acted as traders in the area, considering the common themes of traders in this area it is certain that at least some of them were of Scandinavian decent. In support of this are finds of jewellery among the studied settlements which have been compared to finds from other settlements with a Scandinavian presence or have been identified as being of a style similar to those associated with Scandinavian culture as well as some of the items having analogies in other trade centres in Eastern and Northern Europe.

9. Areas for Further Study

Considering the limitations of the study mentioned in the section 8.3, access to further material can be the first step towards further examination of the selected area. Materials of excavations from the year 2010 will be available in 2015 and later materials will be available from then on. This would allow the researchers to study the area with more up to date data. Individual written permission for access to material can also be obtained from the authors of the reports. Although this was not granted for this study, it is possible that other researches and a broader focus of research may be more enticing for the authors to agree to.

The area of study can be increased in geographical and chronological terms. Geographical area can be increased to cover all of the area between the rivers of Dnieper and Desna. This would allow for an investigation of settlements and movements of goods along most of the area of the Chernigov Princedom. Furthermore, chronologically the span of the investigation can be broadened to cover the period up until the publication of the “Russkaya Pravda” which would allow the researchers to examine the area up until the point of creation of universal law in Rus and the definite end of the period of state formation. Alternatively, this study can be broadened to the death of Yaroslav Mudriy in 1054 (Захарова 1989, 98-99) and the division of Rus among his children which lead to a less centralised system of state, a period which potentially began when Rostislav, son of Vladimir Yaroslavovich, left for Tmutarkan in 1064 (ibid, 100). As a result, such a study will be examining the Chernigov Princedom as a semi separate entity rather than a section of a larger state.

Further studies can also benefit from primary archaeological investigation. This can be in the form of excavations or primary analysis of finds. Excavations can be focused on a number of settlements or cover one settlement in greater detail. Considering the discrepancy in research of the settlements in this study, future research could homogenise the level of excavations among the settlements. Also, existing finds from the settlements in this study can be re-examined for traits belonging to the tenth century, or the time periods relevant to future investigations. This would eliminate the error of former archaeologists who have compiled the reports and upon the judgment of which this study bases the dating of represented finds.

As further means of analysis, the settlements in this and further studies can benefit from analysis of the areas of settlements as indicators of the number of inhabitants. This would provide a homogenising tool without the need for further primary archaeological research. Knowledge of the number of inhabitants of a settlement will provide a means of calculating the means of finds and features of the settlements. Furthermore, this will be yet another factor in the process of determining the likelihood of a settlement participating in long distance trade. A settlement with more inhabitants may have higher total wealth and attract a greater number of merchants through greater demand when compared to a settlement with a smaller amount of population, considering they have similar proportions of wealth per head of population.

List of Appendices

Images of finds

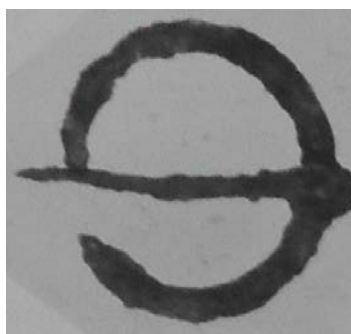


Figure 52 - Fibula from Rogoshh dwelling number 2, dated to tenth century (Бліфельд 1949, figure XXX-9)

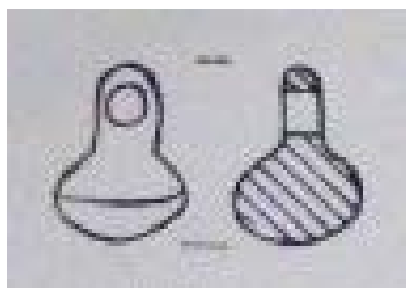


Figure 53 - Bronze buttons from Maliy Listvin gorodishhe, dated by Kovalenko to tenth century (Коваленко В 1980, figure 13 -3)

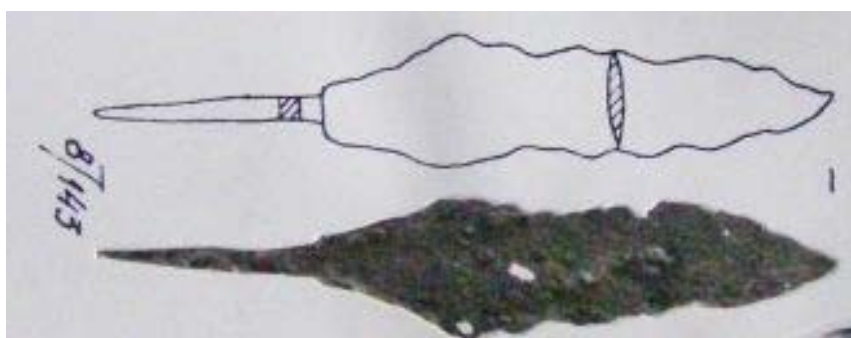


Figure 54 - Maliy Listvin arrow head from gorodishhe. dated to tenth century by Kovalenko (1980, figure 13 -8).



Figure 55 - Maliy Listvin gorodishhe II, view from south east. After Коваленко В 1980, figure 16

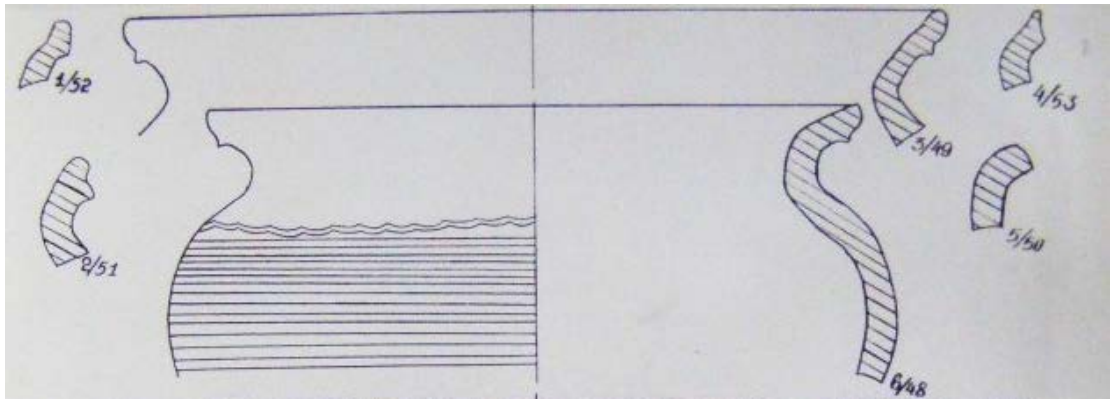


Figure 56 - Maliy Listvin ceramics from stratigraphic layer 8. Dated to the tenth to eleventh century (Коваленко В 1980, figure 27-1-6)

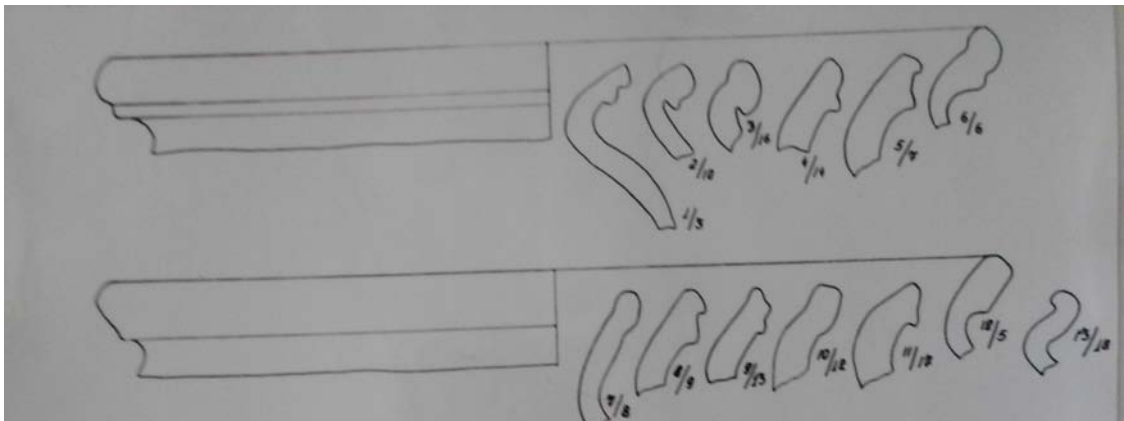


Figure 57 - Ceramic finds from Zleev. Dated tenth to thirteenth centuries, after Веремейчик 1987, figure 21/1-13

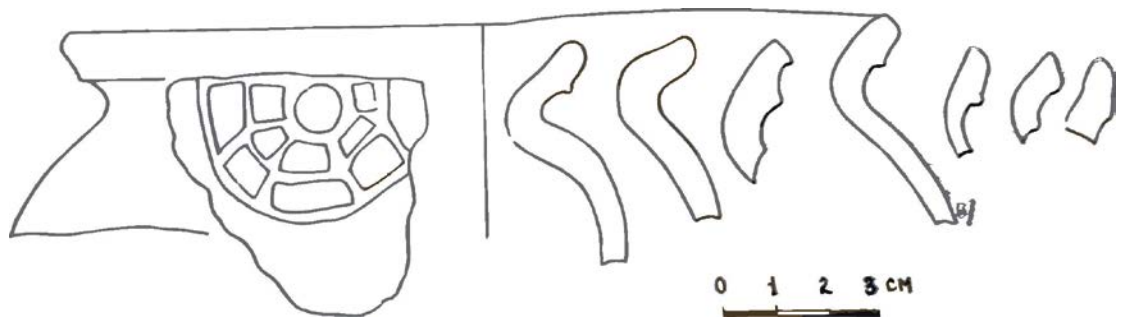


Figure 58 - Tenth century ceramics from structure 1 in Stariy Bilous 2, after
Веремейчик and Жаров 1995, figure 6

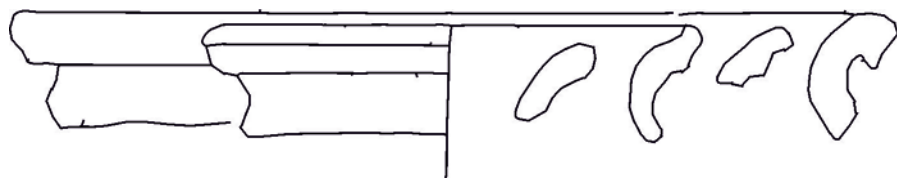


Figure 59 - Ceramics from Ustye, dated tenth to eleventh century, after Пильник 1990,
figure 44/6-9

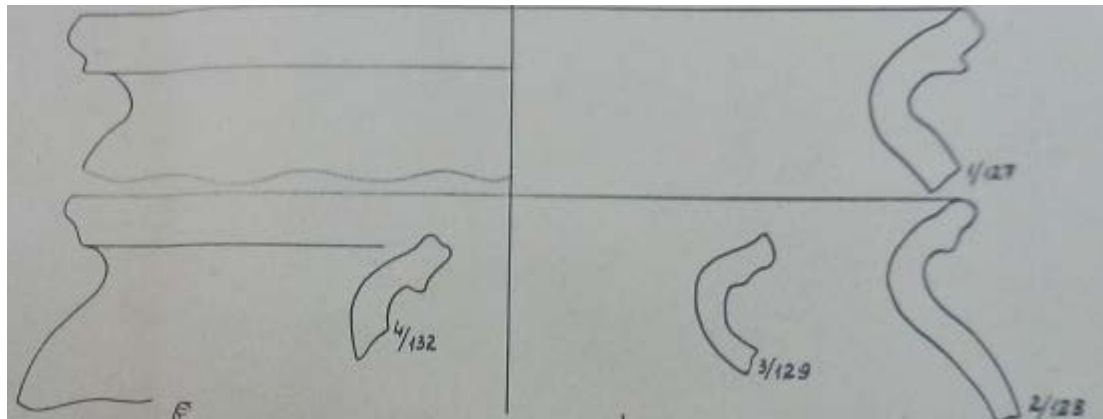


Figure 60 - Ceramics from Klonov structure 3. Dated late tenth early eleventh centuries
(Шекун 1987, figure 11 – IV/1-4)

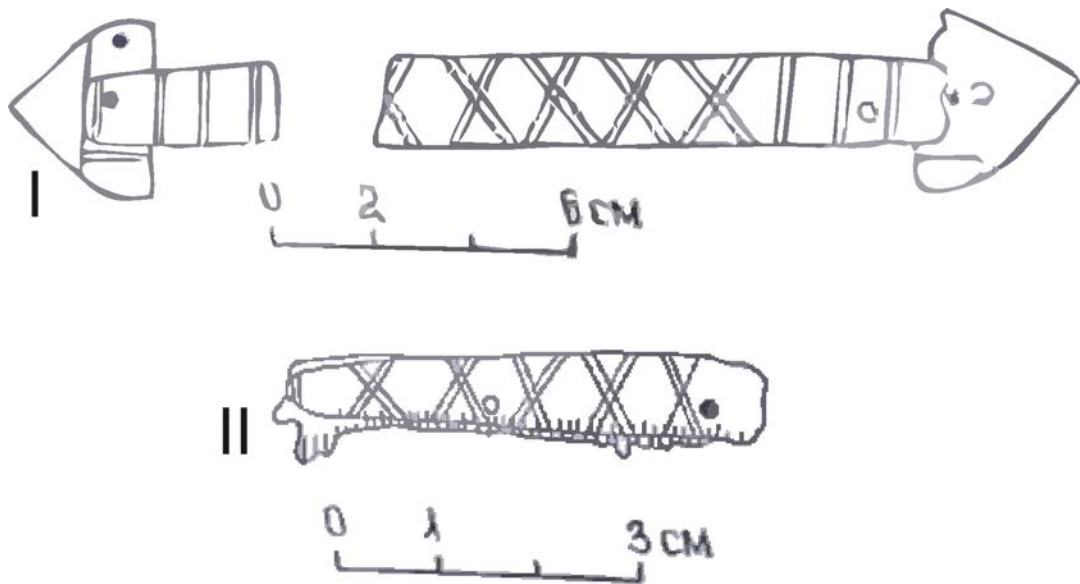


Figure 61 - Worked bone from Porub burial 1. I-combe case. II- combe. From a burial mound dated to the tenth century through associated pottery, after Шекун 1992, figure 17. The combe can be dated to the tenth- early eleventh century by association with single sided combs from Novgorod (Кондратьева 2011, 140)

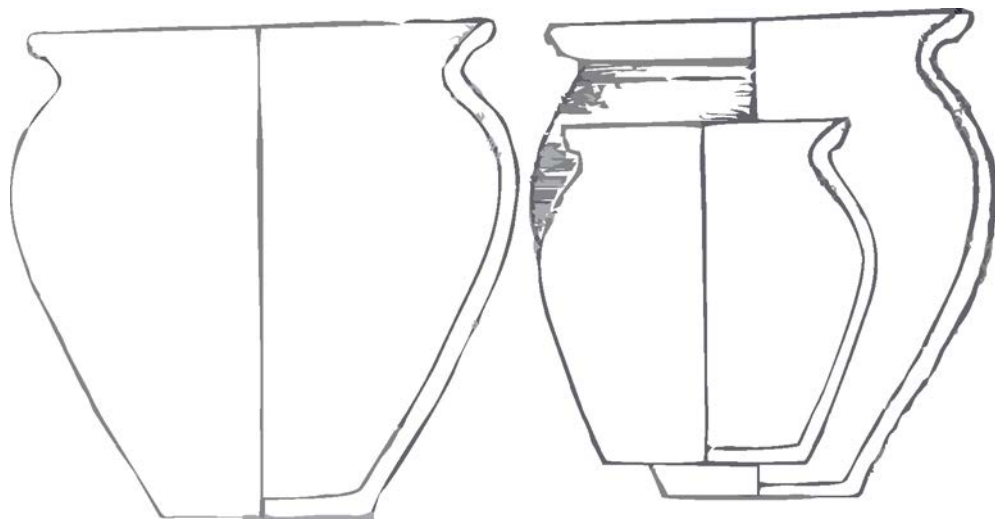


Figure 62 - Ceramics from Mound 1 of Porub Necropolis. Dated to the tenth century, after Шекун 1992, figure 17

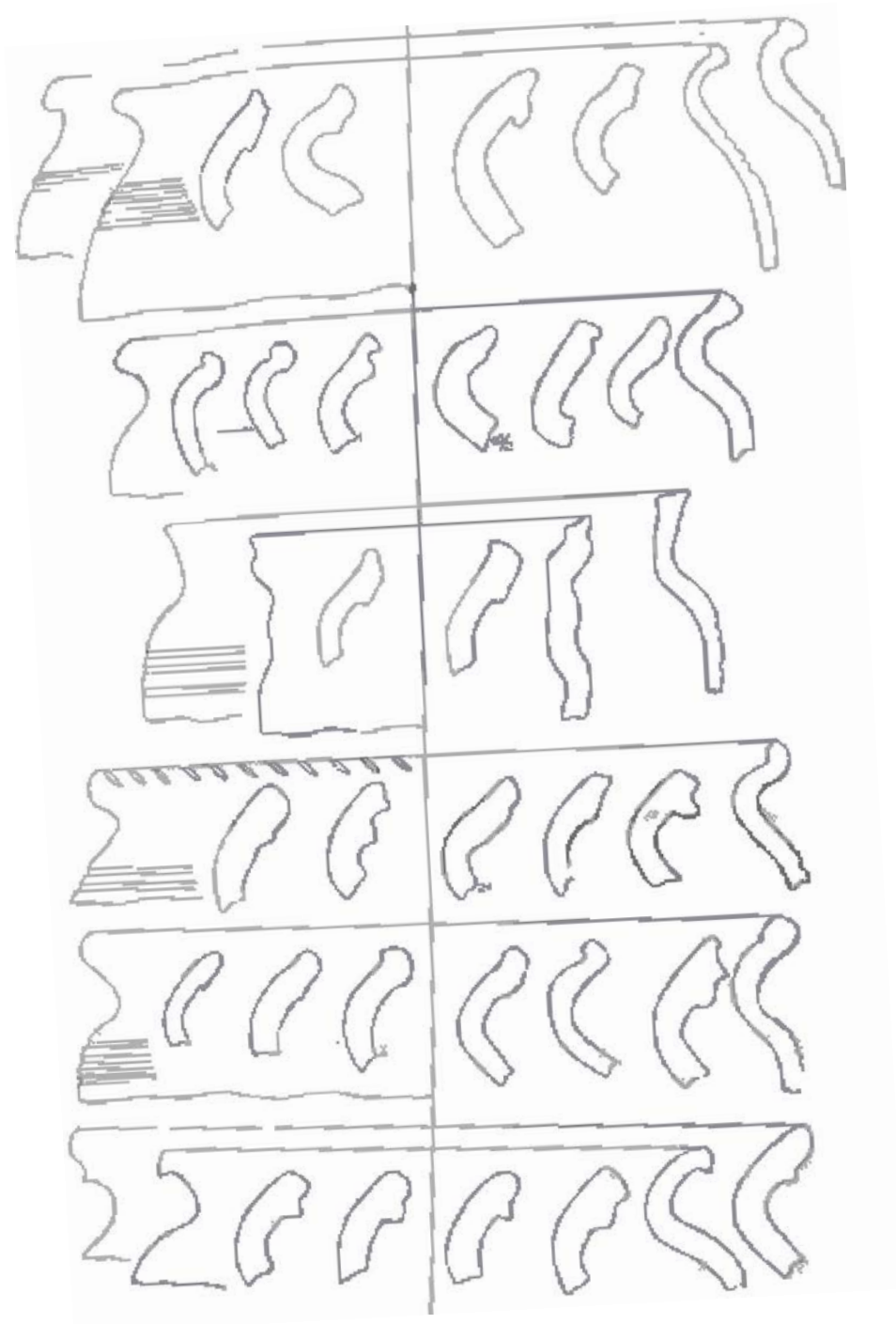


Figure 63 - Selection of ceramics from Pushkino. Dated tenth to thirteenth centuries, after Шекун 1992, figure 1

Table 1: Table of Finds from settlements

Name	Finds	Trade	Analogies and images
Elovshhina	Arrow Head		
	Ceramic Fragment With Trident Stamp		
Noviy Bilous	Ceramic Fragments		
	Ceramic Pots		
	Knife		
	Carved Bone Object		
	Chisel		
	Knife		
	Iron Bucket Bindng		
	Iron Smelting Slag		
	Charcoal		
	Amphorae Handle		
	Bronze Ring		
	Amphorae Fragments		
	Sharpening Stone		
	Bronze Plate		
	Lock Spring		
Rogoshh	Iron Object		
	Iron Object		
	Iron Nail		
	Ceramic Fragments		
	Iron Razor		
	Iron Leather Working Knife	+	
	Iron Knife		
	Bronze Fibula	+	Figure 52
	Bovine Bones		
	Animal Bones		
	Ceramic Pot With		

	Stamp		
	Spindle Whorl		
	Sharpening Stone		
	Animal Bones		
	Iron Keys		Figure 42
Maliy Listvin	Bronze Grivna	+	Figure 35
	Bronze Button		Figure 53
	Bronze Linutsa Decoratioc	+	
	Glass Bead	+	
	Spindle Whorl		
	Spindle Whorl		
	Ceramic Pot		
	Ceramic Fragments		Figure 56
	Sharpening Stone		
	Iron Knife		
	Arrow Head		Figure 54
	Animal Bones		
	Glass Ring	+	
	Glass Ring	+	
	Bucket Handle		
Repki 3	Ceramic Fragments		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
Mutichev 1	Ceramic Fragments		
	Sharpening Stone		
	Sharpening Stone		
	Amphorae Fragments		
Mutichev	Ceramic Fragments		
Zleev	Ceramic Fragments		Figure 57
	Sharpening Stone		

	Amphorae Fragments		
	Iron Object		
	Spindle Whorl		
Visokin	Ceramic Fragments		
Lgov	Silver Bead	+	Figure 38
	Silver Bead	+	Figure 38
	Silver Bead	+	Figure 38
	Silver Bead	+	Figure 38
	Silver Bead	+	Figure 38
	Silver Bead	+	Figure 38
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	Silver Bead	+	Figure 38
	Silver Bead	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Temple Ring	+	Figure 38
	Silver Earing	+	Figure 38
	Silver Earing	+	Figure 38

	Bronze Sleigh Bell		(Figure 30) Dated through analogies in Novgorod (figure 31) to the 10th century.
	Bronze Sleigh Bell		
	Glass Bead	+	
	Glass Bead	+	
	Glass Bead	+	
	Glass Bead	+	
	Glass Bead	+	
	Iron Knife		
	Iron Bucket Handle		
	Bone Button		
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
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	Glass Bracelet	+	
	Glass Bracelet	+	
	Spindle Whorl		
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	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
	Ceramic Fragments		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Iron Knife		
	Iron Knife		
	Iron Knife		
	Iron Knife		
	Iron Knife		
	Animal Bones		
	Tar Fragments	+	
Stariy Bilous	Ceramic Fragments		Figure 58
	Iron Pincers	+	There are not many known pincers found in Rus. However, the ones

			that have been found come exclusively from settlement's posads. [this may suggest a link to manufacturing activities]
	Horse Tack		
	Bovine Bones		
	Sheep Bones		
	Bird Bones		
	Pig Bones		
	Iron Bucket Handle		
Ustye	Ceramic Fragments		Figure 59
Petrushi	Ceramic Fragments		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Plinthite Tile		
	Millstone		
	Silver Plated Element Of Horse Tackle	+	
	Harpoon		
	Fishing Hook		
	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
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	Spindle Whorl		
	Spindle Whorl		
	Spindle Whorl		
	Iron Nails		
	Iron Key		
	Door Hinge		
	Sharpening Stone		
	Sharpening Stone		
	Sharpening Stone		
	Sharpening Stone		
	Silver Ingraved Knife	+	
	Wood Carving Knife		
	Wood Carving Knife		
	Wood Carving Knife		
	Wood Carving Knife		
	Ceramic Pot Lid		
	Sharpening Stone		
	Spindle Whorl		
	Blue Coloured Bead	+	
	Animal Bones		
	Glass Bracelet	+	
	Glass Bracelet	+	
	Bead	+	
	Knife		
	Animal Bones		
	Bronze Ring	+	
	Iron Object		
	Iron Knife		
	Arrow Head		
	Mace		
	Key		
	Spindle Whorl		
	Glass Bracelet	+	

	Chisel		
	Chisel		
	Sharpening Stone		
	Knife		
	Sharpening Stone		
	Knife		
	Glass Bracelet		
Siberezh	Ceramic Fragments		
	Amphorae Fragments		
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Bronze Ring	+	
	Bead	+	
	Bead	+	
	Knife		
	Knife		
	Knife		
	Knife		
	Knife		
	Knife		
	Knife		
	Bronze Fibula Broach	+	
	Key		
	Key		
	Spindle Whorl		
	Spindle Whorl		

	Spindle Whorl		
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	Spindle Whorl		
Hmelnitsa	Ceramic Fragments		
	Glass Bracelet	+	
	Glass Bracelet	+	
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	Glass Bracelet	+	
	Glass Bracelet	+	
	Glass Bracelet	+	
	Bronze Ring	+	
	Spindle Whorl		
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	Spindle Whorl		
	Spindle Whorl		

	Plinthite Tile		
	Cross		
	Cross		
	Knife		
	Knife		
	Chisel		
Yamishhe	Ceramic Fragments		
Porub	Ceramic Fragments		
	Scythe		
	Bronze Object		
Klonov	Ceramic Fragments		Figure 60
	Knife		
	Knife		
	Bovine Bones		
	Charcoal		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Ceramic Pot		
	Spindle Whorl		
Smogilovka	Ceramic Fragments		
	Iron Slag		
	Glass Bracelet	+	
	Sharpening Stone		
Pushkino	Glass Bracelet	+	
	Glass Bracelet	+	
	Sharpening Stone		
	Metal Slag		
	Amphorae Fragments	+	
	Ceramic Fragments		Figure 63
Kezi 3	Ceramic Fragments		
Tamarovka	Ceramic Fragments		

Dolzhik 1	Ceramic Fragments		
Peresazh	Ceramic Fragments		

Table 2: Table of finds from Necropolises

Name	Mound	Burial Type	Finds	Trade	Analogies And Images
Noviy Bilous	1	Burial in coffin of a child 2-3 years of age	Ceramic Fragments		
			Charcoal		
	3		Ceramic Fragments		
			Charcoal		
			Ceramic Pot		
			Ceramic Pot		
			Ceramic Pot		
			Iron Knife		
			Iron Object		
			Bronze Buckle		
			Bronze Buckle		
			Charred Bones		
Tabaev	1		Charcoal		
			Horse Bones		
			Charcoal		
			Iron Object		
			Iron Object		
			Iron Object		
			Bird Bones		
			Iron Rivet		

			Bone Fragments	+	
			Decorated Bone Fragment		
			Decorated Bone Fragment		
			Iron Plate		Similar to helmet decorations on a helmet found at gnezdovo by sizov
	2	Cremation	Bone Fragments		
			Ceramic Fragments		
			Charred Wood Fragments		
			Charred Wood Fragments		
			Charred Wood Fragments		
			Charcoal		
			Charred Human Bones Total 10 Kg		
			Horse Bones 148 Fragment		
			Dog Bones		
			Bird Bones		
			Bronze Palate		The bronza plates are

			Ceramic Pot		
			Ceramic Pot		
			Ceramic Pot		
			Ceramic Pot		
			Stone Jewellery Mould	+	Design for the manufacture of 5 items of jewellery: 1 lunnitsa, pendant with a floral decoration, 2 plate decorations, one ring and one button
	3	Cremation	Charcoal		
			Charred Human Bones 2.35 Kg		
			Bead (Blue Colour)		
			Bead (Blue Colour)		
			Bead (Blue Colour)		
			Bronze Metal Plate		
			Bronze Decorative Belt Plate		
			Bronze Decorative Belt Plate		
			Ring		
	5	Cremation	Charcoal		
			Charred Bones		
			Ceramic		

			Fragments		
			Bronze Decorative Belt Plate		
			Bronze Decorative Belt Plate		
			Bronze Decorative Belt Plate		
			Bronze Decorative Belt Plate		
			Silver Belt Plate	+	A similarity to a silver plate found at the Desyatinnaya church in Kiev, during the Karger excavations
			Iron Arrow Head		
			Ceramic Pot		
			Ceramic Pot		
Porub	1	Cremation	Ceramic Fragments		Figure 62
			Bird Bones		
			Fibula Broach	+	
			Animal Bones		
			Charcoal		
			Ceramic Pot		
			Bone Combe		Figure 61
			Combe Case	+	Figure 61
			Bone Object		

Definitions

- 9.1. Anti-normanism (anti-normanist, or slavenist) - theory of the creation of Rus that emphasises Slavic development as being independent from external forces, be they Scandinavian or Byzantine. Followers of this theory are sometimes described as “Slavophiles” (Vernadsky 1963, 2).
- 9.2. Boyar- a nobleman in the Rus and the Imperial Russia periods prior to the reforms of Peter the Great.
- 9.3. Chernigov- The modern day city in northern Ukraine which is latinised as Chernigiv from Ukrainian or Chernigov from Russian.
- 9.4. Druzhina– An armed group in permanent military service of the Knyaz. Sometimes, in English sources it is described as a retinue.
- 9.5. Gorodishe – name given to a fortified settlement that existed in Eastern Europe. Mostly based on riverbanks or headlands, however sometimes set on swamp islands (Куза 1996, 19). The name originated from the old Rus “grad”. Sometimes described as fortress or fort. In the most simple definition, it is an area of land of any shape, on all sides surrounded by moats and ramparts (Самоквасов 1908, 11)
- 9.6. Grivna - A measure of currency. A 200 gram silver piece, similar to the hacksilver of Scandinavian hoards.
- 9.7. Knyaz- a king. Alternatively a prince, depending on the interpretation. The highest position in Rus was the “Великий Князь” or Great Knyaz and traditionally had his seat in Kiev.
- 9.8. Normanism (or normanist) – theory of the creation of Rus that emphasises the impact of the Scandinavian influence. It minimises the role of the Slavs, stating that they were either subjugated or voluntarily came under the control of the Scandinavians who were given the name Rus. Followers of this theory are

sometimes described as “Westernizers” (Vernadsky 1963, 2).

9.9. Podol – lowland that is adjacent to the gorodisshe. Often located in the floodplain of the river near which the settlement existed. An old Rus word.

9.10. Posad – part of a settlement which is located outside the defences of the gorodisshe but not on the lowland (not to be confused with podol). Posad can be fortified or unfortified.

9.11. Val – a manmade earth rampart and trench system often associated with the defensive fortifications of a town or gorodisshe.

9.12. Votchina- A hereditary estate

Bibliography

Published Works

- Adelson, H. L. (1960). 'Early Medieval Trade Routes.' *The American Historical Review*, 65(2), 271-287.
- Akerman, J. Y. (1834). *Discriptive Catalogue of Rare and Unedited Roman Coins* (Vol. 2). London: Effingham Wilson, Royal Exchange.
- Ambrosiani, B. (2008). 'Birka' In S. Brink, & N. Price, *The Viking World* , 94-100. London - New York: Routledge.
- Androshchuk, F. (2012). 'The Vikings in the East.' In S. Brink, & N. Price (Eds.), *The Viking World* , 496-516. London - New York: Routledge.
- Androshchuk, F., & Zotsenko, V. (2012). *Scandinavian Antiquities of Southern Rus*. Paris: Ukrainian National Committee for Byzantine Studies.
- Anon. (2012) *Ibn Fadlan and the Land of Darkness: Arab Travellers in the Far North*. (P. Ludne, & C. Stone, Trans.) London: Penguin.
- Brown, S. (1994). 'Central Place Theory: Sixty Years on.' *contemporary marketing history: proceedings of the Sixth Conference on Historical Research in Marketing and Marketing Thought, held May 22-25, 1993 at the JW Marriott Hotel, Lenox Square, Atlanta, GA*, 69-88. Michigan: Michigan State University.
- Cross, S. H. (1946). 'The Scandinavian Infiltration into Early Russia' *Speculum*, 21(4), 505-514.
- Duczko, W. (2004). *Viking Rus: Studies on the Presence of Scandinavians in Eastern Europe*. Leiden-Boston: Brill.
- Frye, R. N. (1972). 'Byzantine and Sasanian Trade Relations with Northeastern Russia.' *Dumbarton Oaks Papers*, 26, 263-269.
- Grecov, B. (1947). *The Culture of Kiev Rus*. Moscow: Foreign Languages Publishing House.
- Gullbekk, S. (2012). 'Coinage and monetary economies.' In S. Brink, & N. Price (Eds.), *The Viking World*, 159-169. London and New York: Routledge.

- Hamerow, H. (2002). *Early Medieval Settlements. The archaeology of rural communities in Northwest Europe 400- 900*. Oxford - New York: Oxford University Press.
- Hamilton-Dyer, S. (2002). 'The Bird Resources of Medieval Novgorod, Russia.' *Acta zoologica cracoviensia*, 45, 99-107.
- Hedenstierna-Jonson, C. (2009). 'Cultural exchange in the early medieval period.' *Situne Dei*, 47-56.
- Kirpichnikov, A. N. (2004). 'A Viking Period workshop in Staraya Ladoga, excavated in 1997.' *Fornvännen*, 99, 183-196.
- Larsson, A. (2008). 'Vikign Age Textiles.' In S. Brink, & N. Price (Eds.), *The Viking World*, 181-185. London, New York: Routledge.
- Ljungkvist, J. (2012). 'Handicrafts.' In S. Brink, & N. Price (Eds.), *The Viking World*, 186-192. New York: Routledge.
- Martin, J. (1995). *Medieval Russia, 980-1584*. Cambridge : Cambridge University Press.
- Nosov, E. N. (1987). 'New Data on Rurik Gorodishhe Near Novgorod.' *Fennoscandia archaeologica*, 73-75.
- Nosov, E. N. (2007). 'Thirty Years of Systematic Excavations of Rurik Gorodishhe: the Results and Prospects.' In E. N. Nosov (Ed.), *On the origins of the Russian State*, 23-58. St. Petersburg: Dmitriy Bulanin.
- Pirenne, H. (1947). *Economic and Social History of Medieval Europe* . London: Kegan Paul, Trench, Trubner & Co., LTD.
- Pirenne, H. (1974). *Medieval Cities: Their Origins and the Revival of Trade*. (F. D. Halsey, Trans.) Princeton: Princeton University Press.
- Pritsak, O. (1977). 'The Origin of Rus'. *Russian Review*, 36(3), 249-273.
- Runedata. (n.d.). Sö 171. Retrieved 10 10, 2014
- Shepard, J. (2012). 'The Vikings Rus and Byzantium.' In S. Brink, & N. Price (Eds.), *The Viking World*, 496-516. London and New York: Routledge.

- Sindbaek, S. (2012). 'Local and long-distance exchange.' In S. Brink, & N. Price (Eds.), *The Viking World*, 150-158. London and New York: Routledge.
- Sindbaek, S. M. (2001). 'An Object of Exchange: Brass Bars and the Routinization of Viking Age Long-Distance Exchange in the Baltic Area.' *Offa-Jahrbuch*, 58, 49-60.
- Sindbæk, S. M. (2007). 'The small world of the Vikings: Networks in early medieval communication and exchange.' *Norwegian Archaeological Review*, 40(1), 59-74.
- Tikhomirov, M. (1959). *The Towns of Ancient Rus*. Moscow: Foreign Languages Publishing House.
- Vedeler, M. (2014). *Silk for the Vikings*. Oxford: Oxbow Books.
- Vernadsky, G. (1963). *Kievan Rus*. New Haven- London: Yale University Press.
- Worth, D. S. (1975). 'Was There a "Literary Language" In Kievan Rus?'. *Russian Review*, 34(1), 1-9.
- Андрощук, Ф. (1999). 'Шведский Бирка и ее контакты с Востоком.' *Vita Antiqua*, 2, 194-205.
- Бондар, О. М. (2013). 'Дослідження Археологічного Комплексу Літописного Листвена.' *Археологические исследования в Еврорегионе «Днепр» в 2012 г.*, 136-141.
- Бондарь, А. (2013). 'Летописные «погосты» и Южная Русь в X веке.' In Д. Кузнецов (Ed.), *Грани гуманитарного знания. Сборник статей к 60-летию профессора Сергея Павловича Щавелева*, 100-109. Курск: КГМУ.
- Бондарь, А. (2012). 'Летописный Листвен В X–XVI вв.' *Вестник Нижегородского университета им. Н.И. Лобачевского*, 6(3), 23-30.
- Бондарь, А. Н. (2012). 'Укрепленные пункты на территории междуречья днепра и нижнего течения Десны в конце IX- X в.' In Е. А. Мельникова (Ed.), *Древнейшие Государства Восточной Европы. 2010*, 300-327. Москва: Университет Дмитрия Пожарского.
- Горский, А. А. (1986). Феодализация на Руси: основное содержание процесса. *Вопросы Истории*, 8, 74-88.

- Горюнова, В. М. (2005). 'Раннегончарная керамика Рюрикова городища и общие тенденции развития раннегончарных комплексов городских центров Северной Руси X- начала XI вв.' In Е. Н. Носов, В. М. Горюнова, & А. В. Плохов, *Городище Под Новгородом И Поселения Северного Приильменья*, 82-121. Санкт- Петербург: Дмитрий Буланин.
- Греков, Б. (1953). *Киевская Русь*. Ленинград: Печатный Двор.
- Григорьев, А. (2005). *Славянское население водораздела Оки и Дона в конце I – начале II тис. н.э.* Тула: Репроникс.
- Григорьев, А. (2012). 'Население Междуречья Днепра и Дона в VIII - Первой Половине XI.' In Е. Мельникова (Ed.), *Древнейшие государства Восточной Европы. 2010 год. Предпосылки и пути образования Древнерусского государства*, 94-127. Древнейшие государства Восточной Европы. 2010 год. Предпосылки и пути образования Древнерусского государства: Русский Фонд Содействия Образованию и Науке, Университет Дмитрия Пожарского.
- Жаров, Г. (1991). *Отчет ЧЕЭ. Охранные археологические разветки на территории Черниговской области*. Чернигов: Черниговский исторический музей.
- Захарова, С. (Ed.). (1989). *Літопис Руський*. (Л. Махновець, Trans.) Київ: Дніпро.
- Івакін, Г. Ю., Іоаннісян, О. М., Йолшин, Д. Д., & Лукомський, Ю. В. (2010). 'Архітектурно-археологічні дослідження Десятинної церкви 2009 р.' *Археологічні дослідження в Україні*, 164-168.
- Каинов, С. Ю. (2007). 'Наконечники ножен и мечы из Гнездова.' In В. В. Мурашева (Ed.), *Гнездово: Результаты комплексных исследований памятника*, 189-210. Санкт-Петербург: Альфарет.
- Клейн, Л. (2009). *Спор о варягах. История противостояния и аргументы сторон*. Санкт-Петербург: Евразия.
- Ключевский, В. О. (1987). *Сочинение в Девяти Томах: Курс Русской Истории Часть I*. Москва : Мысль.
- Ключевский, В. (2003). *История России. Специальные курсы*.

- Комар, А. (2011). 'Древнерусская Денежно-Весовая Система X В. На Перекрестке Путьей: Хазарский Тупик.' In *Хазарский Алманах*, 131-184. Киев -Харьков.
- Комар, А. В. (2012). Киев и Правобережное Поднепровье.' In Н. А. Макаров (Ed.), *Русь в IX–XI веках : археологическая панорама*, 300-333. Москва – Вологда: Древности Севера.
- Комар, А. В. (2012). 'Чернигов и Нижнее Подесенье.' In Н. А. Макаров (Ed.), *Русь в IX–XI веках : археологическая панорама*, 334-365. Москва - Вологда: Древности Севера.
- Кондратьева, О. А. (2011). *Гребни IX-XI вв. в быту, обрядах, фольклоре, ремесле и художественном творчестве Древней Руси-России*. Санкт-Петербург : Северная Археология 1.
- Кондратьев, I. (2008). 'Любеч.' *Сіверянський літопис*(2), 35-45.
- Коновалова, И. Г. (1999). *Восточные источники//Древняя Русь в свете зарубежных источников*. Москва: Русский фонд содействия образованию и науке.
- Котляр, Ф. Н. (2013). 'Территориальное развитие Чернигово-Северской земли в домонгольское время. Создание и развитие Черниговского Княжества.' *Древняя Русь*, 52(2), 5-16.
- Куза, А. (1996). *Древнерусские Городища X-XIII вв*. Москва: Христианское издательство.
- Куник, А. А. (1903). *Известия ал-Бекри и других авторов о Руси и славянах* (Vol. 2). СПб: Типография Императорской Академии Наук.
- Макаров, Н. А. (2002). Север и Юг Древней Руси в X-первой половине XIII в.: факторы консолидации и обособления. In *Русь в IX-XIV веках: взаимодействие Севера и Юга* Москва: Древности Севера.
- Макаров, Н. А. (2007). 'Археологическое изучение древнерусской деревни X - XIII вв.' In Н. А. Макаров (Ed.), *Археология среднерусской деревни X-XIII веков. Средневековые поселения и могилники на Кубенском Озере. Работа в трех томах. Том первый*. (pp. 7-20). Санкт Петербург: Наука.

- Макаров, Н. А. (2007). 'Колонизация и системы жизнеобеспечения.' In Н. А. Макаров (Ed.), *Археология среднерусской деревни X-X веков. Средневековые поселения и могилники на Кубенском Озере. Работа в трех томах. Том третий*, 60-67. Санкт Петербург: Наука .
- Макаров, Н. А. (2012). 'Предисловие.' In Н. А. Макаров (Ed.), *Русь в IX–XI веках : археологическая панорама*, 6-11. Москва - Вологда: Древности Севера.
- Макаров, Н. А., Красникова, А. М., & Зайцева, И. Е. (2013). 'Средневековый Могильник Шекшово В Суздальском Ополе: Спустя 160 Лет После Раскопок А.С. Уварова.' *Краткие сообщения Института археологии* , 230, 219-233.
- Макаров, Н. А., Федорина, А., & Шполянский, С. В. (2013). 'Земля и город: средневековые селища в округе Владимира-на-Клязьме.' In *Российская археология* (pp. 64-80). Москва: Наука.
- Маркс, К., & Энгельс, Ф. (1920). *Собрание сочинений* (Vol. 4). Москва: Государственное издательство политической литературы.
- Мироненко, Л. В., & Скороход, В. М. (2014). 'Нововиявлене житло X ст. на посаді Виповзівського городища.' In Е. А. Шинаков (Ed.), *Археологичечкие исследования в Еврорегионе «Днепр» в 2013 г.*, 172-174. Брянск: РИО БГУ им. академика И. Г. Петровского.
- Михайлова, И. Б. (2010). *Малые города Южной Руси в VIII начале XIII века*. Санкт-Петербург: Издательство С.-Петербургского университета.
- Моця, О. (2003). 'Погости в системі давньоруських населених пунктів.' In *Археологічні студії. Вип. 2*, 199–203. Київ-Чернівці.
- Моця, О. (2004). 'Про Відмінності Давньоруської Півночі Від Півдня.' *Україна в Центрально-Східній Європі*, 4, 95-104.
- Моця, О. П. (2010). 'Шляхи Часів Київської Русі: Темпи Руху На «Путехь»'. *Археологія*(2), 30-42.
- Музыка, В. (2010). Давньоруський Любеч За Археологічними Джерелами. *Середньовічні Старожитності Центрально-Східної Європи* (13), 181-183.

- Мурашева, В., Ениосова, Н., & Фетисов, А. (2007). 'Ювелирная Мастерская Пойменной Части Гнездовского Поселения.' In В. Мурашева (Ed.), *Гнездово: Результаты Комплексных Исследований Памятника*, 31-77. Санкт-Петербург: Альфарет.
- Носов, Е. Н. (2005). 'Новгородское городище в свете проблемы становления городских центров Поволховья.' In Е. Н. Носов, В. М. Горюнова, & А. В. Плохов, *Городище Под Новгородом И Поселения Северного Приильменя*, 8-32. Санкт-Петербург: Дмитрий Буланию.
- Носов, Е. Н. (2012). 'Новгородская земля: Северное Приильменье и Поволховье.' In Н. А. Макаров (Ed.), *Русь в IX–XI веках : археологическая панорама*, 92-121. Москва - Вологда: Древности Севера.
- Пресняков, А. (1993). *Княжое право в древней Руси. Лекции по русской истории*. Санкт Петербург: Наука.
- Руденок, В., & Новик, Т. (2010). 'Дослідження печери Антонія в Любечі у 2009 р.' In *Археологічні дослідження в Україні 2009*, 361-362. Київ: ІА НАН України.
- Рыбаков, Б. (2004). *Рождение Руси*. Москва: АиФПринт.
- Рыбаков, Б. А. (1982). *Киевская Русь и русские княжества XII-XIII вв.* Москва: Наука Публицерс.
- Рябцева, С. (2005). *Древнерусский Ювелирный Убор: основные тенденции формирования*. Санкт-Петербург: Нестор-История.
- Самоквасов, Д. (1908). *Северская Земля и Северяне по Городищам и Могилам*. Москва: Синодальная Типография.
- Самоквасов, Д. Я. (1916). *Могильные древности Северянской Черниговщины*. Москва: Синодальная Типография.
- Самонова, М. (2010). 'Скандинавы на белорусских землях в IX–X вв: к постановке проблемы.' In *Исследования по истории Восточной Европы Vol. 3*, 16–29. Минск: РИВШ.

- Седова, М. В. (1981). *Ювелирные Изделия Древнего Новгорода (X -XV вв.)*. Москва: Наука.
- Скороход, В. (2007). 'Топографія Чернігова та Шестовиці X - початку XI ст. (Порівняльна характеристика).' In А. Казаков, & Ч. Е.Е., *Черниговский Детинец IX – XIII Вв. В Свете Новых Археологических Материалов*, 125-132. Чернігів: Деснянська Правда.
- Скороход, В. (2010). 'Садибна забудова Північної Частини Посаду Городища Коровель У X – На Початку XI ст'. *Сіверянський літопис*, 6, 11-19.
- Скороход, В. (2010). 'Торгівельний інвентар X – початку XI ст.' *Ніжинська Старовина*, 10, 144-150.
- Скороход, В. (2011). 'Смолокурний Промисел На Шестовицькому Археологічномукомплексі У X – На Початку XI Ст.' *Сіверщина в історії України*, 4, 98-101.
- Станкевич, Я. (1962). 'Шестовицкое поселение и могильник по материалам раскопок 1946 года.' In Т. Пассек (Ed.), *Краткие сообщения о докладах и полевых исследованиях института археологии. Славно-русские древности*. 87, 6-30. Москва: Академия Наук СССР.
- Терещенко, А. (2014). 'Численность древнерусских войск эпохи викингов (вторая половина IX - первая половина XI вв.).' *Parabellum Novum*, 2, 101-114.
- Толочко, О., & Толочко, П. (1998). *Київська Русь*. Київ: Видавничий дім "Альтернативи"
- Толочко, П. П. (1975). Киевская земля. In *Древнерусские княжества*, 5-56. Москва: Наука.
- Толочко, П. П. (1987). *Древняя Русь: Очерки социально-политической истории*. Киев: Наукова думка.
- Фетисов, А. А. (2013). 'К вопросу о нижней дате Гнездовского Археологического Комплекса и времени функционирования пути «из варяг в греки».' In Д. П. Кузнецов (Ed.), *Грани гуманитарного знания*, 111-117. Курск: КГМУ.

- Фетисов, А., & Щавелев, А. (2012). 'Русь и радимичи: история взаимоотношений в X–XI вв.' *Электронный Научно-Образовательный Журнал "История"*, 5(13), 122-129.
- Фомин, В. В. (2010). *Изгнание норманнов из русской истории*. Москва: Русская панорама.
- Шафонский, А. (1851). *Черниговского наместничества топографическое описание с кратким географическим и историческим описанием Малыя России, из частей коей оно наместничество составлено*. Киев: М.Судиенко.
- Шекун, О. (n.d.). *До вивчення стародавніх водних шляхів Чернігівської землі*. Retrieved 02 09, 2014, from Археология Чернигова: <http://archeology.narod.ru/BOOK/book8.htm>
- Шекун, О., & Сита, Л. (2011). 'Дослідження давньоруських курганів експедицією Чепнігівського Історичного музею в 1970-х - 1980-х роках.' In О. Коваленко, С. Лаевцький, & Л. Линюк (Eds.), *Скарбниця Української Культури*, 48-58. Чернігів: ЦНП.
- Ширинский, С. С. (1969). 'Курганы X в. у д. Пересаж.' In Т. С. Пассек (Ed.), *КСИА*, Vol. 120, 100-106. Москва: Наука .
- Юшков, С. В. (2002) *Русская Правда*. Москва: Зерцало-М
- Янин, В. Л. (2009). *Денежно-весовые системы домонгольской Руси и очерки истории денежной системы средневекового Новгорода*. Москва: Языки Славянских Культур.

Unpublished Works

- Блифельд, Д. (1949). *Деснянская Археологическая Экспедиция. Полевая Опись*. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Kiev. Accessed on the 26/5/2014.
- Бліфельд, Д. (1949) *Отчет про роботу деснінської археологічної експедиції 1949 року*. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Kiev. Accessed on the 26/5/2014.

- Веремейчик, В. (1987) *Отчет о разветках на территории Черниговского и Репкинском районах Черниговской области в 1987 году*. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.
- Веремейчик, В. (1988) *Отчет Об охранных археологических исследованиях на поселении в урочище Козарки у с. Петрушии Репкинском района, Черниговской области*. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.
- Веремейчик, В. (1989) *Отчет Об охранных археологических раскопках на поселении Льговка у с. Льгов, Черниговский район, Черниговской области*. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.
- Веремейчик, Е. & Жаров, Г. (1995) *Отчет об охранных археологических исследованиях на поселении старый Белоус-2, в урочище Сомов Хвост у с. Ст. Белоус Черниговского района, Черниговской области*. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.
- Казаков, А. Л., Гребень, П. Н., & Марченко, В. Н. (1990). *Отчет об Охранных Археологических Исследованиях Любечского Посада в 1989 г.* Чернигов. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.
- Коваленко, В. (1980) *Отчет о исследованиях летописных городов на Черниговщине в 1980 г.* Чернигов. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.
- Коваленко, В. (1981) *Отчет о исследовании летописных городов на Черниговщине в 1981 г.* Чернигов. Unpublished Excavation Report deposited in the Институт археологии НАН Украины, Киев. Accessed on the 26/5/2014.

- Коваленко, В., Моця, О. & Скороход, В. (2008) *Звіт про археологічну розвідку по "Шляху Мономаха"*. Чернігів. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014.
- Пильник, А. (1990). *Отчет о разветках в Городнянском и Репкинском районах Черниговской области в 1990 году*. Чернигов. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014
- Шекун, А. (1987). *Отчет Охранные археологические исследования в зоне строительства газопровода в городе Славутыч в 1987 г.* Чернигов. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014
- Шекун, А. (1989). *Отчет Охранные раскопки на поселении IV-V в.в. X-XIII в.в. Криница/Живцы/ у с. Н. Белоус Черниговского района, Черниговской области в 1989 году*. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014
- Шекун, А. (1991). *Отчет ЧАЭ. Охранные археологические исследования на территории Черниговской области 1990г.* Чернигов: Черниговский исторический музей. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014
- Шекун, А. (1992). *Отчет Археологические исследования на территории Черниговщины в 1991 г.* Чернигов. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014
- Шекун, А. (1992). *Отчет Археологические исследования на Черниговщине в 1992 г.* Чернигов. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014
- Шекун, А. (1996). *Отчет об археологических исследованиях на Черниговщине 1993-1994 г.г.* Чернигов. Unpublished Excavation Report deposited in the Інститут археології НАН України, Київ. Accessed on the 26/5/2014