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## **MAIN STAGES IN THE CULTURAL DEVELOPMENT OF THE ANCIENT POPULATION OF THE KOLA PENINSULA**

### *Abstract*

The article summarizes the results of archaeological research carried out by the Kola Expedition of the Leningrad Branch of the Institute of Archaeology of the Academy of Sciences of the USSR. Data from over 400 sites presently known permits a general reconstruction of the main stages of prehistoric cultural development from the Mesolithic to the Early Metal period (end of the 7th millenium – 2nd millenium BC). Throughout the prehistory and later protohistory of the Kola region there were constant contacts with Northern Finland and Norway. Contacts with the Karelian culture are restricted to the southern and central areas.

An uninterrupted consecutive development of cultural traditions as well as the genetic continuity of cultural stages make valid a suggestion that the ancient population of the Kola Peninsula was one of the main components in the emergence of the Saami ethnicity.

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In 1984 the Kola Archeological expedition of the Leningrad Branch of the Institute of Archeology of the Academy of Sciences of the USSR celebrated its 20th anniversary. Its operations were begun in 1946, and they have been carried on without interruption since 1969.<sup>1</sup>

Prior to the explorations on the Kola peninsula individual archeological sites in six regions were known: twelve "Arctic Paleolithic" sites on the Rybachy peninsula, studied by B.F. Zemlyakov (Zemlyakov 1940 107–143), the Oleneostrovsky burial ground partly excavated by A.V. Schmidt (Schmidt 1930 119–129), 2 labyrinths at the mouth of the Ponoï River, several occupation sites on the Varzuga River, studied by A.V. Schmidt, the labyrinth near the town of Kandalaksha (Durylin 1913) and several occupation sites on the coast of the Pinozero Lake (Goretsky 1937 107–119).

As a result of intensive studies of the sea coast, and partially of the mainland territory of

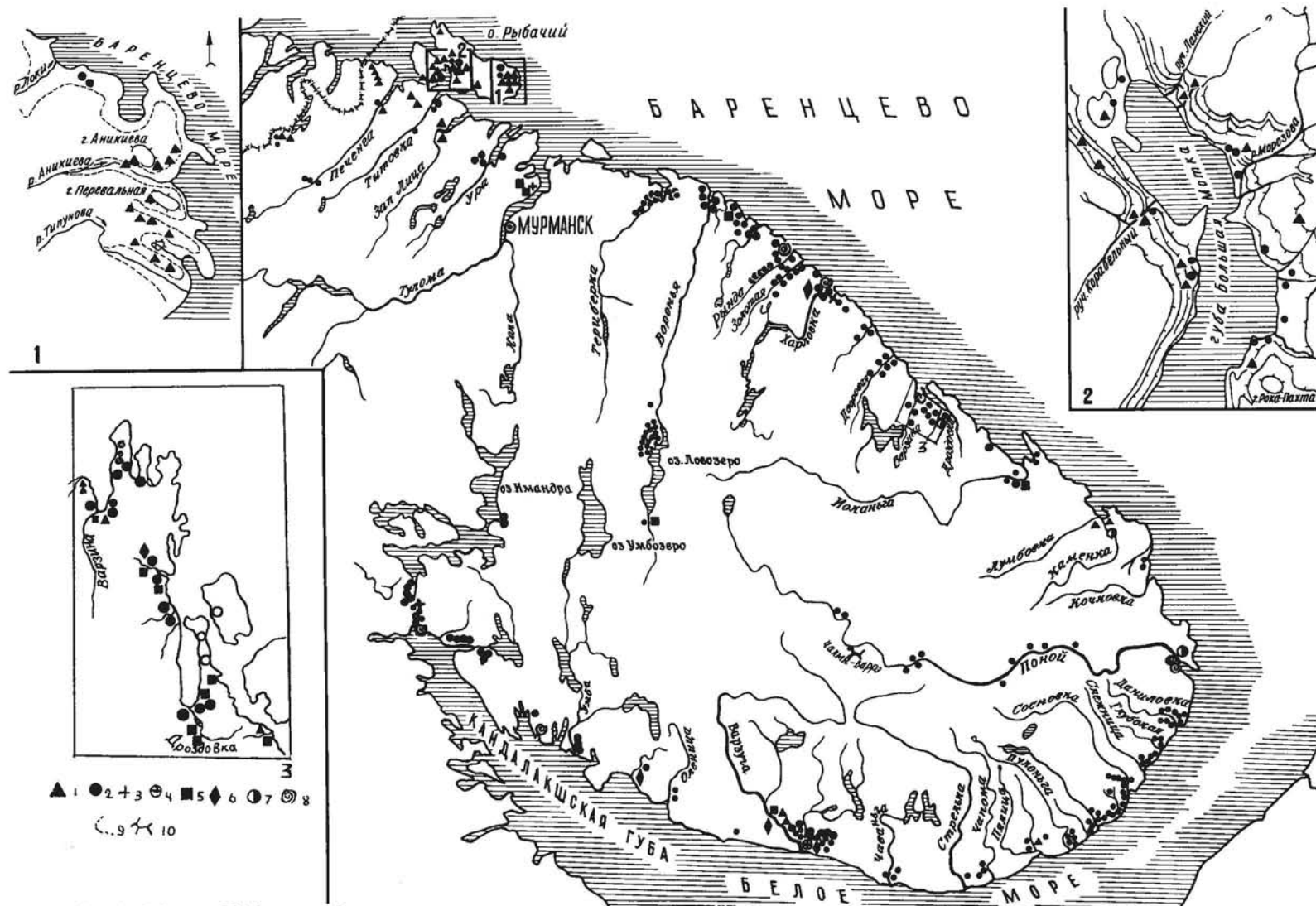
the peninsula over 400 sites of various periods have been discovered so far: occupation sites and settlements of the Mesolithic, the Neolithic, Early Metal Period and the Early Medieval Period; burial grounds, and separate interments, labyrinths, and rock drawings. These vary in terms of information content. Many have been excavated exhaustively (some of them in areas up to 1500 m<sup>2</sup>).

The vast material obtained during the excavations and field observations became a source for the reconstruction of the ancient history of the human collectives that at some time in the past inhabited that part of the area beyond the Polar Circle.

Generally, the main stages in the cultural development of the ancient population of this region can be presented in the following manner.

The territory of the Kola peninsula was for the first time inhabited in the Mesolithic (the "Arctic Paleolithic") probably not earlier than at the late 7th – the early 6th millenium B.C. The number of such sites is close to 80. Since the

<sup>1</sup> The Expedition is headed by Dr. N.N. Gurina.



Archaeological map of Kola peninsula.

1 – The Mesolithic sites, 2 – The Neolithic settlements, 3 – The burial grounds and burials of the early metal period, 4 – The burial ground of the medieval period, 5 – The sites of the Early Metal period, 6 – Medieval settlements, 7 – Ancient Saami settlements, 8 – The labyrinths, 9 – The shoreline of the ancient seacoast, 10 – Rock carving (imprint).

earliest of them were found on the Rybachy peninsula and the western part of the coast adjacent to it and display the most archaic features, there are grounds to believe that the pioneers of the settlement came from North-West – Northern Norway and Northern Finland. This was occasioned by the fact that the north-western part of the peninsula rose from the sea and became accessible for human occupation earlier than other regions. Somewhat later, in the developed Mesolithic, in connection with changes in landscape and the growth of population, people moved southwards, to the region of the Shuoniyoki River, and then along the coast eastwards, and later still southwards as the basin of the White Sea completed its formation. In all probability, we can speak of an infiltration of the Mesolithic population from the south – evidently from Karelia – to the southern part of the peninsula.

On the Kola peninsula, as also in Norway and Finland, there formed a general dependence of the location of the chronological sites on the elevation of terraces above sea level. Ancient occupation sites lie on high terraces (up to 90 m) and younger sites on lower terraces.

The Mesolithic occupation sites, especially the earlier ones, were very small in area, and their cultural layer is intermittent. Since they were initially located mainly on the sea coast proper – artifacts are not always covered with soil. However, thorough topographic studies of the finds allowed, in a number of cases, to contour the sizes of the occupation sites and the concentration of the finds to be identified. In particular, it was made possible to identify their location in circles, which, evidently, corresponded to the contours of the surface dwellings of the tent type.

At a later stage of the Mesolithic, river terraces were inhabited by people. The areas of occupation sites become larger as well as the number of finds on them, which points to an increased volume of human collectives.

Throughout the entire Mesolithic period local rocks were used for making tools – quartz, quartzite, obsidian, and very rarely, flint which was, probably, found in the form of small river pebbles (Fig. 1). It is essential that shale rocks were not used. Utilisation of shale in mass amounts draws a distinct boundary between the Mesolithic and the Neolithic. Articles made from it occur only in areas where outcrops of silicified shale – Shuoniyoki – can be seen. Those articles include arrowheads, differing from those made of quartz, belonging to the

post-Swiderian type, oblong in shape, with a thin shaft, conic nuclei, and large-size shale flakes. On the left bank of the river, a site for the primary processing of nuclei was discovered.

The most widespread technical methods were cutter spall, and non-regular retouching; the prevalent category of tools – cutters, more rarely, scrapers, and adzes (scrapers with trimming blades). Rather numerous are arrowheads which are small, sometimes microlithic, mainly of quartz and of obsidian, more rarely, of flint, with a retouched tang, and one half of a feather. Often, the point of an arrow and a tang of an arrow-head, as also the rear part of a scraper were worked by means of cutter spalling instead of being retouched. Sometimes trapezoids occur. The serial nature of the arrowhead and the scraper has allowed the determination of their typology.

Large quartzite tools, archaic in shape, were made of massive flakes in the late Mesolithic – from shale chipoffs partially worked by means of spalling. The clearly expressed microlithic quality of tools, especially arrowheads, scrapers and cutters was characteristic of the Late Mesolithic. Sometimes, they are 1–1.5 cm in size. Organic remains were not preserved. A small area of occupation sites, and the intermittent and thin cultural layer point to a small size and movement of human collectives while the obligatory seacoast location of occupation sites points to the fishing pursuits of the population. Evidently, people widely used "gifts of the sea" such as fish, and also sea animals which dried during ebbs in the littoral zone. In terms of the type of tools, the Mesolithic on the Kola peninsula, though it did show certain specific features represented a variant of Komsa culture (Gurina 1971 94–99).

Genetically, the Neolithic epoch is connected with the Mesolithic the evidence of which is provided by the continuity of tools. The changes that took place found their manifestation, above all, in a wider development of the peninsula. Practically the entire territory suitable for living was developed – the mouths of larger and smaller rivers, the convenient areas on the coasts of lakes and of the sea. As a rule, settlements were located at elevations lower than those on which Mesolithic occupation sites were found on coastal terraces – most often 20 m lower. The size of settlements becomes larger, and the cultural layer becomes relatively thicker which points to a high degree of settlement. Wide use of a new material for making tools, shale, was a significant factor. The structure of this rock evoked

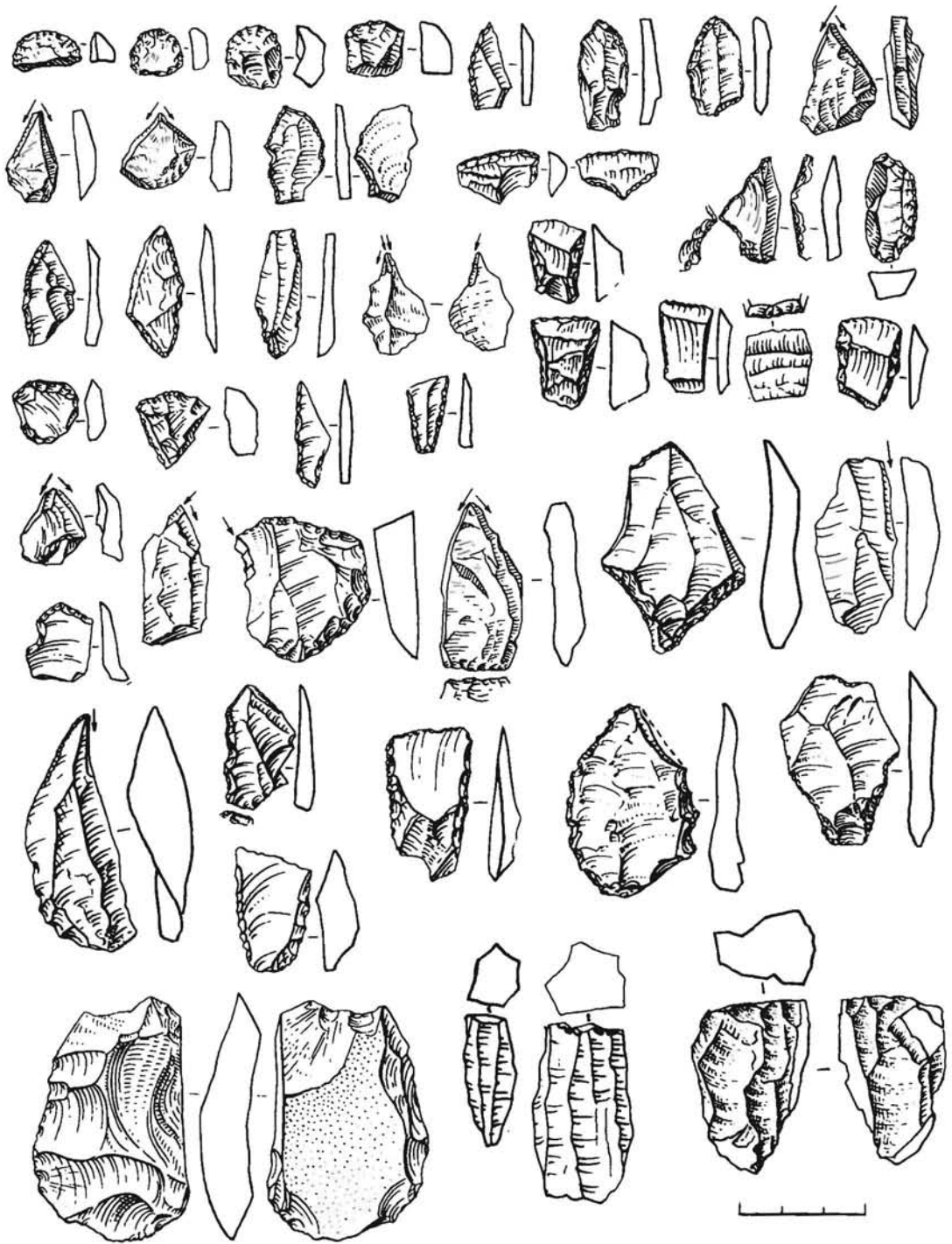


Fig. 1. Mesolithic quartz and flint tools of the Kola peninsula.

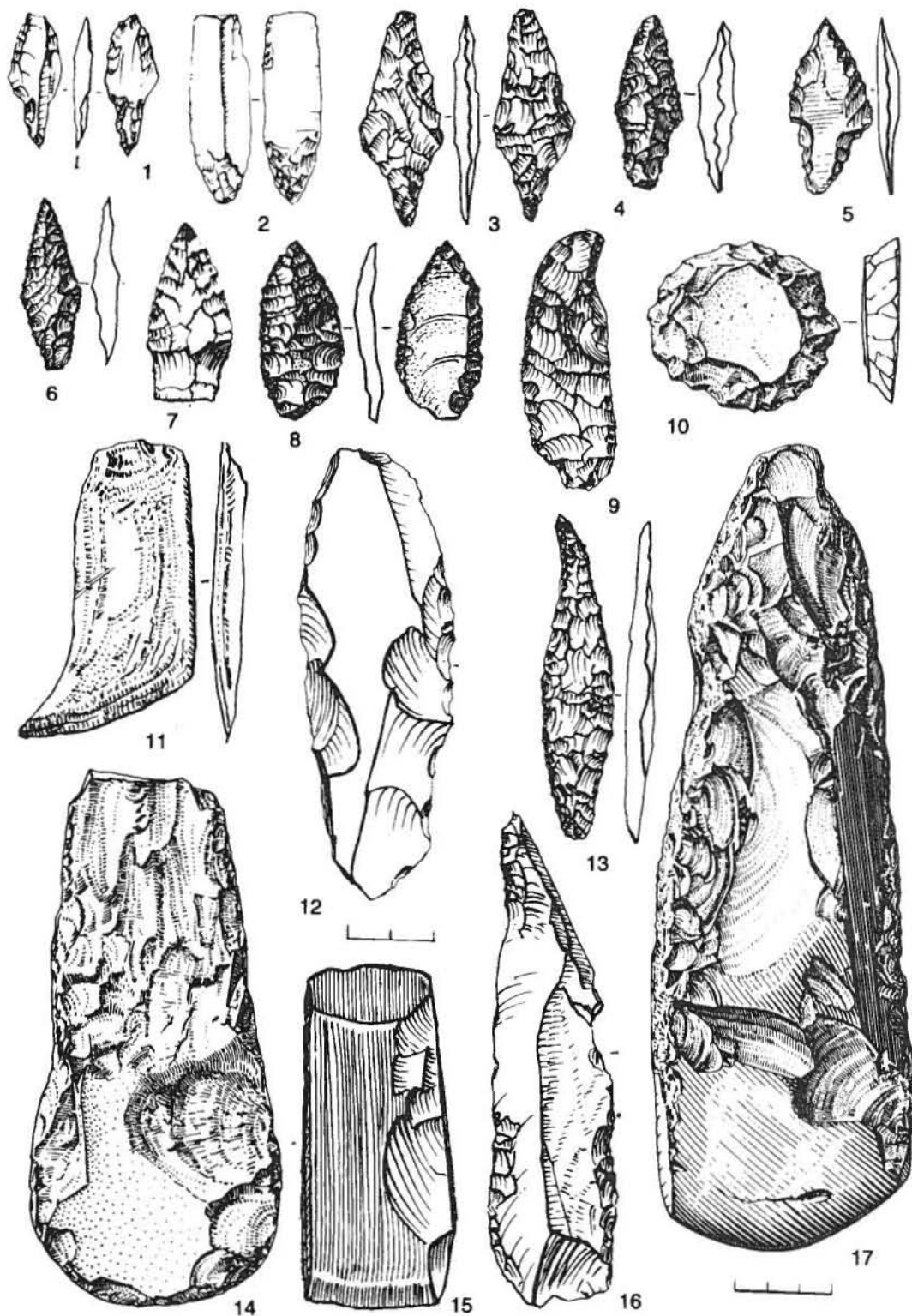


Fig. 2. 1-17 - Neolithic flint and shale tools. 1-3, 7, 9, 11-13, 15-16 - Nerpichya Guba I; 4-6, 8 - Navalok; 10, 14 - Chavanga I; 17 - Vostra.



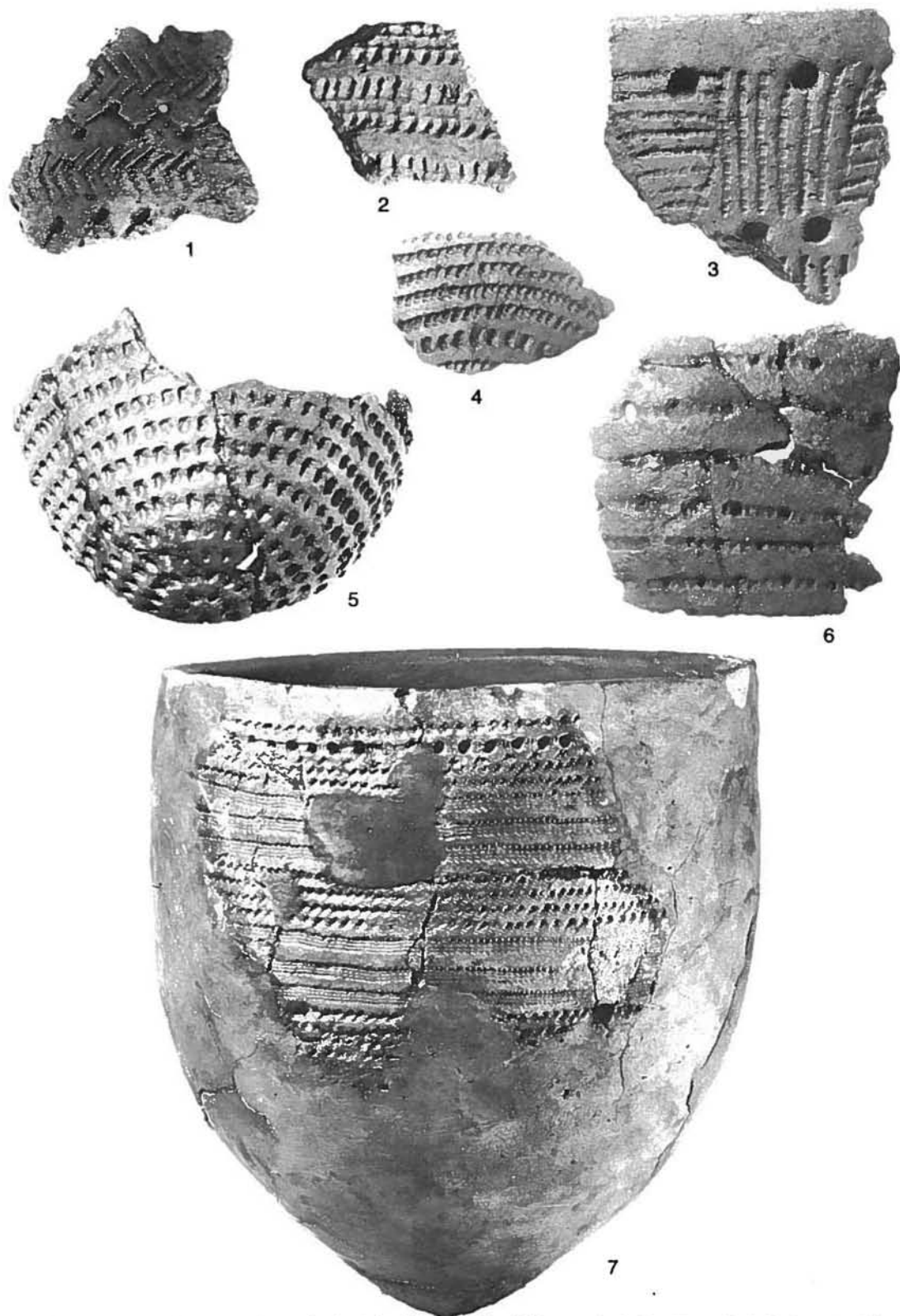


Fig. 3. 1-7 - Neolithic ceramics 1, 3, 6 - Mayak II (the Neolithic complex); 2 - Tsaga I; 4, 5, 7 - Nerpichya Guba I.

considerable changes in the tool-making techniques, and consequently, in the categories and types of tools. The new material found its manifestation in the application of point retouch, grinding, and sawing. There appeared new categories of tools – angle knives, fishing hooks, ground and solidly retouched arrowheads and those of spears, saws, large-size hacking tools – axes, adzes, chisels and wood chisels (Fig. 2). In turn, the making of large-size hacking tools made it possible to construct boats, structures for fishing, and trapping dry land beasts and to improve housing construction. From the beginning of the Neolithic and throughout the entire Early Metal Period, shale remained, apart from quartz, a main raw material.

Tangible changes took place in the techniques of toolmaking. Bi-faced working is prevalent, symmetry is worked out, which is promoted by the application of sawing, grinding, and regular retouch. The tools become larger in size and more varied, which points to the differentiation of hunting and the improvement of everyday life. Apart from various arrowheads, large-size points for spears and staffs appeared.

Apart from the strict settlement in water basins, and in particular, in those most rich in fish, the evidence of the fact that fishing was the main pursuit is provided by plummets and composite fishing hooks of shale. One can speak of the beginning of fishing.

Ceramics was an important innovation in the Neolithic. On the basis of the elevation data, the use of radio-carbon methods in dating and typology, it was possible to identify three chronological periods among the Neolithic finds on the Kola peninsula – Early, Developed, and Late. The Early period is dated within the interval between  $5560 \pm 80$  and  $4690 \pm 70$  BP, i.e. the first half of the 4th – first half of the 3rd millennium B.C. Apart from that, there are more ancient datings –  $5760 \pm 160$  B.P.

The standard remains of the Early and developed Neolithic are the following: Chavonga I – on the southern coast, the Nerpichya Guba, Ust-Drozdovka – on the northern coast, and Tsaga I – in the central part – on the coast of Lovozero. They all contain pure complexes (except Ust-Drozdovka where a later material is clearly localised).

The elevation of the Chavonga I terrace is 23 m above sea level. Among the material used for making tools shale is still prevalent. Here there are many tools of the Tersky reddish sandstone, including scrapers from round pebbles pelletized by the sea, retouch along the entire perimeter



Fig. 4. Neolithic vessel. Varsino 6.

and large-size hacking tools (Fig. 2 : 10,14). Apart from bifacial working, one can come across archaic forms – with partial working of arrowheads. However, the predominance is of new types and categories of tools – bifacially worked, ground and considerably larger in size, especially in comparison with the Late Mesolithic.

The vessels of clay with an admixture of sand and grit were made with the use of an original method of two-layer moulding and are very thick-walled (up to 1.2 cm) with straight edge, the firing is relatively intense (white in colour) (Figs. 3 and 4). The entire surface of the vessel is covered with ornament. The latter is formed by impressions of various, mainly, long comb stamps or cord wound on a stick, and straight lines drawn with a certain pressure exercised at regular intervals when drawing the lines. Sometimes, knives were used for the purpose. The impressions of the comb, cord or drawn lines form a pattern of horizontal or vertical closely spaced zigzags divided by rare rows of holes. Sometimes, the outer surface of the vessels is painted with ochre. To a certain extent, in terms of paste and ornamentation, these vessels are close to the vessels of Sperrings but are heavily

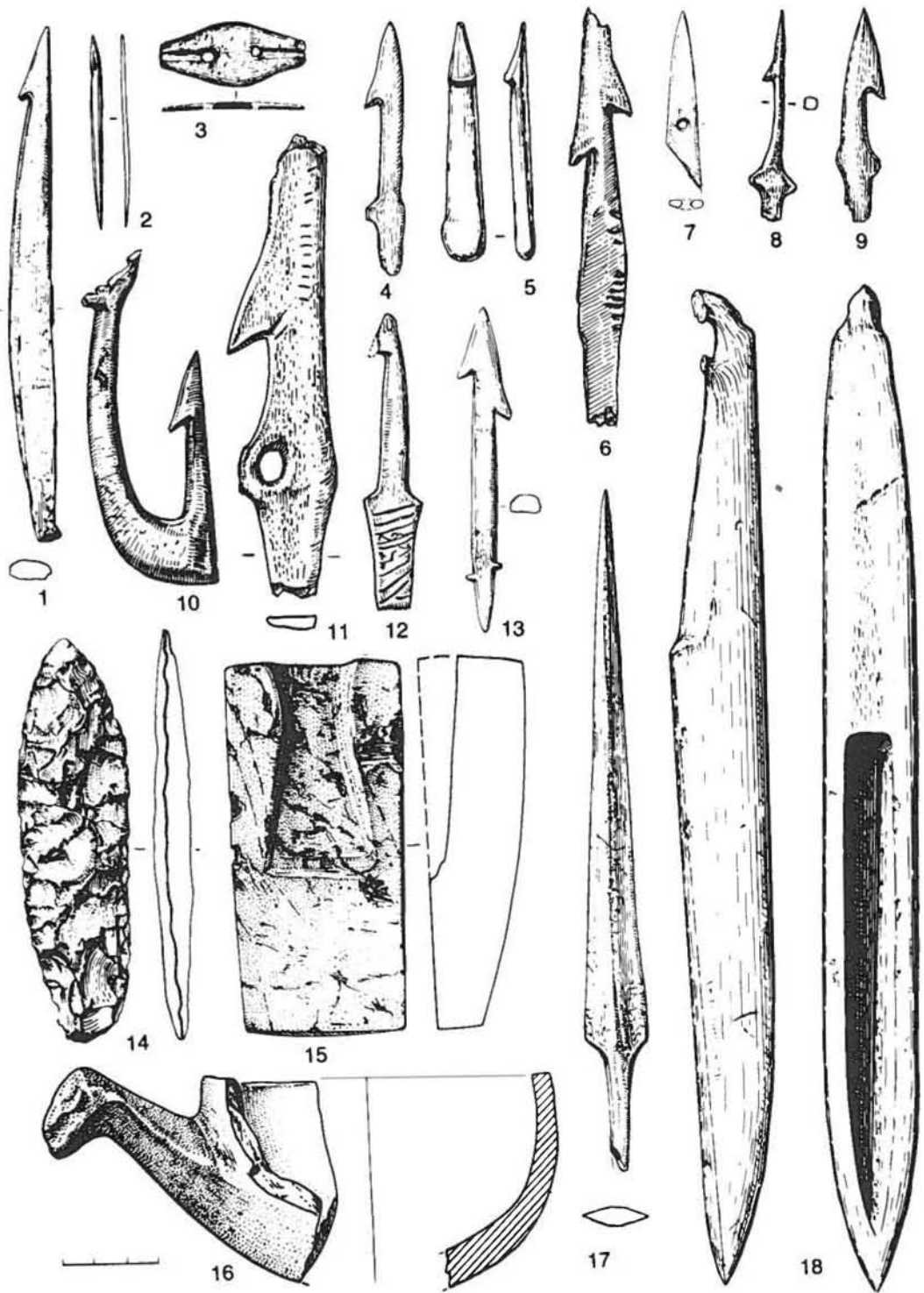


Fig. 5. 1-18. Bone and stone tools of the Early Metal period. Maya II.



modernised. They have no such characteristic of Sperrings ornament which is called "intertwined barbed wire", made with the aid of fish vertebrae, the stamp in the form of the Roman figure I, and the imitation of a wicker basket. At the same time, in this group of settlements, there is an ornament – horizontal zigzags made by impressions of a cord, which are special impressions close to the ornament of the vessels of the Säräisniemi I ware of Northern Norway and Finland. And, lastly, there is much that is unique in our vessels. A most original feature is flat bottoms in a number of vessels – quite unknown in the ceramics of the forest Neolithic. The flat bottoms 11 cm in diameter are all painted with the same ornament as their walls. They exist along side conical based vessels. The fragmentary condition of the vessels does not permit defining their exact shape in all cases but sometimes it is possible to reconstruct vessels of medium size with the straight rims and possibly low and flat tureen-shaped vessels. An important fact is that such flat bottoms have also been found on the northern coast and in the central part of the peninsula – Nerpichya Guba, Mayak II, Lovozero (Gurina & Koshechkin 1978).

In the Developed and Late Neolithic certain new types of stone tools appear, the vessels undergo changes, the traditions evident in the ceramics of the Sperrings type disappear, the unique features become more vivid and the ornamentation becomes more complex – original stamps are used more often. In the late stage of the Neolithic, organic temper is used. The pattern often exhibits signs of carelessness.

A number of clearly expressed and widely studied sites have now provided an adequately valid picture of the Early Metal period. A ten-year study was carried out in the Drozdovskaya Guba micro-region, with 30 ancient sites discovered as a result. A number of them are "pure" complexes while others contain materials, though relating to different times, not separated with a sterile layer. They are dated from the Mesolithic to early Medieval times. Especially prominent against this background is Mayak II (Gurina 1984b). At the present time the excavations at that site have been completed. Together with the Mayak settlement closely adjacent to it, the area of the excavations covers a total of 1392 sq.m.

The settlements relating to the Early Metal period are characterized by considerably larger occupation areas and a thicker cultural layer. In a number of cases, they are located on the occupation sites of the Neolithic. The detailed

planigraphic and depth fixation of field finds and *in-camera* processing of data have allowed accurate identification of the boundaries of both complexes, and, at the same time, determination of the genetic continuity between the Neolithic and Early Metal period.

The main raw materials used for making tools were, as before, local rocks: shales, quartz, obsidian, and pebble flint (Fig. 5). However, the widened inter-tribal links allowed a wider use of imported flint mainly from the White Sea area. The useful properties of metal were also known, evidence of which is provided by the copper arrow-heads from the Oleneostrovsky burial ground and foundry forms for a celt and knives in the settlement of Mayak II and Stelnya and also waste slag, and an iron smelting furnace from the Lovozero settlement. However, metal was a rarity and was highly valued.

The assortment of tools became wider as compared to that which existed in the Neolithic period. Especially numerous at that time were large-size arrow-heads and spear-heads made with retouch or grinding. New types of ground points included those with furrows or grooves in the base.

As it is evident at Mayak II, where organic remains were found, bone tools were widespread – arrow-heads and daggers. Very often use was made of sea-ground large-size pebbles as plummets, impingement plates, retouchers, and hammers. Fishing hooks and harpoons are also numerous. It is important to note that among the latter there are several types of turning harpoons – more perfect than barbed simple harpoons. In the southernmost territory turning harpoons were known only in some regions.

Ceramic finds are numerous (Fig. 6). Vessels are rather large in size (up to 35 cm in diameter at the rim), dark in colour, fired to middle intensity and walls are from 7 to 8 mm thick. At the same time at certain settlements, in particular in Mayak II, there are many vessels whose technology exhibits Neolithic traditions. They have thick walls, moulded of two layers of which the first one is used as a kind of hard base. They are 1.5 cm thick.

The vessels of the Early Metal period are not formed to shape, their rim is straight and their bases are round and flat. The ornament occupies only the upper part of the vessel. It is not deep and is made by means of cuttings and shallow hole-like depressions which form horizontal zones or an oblique network. One can see certain general features in the technology and ornamentation which are common with Neolithic

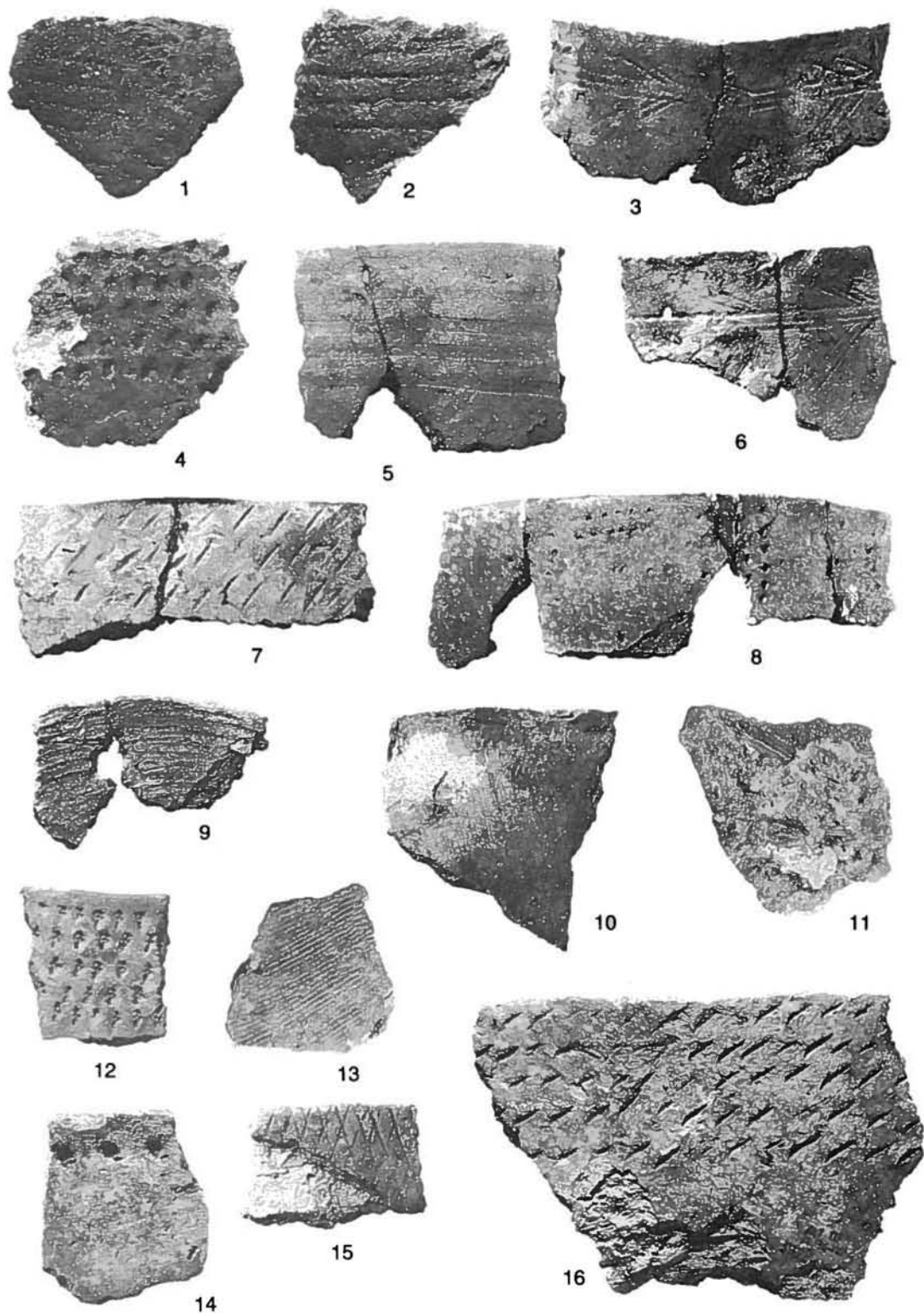


Fig. 6. 1-16. Ceramics of the Early Metal period 1, 2, 4 - Mayak; 3, 5, 11 Mayak II; 12-16 - Mis (cape) Semyorka (Lovozero).

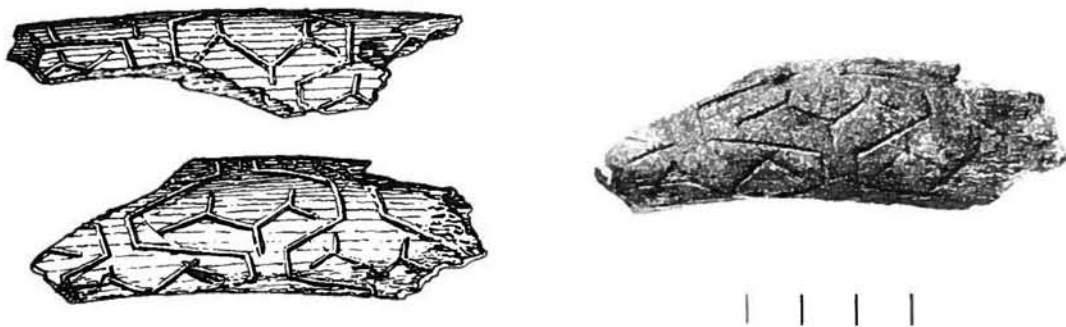


Fig. 7. The horn pivot with imaginarily reindeer inside the fence. Mayak II.

ceramics. One can also trace a similarity with vessels from Norway and Finland.

Articles of everyday use are abundant and various – a collection of needles of various size for sewing, needle-cases, needles for net-making, crocheting needles, spoons, combs with ornaments, stone lamps for fatburning. Large-size walrus ribs were found, used as scrapers in skin processing, and an artefact made of a walrus rib, and which was, evidently, part of a hand-pulled sledge or of a boat.

Art was widely developed. There were many round and flat sculptured pieces of bone, horn and stone. The manufacture of numerous sculptured pieces became possible in connection with the improvement of the economic position and the discovery of the properties of steatite which is soft and amenable to processing not known in the Neolithic. Of great importance was also the labour of people which contributed to the development of their intellect.

Apart from zoomorphic sculptures – deer, elk, polar bear, seal, predatory beasts, dogs and birds – one can come across anthropomorphic representations of mainly senile faces. Bone carving acquires a mass nature and articles of everyday use and weapons are ornamented.

As a whole, the carved ornament can be called complex geometric. A narrative drawing has been found of fishing structures. Some of its motives are similar to the Northern Norwegian material (Simonsen 1961 Fig. 132, 140, 143). Other motives are definitely singular. One can note that among the richest art of the peoples of Siberia well documented in the works of S.V. Ivanov (1954, 1963), they have no parallels except the simplest ones, the widespread motives of parallel lines and the net.

The sculpture of the Early Metal period in the Kola peninsula can be related in terms of style to realistic sculpture. The artist was able to stress

the most typical features of the object portrayed by him, using for the purpose only scant means. Since primitive art is syncretic, and closely bound to beliefs, the sculpture under discussion should be looked upon as a reflection of a definite world-view and the aesthetic requirements of many centuries of traditions. A number of sculptured figurines has protrusions in the lower parts for being fixed to hollow staffs while in others there were holes. Evidently, the latter objects served as amulets. Of interest is the cult burying of seal vertebrae in a special hole in the settlement of Mayak, the seal being strewn over with ochre.

Special notice is deserved by a considerable number of round or rhombic tops with an orifice, made of steatite, and often ornamented or having notched edges. Solar signs are drawn on some of them.

The faunal remains – hundreds of thousands of bones (over 400 000 definite bones) at Mayak II and the Ekaterininskiye occupation sites provide evidence of the fact that the main type of economic activity on the coast was, at that time, fishing. Hunting was pursued for the Greenland seal (predominantly), walrus, seal, sea hare and polar bear. Whale meat and bones were utilized but probably only when whales were washed up by the sea. It is difficult to imagine that the whale was actively hunted. Judging by the faunal remains, a considerable role was played by the land hunting of elk, northern deer, fur-bearing animals – fox, glutton, beaver – and birds, especially, water-fowl. Fish bones were also found. Especially numerous were the bones of cod. Molluscs were also used as food. In the southern part of the peninsula the economy was based on fishing and hunting in the forests.

A carved picture on an antler displaying reindeer inside a fence, possibly seems to indicate an initial stage of reindeer-breeding (Fig. 7).



Fig. 8. Labyrinth at the mouth of the River Varzina (with the vertebra of the whale);

It was possible to establish that the tools were used by two groups of the population which came about due to the ecological differences and the type of economy. At the same time, the similarity of the ceramics points to the cultural unity of the two groups.

The Neolithic material obtained in the Mayak II settlement can be related in its major portion to the Early Metal period and displays the genetic continuity between the Neolithic and the latter, a fact which finds its reflection in the bone tools and ceramics. The numerous datings of the number of settlements of the Early Metal period by means of radiocarbon indicate their existence in the 2nd millennium B.C.

It was possible to discover seven new labyrinths of that period located at the mouths of the rivers: Umba, Kharlovka, Vyashchina, and Varzina at a low elevation above sea level. In one of the labyrinths (the Varzina River) there was found under a stone the vertebra of a young

whale processed by man (Fig. 8). We continue to regard the northern stone labyrinths as a reflection of magical beliefs of the ancient fishermen (Gurina 1948, 1953).

One hundred kms to the north of the Polar Circle, on the Ponoï River, rock drawings located on six isolated stones were discovered and studied. Judging by the topography (in the floodzone of the Ponoï River and its ancient bank), and in terms of style, part of them should, evidently, be dated by the end of the Neolithic, and the second to the Early Metal period (Gurina 1980a; Gurina 1980b).

The main images are zoomorphic (deer, elks) and to a lesser extent anthropomorphic. In earlier drawings on the stones in the flood-areas, apart from individual figures, probably deer with front and rear legs are depicted as single legs, and also individual scenes – people in head-dresses with three horns, others are depicted with their tails being tied up. Their legs are al-





Fig. 9. The River Varzina, Nerpichya Guba. The stones fixing the ground level of the tent with the hearth inside, and the row of stones indicating the entry.

ways shown above the legs of deer. On later stones lying on the ancient bank, with very closely located drawings one can come across individual depictions of deer with four legs but these are more schematic. Also depicted are snakes, the sun, and individual fantastic beings. People are depicted in a different style, but they are not isolated, and, evidently, represent part of the given topic. Women are depicted dancing.

The shamans are portrayed dancing (pronouncing incantations) and holding up deer, also depicted are the postures of deer, the scene of a deer being born and small figures of deer, which are depicted between the legs of women. All are evidently connected with magical beliefs and actions whose purpose was to ensure the multiplication of the beasts. At the same time there are images which are more fantastic (a man upon a winged figure, "women's round dance", a single-legged anthropomorphic being with facial details and holding a human figure by a tether). These are probably the depictions of some mythical beings or fairy-tale characters.

Throughout prehistory one can trace the links that existed between the population of the Kola peninsula and its neighbours. In view of the similarity of the extreme conditions on the northern coast, those links were more tangible

as far as the western regions of Northern Norway and Northern Finland were concerned. This was especially noticeable in the Mesolithic and Early Metal periods. Links that were established between the inhabitants of the northwestern coast of the Kola peninsula and the tribes which were engaged in corded ware, probably in southern Sweden via the Gulf of Bothnia (Gurina 1984a). The contact with more southern neighbours – the Karelian tribes is noticeable more readily in the southern and central regions (Lovozero, Kandalaksha and on the coasts of lakes in the southern part of the peninsula). Further to the north and south-east it is almost untraceable. Eastern elements of culture are not found either.

Thus, the archeological materials go to show that, while possessing unique features finding their reflection in industry, ceramics, and art, the population of the Kola peninsula maintained from the Mesolithic and throughout the Neolithic and Early Metal periods close links with neighbouring tribes: Norway, Finland and Karelia, and, evidently, constituted together with them a single ethnocultural area which represented a sum of kinship cultures. The use of the  $C_{14}$  technique has confirmed that there was no considerable chronological gap between the



respective stages of development of the ancient tribes of the Kola peninsula and those of the forest zone.

In the process of studying the ancient monuments, the expedition discovered and partly studied some remains of the Early Medieval period – burial grounds, the settlement on the Varzina River, and traces of the Saami dwellings in the bays of Vayashchina, Nerpicya Guba, Kharlovkha and Kruglaya Bukhta. The settlement dates back to the 12th–14th centuries, and the dwellings dated to the 14th–17th centuries.

Most expressive were the remains of the dwellings on the ancient coast of the Nerpichya Guba bay. This was a small settlement with tents that were positioned in a single row near the coast not far from the river. There were preserved stones (40–50 cm in size) placed in a circle between 3 and 4 m diameter and an outlet to the side of the sea. In the middle of the dwelling was a hearth from which two lines of stones led to the exit (Fig. 9).

In the trial excavation of one of such stone encirclement, a laminated flint arrow-head and two bone points were found. In all probability, the settlement consisted of tents covered with skins and the lower part of the covering was pressed to the ground with stones. In one of the same features, only of smaller diameter, in the Bay of Vayashchina, a piece of a smooth-walled vessel was found in the hearth. The charcoal in the hearth was dated to the 14th century A.D. by radiocarbon.

Judging from the stone encirclement of dwellings they were sometimes rectangular in shape, and consisted of two rooms.

The space of this article does not permit to dwell upon a very important problem which should, naturally, arise in studying ancient monuments and remains. With what people can those under study be connected? Since we cannot develop here the entire system of evidence – this is a special subject – we shall confine ourselves only to the following remarks.

As is seen, the archeological monuments point to the existence of a population on the Kola peninsula from the Mesolithic to the Early Medieval period, and the continuous progressive development of its culture. At the same time, specialists of the natural sciences do not cite any catastrophical events which might have compelled the people to have left the territory. Moreover, if a population from the southern regions did move here, then, finding themselves under rigorous conditions, it would not have been able to absorb the indigenous population,

and most likely, there would have arisen the process of mutual assimilation. It follows from the foregoing that one should agree with the point of view held by those researchers who connect the origins of the Saami with the ancient local population (Carpelan 1982).

## REFERENCES

- Carpelan, Chr. 1982. К. Карпелан, Ранняя этническая история саамов. *Финно-угорский сборник*. М., стр. 32–48.
- Durylin, S. 1913. С. Дурьлин, *За полуночным солнцем*. М.
- Goretsky, G.I. 1937. Г.И. Горецкий, Некоторые данные о неолитических стоянках Кольского перешейка. *Труды советской секции международной ассоциации по изучению четвертичного периода*, вып. III, стр. 107–118.
- Gurina, N.N. 1948. Н.Н. Гурина, Каменные лабиринты Беломорья. *Советская археология* X, стр. 125–142.
- 1953. Н.Н. Гурина, О датировке каменных лабиринтов Белого и Баренцева морей. *Материалы и исследования по археологии СССР*, № 39, стр. 408–420.
- 1971. Н.Н. Гурина, Новые исследования в северо-западной части Кольского полуострова. *Краткие сообщения Института археологии*, 126, стр. 94–99.
- 1980a. Н.Н. Гурина, Наскальные рисунки Кольского полуострова/общие и специфические черты. *Звери в камне. Первобытное искусство*. Новосибирск, стр. 117–135.
- 1980b. Imitative art of ancient tribes in the Kola peninsula. *Finno-Ugri et Slavi*, 1978, *Helsingin yliopiston arkeologian laitoksen Moniste* 22.
- 1984a. Till frågan om kolainvånarnas forntida förbindelser (Efter gravfyndet i viken Stora Peskonec). Ålands folkminnesförbund. Bygdeserie nr. 5 *Festskrift tillägnad Mats Dreijer på hans 80-årsdag 31.01.1981*. Mariehamn.
- 1984b. Н.Н. Гурина, Памятники эпохи раннего металла и раннего средневековья Кольского полуострова. *Новое в археологии СССР и Финляндии*. Л., стр. 7–16.
- Gurina, N.N. & B.I. Koshechkin. 1978. Н.Н. Гурина, Б.И. Кошечкин. Датировка неолитических памятников Кольского полуострова и методы ее установления. *Краткие сообщения Института археологии*, №153, стр. 80–86.
- Ivanov, S.V. 1954. С.В. Иванов, *Материалы по изобразительному искусству народов Сибири XIX-начала XX века*. М.Л.
- 1963. С.В. Иванов, *Орнамент народов Сибири как исторический источник / по материалам XIX-начала XX века*/М.Л.
- Schmidt, A.V. 1930. А.В. Шмидт, Древний могильник на Кольском заливе. *Материалы Комиссии экспедиционных исследований*, вып. 23, стр. 119–169.
- Simonsen, P. 1961. Varanger – funnene II. Fund og udgravninger på fjordens sydkyst. *Tromsø Museums skrifter*, vol. VII: 2.
- Zemlyakov, V.F. 1940. В.Ф. Земляков, Арктический палеолит на севере СССР. *Советская археология* V, сер. 107–143.