

NOTES AND DISCUSSION

Valentin L. Yanine

MODERN METHODS IN ARCHEOLOGY: THE NOVGOROD EXCAVATIONS

The study of the Russian Middle Age, utilizing archeology as a key, has scored great successes at Novgorod during these last years. The thick historical layer formed there over a period of a thousand years is at present being sifted by an important group of Soviet archeologists.

This focusing of attention on ancient Novgorod is explained principally by the outstanding role the city played in Russian history. Here were concentrated in earlier days the industrial, commercial, cultural, and military life of the vast regions of northwestern Russia. Novgorod was a center of the greatest importance, where, for centuries during its development, the principal historic laws governing the formation of Russian feudalism revealed themselves with the maximum of clarity—and it is there that the process appears to the investigator in all its

Translated by Wells F. Chamberlin.

complexity. Economic community with other areas does not in fact result here in a simple repetition of the forms of social life habitually found in Russian principalities. The particular aspects of the social regime of Novgorod during its evolution led to the emergence of a state where characteristic signs of a republican order were in constant progress, to the detriment of the monarchical power of the prince, the former finally predominating over the latter in the fourteenth and fifteenth centuries. In studying the economy and the social order which were common not only to Novgorod but to other Russian territories as well, we can clarify a number of problems in Russian history which are still being discussed. Moreover, the very multiplicity of sources on the history of Novgorod allows us to form an accurate understanding of the particular directions followed in its evolution.

Novgorod is a veritable treasure house of documentation which can be verified by cross-checking. There the writing of annals was traditional, and many local chronicles have come down to us, setting forth in consistent fashion the events of the eleventh to the fifteenth centuries. By virtue of the strict system followed, writings concerning affairs of state as well as private documents having an official character were carefully preserved, including a certain number of official documents which have also been preserved. The fact that Novgorod was not subjected to the Mongol invasion permitted its old artistic monuments to survive. Finally, the fact that, in the sixteenth century, Novgorod lost some of its importance and became a small provincial town preserved in the best possible way its architectural unity, its monuments, and its soil, despite the extensive construction carried on from the eighteenth to the twentieth centuries.

With its unprecedented collection of historical monuments, Novgorod offers enormous advantages to the archeologist. Certain factors, notably the high humidity of the soil, have influenced the formation of its historical layer. A constant humidity helps considerably to preserve ancient objects. Metal objects found in the soil are covered with a thin layer of corrosion which can easily be removed or regenerated, while organic materials totally penetrated by humidity keep their form entirely. This is the reason the many wooden remains of roadbeds, buildings, palisades, household utensils, etc., as well as grains, leather, and birch-bark articles, shreds of cloth, and chips of wood, are completely intact in the soil. In many Russian towns where organic

Notes and Discussion

refuse has decomposed, the depth of the historical layer is likely to be no more than one or two meters, while in Novgorod the stratification of the historical layer often reaches a thickness of six to eight meters. Since the city has existed for a thousand years, we may say that the top layer has risen on an average of about one meter a century.

The high soil humidity has had another important consequence. Before the eighteenth and nineteenth centuries, the inhabitants generally refrained from digging cellars for storing and preserving food beneath their houses, built principally of wood, as these were constantly threatened with flooding. Consequently, the top layer was not subjected to any important disturbances, and its exceptional thickness protected it against the excavating done in the nineteenth and twentieth centuries, which generally affected only the most recent levels of the historical layer. Moreover, in the Middle Age, Novgorod did not know the use of excavated foundations for wooden buildings, a process which always damages the historical layer in towns built on dry soil.

Thanks to these circumstances, Novgorod's historical layer, in contrast with that of many other Russian cities, is easily divisible into relatively thick levels of twenty to twenty-five years each. These levels are rich in ancient objects, whose dating is thus facilitated. The great number of finds which have been made here allows the use of statistics and affords constantly repeated verifications of the date obtained by stratigraphic observations. The Novgorod excavations permit the establishing of a precise chronological scale of the different categories of ancient objects; thus these objects serve to date finds which until recently demanded far more complex procedures.

The work has a decisive importance for researches still to be undertaken in Novgorod, for this is the first time that archeological chronology has acquired a precision equal to that of written sources. The work is important also for the study of other cities of the Middle Age. Articles found in Novgorod may be local products, or they may come from Kiev, Smolensk, or Moscow, to say nothing of the Orient, Byzantium, and the West. Whereas at the site of their production many of these articles are dated within a period of one or two centuries, those taken from the Novgorod historical layer can be dated with greater precision.

The good preservation of wooden architectural remains allows us to reconstruct the plans of ancient dwellings with their outbuildings, including the slightest modifications made in them over the centuries;

moreover, these remains allow us to state precisely, in correlation with the established buildings, the purpose of the series of objects found there and, using these as keys, to learn the character and the ownership of the dwellings.

The Novgorod diggings have been considerably facilitated by the fact that the present plan of the city goes back only to the eighteenth century and that its street pattern does not coincide with the ancient one. Vestiges of former streets and their buildings have remained separated from the new arteries of the community underground pattern, which can be extremely complicating in archeological work.

The systematic excavations at Novgorod began in 1929. They were undertaken on the initiative of Professor A. Artsikhovskiy, who later became the permanent head of the expedition. Before the war, excavations were conducted on a small scale in different quarters of the city, with the essential purpose of determining beforehand the particular aspects of the historical layer to be explored and the vestiges that it might yield.

During work carried out in 1947-48, on the site of the residence of Prince Yaroslav (eleventh century), and later on the site of the Novgorodian people's assemblies, excavations in one sector extended over 836 square meters. These allowed us for the first time to study in detail an important fraction of the former city and provided information from which could be drawn some very interesting conclusions. Nevertheless, their importance is relatively small in comparison with the large excavations undertaken in 1951 in another quarter of Novgorod, the suburb of Nérévo.

The noteworthy discoveries of 1951 clearly demanded a concentration of all efforts upon a single sector. Since then, the work has been resumed each year. The radius of the diggings extends to an ordinary quarter of town, which in the Middle Age was built over with dwelling houses. The excavations lead the archeologist to a profound knowledge of the life and customs of the inhabitants belonging to the different social layers. In eight years the excavations have involved a sector whose total area is more than 7,300 square meters. The exposed quarter is outlined precisely on the old medieval map of Novgorod, particularly because the arrangement of this part of the city goes back to the tenth century and remained unchanged up to the eighteenth century. The axis of the

Notes and Discussion

excavation sector extends from north to south, following Grand Street, which is intersected by Kholopia and Kozmodémianskaia streets, known through the chronicles of the Middle Age. Eleven walled yards with dwellings and outbuildings face on these streets and on their intersections. They are bound by the arrangement of the city and by palisades.

The plan of this sector is perfectly verified. Novgorod's streets have always been paved with large circular blocks, of a diameter up to a meter, set on cross-beams. So well preserved are these street foundations that they can still carry heavy loads. The lower circular blocks of the old wooden buildings and the buried part of the palisades are also well preserved.

The vertical section of the digging area is characterized by the same precision. The foundation of Novgorod's streets was renewed as the earth layer built up around it and was kept clean. Nevertheless, that layer, rising around the foundation, finally became higher than the street level. A new foundation of circular blocks was then installed, right on top of the old one, which could still give many years of service. Thus the street beds of the fifteenth century had a number of older ones as their foundations. During excavations in the suburb of Nérévo, twenty-eight of these street beds were uncovered, the oldest dating from the tenth century, the most recent from the sixteenth.

These street foundations allow us to divide the historical layer chronologically, and the study of the successive layers of wood shavings, ashes, etc., allows us to establish a correlation between the foundation and a determined level, with all the objects and remains of buildings found in it. Each level thus constitutes an archeological whole, which is the principal objective of the reesarches conducted at Novgorod. On the maps, the excavation area can be shown as many times as there were roadbeds, that is to say, once in the space of a minimum of twenty-five years, and, in going over the maps, we see in succession the way in which the arrangement of the city has evolved from its beginnings.

The following figures give some idea of the extent of the diggings. The average thickness of the historical layer in the suburb of Nérévo is from seven to seven and a half meters. Toward the end of 1955, the remains of more than 5,500 buildings of different periods had been brought to light. Each level permits us to establish a relative chronology,

which becomes definitive with the study of objects which have been very closely dated.

In the twelfth century and in the first half of the thirteenth, Novgorod received many objects originating in Kiev, notably certain articles of glass, wines contained in pottery vessels from the south, and objects made of Volhynie slate. Production of these articles stopped completely toward the middle of the thirteenth century, when the workshops at Kiev and in the other southern Russian cities were destroyed by the Mongols, and the artisans were killed off or were taken away to Tartar cities. In Novgorod, half of the thirteenth century is marked by a reduction, which can be followed, in the quantity of objects of southern origin. Other dates are determined by means of coinage and of lead seals used by known historical persons (in eight years more than sixty seals were found), by means of articles bearing heraldic and other markings, found in different levels. The exact dating of the different levels of the historical layer could be worked out in the very first years of the excavations. Now it is verified each year, and new materials sometimes allow it to be given greater precision.

To cite a few examples: In Novgorod, the production of ornaments in Baltic amber was highly developed, a fact confirmed by numerous finds of the remains of this production. Now the statistics of the finds show a remarkable decrease of these vestiges in the thirteenth century, which, indeed, was the period of the most intensive military clashes on the western borders of the territory and, naturally enough, had repercussions on the general state of Novgorod's trade with the West. Another example is the dating of the twenty-seventh level. Stratigraphically, it had been set provisionally in the seventh decade of the tenth century. In the following years, two treasures of coins from Central Asia were found, each one containing about nine hundred coins coming for the most part from Samarkand. One treasure, according to the least ancient coin, was dated as of 972, the other as of 975, thus confirming that the whole level had been correctly dated. Still another example: An analysis was made by Artsikhovskiy of the twenty-three spurs which were found and which reproduced exactly by their form those used in the West and dated by means of the sculptures of the tombs of the kings where they were fashioned. In each case, the stratigraphical dating coincides exactly with the Western dates. Writings on birch bark, discovered during the excavations, and bearing the names of his-

Notes and Discussion

torical persons, also give eloquent confirmation of the stratigraphic dating. We shall discuss this in greater detail below.

The scope of this article does not allow us to acquaint the reader with all the aspects of the study of Novgorod's antiquities, and we are therefore focusing only on the most important ones.

One of these aspects is the problem of the economic basis on which medieval Novgorod developed. The original forms of social life in Novgorod sometimes spurred scholars on to seek the original forms of its economy. The foundation of feudal relationships throughout the territory of central and southern Russia, a foundation recognized without reservation, is the landed property of the princes and the boyars; and the foundation of city life, the development of trades. Now certain researchers considered Novgorod exclusively as a center of European commerce, and commerce for them was the unique basis of its historical development. It seemed that trading substituted completely for the professions and agriculture, since a market located at the crossroads could furnish all indispensable products. Only such industries as fishing, hunting, and the like appeared to be incontestably forms of the economic activity of the citizens.

It is evident that an exact idea of the economic life of Novgorod could be had only through excavations, for only the study of the numerous objects they revealed could help in fixing the production site. By comparing the quantity of objects brought into Novgorod and the products of the city itself, by comparing the importance of the different categories of imports, by clarifying the categories of objects needed most by the Novgorodians and which they had to import, we can finally determine the relationship which obtained at that time in the city's economy between the professions and commerce. The excavations permitted us to establish, first of all, that professions did exist in Novgorod, that they were varied, and that they had reached a high technical level.

Many and varied instruments used by artisans were discovered—not only instruments of general use but special ones as well, for working metals, wood, jewelry, leather, for engraving on bone, for weaving and shoemaking. The remains of artisans' shops and of the raw materials used, unfinished articles, and production wastes have all been found.

It is known that the working of iron is the principal trade—it produces not only items of daily use but, more importantly, work tools.

Iron is the only metal whose deposits lie everywhere in eastern Europe (in the form of limonite). The discovery of iron blooms was often noted during the excavations at Novgorod. Nevertheless, that does not indicate the level reached by iron metallurgy in Novgorod itself. It was important to determine in what proportions they used their own iron production and that of other cities. Spectral analysis has shown that in the iron objects discovered during the excavations in southern Russian cities we constantly see the presence of titanium and chrome, whereas nickel and molybdenum are typical of the iron of Novgorodian origin. These latter elements are found in seventy-four out of eighty-two sample articles of iron from the Novgorod collections, selected for analysis, whereas traces of titanium and chrome are found in only a few.

The study of the structure of iron objects undertaken by Koltchine has shown that the artisans of Novgorod made a variety of instruments and utensils and practiced a large number of technological operations: hammering, forge welding, thermal treating, lathe shaping, cold-cutting, polishing, soldering, coating with non-ferrous metal, incrusting non-ferrous and precious metals, and art-forging. They made, in addition, different kinds of steel articles. The chronological study of the development of this technology has revealed that all those processes were already current in the second half of the tenth century and in the beginning of the eleventh, a period when a high-level technique had been attained, one which was maintained through the sixteenth century. Moreover, the artisans of Novgorod simplified their technology knowingly when they had to produce *en masse* for the market.

In contrast to ironwork, the production of articles of non-ferrous metals and of jewelry could not make use of local raw materials and had to have recourse to importation, first from the East (in the tenth and eleventh centuries), and later from the West (after the eleventh century). Novgorod did not, however, import the finished articles but rather the raw material. The many finds of crucibles and foundry forms, and the particular form of non-ferrous and precious metal objects, show that they were made in Novgorod.

The same rule is applicable when we study the work done in amber. This substance is not of local origin and reaches Novgorod and all of Russia through trade with the Baltic countries. But the work itself is specifically Russian, principally Novgorodian, as is shown by the dis-

Notes and Discussion

covery of a large number of discards, as well as crosses and the beads of semifinished amber necklaces.

Perhaps the most striking example is furnished by the study of wooden objects. In the Novgorod historical layer combs are constantly being found—760 of them in 1956. Most of the wooden ones go back to the tenth, eleventh, thirteenth, and fifteenth centuries, while combs made of bone are dated, as a general rule, to the twelfth century. According to Vikhrov's researches, the wood of these combs is largely the boxwood which grows on the northern slopes of the Caucasus and on the Caucasian shore of the Black Sea, and the ornamentation on them is of Novgorodian origin. The absence of wooden combs in the twelfth-century levels is explained by history—at that time the trade routes between Novgorod and the south had been cut by the Polovetzts. Novgorod's artisans, no longer receiving their customary raw material, had to replace it with bone.

Many more examples could be given, leading to the same conclusion. Because of the development of its crafts, Novgorod did not have to acquire most of the items of merchandise classified as necessities. Its craftsmen, however, were nevertheless aware of a constant need for numerous varieties of raw materials which were imported to be worked on in the city.

This, moreover, does not rule out the constant need of the Novgorodians for certain classes of articles made by craftsmen but not produced in the city. In addition to its imports of raw materials for its own artisans, Novgorod imported many textiles, such as wools from Western countries, and cottons and silks from the Orient, and also wines and dyestuffs. Study of Novgorod collections shows that certain kinds of glass beads, glass dishes, and stone necklaces came from the cities of southern Russia and the countries of the Orient. We might emphasize the importation of ornaments generally worn throughout Russian territory at that time by city women: the women of Novgorod were very style-conscious.

Novgorod had its own important handicraft base, and its development was much less linked with external trade than we were led to believe before the excavations.

Before the Novgorod excavations our idea of the level of education in the Middle Age was far removed from reality. Researchers tended to

compare this level for city dwellers from the eleventh to the fifteenth century with that of the rural area in the eighteenth and nineteenth centuries and assumed that only the richest urban circles, principally the clergy, knew how to read and write. The diggings have caused a revision of this idea. Objects marked with the names or initials of their owners were found successively on different levels. Inscriptions have been found on cobblers' lasts, fishing leads and floats, cask covers, distaffs, and wooden dishes. The diversity of these articles, spread over a wide area, indicates that a vast circle of persons knew how to write. When we take into account the fact that objects were marked, not so much for the purposes of the owners as for their neighbors, we must conclude that this circle of literate persons was still wider.

More exhaustive information has been supplied by the discovery of writings on birch bark, the principal find of the Novgorod archeological expedition. It seemed, before this discovery, that the written source of the history of the Russian Middle Age before the fifteenth century had been completely exhausted. The chronicles and official documents only depicted the history of the Middle Age in a clearly limited way, relating principally the political and military activity of the Russian sovereigns. The annals were in large part a chronicle of aristocratic families and could serve only to a slight degree as ethnographical documents. Analysis of the annals and legal documents, combined with that of the usual archeological sources, permitted us to establish the principal laws of this history and to reconstruct political and military history in detail. And, nevertheless, the man of the Middle Age—the artisan, the farmer, the merchant—remained an abstract figure, a kind of summation of certain social indications, with the sources remaining silent about his individuality. While we were able to establish the detailed biography of certain princes, hierarchical chiefs, and boyars, the simple citizen or the peasant lost even his name.

Now the individuality of a man with some education leaves traces in history: it is encountered again and again in his inscriptions, his letters, and his memorandums. Archeologists have long wondered whether the soil could preserve such documents down to our times. We have the answer. Parchment and paper generally decompose in the ground, and the text written in ink is lost. But such writings were not the only kind in the Middle Age. Moreover, they were costly, and their use was limited. Study of the writings of a more recent period (seventeenth and

Notes and Discussion

eighteenth centuries) has shown that in Russia a cheaper, and consequently more accessible, material was used—birch bark. Certain sources indicate that its use goes quite far back.

At Novgorod, birch-bark sheets are perfectly preserved and have attracted attention from the very beginning of the diggings. Each piece of birch bark—and tens of thousands are encountered—was studied. At the time this was prompted by a fact which appeared to be incontestable—that, if damp soil preserves birch bark, the inscriptions carried on the bark cannot, on the contrary, subsist in any clear manner, and one can only reconstitute them according to the faint traces left by ink which has been leached out by water. On July 26, 1951, the first inscription on birch bark was discovered, and it gave totally different evidence. It was seen that the inscriptions were made, not with ink, but with a stylus, just as inscriptions are lightly engraved on wax tablets, or as graffiti are done on plaster. The instruments used for writing, which were bone or metal points, are sometimes highly ornamented. Dozens of examples have been found so far and are under special study.

The first find of birch-bark inscriptions opened very promising perspectives, and in the following years the finds occurred regularly and took on a massive character. In the eight years from 1951 through 1958, 356 birch-bark writings were found at Novgorod.

This was a historical source in principle entirely new, for in the majority of cases the writings consisted of letters on the most varied and often most insignificant subjects. The oldest so far discovered has been dated as middle eleventh century, the most recent as belonging to the end of the fifteenth century. The character of these documents shows that they come from the most diverse milieux of Novgorod's society—from the *possadnik*, chief of the boyar republic, down to the simple weaver, anxious to ship out the order she has filled.

It is extremely important that these writings on birch bark do not in their assemblage constitute archives. They are constantly being found on different levels and in different sectors of the diggings. Just as today we throw away our notes and our rough drafts of accounts which we no longer need, so did the medieval Novgorodians dispose of their use-less notes.

Since we raised earlier the question of the extent of education, let us note two circumstances. First, a considerable percentage of the writings stems from peasants and artisans. The author's profession is clearly in-

icated in them, and certain letters give technical recipes (for example, Document No. 288 contains a recipe for dyeing silks); or we find accounts relating to a craftsman's order for raw materials, or, again, notes about soil cultivation. In the second place, the authors or recipients of numerous documents are women, which can be an eloquent indication of the high level of education. We have already mentioned the letter of a female weaver of the fifteenth century; here again are letters sent to Nastassia and those which she wrote. The first is from her husband, Boris, requesting that she send him his shirts which he has forgotten to take with him; the second, written by Nastassia, tells her parents of Boris' death. A letter from Piotr to Maria (fifteenth century) is important also for the economic history of Novgorod. Piotr has gone to Poozérié (on the shore of Lake Ilmen, southwest of Novgorod) to cut hay, but the residents of the area have seized his hay, and he begs his wife to send him a document confirming his rights to the piece of land. Evidently, Piotr was not one of the great landowners, in which case the villagers would not have dared to enter into conflict with him.

It is very interesting, in judging the development of education, to look at a whole series of birch-bark writings going back to the end of the twelfth century and the beginning of the thirteenth. They come from a small boy, from six to ten years of age, named Onfim, who was learning to write. We have fifteen letters containing the alphabet, lessons in writing by syllables, and the first model letters. Being a schoolboy, he divided his attention during the lessons between his work and his penchant for drawing in the blank corners of his sheet of birch bark—he draws little men, men on horseback riding down their enemies, and even a portrait of himself, disguised as a fantastic animal. These sketches gave the clue to his age. The expedition has collected other remains of schoolwork—exercises for boys studying in other grades, the cover of a penbox showing a model alphabet and belonging to the end of the thirteenth century or the beginning of the fourteenth, and even a silly schoolboy joke of the time, a cryptographic inscription on birch bark. The abundance of these documents clearly indicates that the teaching of reading and writing to children was one of the major concerns of the citizens of medieval Novgorod.

The birch-bark documents collected so far have now become a base from which we may draw important historical conclusions. Through topographical study of them, we can learn the names of the owners of

Notes and Discussion

the sites where the excavations are made. Often writings addressed to the same individual are found in the limits of the same piece of ground. Analysis of certain writings has permitted us to establish the fact that two large pieces of property belonged to the family of the boyars Ontsiforovitch, known through the annals and other documents. From this family there came eminent *possadniks* of Novgorod, among them Ontsifor Loukitch, famous in the city's history toward the middle of the fourteenth century, and his son, Youri Ontsiforovitch, a *possadnik* at the beginning of the fifteenth century. Writings sent to Ontsifor and to Youri, as well as to other members of this line of boyars, were found. In the same sector the archeological expedition uncovered and studied vestiges of the only stone building found on the property. It is a civilian building constructed at the end of the fourteenth century, or at the beginning of the fifteenth, and consequently belonged to Youri.

All the writings connected with this family offer great interest, since for the first time the researcher is led into the circle of the daily preoccupations of the boyar aristocracy when it was in power. Analysis indicates clearly the real basis on which the boyars' power and that of the state of Novgorod rested. Not once do these writings treat of mercantile matters—on the contrary, all have more or less to do with great landed property.

Document No. 94 is addressed to Youri Ontsiforovitch by the peasants, who complain to their master about his overseer: "Nothing pleases him," they write. No. 97, also sent to Youri, concerns the sale of rye. No. 167 is sent by the miller of the village of Zlostitsy which belongs to the *possadnik*; he begs Youri to take pity on him and not to send another miller to replace him. This is the first document which allows us to assume the existence in Russia of a banality similar to that of western Europe.

A complete series of writings is addressed to Mikhail, the son of Youri Ontsiforovitch. In No. 157 the peasants object to an order issued by the boyar concerning the transfer of an inclosed piece of land. No. 242 does not bear the addressee's name, but it was found on property belonging to Mikhail. It concerns dependent peasants, subject to state labor, who are awaiting the boyar's orders for threshing rye and who complain about the poor condition of draft animals: "Those who have horses, have poor ones; others have none." Document No. 297 indicates that a certain Serguëi is informing Mikhail Yourievitch of the theft of

a millstone for milling rye. No. 301 reminds us of the doleful state of the peasant class, announcing to Mikhail, who is called here the son of the *possadnik*, that half his domain is empty and that the other peasants are making ready to flee and are begging the boyar to reduce taxes. Document No. 311 describes the whole system for us, indicating particularly that between Mikhail Yourievitch and the peasants there is a small feudal holder.

Document No. 310, sent to the *possadnik* Andrei Ivanovitch, is also linked to landownership. The peasants complain to Mikhail, the controlling lord, about their immediate feudal holder—Mikhail can authorize them to go into the control of another of his vassals. This document is significant for another reason. We know that the *possadnik* Andrei Ivanovitch, whose name is recorded in the annals, had no connection with the site of the present excavations—his life and his activity are linked to Prussian Street, located at the other end of Novgorod. In 1421 a riot broke out against him in which the inhabitants of the suburb of Nérévo (where excavations are presently going on) took an active part. The cause of the riot was a conflict over land. Document No. 310, exhumed on the domain of the Ontsfirovitches, permits us to assume that the latter were the inciters of the riot. The rioters pillaged Andrei's manor house and handed over the documents they found to their leaders, the Ontsfirovitches.

We have cited here several documents sent to persons already known from other sources. The list of writings concerning real estate can be made many times longer. Land is the principal preoccupation, and this interest is not limited to the boyar aristocracy of Novgorod. By studying documents of this kind, Artsikhovsky has come to the conclusion that *the major portion of the population of this city was composed of feudal holders, large and small. They resided in Novgorod, where they were citizens and belonged to the popular assembly (vetché)*. In our opinion, this circumstance explains in large measure the particular forms of the state of Novgorod, which rested on a wide base, composed of many classes of large, average, and small landowners.

Writings dealing with commerce offer much interest, particularly those which show that the specialization of trade was quite advanced. The merchants of Novgorod in the fourteenth and fifteenth centuries were going through an important stage which led them from highly diversified into extremely specialized commerce. For example, writings

Notes and Discussion

concerning the fish trade show an exclusive interest on the part of some dealers in lake trout, while others specialize in sturgeon. Dealers have a large number of professional fishermen under their control. They draw up interest-bearing contracts with them, get them into debt, and record how much fish each one must deliver. Numerous also are memorandums of loans at usurious interest. Merchants advance at interest wheat, meat, clothing, harness equipment, and utensils.

Certain documents bring in new and interesting information on Novgorod's trade with the outside. Document No. 125 (end of the fourteenth century), for example, is the request of a certain Marina to her son to buy her some *zendien*—the term used for a cotton stuff woven in the village of Zenden near Boukhara in Central Asia. A document from the early twelfth century concerns far-ranging journeys of Novgorod merchants into the interior of the Russian territories.

Other writings mention political events of the history of Novgorod. The owner of an inclosed piece of land, where excavations are now being conducted, was a tax farmer for the lands of Karelia, which paid tribute to Novgorod. In the levels corresponding to his time (first half of the fourteenth century) several documents were found bearing Karelian names, as well as letters sent to Novgorod by Karelians. One of these documents can be dated exactly, for it mentions the peace just signed between Novgorod and Sweden, in the days of Prince Youri. With the same expressions, the annals relate the peace of 1338, whose conclusion did not definitively decide the political affiliation of certain frontier tribes of Karelia. And, in fact, the writing in question, sent to the tax farmer before his departure for the north, urges him to exercise extreme prudence and compliance in levying tribute on those territories.

Certain letters were written by Novgorodians on the battlefield. One writer complained to his master that the latter had not kept his promises. The author of the letter, who was somewhere in the area of Koporié, a well-known fort of Novgorod located to the northwest, and where fighting was going on, had received, despite what was agreed upon with his lord, only one horse instead of two.

Other documents concern justice and discuss questions of depositions or tell of punishments which have been inflicted. Another series consists of wills of different persons in different periods. Writings in this category are not very plentiful, and, if others are found, interesting con-

clusions could be drawn concerning the contemporary proportions of Novgorodian household expenses.

We shall not take up here numerous other aspects indicated by the analysis of the birch-bark documents. We may state briefly that these writings are an extremely valuable source for paleography and linguistics, for they open up to the researcher a new world of medieval writing and language. A great deal of work in this field is now being undertaken. The terminology found gives a wealth of information important for understanding the system of measures and especially the history of the circulation of money in the Middle Age, for monetary units are constantly mentioned, and certain of the terms have not been known before. The writings on birch bark have enriched knowledge with a long series of unknown names; they have also taught us many new words which were not listed in vocabularies of the medieval Russian language. But their principal value lies in the fact that they are unique documents on mores and customs of the period, and they bring the researcher into the area of the daily interests of people who disappeared many centuries ago. Thus they bring an epoch back to life.

The finds made by the Novgorod expedition have had great repercussions and have increased the general interest in the eventual discovery of new types of ancient writings. After 1951, different writings were discovered, not in the systematic excavations, but in the course of cellar excavating carried on in other parts of the city. The first samples of birch-bark writings discovered at Smolensk and at Pskov were found in 1952 and 1958, respectively. We must await finds in many other cities of the north with high-humidity soil, and this concerns not only Russian cities but Polish, Hanseatic, and Scandinavian cities as well.

Novgorod is often called a museum city. It is indeed an original and unprecedented museum of medieval art, its many old churches constituting the principal element of its whole. The succession of architectural styles can be followed almost uninterruptedly over a long period, from the eleventh century to our own day. The icons and frescoes created by Novgorodian painters are universally known, as well as the magnificent examples of the chiseler's art, preserved on chasubles. During the Middle Age, Novgorod attained one of the highest points in Russian art. However, its art monuments were subject to the same influence as the annals. The churches and their ornamentation, the icons and artistic

Notes and Discussion

vessels, were ordered by the boyars and the higher clergy of the city. Thus they show not only the masterful skill of Novgorod's artists but also the tastes of distinct social levels. To what extent was aesthetic perception common to medieval Novgorodians? That question has appeared to be insolvable.

Excavations carried out in other Russian cities had led to the deduction that there was a deep contrast between the people's artistic taste and the aesthetic concepts of the richest segment of the society. The reason for this had been the absence of art objects in the archeological finds of ancient Russian dwellings. An important circumstance, however, was overlooked—man of the Middle Age was surrounded by a world of wooden objects which could not be preserved unless the historical layer met the requisite conditions. Through diggings in cities located on dry ground, archeologists were unable to get any idea of the ornamentation and the furnishing of the dwellings or of the utensils and household items then in use. It is precisely the ornamentation of objects used by man during his whole lifetime which can best reveal the level of his aesthetic education.

The Novgorod excavations have allowed us to amass a huge collection of the most diverse objects, all having the common feature of ornamentation. Most of the objects made of wood—whether spoons, combs, bowls, parts of wagons, or furniture—are covered with sculptured designs. Often an engraved tracery design completely covers the article and in most cases is executed with a sure and accustomed hand and with a developed sense of composition. The excavators found a large number of decorated door frames and tapestries in birch bark, set off with ornamentation. Highly worked are the cradles and the birch-bark fishing floats and basket covers. The desire to embellish often gave birth to true works of art which became a part of the daily life of the simple city dweller.

In this connection we can cite certain remains of wooden flatware from the twelfth and thirteenth centuries on which dragons and other monsters are perfectly depicted, a wooden spoon bearing a finely executed design of a horseman, and dippers with handles worked into the shape of monsters. A true masterpiece is the sculptured wooden head of a clean-shaven man, apparently a portrait, going back to the twelfth or thirteenth century.

Bone objects offer the same interest. In the eyes of a Novgorodian of

the Middle Age, work in bone, like that in wood, offered an opportunity for applying his artistic skills. At present, a large collection of bone plates of different uses has been assembled. Perfectly depicted on them are dragons and other monsters, and there are bone handles in the form of stylized birds' heads, etc.

A highly important analogy is seen in the way in which ordinary objects and religious objects are ornamented. We find again the same motifs in the interior ornamentation of stone church walls and windows. As for book ornamentation, it derives entirely from that of ordinary wooden objects.

A most interesting find, and one which has profoundly modified the ideas we had of the character and the ways of the development of Russian art, is that of two wooden columns found in the level corresponding to the middle of the eleventh century. They had served first to support the flooring of a house in the early part of the century and had then been cut into circular blocks to serve as street paving, the form in which they were discovered. The surface of the columns is entirely covered with a chiseled design of wide interlacing bands in which are set medallions, one showing a centaur, another a griffon.

While the tracery on the columns is a current motif with the Slavs and is well known on Balkan stone monuments and on numerous objects coming from the Novgorod diggings (beginning at the earliest levels), the figures on the medallions reveal a detailed analogy with the chiseling on stone in the churches of Vladimir-Souzdal at the end of the twelfth century and in the early thirteenth, and particularly with the designs of monsters found on the walls of the cathedral of Saint George in Youriev-Polski, built in 1234. These analogies show an artistic unity, a close bond between outstanding architectural monuments and ordinary objects which have artistic interest. And their importance is considerable for still another reason.

The stone reliefs of the churches of Vladimir-Souzdal belong to the great creations of Russian medieval art and have long had the effect of magnificent flowers sprung forth in a desert, for their originality did not seem to have been nourished by the sap of Russian art. We found no close analogy with other more recent Russian monuments. For that reason many scholars tended, in the course of discussions on the origin of these reliefs, to establish a correlation with Western or Caucasian art. It has now become evident that these works of art are bound to the

Notes and Discussion

Russian soil, for their prototype is being rediscovered repeatedly in the chiseling on wood which researchers had almost never seen prior to the excavations at Novgorod. The Novgorod column with its griffon and centaur is two hundred years older than the reliefs of Vladimir-Souzdal. In Novgorod, wood chiseling was not transformed into stone chiseling, since the material used for the construction of Novgorodian churches was the soft milling stone from Ilmen. The Vladimir architecture makes use of a harder stone, better suited to artistic chiseling.

The Novgorod excavations also afford interesting results under the heading of "methodology." Their scope has always posed many problems in connection with the organizing of the work. During archeological diggings over a large surface, the evidence-bearing cover being quite thick, the greatest efforts and costs have to do with the removal of earth which has been examined. Its transportation becomes more difficult as the diggings extend in breadth and in depth.

That is why the Novgorod expedition insisted from the very beginning on mechanizing the work to the greatest possible extent. It goes without saying that the only "mechanism" acceptable for actual digging is, and will always be, human hands. To facilitate the work, a large number of conveyor belts is used to remove earth from the interior of the excavation and bring it to the outside. At great depths, the earth is removed by means of carts and electric skip hoists. The surface is cleared of mounds of debris from the preceding year by the most efficient means, the bulldozer. The expedition's experience in applying mechanization has been described in detail in Soviet archeological literature and is being adopted by other expeditions. The collections assembled during the diggings, because of their great size, permit the application of scientific methods, such as spectral and structural analysis of objects of antiquity.

In recent years an effort has also been made to verify chronological conclusions through the study of the magnetic property of the old ceramics. The study of numerous vestiges of old revetments and constructions will also make possible the establishment of a dendrochronological dating system for Novgorod and the surrounding areas.

The expedition has important tasks to finish. In particular, it must complete the diggings in the suburb of Nérévo. We should also like to terminate researches on the site of the ancient domains where only par-

tial excavations have been conducted, especially on the properties of the two *possadniks*. The expedition plans next to transfer digging to another quarter of the city, where an important sector must come under research. By comparing the results obtained, we will be able to state definitively those conclusions already reached in a general way concerning the character of this medieval city. Finally, there is a great need for augmenting the Novgorod excavations by archeological study of the medieval rural area of the state of Novgorod. This will be one of the next important tasks. At the same time we shall continue to work at publishing and disseminating the documentation of these excavations.

The time is fast approaching when medieval Novgorod will be, for the most part, an open book, making known to us the names of its former residents, their thoughts, their way of life, and the insights we have, until recently, so greatly lacked.