

P74/D-8

File: Boeingsian
Heritage

Mysteries in the Rocks of Ancient Chukotka

(PETROGLYPHS OF PEGTYMEL')

BY

N. N. DIKOV

TRANSLATED BY RICHARD L. BLAND

PLEASE RETURN TO:

TECHNICAL INFORMATION CENTER
DENVER SERVICE CENTER
NATIONAL PARK SERVICE



IN REPLY REFER TO

United States Department of the Interior

NATIONAL PARK SERVICE

2525 Gambell Street, Room 107

Anchorage, Alaska 99503-2892



K38(AKSO-RCR)

SEP 13 1999

Dear Colleague:

We are pleased to provide you with another product of the Shared Beringian Heritage Program. This monograph, *Mysteries in the Rocks of Ancient Chukotka (Petroglyphs of Pegtymel)*, is a classic work of the great Russian archeologist N. N. Dikov. Although Professor Dikov recently passed away, his legacy lives on in his many scholarly works on the prehistory of the Russian Far East. In this volume, he describes and interprets one of the few large assemblages of rock art located north of the Arctic Circle. These rare and extensive panels of rock art were investigated by Professor Dikov in the late 1960s and they are situated along a steep series of cliffs along the lower reaches of the Pegtymel River in Chukotka.

This important monograph was originally published in Russian in 1971 by Nauka Press in Moscow under the title *Naskal'nye Zagadki Drevnei Chukotki (Petroglify Pegtymelia)*. Unfortunately, up to the present, it has not been generally available to most scholars; especially those who are not proficient in Russian. This careful translation of the volume by Dr. Richard L. Bland of Heritage Research Associates does credit to the original and brings the book within the reach of a much wider readership. Dr. Bland has devoted a great deal of his professional time to the translation of archeological studies from the Russian Far East and his attention to this valuable task is greatly appreciated.

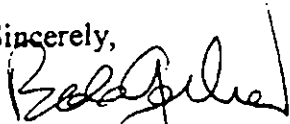
The Shared Beringian Heritage Program of the National Park Service funded the publication of the monograph. This program was established as an international program to promote scholarly and cultural exchange between Russia and the United States as a pathway to the eventual establishment of the Beringian Heritage International Park. Nearly a decade ago, the National Park Service asked a group of Russian archeologists how the Service could assist their work. The publication of their studies into English was high on their list of priorities. Professor Margarita A. Dikova, who was N.N. Dikov's wife and a noted scholar in her own right, was one of the members of that group. It gives me great pleasure to know that the Shared Beringian Program has published three original Russian works to date, and two of these volumes are by her late husband. The hope of the past is now being realized in this and other publications of the Shared Beringian Heritage Program.

We wish to recognize Nan Coppock-Bland for her fine book design and her editing skills. Two others, not mentioned in the acknowledgements due to an oversight, deserve

mention. Katerina Solovjova Wessels spent many hours proofreading the manuscript for errors of translation and making the necessary editorial changes. Finally, Thetus Smith requires our thanks for coordinating the printing and publication of the monograph with the Government Printing Office.

We hope you will find this volume a useful addition to your library. If you have need of additional copies or have any questions about the Shared Beringian Heritage Program, please contact Peter Richter of the National Park Service at (907) 257-2617.

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert Gerhard", written over a horizontal line.

Robert Gerhard
Coordinator, Shared Beringian Heritage Program

Enclosure

MYSTERIES IN THE ROCKS OF
ANCIENT CHUKOTKA

(PETROGLYPHS OF PEGTYMEL')

BY

N. N. DIKOV

TRANSLATED

BY

RICHARD L. BLAND

MOSCOW

NAUKA, 1971

SHARED BERINGIAN HERITAGE PROGRAM

Asia and North America were once joined by a massive "land bridge" in a region now popularly called "Beringia." In order to promote the conservation of the unique natural history and cultural heritage of this region, the governments of the United States and Russia have proposed the establishment of an international park agreement between the two countries. The Shared Beringian Heritage Program of the National Park Service recognizes and celebrates the contemporary and historic exchange of biological resources and cultural heritage in this region. The program seeks local resident and international participation in the preservation and understanding of natural resources and protected lands and works to sustain the cultural vitality of Native peoples in the region. To these ends, the Beringia Program promotes the free communication and active cooperation between the people and governments of the United States and Russia concerning the Bering Straits region.



© The Russian text of *Naskal'nye Zagadki Drevnei Chukotki* (*Petroglify Pegtymelia*) by N.N. Dikov (Moscow: Nauka, 1971) was translated into English by Richard L. Bland of Heritage Research Associates, 1997 Garden Way, Eugene, OR 97403, and published by the U.S. Department of the Interior, National Park Service, Shared Beringian Heritage Program, Anchorage, Alaska, by one-time permission of the author's estate.

TRANSLATOR'S INTRODUCTION

THIS BOOK WAS ORIGINALLY PUBLISHED as *Naskal'nye Zagadki Drevnei Chukotki (Petroglify Pegtymelia)* (Moscow: Nauka, 1971). It deals almost exclusively with rock art, an artifact uncommon in the far north. The Pegtymel' site is unusual in many ways, but most significant for the anthropologist is that it graphically shows hunting methods and the animals hunted, modes of transportation, religious symbolism, and so on over the course of possibly thousands of years. The people of this time and place were preliterate, that is, they had not developed writing. Therefore these illustrations are, in a way, the history of these people or peoples as they themselves depicted it. The rock art is old and fading fast, and this book will soon be the only comprehensive example of the area. A translation of this work makes it available not only to the English-speaking world but to Alaska Natives, many of whom are descendents of the people who left us this information from the past.

A few comments are necessary regarding the translation. In American terminology, the single-seat skin boat is generally identified as a kayak in the Eskimo region and as a baidarka in the Aleut region. The large multiseat skin boat is called an umiak and a baidar, respectively. Dikov identifies the small boat as a kayak and the large one as a baidar. I will follow his usage. The expression "wild deer" sounds somewhat odd in English. In northern Chukotka most or all deer are reindeer, and since most or all of these are now domesticated, the Russians make a distinction between wild deer—hunted in the past—and domestic deer. For the sake of clarity, I will follow the Russian usage. In some very minor details the written description does not seem to match the illustration. I leave that as it is. I have kept the author's

paragraphing throughout. All illustrations and photographs had to be scanned from the original book.

I thank Nan Coppock-Bland for the wonderful job of editing this translation and George Beltran for his production assistance. Anna Gokhman did her usual excellent job of proofreading the text. Her comments helped clarify difficult points. Finally, I would like to thank Bob Gerhard and Peter Richter of the Beringia Program of the National Park Service, whose funding made this project possible. This book is dedicated to Professor Margarita A. Dikova, who continues to pursue the archaeological mysteries of the Far East.

R. L. B.

CONTENTS

Introduction	1
What Is Depicted on the Cliffs	7
Classification	29
Dating	39
Pegtymel' Petroglyphs Tell about the Life of Ancient Hunters	59
The Problem of Ethnic Association of the Pegtymel' Petroglyphs	75
Pegtymel' Rock Illustrations	
Petroglyphs of Kaikuul' Bluff	95
Petroglyphs near the Third Site	123
Compositions	125
Notes	157
Bibliography	159

INTRODUCTION

QUITE RECENTLY A DISCOVERY WAS MADE above the Arctic Circle, in Chukotka, that overturned previous ideas and forced a new look at the history of the early culture and art of the Arctic population residing in the extreme Northeast USSR. The discovery was of the northernmost petroglyphs in Asia. These distinctive petroglyphs exhibit great artistic expression.

Rock illustrations (petroglyphs and pictographs) form one of the most distinct kinds of sites from an early culture. They are found in many places on our planet and belong to the most varied periods of human history, from the Aurignacian and Magdalenian times of the Upper Paleolithic almost up to the present. Large illustrations of mammoths, woolly rhinoceroses, and many other representatives of extinct fauna are boldly and expressively drawn in ocher on the walls of caves in Spain, France, and the Urals as well as on the rocks of Mongolia and southern Siberia. Later illustrations depict multifigure compositions with animals of the postglacial epoch. The technique and manner of execution, as well as the subjects of these later rock illustrations, display great variety, which provides archaeologists a wealth of opportunities to correlate them with this or another early culture, with this or another early people—permitting their history to be known in depth.

Everyone is familiar with the famous Onega "Devil's Tracks"—a scene of the Bronze Age carved in stone—and the no less remarkable White Sea petroglyphs. These are the northernmost rock illustrations in the European part of the Soviet Union, though they are located significantly to the south of the Arctic Circle. The rock illustrations in Siberia are also below

the Arctic Circle. The northernmost known rock illustrations are in the taiga zone. Their chief subject is the taiga's powerful elk master, the primary object of the hunt by people of the boreal forest.

In the Arctic part of Chukotka, and in the Siberian tundra in general, no petroglyphs had previously been encountered, creating the impression that representative art evolved here by some separate course, specializing chiefly in refined, highly artistic carving on walrus tusks among the Eskimos and coastal Chukchi and their ancestors. Such was the case until recently.

In November 1965 a letter arrived in the Laboratory of Archaeology, History, and Ethnography of the Northeastern Interdisciplinary Institute, Siberian branch of the Academy of Sciences, USSR (in Magadan). Geologic technician N. M. Samorukov wrote that during the work of the geologic crew along cliffs on the banks of the Pegtymel' River, rock art with a size of no more than ten to twelve centimeters was found 1,000 to 1,200 meters below the mouth of Kaikuul' Creek. "Representations of objects were found in a nichelike depression (isolated illustrations were encountered within a radius of five to six meters of the niche) in the cliff of silty-sandstone bedrock" (Dikov and Samorukov 1971). Two photographs were enclosed with the letter. In one of them, illustrated on the cliff by the technique of pecking, were barely distinguishable representations of deer and a boat containing people; the other showed two anthropomorphic figures, a deer, and a kayak (see Fig. 1 and Comp. 81, 82).

A glance at these photos (Dikov and Samorukov 1971:Fig. 1) was sufficient to reveal that Samorukov had been fortunate to notice and photograph several undoubtedly early

rock illustrations. By their look, subject, and manner of execution, they were something close to Neolithic and later petroglyphs of the Siberian taiga—and at the same time uniquely distinct.

But members of Samorukov's crew and other geologists were unable to find these enigmatic illustrations a second time. As often happens, they were lost again. It was not until July 1967 that we were able to search for and examine this interesting site. We followed the route by helicopter and enlisted the help of artist I. I. Gurin and scientific collaborator V. V. Lobanov. On the tenth of July we found ourselves on the right bank of the Pegtymel' River, at the bottom of a cliff almost two kilometers in length.

Early illustrations were found at once, but they seemed not to be those noted by Samorukov. About 800 meters below the mouth of Kaikuul' Creek, they were traced for a distance of

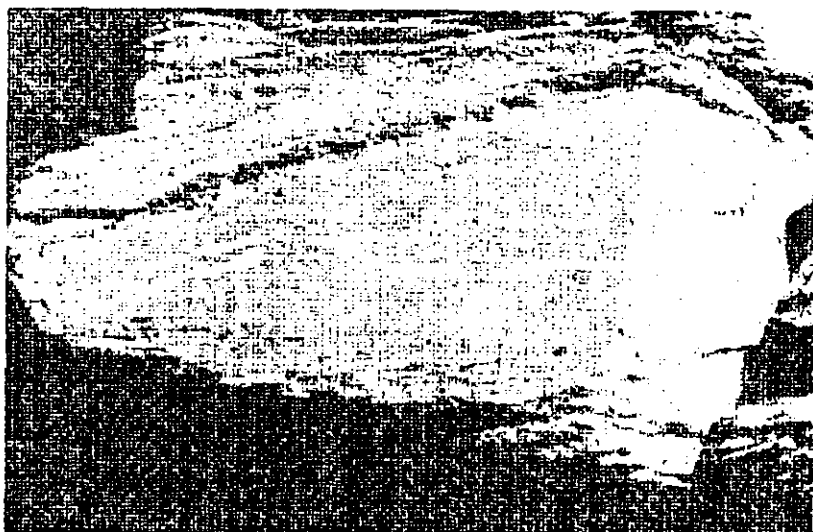
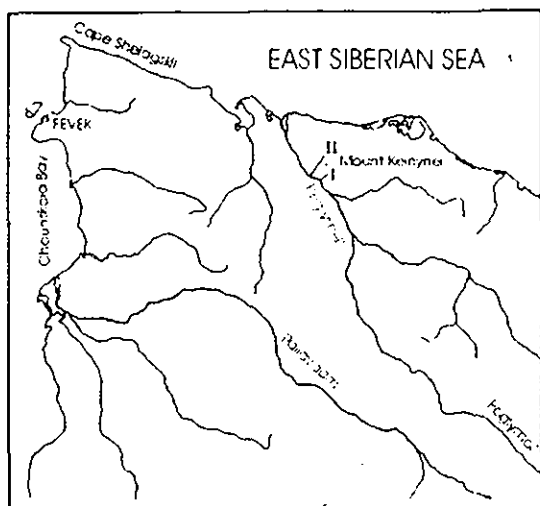


Figure 1. Illustrations found by N. M. Samorukov (Comp. 82).

Figure 2. Map of the location of the cliffs with petroglyphs. I. Kaikuul' Cliff with petroglyphs found in 1965-1967. II. The location of petroglyphs found in 1968.



about 300 meters (Fig. 2). They seemed much more plentiful here than what Samorukov had seen somewhat farther down the river, and many of them were significantly larger (up to thirty-five centimeters), more varied, and more interesting in content.

This initial expedition helped us understand the petroglyphs' true nature and permitted us to evaluate the early age and significance of this remarkable new site of early Arctic art. Its value was multiplied by our discovery, atop one of the inscribed cliffs, of an early hunting site whose occupants had the most direct connection with the creation of the Pegtymel' stone illustrations. With the appearance of the first of many preliminary reports on the 1967 expedition, the petroglyphs of Chukotka suddenly acquired wide fame and recognition (Okladnikov 1968a; Dikov 1967, 1968a, 1968b, 1969a, 1971).

In 1968 we continued and completed investigation of the petroglyphs at Kaikuul' Creek. Through careful and repeated examination of the whole cliff, we clearly identified the bound-

aries of the site and investigated all the rock illustrations without exception (including those noted by Samorukov). In the immediate vicinity of the petroglyphs, we found and excavated another Late Neolithic site and a cave with a cultural layer and with illustrations on its walls.

The results of the search near Kaikuul' Creek were so interesting and significant that we decided to investigate the whole valley of the Pegtymel' River; with this goal we flew all over it by helicopter. We were not disappointed. Ten kilometers downriver we discovered a new, still more northern petroglyph site (Fig. 2). On a solitary rock on the right side of the river, under a stone overhang, was a large, splendidly preserved multigure composition. On top of this same rock were the remains of a Late Neolithic hunting camp (Dikov 1969b).

During the 1967 and 1968 expeditions, the rock illustrations we discovered were carefully copied in actual size (Fig. 3) and photographed in preparation for publication. The site itself was put under government protection. But whatever happens ultimately (and the petroglyphs are badly deteriorated), it will find a second life in the pages of this book. To reliably preserve the site for the future, that is, the most complete description and reproduction in photographs and illustrations is the primary task of this book. The second task, that of research, comprises the general characterization, classification, dating, and historical interpretation of the unique Pegtymel' petroglyphs.



Figure 3. Making copies of the Pegtymel' petroglyphs (Stone IV).

WHAT IS REPRESENTED ON THE CLIFFS

The rocky cliffs of the Pegtymel' are quite picturesque and spectacular. It is as if they were predestined by nature itself to be a "canvas" for the ancient artists.

Both the Kaikuul' precipice and the rock at the new petroglyph site were formed of dark-gray silty-sandy slates. Here and there they are overgrown with colored lichens and covered by reddish oxides. They reach about twenty-five to thirty meters in height.

Covered by deposits typical of slopes and talus, the Kaikuul' precipice has several rocky projecting cliffs that we tentatively called "stones" below (for convenience in locating the petroglyphs). We designated each of them with a Roman numeral—from I, the uppermost on the course of the river, to XI (Fig. 4). Below Stone XI along the course of the Pegtymel' on the Kaikuul' precipice there are no more illustrations. The petroglyphs found at the new place in 1968 are located at one of the most prominent cliffs of another precipice ten kilometers from that of Kaikuul', beyond three broad gorges with unnamed streams (Fig. 5).

In all we found 104 groups of illustrations, which we numbered successively for this publication in order of their location on the course of the river (see Comp. 1–104). Not all of these groups can be viewed as single compositions. More often they consist of illustrations from different time periods, sometimes lacking not only unity of subject but style and technique of

execution. We grouped these petroglyphs only because of their location on the same panel of the cliff.

What do the petroglyphs look like?

At times they are faded, illusive, scarcely visible silhouettes of boats, people, and animals. And close inspection is required to see them on the vertical panels of the rocks. Some were ground or rubbed in, others were pecked out more or less deeply, and still others are light, silhouetted figures on the dark background of the silty-sandy slate's cleavage. First, the outline of the illustration was pecked out (Fig. 6), followed by a parallel inner outline.

It quickly became clear that an ordinary piece of white quartz served as a tool for pecking out the illustrations. Both native outcrops and fragments of this stone were encountered here quite often.

Several illustrations (Comp. 52, 59) were simply scratched in by some kind of sharp siliceous—or more likely iron—instrument.

Deer are encountered most often on the Pegtymel' cliffs. Among them are genuine masterpieces of realistic art. For example, the relatively large (about thirty-two centimeters) figure of a grazing deer and several other deer silhouettes pecked on Stone IV are full of life and movement (Fig. 7, 8; Comp. 16) that have no equal in liveliness or realistic execution.

Often the illustrations are reminiscent of deer only in the most general features. We were very hesitant to identify them

as deer, trying to see in them the characteristics of ancient pictographs of Siberian taiga elk. Nevertheless, we were compelled to recognize that—even illustrating an animal with a hump—the early artist had drawn a deer, not an elk: the antlers are too characteristically typical of deer rather than elk, and the muzzle is a typically sharp-pointed deer muzzle, lacking the thick overhanging upper lip of an elk's muzzle (Fig. 7, 8, 9).

The following subject is especially often repeated: a deer and, beyond it, a boat with a man who has thrust a spear or harpoon into the deer (Fig. 10, 11). This, of course, is an illustration of the hunting of swimming wild deer. Before coming to such an obvious conclusion, we also tested a quite different hypothesis. What if the boat was not a boat but a native sled in the form of a boat, as was sometimes used on the tundra? F. P. Wrangel' writes about such single-runner Lapland sleighs: "They are made of thin birch boards, which beginning from a wide bottom are bent like a boat and fastened together by nails, forming a kind of trough, the front part of which is closed. It goes without saying that in such sleds it is possible to seat only one person who of necessity has to extend his legs directly forward" (Wrangel' 1948; Brem 1865). But no. Our deer do not look like they are harnessed to a sled: their tether runs not from the front but from the hand of the seated person. It is also strange that the sled is not on the ground, not on the level of the deer's feet, but somewhere above. And why are they sometimes so small in comparison to the deer? Also, it is perplexing that the legs of the deer are at times so oddly depicted; the back hangs lower than the front, as if it was not walking over snow or land but hanging in the air or swimming in water. All this is completely understandable only if we accept that the deer is swimming in water and beyond it is the boat.

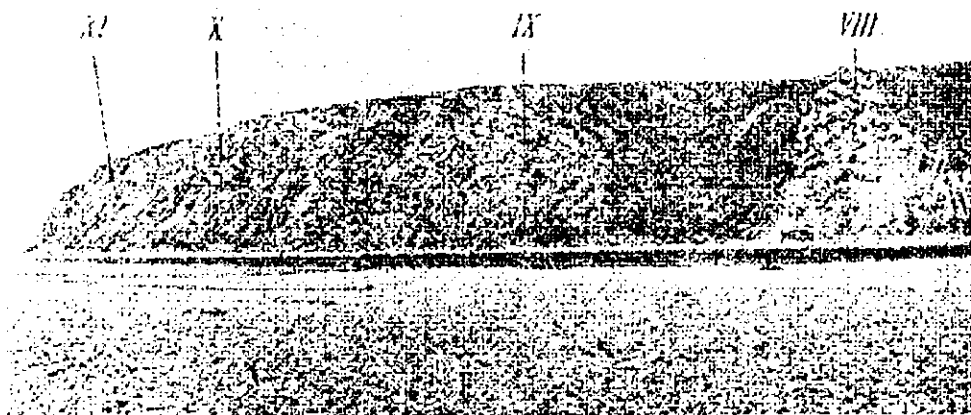


Figure 4. Precipice at Kaikuul' Creek (the first location of petroglyphs).

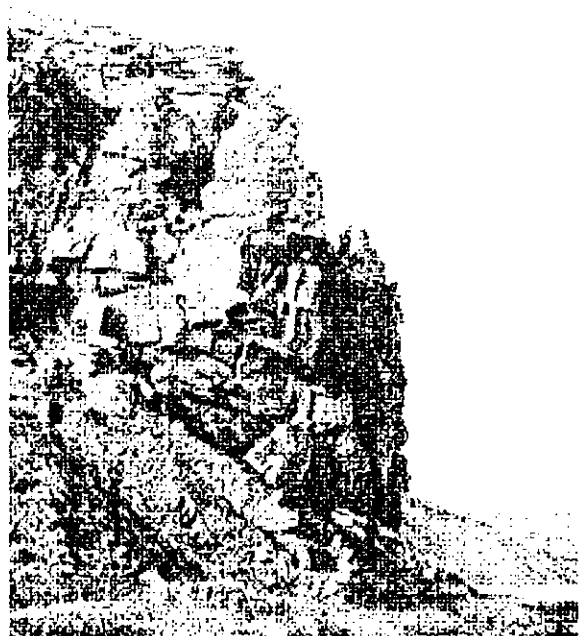


Figure 5. View of cliff with petroglyphs found in 1968 (second location).

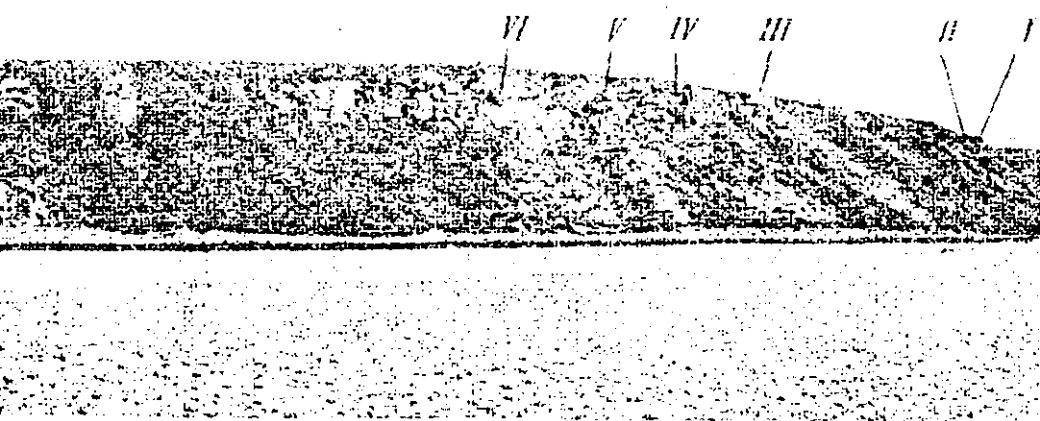


Figure 6. The pecked outline of an unfinished depiction of a deer (Comp. 79, detail).



Figure 7. Realistic depiction of deer on Stone IV (Comp. 16, detail).



Figure 8. Boat and deer (Comp. 16, detail).

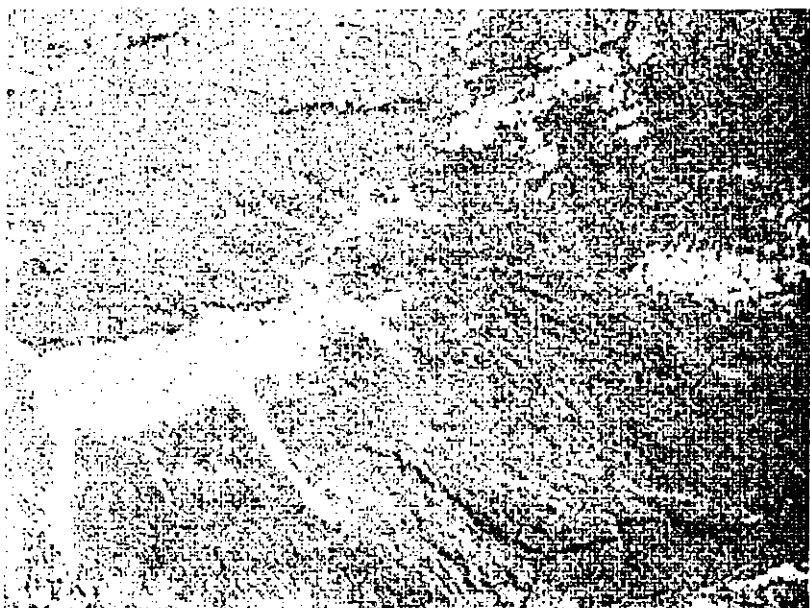


Figure 9. Silhouette of a deer on Stone XI (Comp. 100).



Figure 10. Representation of the hunting of swimming deer (Stone VI, Comp. 66).



Figure 11. Hunting of swimming deer from a kayak (Stone VI, Comp. 67).



Figure 12. Hunting deer with dogs (Stone IV, Comp. 25).

Look how skillfully the artist reproduces the characteristic movement of the swimming deer—the head stretched forward; the light, floating, inflated trunk with feet submerged in water as if soaring in a state of weightlessness; the hooves splayed like a goose's feet. Though the water is not depicted, you feel conclusively that the animal is swimming (Fig. 11).

The hunter in the boat is represented in various ways—either very schematically, simply with a stroke (Comp. 31, 37, 43), or more or less realistically (Comp. 75, 76). He strikes the deer with his spear or harpoon. The boats are of various types, and some of them are strikingly reminiscent of single-seat,

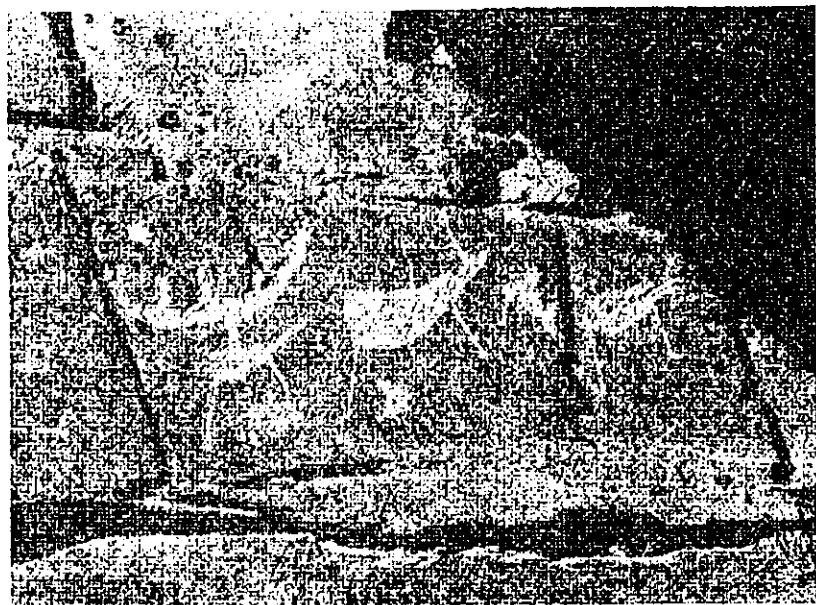


Figure 13. Hunting of swimming deer from a large boat (Stone II, Comp. 12, detail).

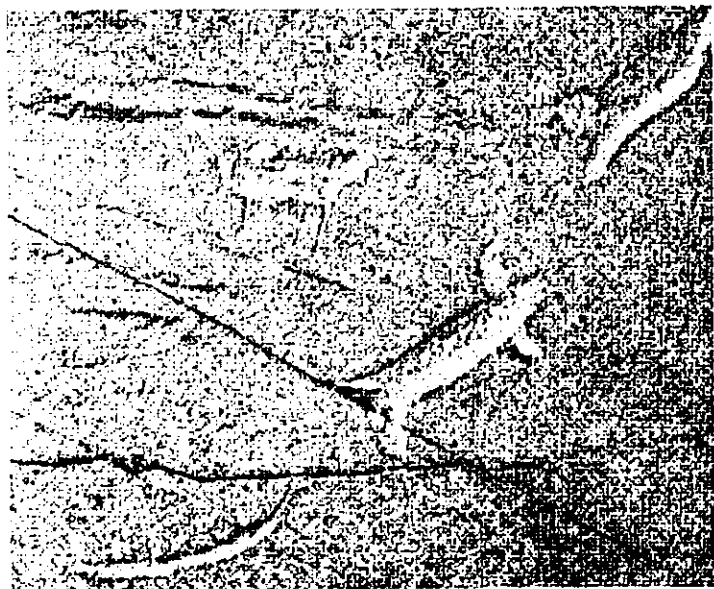


Figure 14. Hunting sea mammals (Stone IV, Comp. 27).

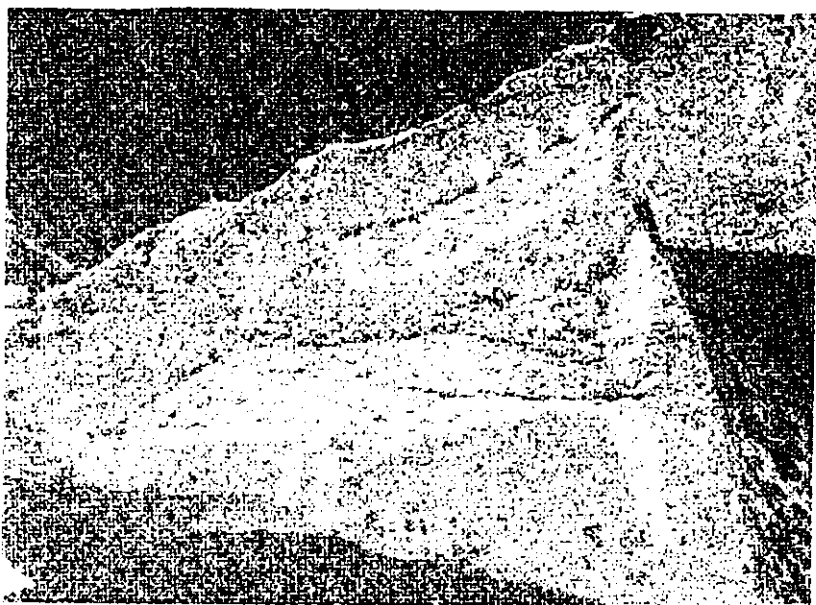


Figure 15. Hunting a whale (Stone IV, Comp. 28).

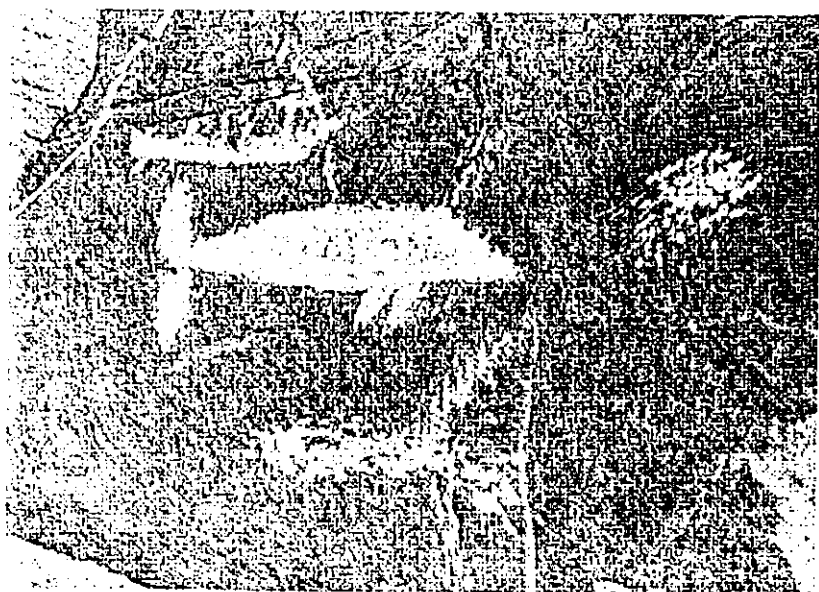


Figure 16. A sea hunt (Stone XI, Comp. 99).



Figure 17. Composition 11 on Stone II (detail).

nonsinking, fast kayaks—hermetically covered with the skins that were so widely distributed among the Eskimos, Aleuts, and Chukchi.

This scene, repeated dozens of times in similar features, acquired the stability of a canon. Thus there can be no doubt about its emphasized ritual, its magical sense—a typical example of hunting magic. To successfully spear a swimming deer, the hunter—he is also the artist—drew this magical scene of the killing of the animal, firmly believing in the miraculous power of his ritual drawing. At the same time such an illustration is a vigilantly observed, realistic reflection of the activities themselves, a masterly reproduction of the desired game in the form of a fat deer, exaggeratedly large in comparison to the boat and hunter.



Figure 18. Detail of composition (Stone X, Comp. 89).



Figure 19. Anthropomorphic amanitas (Comp. 65, detail).



Figure 20. Anthropomorphic amanitas (Comp. 70).



Figure 21. Dancing amanitas (Stone III, Comp. 14).

The scene of the hunt for deer often includes dogs. They are savagely attacking running or swimming deer, probably driving them into the water. Composition 25 on Stone IV (Fig. 12) is an especially striking example.

In some cases it is clear that the deer are being hunted from large multiseat boats with high bows (Fig. 13).

Less numerous are representations of scenes of sea hunting. They, too, are so characteristic that they leave no doubt about their contents. Among the high-prowed marine boats, unusual for Chukotka (Fig. 14), are easily recognizable, typical Chukotsk-Eskimo skin baidars or umiaks. Many seated oarsmen are indicated by simple dashes (Fig. 15), while in the bow of two such baidars the harpooner (Fig. 16; Comp. 14) is clearly visible.

Various sea mammals—whales, orcas (killer whales), belugas, seals, and bearded seals are sketched distinctly and expressively. Sometimes there is a polar bear among the animals (Comp. 24, 31).

The Pegtymel' cliffs also contain representations of such animals as Arctic foxes and wolves (Fig. 17; Comp. 8, 11), the latter sketched in large part in pursuit of deer. Also depicted are figures of water fowl (Comp. 54, 68).

Forming a special subject group are various humanlike male and female figures executed in a different, sketchier style (Fig. 18; Comp. 1, 7, 8, 12, 24, 46, 52, 58, 60, 69, 85, 89, 97, 98, 104). Among them, distinguished by their unusual form, are mysterious anthropomorphic figures who are crowned for some reason by a large mushroom (Fig. 19–21). There are many of them, thirty-four in all. The mushroomlike silhouettes above the human figures definitely signify mushrooms rather than fluffy hairdos or headdresses. Indeed, these strange silhouettes are by no means always attached to the heads of the human figures. More often they are above or in place of them; consequently they do not share the identifying characteristic of any hairdo or headdress—being connected directly to and adjoining the head. Evidently, these monstrous mushrooms have their own distinctive, independent meaning and are connected with human figures only conditionally and to some extent symbolically. Having looked at the determining features of capped mushrooms, one can also become convinced that these are not mushrooms in general, but more probably amanitas in particular—their characteristic stem widening at the base, and with either a convex still-young cap (Comp. 14, 78, 81) or an already-expanded flat one (Comp. 34, 70) (Lebedeva 1949:84, Table 3-2).

In the Arctic it is not unusual to encounter such an image: amanitas (*Amanita muscaria* Fr.),¹ like many other capped mushrooms, grow and multiply here (Vasil'kov 1955, 1967). Though the amanita appears only sporadically in Arctic Chukotka on the Arctic Ocean, nevertheless its significance here in the recent past as an intoxicating narcotic has been authentically established by ethnographic data (Krashenninnikov 1755; Bogoras-Tan 1939:5).

The principle and manner of uniting in one image a mushroom with a human figure are also not without precedents. They correspond to the well-known common regularity of anthropomorphization of animals or plants at a definite stage among many different peoples. We know, for example, of similar, cult,² half-beast or half-plant, anthropomorphic sculptures from excavations at the ancient city of Karmir Blur, representations on bronze mirrors among the Ob' Ugrians (the Mansi),³ and many others that have long been illustrated in literature.

It is just such humanlike mushrooms (*teonanakatl*) that we see in the stone sculpture of the ancient Mayas of Central America. It is rather surprising that these highly expressive stone mushrooms (to thirty centimeters high), with faces and human and beastly figures projecting from their stems (Fig. 22, 23), were for a long time considered everything but representations of mushrooms. In the first description of them (in 1898), the well-known geographer Karl Sapper tentatively called them "idols in the form of mushrooms." Other researchers thought they were phallic cult objects and even special chairs. Only recently (1952-57) did the American mycologist Gordon Wasson first identify them specifically as mushrooms. Together with the Hungarian ethnographer and archaeologist S. Borchegiy, he made a fascinating

expedition to the Indians of Guatemala to search for an explanation of the mushroomlike idols. As a result, mycological interpretation of the stone mushrooms was finally confirmed. They were connected with a cult of hallucinogenic mushrooms among the ancient Maya and their present-day descendants.

The simplest and most natural hypothesis triumphed: stone mushrooms of the ancient Maya were recognized as mushrooms (Sapper 1898:327; Wasson and Wasson 1957:274-276, Pl. XLIII, XLIV; Borchegiy 1959; Heim and Wasson 1958; Kinzhalov 1968:ill. on p. 24).

Something similar occurred when our mycological interpretation of the Pegtymel' mushroomlike figures was immediately subjected to doubt and criticism. The hope remains that our interpretation of the Pegtymel' representations will similarly be confirmed through historical comparison and analogy.

There is convincing evidence from W. G. Bogoras, the authoritative ethnographer who studied the north, on precisely such embodiment of amanitas in humanlike appearance—as on the cliffs of Pegtymel'—in the mythology of the Chukchi. This is what Bogoras writes about the “special tribe” of intoxicating amanitas: “Amanitas appear to intoxicated people in a strange humanlike form. So, for example, one amanita is in the form of a one-armed man, while another resembles a stump. These are not spirits. They are precisely amanitas as such. The number seen by a person corresponds to how many he has eaten. If someone ate one amanita, he would see one amanita person. If he ate two or three, he would see a corresponding number. Amanitas take a man by the hand and lead him to the afterworld, showing him everything that is there, doing the most improbable things with

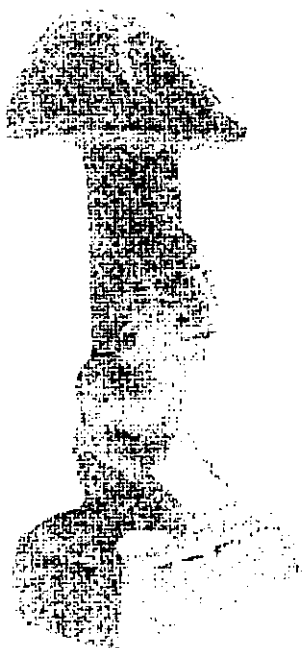


Figure 22. Stone mushroom of the Late Pre-Classic period of the Maya (500-200 B.C.).

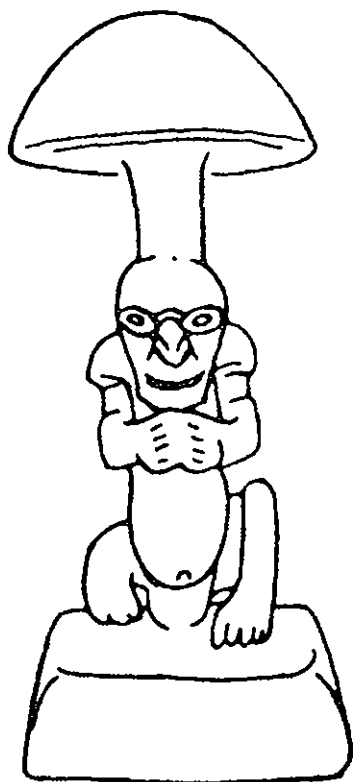


Figure 23. Stone mushroom of the ancient Maya (500-200 B.C.). Guatemala, National Museum (by G. Wasson).

him" (Bogoras-Tan 1939:5). According to Bogoras's observations, also characteristic of the Chukchi are such anthropomorphizations as objects that acquire a double essence: the usual form and a completely humanlike one.

Evidently the Pegtymel' illustrations of human-mushrooms correspond to this particular stage of anthropomorphization. This is especially clear in those compositions where ordinary human figures are drawn holding hands with humanlike amanitas (Comp. 2, 3, 81). It is not out of the question that before us are genuine pictures from many centuries ago,

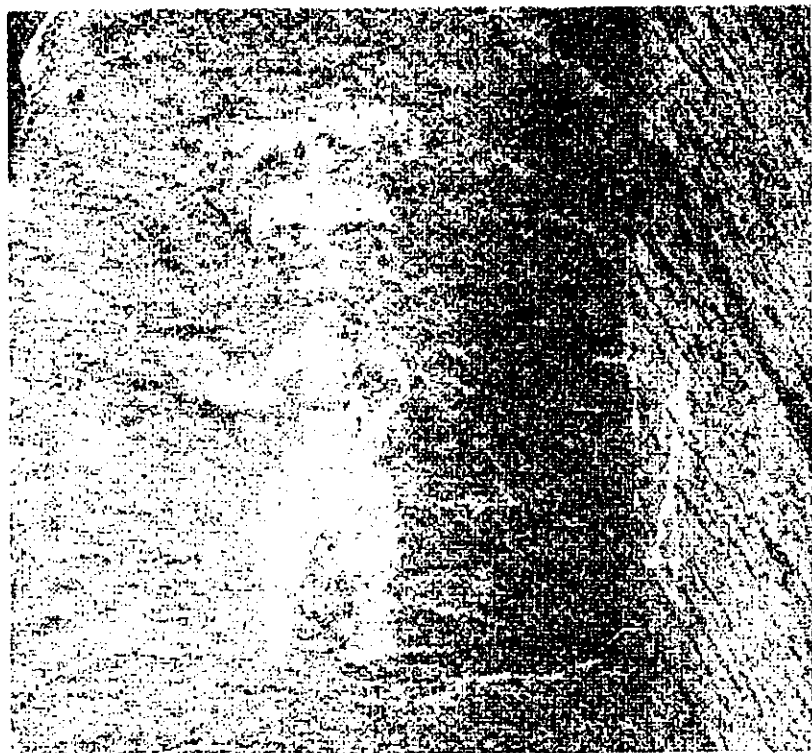


Figure 24. A figure dressed in *kerker* (overalls) with twin mushroom (Comp. 65, detail).

picturing the amanitas leading living people to the “upper people.”

We will return to these magical mushrooms in another connection. First, however, we note that they are in large part females with two braids (where this can be determined). Some wear clothing of fur overalls or *kerker* (Fig. 24; Comp. 65, 79), while others are entirely unclothed. They can be very realistic (see first figure on the left in Fig. 21) or quite schematic. The degree of their anthropomorphization varies. The mushroom can be illustrated above the head or on it (Fig. 21, first figure on the left), in place of the head—among male figures (Fig. 21, second

figure from the left), and finally, in place of the human figure itself—a mushroom stalk with arms and mushroom cap in place of a head (Fig. 21, fourth figure from the left). Sometimes the mushroom is drawn double and even triple (Fig. 24; Comp. 2, 65). Almost all the figures face forward, often in a pose reminiscent of a dance. There is one profile silhouette of a nude woman with a half-rubbed-out mushroom on her head (Comp. 79).

The majority of the petroglyphs are on the highest and most spectacular Stone IV. On its broad panels the ancient artists pecked by hand large multifigure compositions. Here are scenes depicting the hunting of swimming deer, the hunting of whales from a baidar (probably covered with walrus skin), single combat between a hunter and a bear, and various human figures. On this central stone are the majority of the most realistic representations of deer. Petroglyphs are found in thirty-seven places on it.

Petroglyphs on the remaining stones, though fewer in number than the illustrations on this central stone, are no less interesting in subject matter. However, here there are more schematic representations.

The distribution of illustrations on the stones at this site probably suggests something of their chronological sequence.

CLASSIFICATION

The wealth of the Pegtymel' illustrations and their subject and stylistic variety make it necessary to classify and periodize them. Without accomplishing this task, it would be impossible to use them as a full-valued historical source. But how does one correctly distribute all this vast, heterogeneous, and—of course—diachronic petrographic material in chronological groups?

The idiosyncrasies of the techniques used to apply the illustrations to the cliff permit distinguishing only two groups positively: the thinly scratched or cut graffiti and the pecked or rubbed silhouettes. Differences within these groups, as a rule, cannot be determined very clearly.

Even in the most representative group of silhouetted images, the differences were in large part clearly quantitative—that is, resulted in peckings of slightly greater and lesser depth—and thus they cannot be a reliable criterion for distinguishing chronological groups. We can distinguish only a small number of weakly rubbed illustrations (Comp. 1, 9, 14, 16, 31–35, 58, 69, 78) and several crudely pecked ones (Comp. 15, 27–29, 52, 60, 66); the rest differ by an average depth of the pecking of one to two millimeters.

It can be supposed that we have a case of the technique becoming generally coarser and the pecking deeper. Sometimes this can be explained simply as images that were obliterated by time and weather. Such images are relatively darker than the fresh and light, recently pecked ones, which are especially easy to see when some images are pecked over others (Fig. 25).

Considering all these peculiarities of the techniques used to create rock art, in the end we became convinced that they do not differ in essential definition. By themselves they are clearly insufficient for periodizing the petroglyphs. For the purpose of establishing chronology, the differences in techniques for applying the illustrations to the cliff can only be considered in correlation with other features.



Figure 25. A double-layer group of illustrations: the lighter figures of deer were pecked over the large earlier silhouette of a deer.

It is possible to try to divide the petroglyphs into diachronic groups based on style. Most suitable for such an effort here are the images of deer, which are the most numerous and stylistically more varied than other images. So we began to classify the deer images, reducing their stylistic variety to the following five basic types:

1. Truly realistic, filled with life and action (Comp. 16, 33, 42, 69, 73; Fig. 7, 8) and, similar to them in mastery, the extremely elegant, somewhat affected swimming outlines (Comp. 7, 9).

2. With wide chest, angular rump, and often exaggerated in emphasized realistic detail: humpbacked, with hair under the neck, with both antlers shown, and so on (Comp. 11, 17, 31, 32, 37, 46, 63, 69, 73, 79).

3. More or less schematic, streamlined, with angular rump (Comp. 39, 79) and, similar to them, the "triangularly stylized" ones (Comp. 13, 26, 32, 34, 35, 37, 40, 41, 43, 47, 49, 53, 66, 67, 75, 77, 80, 92, 93, 96, 104).

4. Primitive, carelessly pecked, no special characteristics (Comp. 3, 7-10, 14-17, 19, 21, 22, 30, 32, 37, 38, 41, 44-50, 52-54, 56-57, 59, 62, 64, 66, 71, 74-76, 81, 85, 86, 88, 91, 95, 100, 101). They apparently do not reflect a particular artistic "school," attesting only to the low level of mastery by some artists.

5. Exaggeratedly massive, with heavy broad trunk and thick legs (Comp. 15, 51, 52, 58-60).

However, we shortly saw here, too, that it would be quite difficult and scarcely possible to trace the evolution of style of

deer representations if we proceeded only from the illustrations themselves. In only one case was superposition of a deer image of one style (Type 4) upon an image of a deer of another style (Type 3) noted (see Fig. 25). Judging by the pecking technique and by the position of the illustrations on the cliffs, we deduced that quite different styles were often synchronic. Crudely pecked, very schematic figures of deer in one composition are often adjacent to genuine masterpieces of realistic art (Comp. 16; Fig. 6). Less extreme stylistic juxtapositions are also encountered, but they, too, reinforce the impossibility of somehow chronologically putting all the petroglyphic material in order.

We finally came to the conclusion that the most convincing classification occurs only when we proceed not just from style but also from the content of the illustrations, that is, from some of the most stable illustrative canons or categories that are stipulated by traditional magical meaning. We would like to mention that a similar principle was successfully applied not long ago by Ya. A. Sher to classify the stone statues of Semirech'ia (Sher 1966).

Based on content, all the art subjects at Pegtymel' connected with the deer image can be clearly divided into two basic groups: (1) figures of animals without people, and (2) scenes of deer hunting.

The first group is less convenient for further general division in meaning and content of all material, because it contains comparatively few well-defined compositions. Indeed, almost any of them can be understood as the totality of separate diachronic figures. As a subvariety of this group, we will examine figures of deer drawn laterally and with their feet up, and

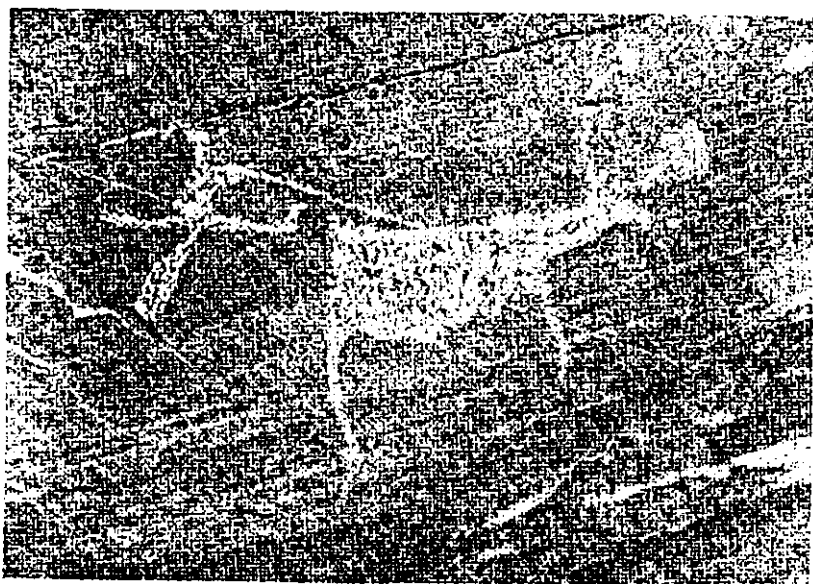


Figure 26. Traditional composition: hunting of a swimming deer from a kayak (third illustrative canon, Comp. 63, Stone VI).

with less confidence we will separate illustrations of deer that stand in pairs with muzzles facing each other. The largest and most reliable among all these illustrations is one category—single figures of deer. This is the first illustrative canon that we distinguished with certainty. It corresponds to a definite type of magical notion, according to which the illustration of the animal is considered the receptacle of its soul—allegedly a necessary contribution for restoring the herd of animals useful to man, for their own propagation (Ivanov 1934; Viatkina 1949:423; El'kin 1952:177–178; Okladnikov 1961:61–65; Chernetsov 1964:00).

The second group provides more favorable material for further division of the canonical illustrations and consequently for classification. In it are forty-nine compositions, each of which was drawn on the cliff at one sitting and is an indissoluble complex of several elements: deer, boat, men sitting in it, two-bladed



















Accompanying forms							Illustrative canon	Style of deer silhouettes					
													
7	6	5	4	3	2	1		1	2	3	4	5	6
		1	1				I 	7	9	8	11	3	1
		1	1			2	II 		5	15	6		3
1		1			1		III 		3	6	3	1	1
				1	1		IV 			1	1	1	1
1	1			3			V 				3	2	

Figure 27. Classification table of Pegtymel' petroglyphs (numbers in the correlation fields indicate the number of petroglyphs).

paddle, and projectile weapons (Fig. 26). It is most notable that several consistent variants of the representations can be distinguished here that have a clear sense of hunting magic. Thus we have:

The second illustrative canon: a hunter sitting in a small boat piercing a swimming deer with his spear or harpoon. The paddleless hunter himself is depicted in an extremely schematic way by a single vertical dash (Comp. 7, 26, 31, 32, 35, 40, 41, 43, 49, 53, 54, 67-69, 72, 73, 82, 91, 95).

The third illustrative canon: the same composition except that the hunter sitting in the boat looks more realistic, and in addition to the projectile weapon he has a double-bladed paddle (Comp. 15, 25, 49, 63, 66, 75, 76, 90).

The fourth illustrative canon is different from the preceding ones by the position of the double-bladed paddle—separate from the boat and hunter, which are drawn quite schematically (Comp. 25, 76). A variation on this canon is the composition with emphasized separation of the two-bladed paddle. But it is not yet separated from the boat and hunter, though the hunter raises the paddle high above the boat. The hunter himself is indicated by a schematic dash, and he does not hold any weapon in his hands. In one case the paddle is not visible at all in the composition (Comp. 90); in another, both deer, drawn at the sides of the boat, are pierced by throwing spears or darts (Comp. 95).

The fifth illustrative canon: only a two-bladed paddle is illustrated near the deer—the hunter and boat not being part of the composition (Comp. 7, 17, 57, 58, 74).

Then we created a table (Fig. 27), which reveals correlational dependence between all illustrative criteria (vertical rows) and the five stylistic groups enumerated above that appear in the canonical compositions of deer (the upper horizontal row 1–5 on the right side of the table). A complete defined sequence of the canons and their relative chronologies were obtained.

It is easy to see that the development of the composition is subject to a definite logic and expresses the ever-increasing role of the double-bladed paddle in hunting magic. In the last stage it even replaces both the hunter and the boat, evidently symbolizing the most significant thing that provides the furious speed of the boat or kayak and, consequently, the success of the hunt.

This sequence of canons is not far-fetched. It is constructed with regard both to the technique of applying the

illustrations to the cliff and to the stylistic peculiarities of the deer figures that enter the illustrative canon.

To the first illustrative canon of the magic of reanimation, isolated silhouettes of deer, all five styles (1-5) were different, and there are no genuinely realistic deer in any of the subsequent canons of hunting magic. Therefore the singular, realistic representations of deer (either shallowly pecked or rubbed in) can with good reason be considered the earliest on the Pegtymel' cliffs.

To the second illustrative canon, only the second, third, and fourth stylistic types are different and shallowly pecked or rubbed in; to the third—the second, third, fourth, and fifth; to the fourth—the third and fifth; and to the fifth—the fourth and fifth, the most primitive (predominantly deep pecking is characteristic of the last three canons).

Thus, we observe here from canon to canon the tendency of a decrease in realism of the art on a background of ever-coarsening technique. Some realistic traditions are still typical of the second canon in the greatest degree, about which the whole appearance of the deer speaks. It is not by chance that at times each deer has two antlers and four legs. Another realistic detail, the hooves of the swimming deer splayed like a goose's feet (Fig. 11; Comp. 67), join this second canon with the realistic earliest representations of deer (where this detail begins to appear only sporadically—see Comp. 42), as well as with the third and fourth canons (Fig. 26). The lack of similar "goose's feet" on deer of the fifth canon, for which the most primitive deer representations are characteristic, corresponds completely with its position as the last (see the extreme right Column 6 in the table—Fig. 27).

Is it worth saying that the overlying—in some cases on silhouettes of deer of Styles 4 and 5—still-later linear illustrations (Fig. 28) only emphasize and strengthen this general tendency of Pegtymel' petroglyphs toward being schematic, departing from realism? And this corresponds completely with the predominating (though not always universal) regularity of development of rock art from living full-blooded forms to schemata (Okladnikov 1966:129; Formozov 1966:59, 75), thereby making even firmer the sequence of illustrative canons being suggested.

Relying on their evolution, we can make an attempt to assign some accompanying forms—anthropomorphic mushrooms and multiseat boats—to the chronological groups corresponding to them.

Anthropomorphic amanitas accompany all the illustrative canons we established except the first (see Fig. 27). At the same time, schematic illustrations of humanlike amanitas (Type 1) are found in Canon II, realistic figures in overalls or *kerker* (Type 2) can cautiously be correlated with Canon III (Comp. 79), and the most realistic representations of women-amanitas without clothing are connected with Canons IV and V (Comp. 55, 57, 75).

Large multiseat boats were evidently art objects here from the earliest times. Near the realistic silhouettes of deer they were drawn with the bow part raised high and even with the head of an animal on its end (Fig. 8; Comp. 16). Only in the compositions of later canons do they acquire the usual Chukchi-Eskimo appearance of skin umiaks (Comp. 14). Initially, the boats were probably not used for whale hunting. Silhouettes of the latter, judging by the style of deer pecked with them, probably corre-



Figure 28. Linear anthropomorphic image cut in over an entirely pecked silhouette of a deer (Comp. 52, Stone IV, cave).

spond only to the last two illustrative canons of hunting magic (Comp. 99). The earliest are evidently the images of relatively small kinds of pinnipeds (Comp. 36).

As a result, a large part—if not all—of the petroglyphs in silhouette are distributed among the five successive complexes in the relative chronology shown in the table (Fig. 27) in horizontal rows 1 to 5. A sixth complex, graffiti predominantly overlying the latest petroglyphs in silhouette, naturally occupies one of the last positions.

Now we are left to solve the problem of absolute chronology of the complexes established—the problem of dating.

DATING

The fact that the Pegtymel' petroglyphs are not contemporary, but quite early, is evident even without special research. Many of them were thoroughly overgrown with lichens, and one boulder had even broken off the cliff (Stone V), rolled down the slope, and was covered with soil so that an interesting and moreover basically late composition of boats, deer, female amanitas, and an isolated two-bladed paddle (Comp. 55) had to be dug from the earth.

Bad preservation of many illustrations, of which only vague traces were spared, and weathering of their outlines also attest to gray antiquity.

The illustrations themselves, by their content, speak of the same fact. Among the silhouette petroglyphs, subjects connected with reindeer herding are entirely lacking; they all tell about the life of ancient hunters, and the great bulk of them can be assigned to the period when there was no reindeer herding in Chukotka yet, but when there was wild deer and sea mammal hunting (Dikov 1967).

Judging by the available archaeological data, we believe that maritime hunting emerged on the coast of Chukotka no earlier than the first millennium B.C., which determines the approximate lower boundary of the dating of this subject of the Pegtymel' petroglyphs. That is why it is not impossible that the earliest illustrations of individual deer, which precede the remaining petroglyphs, can be assigned to an even earlier time, possibly to the end of the second millennium B.C.

The series of realistic, individual representations of deer, executed with a sharp sense of reality (Comp. 16, 33, 73), are the most closely similar in style to late Neolithic figures of deer and elk, though of significantly larger dimensions, on the cliffs of the upper Angara (Okladnikov 1966:107-142).

Considering overall regularity of the stylistic development of the petroglyphs of Siberia, in particular of the upper Angara, we can assume a Late Neolithic age as well for the realistic deer silhouettes. Though it is permissible to question the correctness of the comparison of such remote—not only in distance but in dimensions and technique—petroglyphs (on the Angara they are larger and are outlined by pecked grooves), let us remember that in northern Norway, even more distant from the Angara, the same realistic art of Neolithic hunters flourished simultaneously (at the boundary between the third and second millennia B.C.) (Hagen 1965:1-54; Gjessing 1932:71, Pl. VI, XI; 1936:Pl. LIII; Engelstad 1934:136).

It is precisely the Neolithic petroglyphs of northern Norway that are especially close in style to the realistic Pegtymel' deer, though they are distinct from them in technique of execution and dimensions. The large representations of deer in Norway were pecked by stone just as on the Angara, although with grooved contours and not over the whole silhouette. But ultimately, both the size of the petroglyphs and the technique of their rock art form for comparison in the broad economic-cultural aspect (though not in the ethnic aspect) are perhaps not so essential. In addition, in the petroglyphic art form the technique of pecking "grooves" was in essence known by the Pegtymel' people as well (see Fig. 6).

The most common analogies noted attest to a low boundary date for the Pegtymel' realistic deer—somewhere in the realm of the second millennium B.C. Judging by the fact that such illustrations at Pegtymel' are comparatively few, it is possible this low boundary essentially has to be pulled up to the upper one—to the time when the first magical illustrations of a hunter killing a deer from a boat were pecked at the Pegtymel' cliffs.

In dating all the subsequent series of complexes of petroglyphs connected with this new subject, the most directly related are artifacts we examined at three early Pegtymel' hunting sites. The sites are all in the immediate vicinity of the petroglyphs, on the edge of the precipice, directly over the early illustrations. From up there a spacious view opens out on the river valley and the broad channels of the Pegtymel', across which wild deer went on the ice in spring and by swimming in fall, migrated to the sea and returned to the winter pastures. One cannot imagine a better place for a hunting camp, for observation of movement of wild deer, and for ambushing them.

At the location of one of the sites, on Stone II, in 1967 we made an excavation and found a cluster of antlers of wild deer, a large quantity of split and burned deer bone, flint flakes, and a fragment of a bifacially worked (by percussion) leaf-shaped knife of Neolithic appearance (Fig. 29:4). The fragment and flakes we extracted from the cultural layer of the brown surface loam. And in 1968 we found in the same place the other half of this knife (Fig. 29:4), hearths, and again split deer bone and flakes.

Having excavated a pile of deer antlers ten meters to the north of our previous excavation at this site, we were finally convinced that it was directly related to the petroglyphs. The pile of

deer antlers was oval in plan. It was 3.5 meters long and 1.2 meters wide. The antlers had already partially sunk into the ground. Judging by the wide shovel of the antlers, we decided they probably belong not to domestic but to wild deer. On the northwest edge of the pile lay a pair of antlers with especially broad and massive shovels.

After the extraction of all the antlers, the edge of a stone slab was found underneath them protruding from beneath the sod. In subsequent excavations it was ascertained that on this spot, under the antlers and under the surface layer of the ground at a depth averaging about five to ten centimeters, a small open fence had been constructed of stone slabs placed flat. The length of this stone feature was 2.5 meters, the width in the broadest place 1.5 meters. This stonework had been built across a pile of deer antlers and was made of very long (to ninety-five centimeters), thin stone slabs. No finds similar to those in the previous excavation had been made here. But under one slab on the extreme northwest side of the stonework, we found a large cluster of pieces of white quartz of various size and weight (from several kilograms to a few dozen grams). It can be assumed that these pieces of quartz were precisely the tools that had been used to peck the petroglyphs into the cliff. Here we came across the quite distinctive ritual of burying the instruments of artistic (magical in their notion) work. The lack of debitage from production activity permits us to conclude that all this construction with deer antlers and stone slabs was nothing other than a burial site. Indeed, both the presence of antlers and the very position of the stone slabs are reminiscent of so-called *paliakviny* (oval enclosures of stones) of nomadic Chukchi burials, though *paliakviny* were constructed on the ground surface in the tundra. Here, evidently, the stones were covered with sod over time, and this

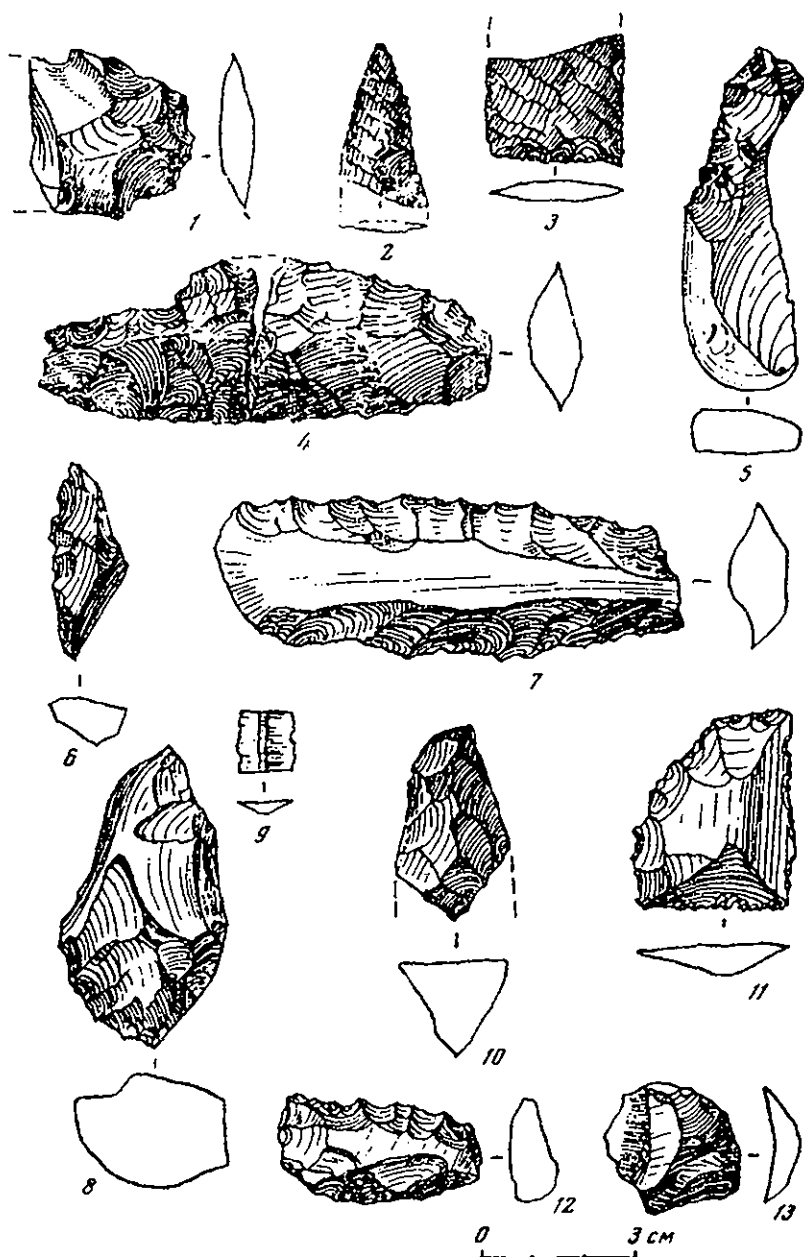


Figure 29. Stone artifacts from the Pegtymel' sites: leaf-shaped knives (1, 4, 7); arrow points (2, 3); scrapers (8, 11-13); knifelike blade (9).

corroborates a considerable age for the burial. It is entirely natural also that no traces of the individual himself were preserved. Of course he, as is proper for a tundra rite, was placed on the ground within the stonework, entirely at the disposal of wolves. Only the pieces of quartz buried with him were preserved—he probably being one of those who inscribed illustrations on the Pegtymel' cliff.

Also interesting is the second site, which we found and investigated in 1968, at Stone VIII. On this spectacular, steep stone are large outcrops of quartz. Perhaps that is why we also found here an oval stonework, 1.5 meters long by 0.7 meters wide, of large pieces of quartz rather carelessly spread out. Around the stonework, directly on the top of the cliff, we discovered many flint, obsidian, and chalcedony flakes. Among them were fragments of a bifacially worked pointed tool (Fig. 29:5) and two fragments of arrow points worked on two sides by flattening, pressure retouch—the back part of a point with a straight base and an elongated-triangular end of a fore part (Fig. 29:2, 3). All three pieces are of flint.

In the excavation, placed around the stonework, flakes were also encountered as well as a fragment of a bifacially worked leaf-shaped knife of brown flint, precisely the same as in the excavation at Stone II (Fig. 29:1).

The layer of surface loam is gradually pinched out in the direction from the river to the bank, being replaced by small rubble, so that though flakes were found in the brown loam at a depth of ten to fifteen centimeters in the side toward the river, on the opposite side, and beyond the limits of the excavation, they occurred only on the surface. Thus, with our excavation we

exhausted the possibility of discovering the remains of early cultural material on top of Stone VIII.

The third hunting site we examined in 1968 had decisive significance for dating the petroglyphs. It turned out to be a new petroglyph site, ten kilometers from Kaikuul' Creek, on a solitary cliff on the right bank of the Pegtymel' River. Here again, on top of the cliff we saw evidence of the settlement of the early hunters.

The cliff is washed by a small, dry channel of the river. A broad sandbank separates the cliff from the primary riverbed. The cliff could have served as a good place for watching for deer; it provides an ideal vantage point of the numerous channels of the river and its low opposite bank (Fig. 5).

The cliff is spectacular. The stone cliff rises sheer to a height of over twenty-five meters. In the middle of its height, on a broad stone panel under a cornice, a large composition of several large silhouetted figures and other features had been pecked. Its subject was quite definite: this was a skier accompanied by his dog and spearing a deer on ice-covered snow in spring, and in fall a hunter in a kayak while the deer were swimming. The latter was executed in precise conformity with the third illustrative canon (Comp. 104).⁴

We found the remains of a hunting camp on top of the cliff, on a gently sloping, small-rubble surface. The surface material collected here consisted predominantly of flint flakes, often retouched and possibly serving as tools. The most remarkable finds we made here were two objects: a fragment of a prismatic obsidian knifelike blade (Fig. 29:9) and a whole flint

leaf-shaped knife worked on two sides, like those pieces encountered at Stones II and VIII (Fig. 29:7).

The general character of the finds in all three sites (leaf-shaped knives, arrow points, and a knifelike blade) allow us to assign them to the culture we investigated in 1959 on Aion Island in northern Chukotka, relatively near the Pegtymel' River (Dikov 1960:96-99, 1961a). The third site is dated to a single illustrative canon, that is, precisely to the third—and in this is its decisive significance for dating. Consequently, the whole extensive group of petroglyphs of the third canon—as well as the second, which is similar to it—can be assigned to the Aion culture, that is, to the period of the latest or even Remnant Neolithic, probably somewhere in the realm of the first millennium B.C.

In the basin of the Anadyr' River at this time the Ust'-Bel'skaia culture of wild deer hunters was completing its development. And it is quite remarkable that, in one grave at the Ust'-Bel'skaia burial ground in 1958, we found not only arrow points worked by pressure retouch that are similar to those at Pegtymel' but a flint figurine of a man that in general is very similar to some "little men" pecked at Pegtymel' (Dikov 1961b).

The most essential dating feature might be the upper left silhouette (Fig. 30; Comp. 58) on Stone V, which is reminiscent of the winged objects of the Old Bering Sea culture (Fig. 31). The greatest variety of assumptions have been expressed about the purpose of this strange object with several odd openings, skillfully carved of walrus tusk: an ornament for the bow of a baidar, or the top of a shaman's wand or staff, or a weight for a harpoon shaft. The thing in the cliff illustration can be viewed as a "winged object," evidently set on the front end of a harpoon shaft as its

socket piece, to which the toggling harpoon head itself is also fastened. The whole tool is attached to a sea mammal similar to

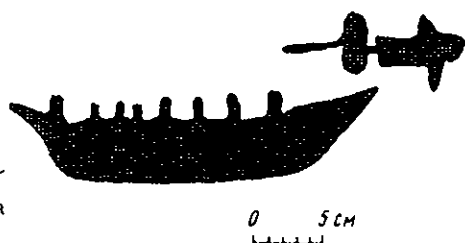


Figure 30. A representation similar to a "winged object" beside a baidar and a sea mammal (Comp. 58, upper part).

a whale, and it is drawn excessively large in comparison to it. It appears beside a baidar of the marine type in a composition with an isolated two-bladed paddle and deer (Canon V).

This cliff drawing gives, as it were, a graphic representation of the use of winged objects as distinctive heads on toggling harpoons. As corroboration of such use for them are those we excavated in 1965 near Cape Dezhnev in burials of the Chinii Old Eskimo burial ground, where we found these enigmatic objects in situ precisely in such position: on the upper (forward) end of the shaft (Fig. 32) (Dikov 1969c:196–199, Fig. 105, 106). Nevertheless, this illustration of a winged object is still somewhat problematic. If this is really a winged object, then we are fully able to date the last, fifth illustrative canon still later in time than the second and third—assigning it, along with the fourth, to Old Bering Sea times, that is, to the first seven to eight centuries of the first millennium A.D.

The most definite indication of Old Bering Sea age for the last illustrative canon came as a result of the investigation of a cave found in a cliff with petroglyphs.

The cave is easily visible if one is looking at Cliff [Stone] IV of the Kaikuul' precipice from the river side, and even more visible from the bank lying opposite it (Fig. 33). It is located in

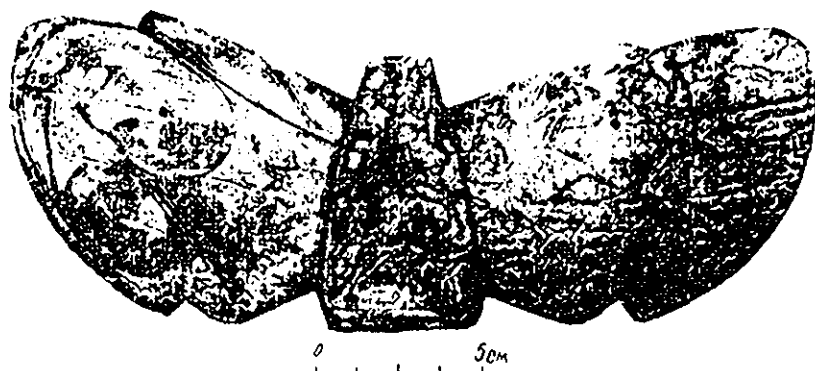


Figure 31. "Winged object" (from the Uelen burial ground).

the middle of a high cliff at an elevation about fifteen meters above water level. It is very narrow (two meters at the entry and 0.7 meters at the back) and shallow (about 2.5 meters from the entrance to the back wall) and about two meters high. It is also entirely possible to call it a crevice or crack in the cliff. The cave contained significant deposits of early cultural remains. It undoubtedly served as a place for people to stay and, in spite of its small dimensions, on occasion could hold several people.

From the back, narrowest wall of the cave a narrow, very deep crack leads farther into the depths of the cliff, where we found something like a bone awl in the dust deposits.

The bottom of the cave was covered with large fragments from the cliff. Below these fragments we found loose, dusty deposits.

The general depth of the strata in the cave on average reached 0.5 to 0.7 meters, changing downward gradually into rubble and grus. The cultural remains at medium depths (0.4 to 0.5 meters) consisted of a large quantity of split deer bone, many fragments of white quartz, some flint flakes, a piece of retouched chalcedony, a flint arrow point, and several artifacts of deer antler and walrus tusk (Fig. 34).

The stone arrow point was found in the middle of the cave at a depth of 0.35 meter. It has a leaf-shaped form with a one-sided lateral indentation below at the base and was crudely worked on two sides by retouch. In cross section it is rather thick, seventy-eight millimeters long and nineteen millimeters wide (Fig. 34:5).

Beside the point we found an animal fang that had been drilled for suspension (Fig. 34:1).

To the right of the cave's exit, traces of a hearth with charcoal were preserved among specially placed stones. All the remaining bone artifacts were found here. First was a fragment of some kind of three-sided point decorated on each side by a deeply carved line; it was made from a walrus tusk (Fig. 34:2). Another was

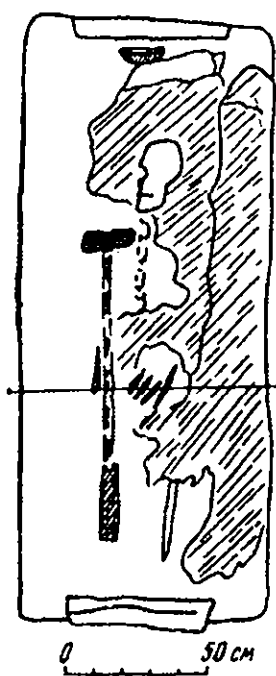


Figure 32. "Winged object" on the end of a shaft (on its opposite end—the head of the harpoon) in Old Bering Sea Burial 17 at Cape Chintii.

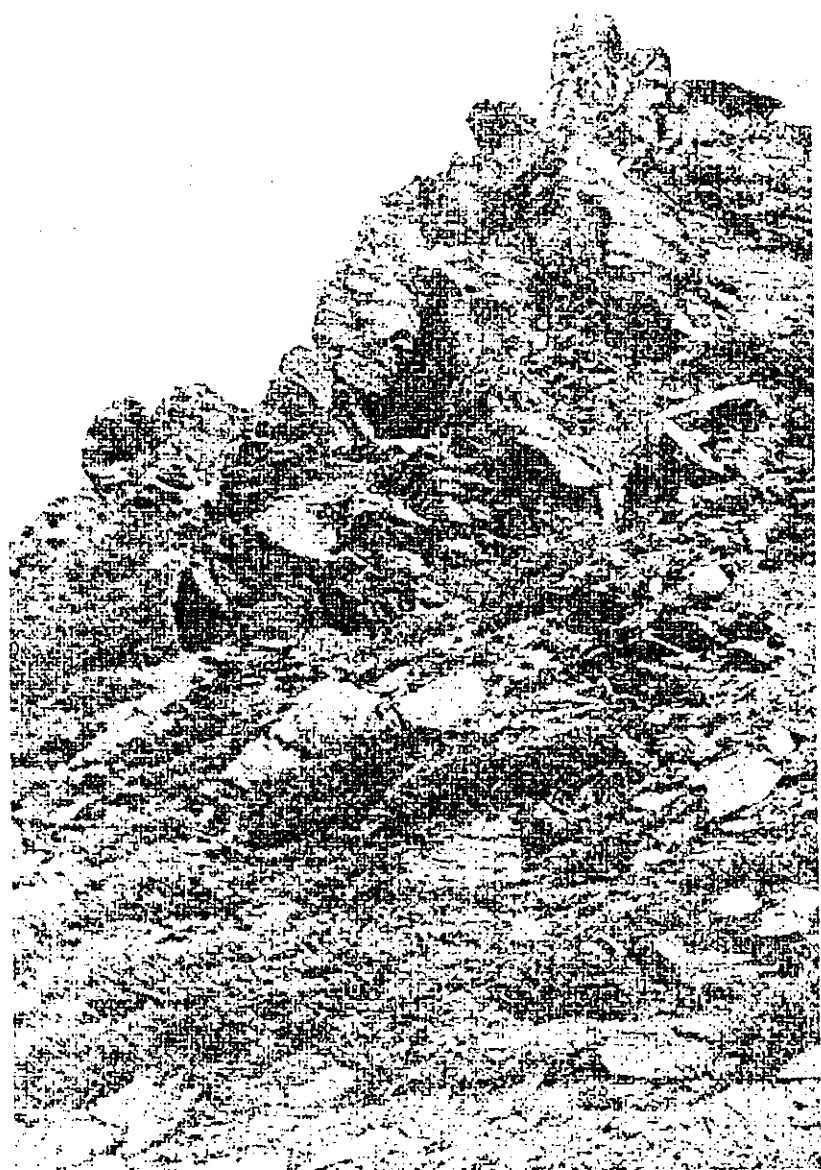


Figure 33. The cave in the Kaikuul' precipice.

Figure 34. Stone arrow point and bone artifacts (from the Pegtymel' cave).

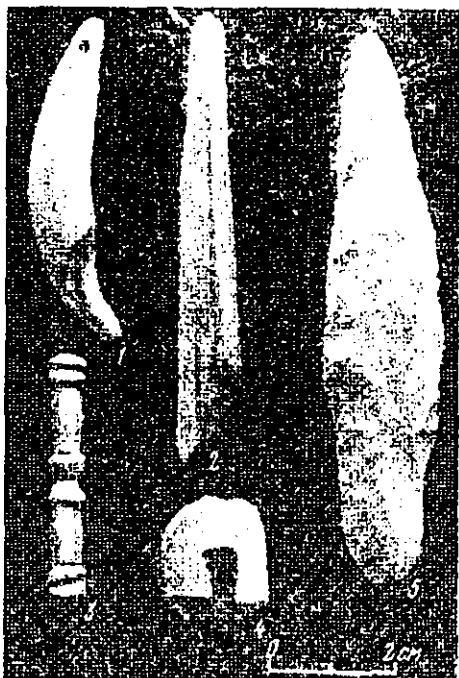


Figure 35. Armor plates of deer antler (from the Pegtymel' cave). Approximately half natural size.



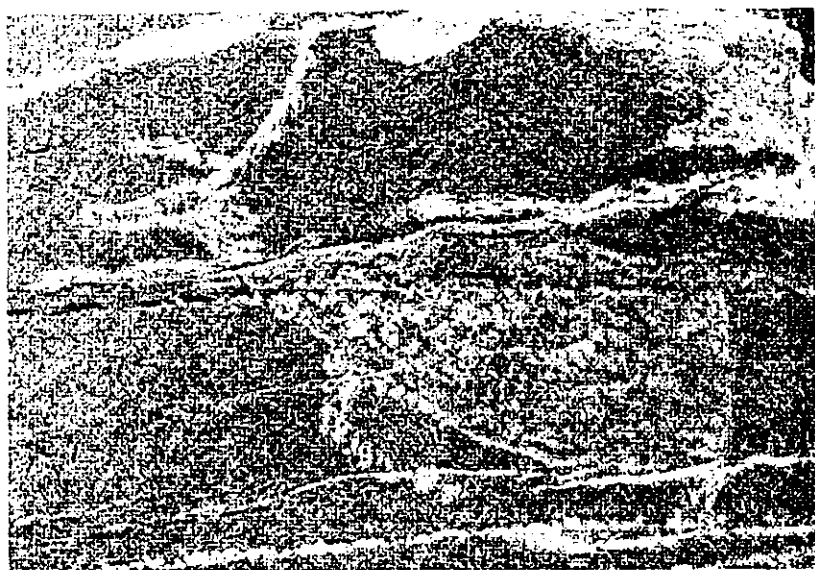


Figure 36. A deer with bent legs (Comp. 42, Stone IV).

a gracefully carved artistic knickknack of this same material in the form of a tiny carved spindle with transverse profiling in the Old Bering Sea or Ipiutak style (Fig. 34:3). These two artifacts lay beside the hearth. In the same place was some kind of strange object like a socket of deer antler (Fig. 34:4).

Finally, in a crack near the hearth between the wall of the cave and the hearth stones, we found a large cluster of broken armor plates of deer antler. They are of two types: (1) long and broad (up to 3.5 centimeters wide) with two or three holes in them along the transverse edges, and (2) long and narrow (up to two centimeters wide), also with rows of holes but only two in each. These armor plates bear on them traces of work by an iron instrument (Fig. 35). They are perhaps the most remarkable find in the cave, since they indicate a date, and a relatively late one at that, for the cultural remains found in the cave.

Radiocarbon analysis of the charcoal from the hearth of the cave determined the age of all these remains as 1460 ± 70 B.P. (MAG-18, determined and computed by V. V. Nosov), which corresponds to the last stage of the Old Bering Sea period.

Apparently, the majority of silhouetted petroglyphs we found in the cave can be assigned to this time. Together with the incised linear illustrations, they almost completely cover all of the useable wall space. Here are crudely pecked (perhaps by the same pieces of quartz excavated from the cave), very primitive illustrations of a wolf or dog, multiseat boats, people, and deer. The last are represented only by the fourth and fifth stylistic groups, which are most characteristic—as was indicated above—of the fifth and latest illustrative canon. Thus its place in our schema of development of the canons receives one more piece of chronological support.

And now we will see how comparison with the rock illustrations of other regions can help date the whole vast second group of petroglyphs (Canons II–V).



Figure 37. Silhouettes of animals pecked over graffiti (Comp. 52).



Figure 38. Graffiti: a baidar and a figure of a person (Comp. 59, Stone V).

Figure 39. Representation of a vessel with banded decoration (Comp. 49).

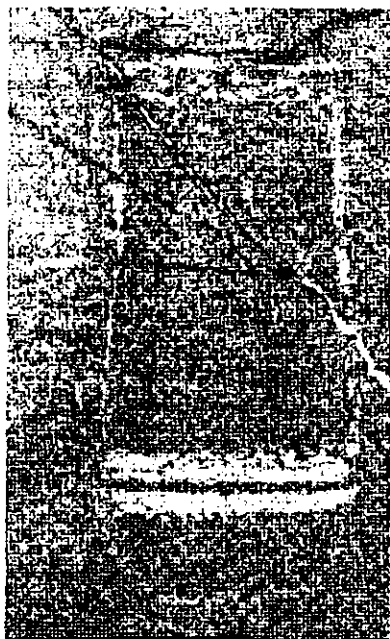
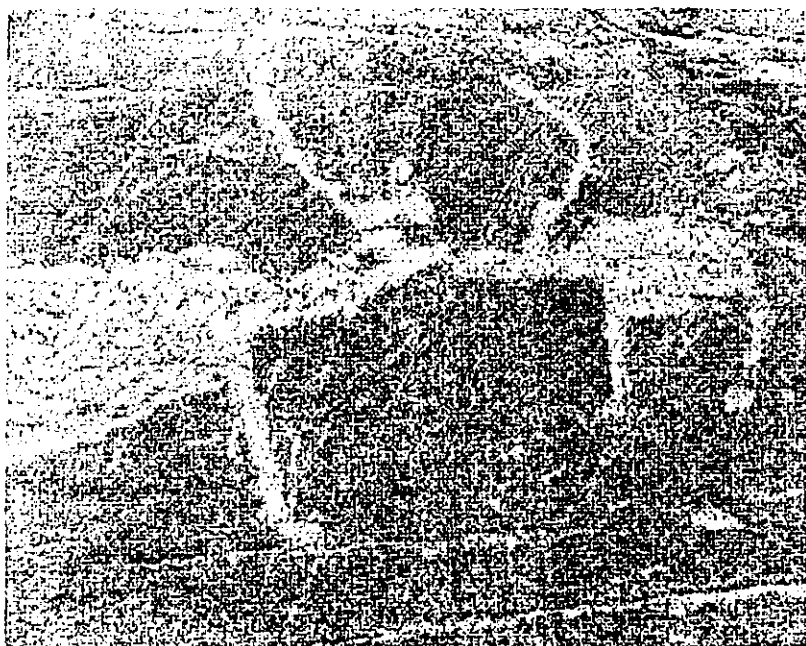


Figure 40. Combination of the technique of a pecked art form and graffiti in one composition (Comp. 59, Stone V).



A quite characteristic image—a schematic figure of a person with arms lifted upward near an illustration of a closed fence (if it is not the sun; see Comp. 7)—is typical of pictographs of Bronze Age Zabaikal'e (Okladnikov 1948). Three illustrations of deer with bent legs (Fig. 36; Comp. 42, 46, 74) can also be assigned to southern Siberian motifs of the early Iron Age (Polesskikh 1955:Fig. 2:2a, 1b, v; Devlet 1965:Fig. 5), though these similarities scarcely qualify as determining the date, since the Eskimos of Arctic America (Nelson 1899:Pl. XL:7) also illustrated deer in such pose at later times in areas closer to Chukotka.

The most convincing dating analogies can be found in the northern periphery of the Old and New Worlds. In the rock art of the Bronze Age of northern Norway there are triangularly stylized deer similar in general outline (though filled with "entrails," unlike those at Pegtymel'), symbolic illustrations of traces of human footprints (similar to Comp. 57 and 81), and even something like stylized, mushroom, humanlike figures (in place of a head they have something similar to a mushroom cap), dating to 1,000 to 500 years B.C. (Hagen 1965:8, 52). And on the rocks of Scandinavia (Formozov 1966:40-43, Fig. 16 [map]; Norden 1939:Fig. 30, 31) and in Karelia (Ravdonikas 1936; Domanskii and Stoliar 1962:131; Savvateev 1967), large multiseat boats with high bows were pecked—almost like those at Pegtymel', where they evidently belonged to the earliest illustrative complex. It is interesting that similar boats have been dated to approximately this same time in the rock painting of North America (Dewdney and Kidd 1962:30). Moreover, the very subject of the hunting of swimming deer, treated similar to those at Pegtymel', has been found in the northern extremities of Europe and America, for example, in Sweden among

petroglyphs of the Bronze Age (Altin 1945) and among the Caribou Eskimos in Canada, where they were assigned ethnographic contemporaneity (Birker-Smith 1929:Fig. 99c)

On the whole, all these analogies do not contradict the dating established by finds at the sites. However, at present the whole series of petroglyph complexes connected with the canonical subjects of deer hunting can perhaps be dated only broadly. All probably fit into the period of the late Bronze and early Iron Ages, according to the chronological scale of northern Yakutia and Chukotka or in the period of late Ust'-Bel'skaia (Anadyrskaia) and Old Bering Sea culture. And all of it evidently belongs to one cultural-historical epoch: from the first millennium B.C. to the middle of the first millennium A.D.

At present the development of petroglyphic art within the framework of this period at present reliably yields only to being given a relative chronology.

The most recent figures at Pegtymel', graffiti, are generally assigned to late Old Bering Sea times. In the cave these linear illustrations in many cases were inscribed over the most recent silhouettes (Fig. 28; Comp. 52), much more rarely covered by them (Fig. 37; Comp. 52), and are possibly the consequence of repeated invasions of the cave by newly arrived populations.

The recent age of the linear figures is felt in their very appearance as strikingly similar in style to Chukchi illustrations collected by Bogoras. Such is true of a sketch of a Chukchi Eskimo baidar carelessly scratched on Stone V, as is the figure located beside it of a person entirely filled in the Chukchi manner (Fig. 38; Comp. 59).

It must be supposed that the graffiti belong predominantly to the third, concluding period of the use of the Pegtymel' cliffs for illustrating. Such chronological position of the Pegtymel' incised linear illustrations corresponds in general to the date of the graffiti in southern Siberia, where (for example, among the early Kurykany of the upper Lena) (Okladnikov and Zaporozhskaia 1959) they usually cover the silhouetted figures and are assigned most often to the Iron Age.

However, for some transitional period of time both the continuous, silhouetted, pecked art form of the illustrations and the graffiti on the Pegtymel' cliffs coexisted. Serving as an example of a similar synthesis is the illustration of a vessel executed simultaneously by two entirely different technical methods: its outline was scratched in by a thin line, and the two ornamental belts on the lower part of the body are executed by rather broad stripes rubbed into the stone (Fig. 39; Comp. 49). Silhouettes of deer standing opposite each other, pecked into Stone V, clearly attest to the combination—or possibly the coexistence—of these seemingly mutually exclusive technical traditions in rock art. They are supplemented by some symbolic lines, as if connecting the animals even more closely in pairs, and by groups of lines issuing downward from their muzzles. In this can be seen the rudiments of a pictographic letter, similar to the well-known Yukagir *tosy* (Shargorodskii 1895), and consequently one more indirect indication of a recent age for the graffiti (Fig. 40).

PEGTYMEL' PETROGLYPHS TELL ABOUT THE LIFE OF ANCIENT HUNTERS

Thus, the petroglyphs embodied the life of the hunters, and later, probably of reindeer herders. Over the course of long centuries they used the Pegtymel' cliffs both for hunting and for ritual illustrative work.

In the past, of course, near these cliffs wild deer seasonally crossed the river. It is true that at the present time the deer cross somewhat farther upstream, at Bezvodnyi and Tikhii Creeks, but this can be explained only by the fact that gradual exhaustion of winter pasturage forced the deer to go ever farther to the south in winter. Correspondingly, the farther south and farther up the river they found themselves, that was also the place for spring crossing of the river on the ice, where they managed to arrive before its breakup, as well as for fall crossing by swimming (*Plan . . .*, 1968).⁵

It is entirely possible that in a place so convenient for hunting, the procurers of wild deer organized their combined festivals and games, accompanied by all kinds of ritualistic—including magical—sketches on stone. The illustrations with strange outlines on the Pegtymel' cliffs could possibly have played the role of clan or even tribal sanctuary.

It is well known that Arctic peoples in general spiritualize cliffs. From shamanic visions written down by Bogoras, we know that the Chukchi, for example, believed in a humanlike mountain mistress who ruled the mountain tops, the mother of whom was the Black Cliff. The Stone Master and even the Stone

People often figure in Chukchi tales and traditions. All these ideas are connected with the personification and spiritualization of the most impressive (in unusual appearance) cliffs, isolated stone hills, and rocks (Bogoras-Tan 1939:5).

Of course, the strange rocks of Pegtymel' nourished the fantasy of the ancient hunters in a similar fashion. Here they celebrated the rites of magical killing and of magical reproduction of wild deer, which were embodied by them there in the corresponding figures (see, for example, Comp. 35, Stone IV, where mating deer are illustrated).

Based on ethnographic data, the clan, phratry, and tribal festivities among many peoples with communal-clan structure were connected not only with magical hunting rites but also with the cult of clan, phratry, and tribal ancestral totems. In the Pegtymel' petroglyphs it is perhaps possible to see a large number of illustrations of clearly totemic character.

Do not the silhouettes of such animals as wolves (Comp. 8) and orcas (Comp. 60), pecked in the cliff, really belong to them? Of course, they are not connected with hunting magic for the simple reason that the early inhabitants of the extreme north-east hardly ever hunted these animals.

For a long time among the Chukchi and Eskimos there was the widespread conviction that the orca and the wolf were animals useful to humans, who were never to kill them. According to a legend widespread among the Eskimos, both the wolf and the orca were, properly, one individual, like a werewolf.⁶ In summer, assuming the form of the orca, he drives whales to the shore and forces them to throw themselves out onto the beach,

which is of great help to the hunters. In winter, in the form of a wolf, he attacks deer, killing the weak among them as well as doing good deeds (Rubtsova 1954:156; Menovshchikov 1969:189). The deer feed the wolves, but the wolf makes them strong. The apparent benefit of the wolves, a benefit the inhabitants of the tundra realized long ago, was recently corroborated by Farley Mowat through his interesting scientific observations while living among tundra wolves near Hudson Bay and through his careful study of all their habits (Mowat 1968).

It is also possible to interpret as totemic the depiction of the raven, which both the Chukchi and the Eskimos as well as American Indians regarded as an ominous but inviolable bird with which many legends and tales are connected. Its exaggeratedly humanlike silhouette is thought to be portrayed in Petroglyph 87.

Finally, evidently connected with the cult of the ancestral bear are silhouettes of these animals as well as depictions very reminiscent of bears' paws (Comp. 81, bottom).

The Soviet archaeologist and ethnographer V. N. Chernetsov, as a result of his observations of the rites of Ugrians of the Ob, made a plausible attempt to explain some rock illustrations of the Urals, in particular the so-called numerical signs. In his opinion these lines, repeatedly pecked into the rock, are analogous to the special marks by which all the activities and rites in the festivities of the Ob Ugrians were noted in tallies and dials (Chernetsov 1964:30-31). It is entirely plausible to explain many pecked spots or scratched features of similar form on the Pegtymel' cliffs as tally marks. It is possible that they mark the repeated use of this or that illustration for a ritual purpose.

Several figures of deer and an illustration of a boat, pecked only in outline by a broad groove (see Fig. 6, 7; Comp. 79, 16), attest to the existence of some definite technological succession—possibly stipulated by rite—in the creation of illustrations. The pecking within the outline was not produced immediately, and probably each of these operations had its own meaning and significance in the rite.

The Pegtymel' cliffs were eyewitnesses to all of this, of course: the very fragmentary and, unfortunately, in many respects still mute remains of those complex cult and magical activities. Songs, stories, theatrical dances in masks of totemic animals—now it can only be imagined, but hardly proved, that all of this occurred one way and not another. One thing is certain: festivities near the Pegtymel' cliffs were seasonal, occurring in spring and fall. For that reason almost all the petroglyphs here were applied on the south-facing, sunny surfaces of the cliffs. And is it not owing to such calendrical timing of the ritual, connected with the petroglyphs, to a definite position of the sun in the sky that the solar circle is included even in the magical scene of the hunt together with the human figure that imploringly raises its hands to it (Comp. 7)?

Is there only the cult and magical meaning among the pictures of the Pegtymel' rocks? Of course not. We find a vigorously realistic origin in the Pegtymel' art, and it shines through even in the most recent, now canonized magic of schematic forms.

Let us take the Pegtymel' petroglyphs that represent deer hunting. This is an excellent illustration of the numerous descriptions, from the seventeenth to the nineteenth centuries, about northern hunting of swimming wild deer at their seasonal

river crossings. Here is a description of hunting on the Aniui: "When it (the herd of deer—N.D.) enters the water and swims out to the middle of the river, several branches (boats—N.D.) descend on it with the speed of an arrow, surrounding and keeping them against the current; two or three men, depending on the size of the herd, which is sometimes three or four hundred (I saw seventy), surround it and stab with small spears on long, thin shafts. Meanwhile the others, both women and children, grab the sleeping ones (those killed—N.D.) and tie them with thongs; whoever catches something retains it in their possession. . . . Their skill is so great that they spear the small ones to death (always in the back bone), and the large ones have only enough strength left to swim to shore" (Matiushkin in Wrangel' 1948:391-392).

The artist sketched a realistic scene, which he seized vigorously from nature. And he probably did this with various incentives. One of them might have been the urge to secure a successful hunt through the magical means customary for ancient society. He hoped that sketching the slain animal would make the anticipated hunt more certain and successful. The desired game—the wild deer—he carves large and fat on the cliff, while he makes a boat with a hunter disproportionately small and schematic. The man in the boat is denoted simply by a single stroke. The deer itself, the game, is depicted very realistically and energetically in such cases. The silhouettes of deer pecked in the cliffs are sometimes truly expressive artistic creations, very faithfully reproducing nature.

Let us turn to the other subject, to illustrations of boats with human figures. From Scandinavia to far-eastern Primor'e, rock illustrations are found not only of the usual kind but also of

solar and funeral boats. But there is no need to interpret every boat as solar or funeral. On the Karelia cliffs there are many more illustrations of the usual realistic boats with hunters than of symbolic solar and funeral boats.

The compositions with boats in which many paddlers sit, found on the Pegtymel' cliffs, illustrate realistic hunting of sea mammals. Perhaps the same magical meaning is in them that is in the scenes of deer hunting, and maybe they were pecked into the stone with such zeal in order to ensure a successful hunt, but it is impossible to see anything cosmic or otherworldly in them.

The dream of abundant game determined the general sense of the Pegtymel' rock art. That is, the more pecking in of wild deer and of sea mammals, the more this art was summoned to life. Were the animals, and the scenes of them being hunted, pecked with a magical purpose? Or was it simply for the love of art, as was probably true of those illustrations of sea mammals that were not actually hunted here on the river?

Vividly reflected in the Pegtymel' petroglyphs is that which interested the ancient hunters most of all. This vibrant reproduction of reality was a mirror of that closed form of social perception in which religious ideas and real activity were united. Indeed, in the overwhelming majority of Pegtymel' pictures carved in stone, we see not only the striving by magical means to "seize" the animal but also the vigilance and observation of the hunter. Such art, of course, contributed to the cultivation of objective ideas of the world.

In essence truly reflecting reality, the Pegtymel' petroglyphs give us a mass of new, quite valuable information on

the history of Chukotka's past with regard to the ethnographic appearance of its early population.

For the first time we saw things that previously were only assumed, or about which we knew nothing at all. The deep, ascending antiquity—at least toward the first millennium B.C.—of spring hunting of wild deer in polar Chukotka on skis with dogs (Comp. 104) and in the fall while they swam, became in fact one of the basic kinds of economic activity.

In spring, methods of "artificial spearing" were probably practiced when they drove the deer onto the ice of the river with the aid of *makhavki* (scarecrows), similar to the way it was done until recently in Taimyr by the Nganasan (Popov 1948). Another similarity to the Nganasan is that dogs, if they were employed here at all, were used for driving deer. We see a vivid scene of such a deer drive with dogs on Stone IV (see Fig. 12; Comp. 4).

Now for the first time we know reliably how and with precisely what kinds of boats and weapons the fall hunt of swimming deer was carried out. Large boats with many paddlers were usually used for spearing the deer swimming across the river. We see them in many petroglyphs (see Fig. 6; Comp. 9, 13, 15, 16, 36, 40, 55, 58). Apparently, they even speared deer from them at times (see Fig. 13), but the primary purpose of these multiscat boats was to keep the deer from swimming off downriver.

An especially vital role was played in the spearing by the small, quick boats with two-bladed paddles. Based on how they are represented on the Pegtymel' cliffs, these were for the most part like real kayaks—entirely watertight boats covered all over

by skin, with a special hatch for the paddler. There are two basic kinds: with a high, pointed bow, as among the Caribou Eskimos (Comp. 31, 37, 43, 59, 63, 66, 69, 76, 82, 87); or with an equally low bow but pointed on both stern and bow, as among the Greenland Eskimos (Comp. 67, 68, 72, 75, 77). There are intermediate types (Comp. 5, 15, 16, 17, 49, 53, 55, 68, 91, 104) as well as some with pointed bows and blunt sterns (Comp. 25, 26, 53, 59, 95), similar to the Chukotsk Eskimo kayaks of less perfect forms.

New, for such an early time, is some special apportionment in some compositions of the two-bladed paddle—the special emphasis of its role in hunting. In this one can clearly see the very early local sources of the paddle cult, known from the ethnographic data (though there are one-bladed baidar paddles) among the Chukchi and Eskimos.

It is not entirely surprising that now we can suggest with great confidence the use of some kind of harpoon in spearing deer, probably even a toggling harpoon such as the one we found in 1959 in the grave of an early deer hunter near Ust'-Bel'skaia in the center of Chukotka (Dikov 1965). In the overwhelming majority of illustrative compositions, the weapon with which the hunter struck the deer is illustrated not by a straight mark but by a curved line in the form of a smooth arc. Most certainly a spear or lance with its straight shaft cannot be drawn so, only a thong (line) from a harpoon already thrust into the body of the animal.

Greater antiquity than formerly believed is also indicated for maritime hunting.

The earliest scenes of hunting whales, seals, belugas, and

other sea mammals show large boats with high bows, sometimes decorated with the heads of animals, and with a large number of paddlers (Comp. 12, 15, 27, 78). The illustrations of such boats are encountered repeatedly, as mentioned previously, in hunting scenes of swimming deer. In the remaining scenes of maritime hunting, we see everywhere quite different, evidently later, boats. Among them are the easily recognized, typically Chukotsk Eskimo, multiseat skin baidars. The majority of them seat eight men, corresponding to the number of hunters in a complete Chukotsk Eskimo baidar crew (Menovshchikov 1959a:23; Bogoras-Tan 1934:154).

If on Stone V (Comp. 58) a winged object (Fig. 30) is represented, and this seems most likely, then it is seen here for the first time as it was used: on the end of the shaft as a distinctive socket piece of the toggling harpoon.

Among the Pegtymel' petroglyphs we also find the figures of other tools: mattock, maul, stone knife, and adze on a long handle (Comp. 32). Especially interesting is the figure of a high, jarlike clay vessel decorated with ornamental bands (Fig. 39; Comp. 49), unique documentation of purely everyday character and, at the same time, probably a ritual symbol of female work. In this connection it is also interesting that in the past, among the Even, the family pot was also the first helper of all female magicians (U. G. Popova, personal communication).

There are still many subjects from which not all the possible information has yet been extracted and which are prospects for further study.

This is especially true of the petroglyph that represents a

man who with one hand has raised a large animal or person over his head (Fig. 41; Comp. 13). Perhaps this is a hunter carrying a slain animal (for example, a deer), or perhaps it illustrates an old tradition of the reindeer Eskimos about supernatural women who hunted whales in canoes and boats and carried their husbands on their shoulders (Bogoras 1936:246-247).

Then there are the inverted illustrations of deer or bears (the legs up or the tail down) that are probably connected with some as yet incompletely understood magical activities that signify possibly slain, sinking animals (Comp. 31, 43, 50, 84). Human figures are occasionally encountered among these inverted figures (Comp. 98).

Some illustrations are reminiscent of a muskox or a bison (Comp. 44) and a swan (Comp. 37, upper left)—subjects that could turn out to be of interest not just to paleozoologists.

And, of course, there are anthropomorphic mushrooms of various kinds. This often-visited subject at present does not rule out a unified interpretation.

Let us assume that nonpoisonous mushrooms are illustrated on the cliffs. So it can be suggested that they were pecked in by hunters with a magical purpose: for the regeneration and reproduction of this greatest delicacy of the deer and ultimately for attracting the latter. In such cases, an entirely new deity in the ancient pantheon—most often a goddess, who is the ruler and probably patroness and guardian of the deer—can be recognized in some petroglyphs (Dikov 1967:91). Her appearance is strange and unusual (Fig. 42, 43). A clear force moves the artist to express the highest ideal with the quartz graver: with realistic,

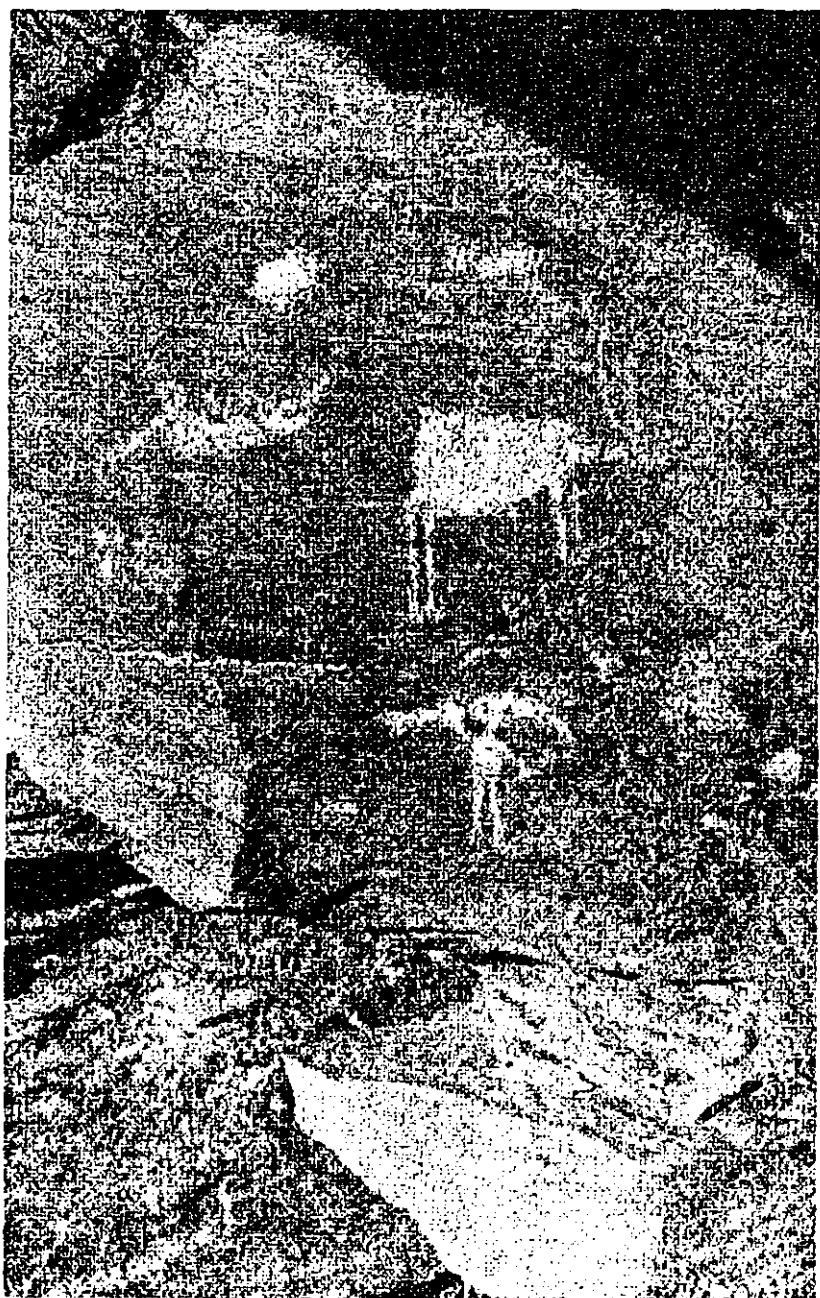


Figure 41. Petroglyph 13 on Stone II.

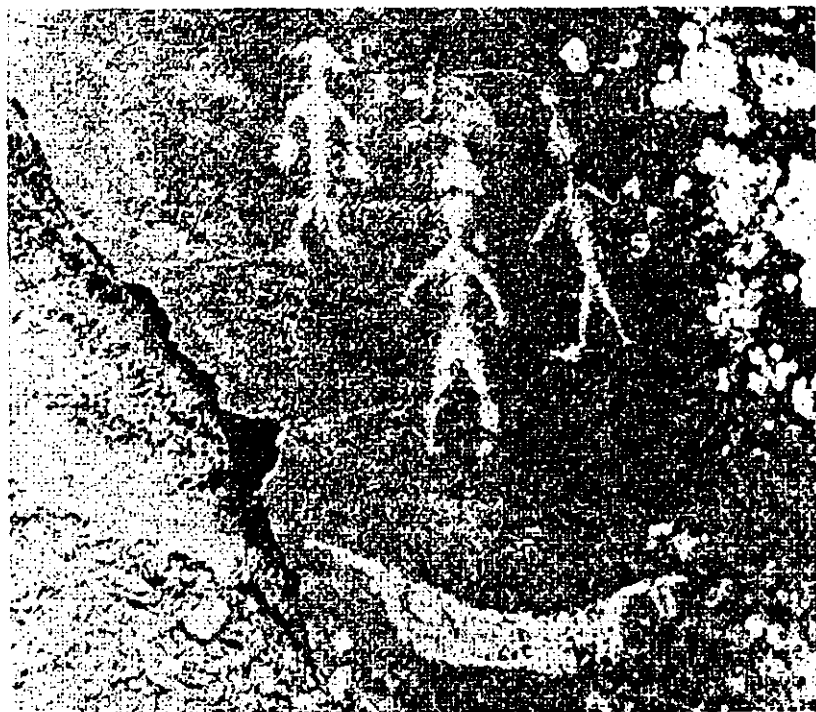


Figure 42. A humanlike amanita and a baidar (Comp. 78).



Figure 43. Fragment of a representation of a woman-amanita (Comp. 14, Stone III).

it can be said ethnographic, authenticity he strives to illustrate her coiffure, braids (Fig. 43), sometimes dressing her in fur overalls—*kerker* (see Fig. 24; Comp. 65, 79)—and always carving a monstrously large mushroom on her head. The artist does not go into excess detail, striving instead to resolve the figure gracefully and simply. When he succeeds (as, for example, on Stones III and IX—see Comp. 14 and 78), a very expressive and impressive silhouetted figure results. And the question involuntarily emerges: is this not the very mother of wild deer, Mother Earth, a cult that was so widespread among the circumpolar wild deer hunters (Dolgikh 1960a:74–80; Simchenko 1964)? Or is this some other kind of ruler of northern mythology?

In the opinion of the well-known Soviet mycologist B. V. Vasil'kov, among our petroglyphs there are no definite deer mushrooms (*boletus*); rather, they are identified, as noted earlier, as *amanitas*. Therefore it is more probable that there is a slightly different explanation for them.

It has long been noted that the intoxicated among primitive peoples are perceived as prophets (Popov 1948:103), and that every kind of prophet and shaman—for putting themselves in a state of “professional” intoxication and artificial psychosis—used the most varied psychochemical means, usually plant sources of atropine, including poisonous mushrooms. Further, we cite information on this question from the books of the Soviet psychiatrist V. L. Levi. Under the influence of belladonna, he writes, the Delphian pythonesses prophesied, and “weed of the devil” (*stramonium* and *henbane*) was the favorite herb of sorcerers in the Middle Ages. The first smokers of tobacco, American Indians, were enthusiastic lovers of “divine peyote,” a strong hallucinogenic drug extracted from a cactus that contains

mescaline and brings on a state of intoxication with strange visions (Levi 1967). And among the descendants of Mayan Indians, the Hungarian ethnographer S. Borchegiy recently established the presence of an early cult of hallucinogenic arboreal mushrooms whose active element, psilocybin, brings on artificial psychoses (Heim and Wasson 1958; Borchegiy 1959). The Maya themselves, as noted above, left a large number of stone images of these and similar mushrooms (Fig. 22, 23) as well as texts that mention the secret "kholom okosh" (the cap of the ritual mushroom that contains these elements) (Heim and Wasson 1958). Finally, it is noteworthy that hallucinogenic mushrooms, probably amanitas, were in vogue among the Vikings—though for a somewhat different purpose. The berserker knights who ate them threw themselves into battle madly and bare breasted ("berserk" = bare breast), their own blind obsession at times not differing from that of their enemies (Levi 1967).

Thus, we see that in the use of hallucinogens, in particular poisonous mushrooms, the inhabitants of Chukotka were not alone. Their *Pegtymel'* ancestors, like present-day northern peoples, did not eat edible mushrooms. But in some poisonous varieties, primarily amanitas, they probably saw a means of intoxication and narcotization. This mushroom "psychochemistry" served them primarily in shamanic activities, in establishing "direct" contact with the spirits. It is entirely possible that the rock illustrations of amanitas were pecked in for a magical purpose—in order to summon an abundant harvest of amanitas on the tundra.

In any case, all these dancing figures of amanita people evidently confirm deep sources for shamanism in northeastern Siberia. It is well known that a person who chews the amanita

simply goes mad and hallucinates for several days. And is it not a state of shamanic ecstasy that is usually attained by enraptured, shamanic *kamlanie*, exhaustive beating of the drum? Illustrations of this indispensable shamanic attribute (the drum or rattle) can be seen in the hands of some of the dancing people (Comp. 46, 82)—one more possible confirmation of antiquity for shamanism in Chukotka. And not just in Chukotka. In a different way it is possible to have a look at some enigmatic illustrations found in other regions of Siberia, the Far East, and northern Europe. It is now plausible to interpret as anthropomorphic amanitas, for example, the statuette of a man "with a head reminiscent of two birds' heads turned different ways" (and simply, with a mushroom cap instead of a head), of the Developed Neolithic of Priladozh'e, and possibly some anthropomorphic figures with "lunar" or "solar" features in Onega petroglyphs—one of which is very similar to the Pegtymel' anthropomorphic, mushroomlike illustrations (Gurina 1961:142, 152, Fig. 19:14; Laushkin 1959:Fig. 6).

Of course, amanitas endowed with supernatural qualities must have played a large role in mythology. Some Pegtymel' petroglyphs evidently embodied myths now forgotten (such as the myth, noted by Bogoras among the Chukchi, about a tribe of amanitas), where amanitas are some of the important personages.

Thus, the Pegtymel' art, amazing and distinctly different, is without doubt worthy of the attention of researchers. It was discovered for the first time in the Chukotka tundra and embraces a development of many centuries. We are convinced that the creative works of early artists occurred here over a long course from full-blooded and vigorous realism to increasingly schematic illustrative canons. Finally, graffiti began to appear on the cliffs—

very schematic, incised, linear figures and in the development of the petroglyphs came a turning point, evidently connected with the appearance of the first reindeer herders on the Pegtymel'.

Did this new people really arrive, and if so, then who did they supplant on the Pegtymel'? These are the last questions that remain for us to examine.

THE PROBLEM OF ETHNIC ASSOCIATION OF THE PEGTYMEL' PETROGLYPHS

It is not so simple to solve this complex and fascinating but necessary problem.

The Pegtymel' valley of old was in the zone of contacts of different ethnic groups. Fragmentary information about the Eskimos that occupied this area in the past came from eighteenth- and nineteenth-century travelers. Dr. Karl Merck, a member of the Billings Expedition (1787-1793), reported on the spread as far as Cape Shelagskii of the Uelen dialect of the Eskimo language (Vdovin 1954:76-77), and Captain Shishmarev related the use there of bone labrets, distinctive Eskimo decorations, which are passed through a hole in the cheek and lips (*Svedeniia o . . .*, 1852:186).

In the enigmatic Shelagi (from which Cape Shelagskii, west of the mouth of the Pegtymel' River, was named) some explorers saw a tribe of Yukagir Chuvantsy (Chuvandzi) reindeer herders, according to fragmentary information from the beginning of the eighteenth century. The basis for this is the fact that the Kolyma Yukagir called the latter "Sholilau" (then Russified to "Shelagi"), while the Anadyr' Chukchi called them "Chavanami" (corresponding to the name of Chaunskaya Bay) (Jochelson 1897:162; Vdovin 1944:250-251; Dolgikh 1960b:433-434).

In the eighteenth century the settled inhabitants of the sea coast in the region of the mouth of the Pegtymel' River were probably Chukchi. However, determination of their boundary

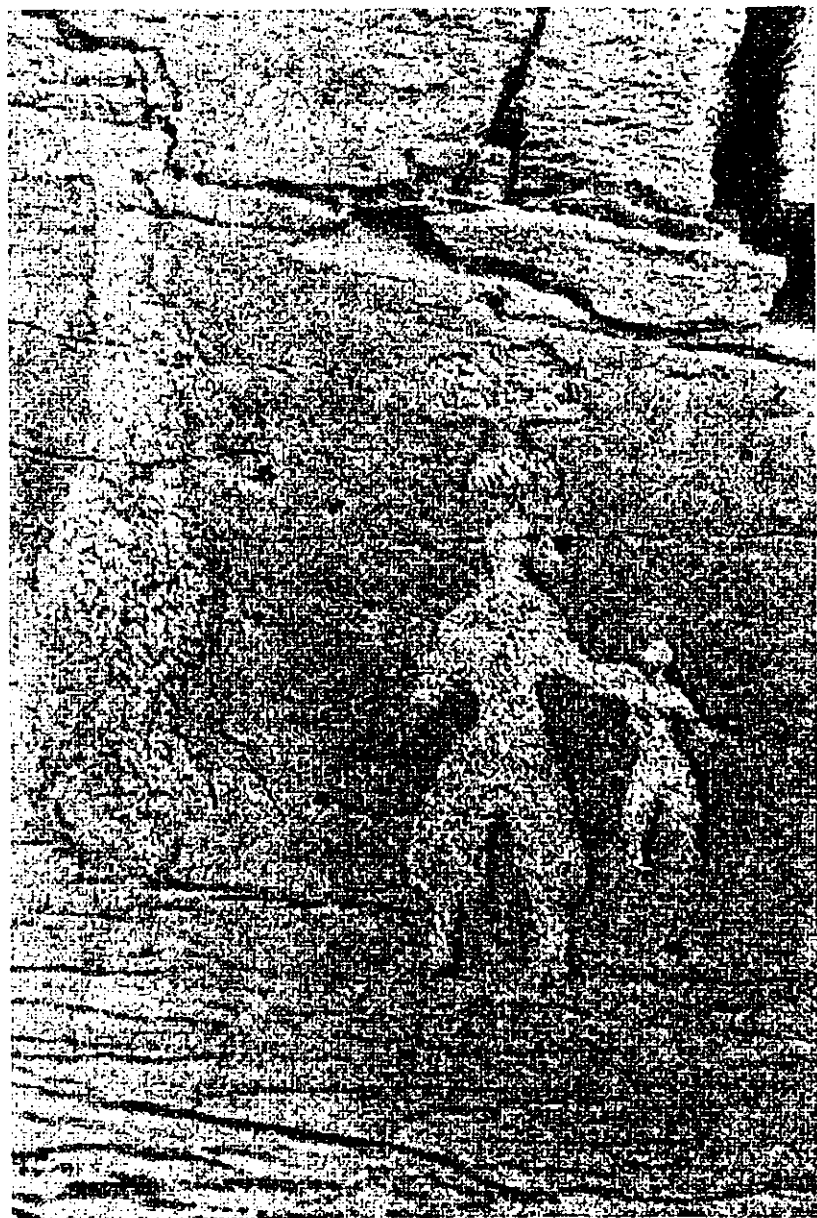
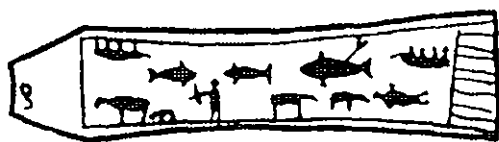


Figure 44. Anthropomorphic figures in *kerker* (Comp. 79, Stone IX).

with the Yukagir is still debatable. According to I. S. Vdovin, it passed along the Chaun River (Vdovin 1944:250), and according to B. O. Dolgikh and I. S. Gurvich, along the Pegtymel' River, that is, significantly farther to the east (Dolgikh 1960b:435; Gurvich 1966). Gurvich's opinion deserves attention, for it suggests that the Chukchi (and occasionally the Koryak) in the

Figure 45. Eskimo engraving on bones of the Thule period (after De Laguna).



seventeenth century penetrated deeply into the territory of Yukagir settlement between the Pegtymel' and Chaun Rivers and coexisted there with them (Gurvich 1966:53).

Thus, of those peoples who in the past could have lived in the Pegtymel' region, we know of at least three: Eskimos, Yukagir, and Chukchi.

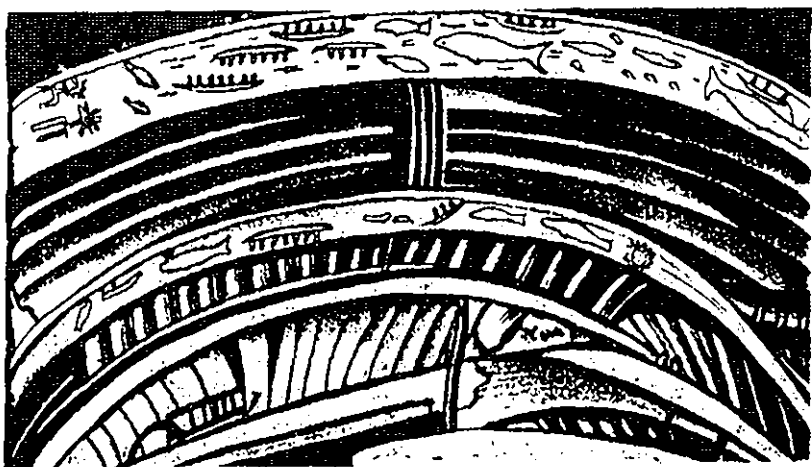


Figure 46. Illustrations on the rafters (whale ribs) in a Chukchi pithouse of the eighteenth century (illustration by a member of the Merk-Luki Voronin Expedition).

It is interesting to try to "fit" each of our kinds of petroglyphs to each of these ethnic groups to determine whose ethnographic style and content seem closest to these petroglyphs.

The silhouetted petroglyphs of the Pegtymel' have the least in common with the Yukagir, who at the coming of the Russians in the seventeenth century to Chukotka were spread from Yakutia and the Anadyr' River basin to Chaunskii Bay, that is, quite close to the Pegtymel' River or even on it. Illustrations of amanitas, in particular the coiffure in the form of two braids on female amanitas, and figures of canoes or kayaks could have been interpreted as Yukagir. Opposing this interpretation is the presence among the petroglyphs of scenes of sea mammal hunting and illustration of the *kerker*—clothing in the form of fur overalls that are quite foreign to present-day Yukagir—on some female amanitas (Fig. 44; Comp. 65, 79). In addition, not one petroglyph is related to the elk cult—the most characteristic feature of Yukagir spiritual culture. This is all the more strange since elk were found here until the middle of the nineteenth century.

On the other hand, the style and content of the Pegtymel' petroglyphs have much in common with recent Chukchi and Eskimo illustrative art, especially bone carving. S. V. Ivanov, an expert on the art of Siberian peoples, writes that "Chukchi and Eskimo figures and illustrations, engraved in bone, are so similar that there are no grounds for viewing them as being from separate peoples" (Ivanov 1954:407).

And the silhouetted nature of our petroglyphs is clearly echoed by the silhouetted form and shading of both the Eskimo and Chukchi illustrations on bone as well as on skin among the Chukchi (Ivanov 1954:459–466, Fig. 37–42; 445–456, Fig. 27,

28). Their naive-realistic treatment is also similar. Motifs similar to the silhouetted petroglyphs—scenes of hunting deer and of sea mammals—we find on cult paddles and baidar seats, on festive boards or on bows and arrows of both the Chukchi and the Eskimos (Fig. 45) (Bogoras-Tan 1939:9, 92, 165, Fig. 78; Ivanov 1954:422–431, Fig. 8, 9, 11, 13, 14, 53; Volkov and Rudenko 1910:181, 186, Fig. 15, 19). Merck saw such figures on whale ribs—rafters of eighteenth-century Chukchi pithouses (Fig. 46)—and E. S. Rubtsova, a Soviet ethnographer and linguist, reports on large winter houses decorated with them among the Eskimos of Chaplino village a hundred years ago (Ivanov 1954:420). The tattooing on the face of human figurines, similar to figures on the Pegtymel' cliffs, are equally distinctive for both the Chukchi and the Asiatic Eskimos (Ivanov 1954:443–444, Fig. 18).

Apparently Vdovin is right to distinguish a huge complex of common elements of the spiritual and material culture between these two neighboring peoples, one of which—the Eskimos—was assimilated by Chukchi arriving on the sea coast; the Chukchi in turn took much that was Eskimo into their economy and culture (Vdovin 1961). We can correlate many elements of the Pegtymel' rock illustrations only with a Chukchi-Eskimo economic-cultural commonness, and not specifically with either of these peoples. To such elements are assigned sea mammal hunting from a baidar, in which there are usually eight hunters; the cult of the orca (Comp. 33, 60); the raven cult (Comp. 87); and the previously mentioned *kerker*—typically a Chukotsk Eskimo dress (Fig. 35; Comp. 79).

However, a specific and essential subject of the Pegtymel' petroglyphs is definitely a Chukchi, not an Eskimo, feature: the

numerous and sometimes clearly categorical humanlike illustrations of amanitas. Here we are supported by Bogoras (Bogoras-Tan 1939:25) in his colorful and detailed account of specifically Chukchi ideas connected with this rare—but which we nevertheless encountered near the Arctic Ocean—bright red *vapak* mushroom. In the Chukchi language, but not in the Eskimo, there are special names for the various stages of development of the amanita (*vapak*): *kylik*—the amanita just appearing, *ryratyl'yn*—an amanita having become flat, *kakyn-ton*—an amanita that is cracked.⁷ Undoubtedly, this terminological differentiation of the name of one and the same mushroom indicates its important role in the life of the Chukchi in the past.

There are also figures in the Pegtymel' silhouettes with purely Eskimo features.

The illustrations of kayaks are very likely predominantly Eskimo, however, and no other kind. Often precisely the same things are emphasized on them as on the kayaks of the Caribou Eskimos—either sharply turned up, high, pointed bows (Comp. 43, 53, 76, 82) (Birket-Smith 1929:152, 185, 186, Fig. 48, 58, 59, 109) or equally pointed but with moderately raised sterns and bows, as on the kayaks of Greenland Eskimos (Comp. 67, 72). Among the North American Caribou Eskimos we find an extremely interesting linear (not silhouetted) figure, which illustrates the hunting of swimming caribou with spear or harpoon from a kayak. The latter is depicted by one curved line with the characteristic raised bow, that is, almost precisely the same as on the Pegtymel' cliffs (Fig. 47) (Birket-Smith 1929:255, Fig. 99c).

It is true that drawings of other kayaks are also encoun-

tered on Kaikuul' Bluff—with straight, cut-off sterns (Comp. 15, 25, 59, 95), probably more similar to Chukchi, at least if we judge by Chukchi figures on skin (Ivanov 1954:30).

Figure 47. Hunting of swimming deer. Illustration of the Caribou Eskimos (after Birket-Smith).



The "winged object," illustrated on Stone V (Comp. 58; Fig. 30), should be considered an exclusively Old Eskimo feature.

As for the large, multiseat boats with high bows pecked at Pegtymel', the closest analogy is the baidars of the Aleuts, who are related linguistically to the Eskimos and consequently in origin.⁸ These and others in the past were probably even more similar in culture than today.

Thus, in the material accessible to us we find more connections with the Pegtymel' art among the ancestors of the Eskimos or among those whom we suppose to be their ancestors.

In Old Eskimo art, apart from stone figures of people and animals similar to some Pegtymel' illustrations (Murdoch 1892:434-436), a rather large number of bone statuettes of women are encountered, if not directly then probably indirectly through the basic idea and through the role implied in them of women in magic, connected with the female images at Pegtymel'. We excavated these statuettes from Old Bering Sea graves on Cape Chini in Chukotka. They are also known in the American

Thule Eskimo culture. It is interesting that on some statuettes the coiffure is somewhat different than among Eskimos: not the two braids but hair (if this is indeed hair) gathered on top (Fig. 48:1) (De Laguna 1932:Pl. XIX:II; Mathiassen 1934:Pl. I:21; VII:1, 2, 3; X:14; Holtved 1944:Pl. 40:15, 16, 21-23). Similar coiffures are absent from any of the female figures represented on the Pegtymel' cliffs. On some of the statuettes, that which we

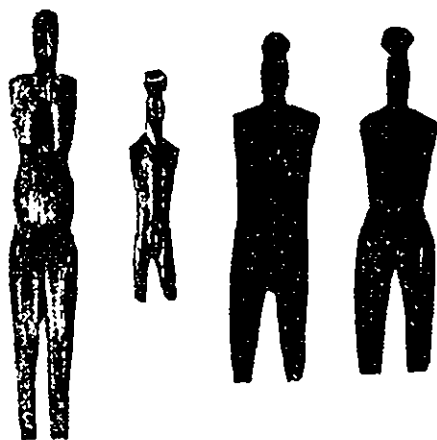


Figure 48. Eskimo statuettes of the Thule period (after Mathiassen).

provisionally called a coiffure is very reminiscent of a mushroom (Fig. 48:2) (Mathiassen 1934:Table I:21; VII:3).

The rock silhouettes of Pegtymel' are reminiscent also of Eskimo engravings on bone of the Thule period (second millennium A.D. to the seventeenth century) in some illustrations of deer and waterfowl. However, instead of silhouettes, they are often simply lines—a manner of illustrating people that is somewhat different, more free and dynamic (Ivanov 1954:415). Incidentally, it would be strange to expect absolute identity in the style of illustrations executed on such different material.

Thus far, all our comparisons testify that it is scarcely

possible to assign the Pegtymel' petroglyphs to the ancestors of any particular one of the present-day native peoples living in Chukotka: the Chukchi, Eskimos, or especially the Yukagir.

If realistic illustrations (Canon 1) are actually the earliest and were left by wild deer hunters who did not yet occupy themselves with maritime exploitation, these illustrations may be related to an age-old cultural-economic phase of the enumerated peoples.

For the primary bulk of the silhouetted petroglyphs, that is, for the petroglyphs connected with Canons II-V, the ethnic feature of the first order—economic-cultural type—can be determined with great confidence.⁹ Characterized by a combination of wild deer hunting and the exploitation of sea mammals, it corresponds to an early phase of economic development among the Eskimos (Vdovin 1961:58) as well as to the way of life of the coastal Chukchi.

When we try to determine by these silhouetted figures the ethnic features of the second order, we run into strange contradictions at first glance: some petroglyphic subjects (the winged object, kayaks with high bows, and others) are typical for the Eskimos; the use of amanitas in northeastern Siberia is especially characteristic of the Chukchi, Koryak, Yukagir, and Itel'men (Krasheninnikov 1949:395, 427; Levin and Potapova 1956:889, 967; Bogoras-Tan 1939:5).¹⁰ Thus the features of the second order, which might have served for more concrete determination of ethnicity, one would think, are ethnically incompatible since they belong to entirely different linguistic ethnic communities (predominantly to Chukchi-Koryak and Eskimo-Aleut).

However, we should not be especially astonished at the lack in the Pegtymel' petroglyphs of complete ethnographic correspondence to any one of the present-day peoples of Chukotka. The time of these rock figures is remote from us—not by hundreds of years but by more than a thousand—whereas the ethnic history of northeastern Siberia even in the past 200 to 300 years is characterized by great change (Gurvich 1966). Direct extrapolation, over such a distant past, of the data on the settlement and ethnography of the peoples in the seventeenth century can, of course, never resolve the problem that confronts us.

The incompatible combination of ethnic features found in the petroglyphs, it seems, is a real, historical fact, and an explanation of its contradiction has to be found in the dialectic of ethnic development.

In other words, the problem of the ethnic association of the Pegtymel' rock figures must be resolved by looking at a concrete historical picture of the development and distribution of the early cultures in the Chukotka region being examined.

It is recognized universally that in antiquity the ancestors of the Eskimo lived along the north coast of Chukotka as far as Cape Baranov and the Medvezh'i Islands near the mouth of the Kolyma River (*Istoriia Sibiri*, 1968:350). Early campsites in these places (including those closest to the Pegtymel' River on Shalaurov Island) and the things found in them are assigned to the first millennium A.D. and differ in Eskimoan features. Regarding the remains of the toggling harpoons, it has been established that they belong to the late Old Bering Sea and Birnirk cultures (Beregovaia 1953:421–445, 1954:288–312, 1960:183–195).¹¹ In relative proximity to this region, in Vankarem, I found

in 1963 a typical Old Bering Sea "winged object" in the cultural layer (Dikov 1968c:Fig. 10:8).

Based on our latest excavations, this coastal Eskimoan culture in Chukotka was preceded by an interior culture of fishermen and hunters of wild deer. Many items in the stone inventory are similar to those of Old Bering Sea: varied, flat, triangular, carefully retouched arrow points; end scrapers; and adzes. And the Ust'-Bel'skaia burial ground yielded an extremely archaic toggling harpoon point as well as bifurcated bone sockets for flat stone arrow points decorated in the simplest pattern of Okvik Old Eskimo style (Dikov 1969c:29, 1961c:25). Therefore some genetic connections quite probably exist between the interior Late Neolithic culture from the end of the second to the beginning of the first millennium B.C. and the coastal culture of the beginning of the first millennium A.D.

These genetic connections are corroborated by sometimes scanty [physical] anthropological data. The opinion exists that a skull found in the Ust'-Bel'skaia burial ground, in particular its teeth, possess many Old Bering Sea features characteristic of an undifferentiated proto-Arctic and proto-Yukagir anthropological type (Zubov 1977). It is true that this Ust'-Bel'skaia skull also has features recognized as proto-Chukchi. Namely, it was noted that a combination of features of Baikal and Arctic types (besides the vertical profile) was closest to Reindeer Chukchi (Gokhman 1961:17; Lebedinskaia 1961:21). [Physical] anthropologists, however, explain such a combination of features as a manifestation of an initial nonspecialization and neutrality of Arctic skull type from the earliest Eskimo burial grounds (Alekseev 1967:25-26; Zubov 1969; Arutiunov and Sergeev 1969).

The archaeological and [physical] anthropological facts examined above attest to the great antiquity of the proto-Eskimo ethnic strata in Chukotka, especially in the vicinity of the Pegtymel' petroglyphs, which is reflected in them.

The presence of the Chukchi ethnic component (the amaniras and others) in the Pegtymel' rock illustrations, as well as the unified Chukotsk Eskimo elements (*kerker* and others), bring us to conclude that the Pegtymel' rock art belongs largely to the ancestors of the Chukchi, who assimilated the proto-Eskimo, and then, toward the middle of the first millennium A.D., experienced the influence of the coastal Eskimos—the Old Bering Sea and the Birnirk.

The latest figures—the graffiti—probably belong to the Chukchi reindeer herders.

It is interesting that the data of toponymics (unfortunately, inadequately worked out) do not contradict our hypothesis about the ethnic association of the Pegtymel' petroglyphs. Though the majority of the names north of the Malyi Aniui River are Chukchi, the latter are probably nevertheless relatively late and overlie earlier, possibly partially Eskimo, toponymics (Menovshchikov 1963:121–125). There is reason to believe that some of them belong to the reindeer-herding period. The name of the Pegtymel' River itself, for example, can mean in the Chukchi language: river where “runners were broken,”¹² or even more definite—“broken sled” (Babkin 1968:44). Meanwhile, among the hunters of wild deer of prereindeer-herding times, the primary means of transportation was the boat. There were hardly any sleds or, consequently, words for “runners” and “sleds.” To name the river such could only have been done by Chukchi

reindeer herders, whom we can connect only with the latest figures at Pegtymel'—the graffiti. The earlier name of the Pegtymel' River is "Verkon" (or "Verkun") (Wrangel 1948:298; Alekseev 1966:99–103). In its root it contains the Chukchi *verka* (*verkaver*) (Bogoras 1937:156) and the Eskimo *virka* (Menovshchikov 1964:181). Nearly identical in sound, these words mean "snow ridge," which singles out the same characteristic of the river expressed in the name "Pegtymel'." In winter on this river, sleds were evidently often broken on snow ridges. Interesting in this regard is the fact that the Eskimo *virka* belongs to the earliest



Figure 49. Pictographs in Cook Inlet in Alaska (after De Laguna).

Eskimo dialect—Sireniki. There is no doubt that further investigation of the toponymics of northwestern Chukotka, like its archaeology and [physical] anthropology, will resolve the problem of ethnic association of the Pegtymel' petroglyphs even more definitely.

And now a few words about other rock figures that are the closest ethnically to the Pegtymel' petroglyphs.

Rock illustrations, found on the shores of Cook Inlet in southeastern Alaska by Frederica De Laguna, have been known of for a long time. It is true that they were drawn on stone with mineral paint rather than being pecked in, but they are the most similar to the Pegtymel' silhouettes of sea mammals, baidars, kayaks, birds, and some humanlike figures (see Fig. 49) (De Laguna 1934:Pl. 4 and others). Especially close to them in style are the "little humans" (see Fig. 49:6) and an illustration of a woman in profile (see Fig. 33, left) we found in 1968 on Stones XI (Comp. 97, 98) and IX (Comp. 79). Among the pictographs of southeastern Alaska, the complete lack of the subject of deer hunting is a less substantial differentiating feature from the Pegtymel' petroglyphs than the features of similarity enumerated above. The location of the Alaskan pictographs, directly adjacent to the sea, significantly predetermined their narrow orientation of the subject. Contrary to widespread opinion, they are probably not Eskimo but Aleut (clearly visible on the head of a man sitting in a kayak is a typical Aleut, wooden hat with a long visor that protected his face from splashing waves) (Fig. 49:3).

Unfortunately, the pictographs in Cook Inlet have not yet been dated. Based on their specialized maritime theme, they are possibly substantially later than those at Pegtymel'.

In another direction from the Pegtymel' River, to the west and southwest, stretches an area of petroglyphs pecked into cliffs that has been examined very little. They have been observed on gray sandstone in northern Yakutia, in the basin of the middle Kolyma, and on the Omolon. Based on their scanty descriptions, they differ somewhat in content from those at Pegtymel', though both use a similar technique of execution. There are no scenes of the hunting of sea mammals among them, and this is

completely natural since these petroglyphs are located quite far from the sea. Their primary subject is a man—armed with a bow and arrow—hunting elk, deer, or squirrels. The most interesting rock illustrations, and at the same time most similar to those at Pegtymel', are on the Khunkhanda River—a tributary of the Omolon: a dog with thrust-out tongue runs after an antlerless deer, while behind the dog is a man on skis armed with a bow and arrow (Gribanovskii 1946).

A separate ethnic stratum is probably indicated in these petroglyphs, which territorially coincide partially with the region of Yukagir settlement in the seventeenth century. It looks as if the Pegtymel' petroglyphs share with them a common Paleo-Asiatic origin. The figure of the vessel with its bands of typical Paleo-Asiatic decoration (Fig. 39; Comp. 49)—and all the other generally Paleo-Asiatic, paleoethnographic features of the Pegtymel' petroglyphs noted above—completely support such an assumption.

The isolation of a broad Paleo-Asiatic territorial group of petroglyphs in northeastern Siberia is completely justified, though it requires further specification and reinforcement by new materials.

Farther to the south and southwest, beginning with the Mai and Olekma Rivers, spreads an area of very different pictographs executed in red ocher and, apparently, in quite a different ethnic world.

We became convinced that no one in present-day Chukotka remembered Pegtymel' and other drawings on the cliffs. They had been completely forgotten.

It is even more interesting that, in the mountains of southern Mexico and Guatemala, a secret cult of the hallucinogenic mushrooms exists today that goes back to the civilization of the ancient Mayas and to that stone mushroom mentioned earlier.

Wasson and Borchegiy argued that the stone mushrooms of the Maya, strikingly similar to those at Pegtymel', belong to the first millennium B.C. These researchers suggested as well that among the Maya there might have been even earlier representations of mushrooms—wooden ones that plainly were no longer extant (Heim and Wasson 1958).

The question must be asked: are the Central American cult illustrations of mushrooms connected with those at Pegtymel' not only chronologically but generically as well? Is there some common source for them? Perhaps they represent relict echoes of some forgotten early culture that spread its influence both in Chukotka and in America. All the more so since here and there we find—at times entirely unexpectedly—common stylistic methods in rock art, for example, the stylization of the splayed deer's hooves resembling "goose's feet" (Dewdney and Kidd 1962:33).

Up to the present time connections have been noted, usually between the early Eskimo cultures and Asiatic Far East with peoples of the Amur, Soviet Primor'e, and the Japanese Islands (Okladnikov 1959a; Rudenko 1947; Arutiunov and Sergeev 1969). But almost no attention is turned toward early connections of Chukotka and Arctic America with the southern regions of North America and Central America. Possibly these connections were actually substantially weaker than Asiatic

ones, but it is hardly correct to deny them entirely. The presence of a Pegtymel' and a Central American mushroom ritual certainly supports raising the question of genetic or contact connections between them.

The rock art of Siberia has been studied successfully for a long time. A large number of books and articles have been published on petroglyphs and pictographs of the Yenisei, Angara, Lena, and Amur. Gradually, a kind of encyclopedia of Siberian illustrative rock art developed. Now entire large regions and powerful sources of completely original—in its way unique—art appears in the Siberian taiga, on the steppes of Zabaikal'e, and on the Amur (Savenkov 1910; Griaznov 1933; Viatkina 1949, 1961; Grach 1957, 1958; Okladnikov 1959b, 1966, 1967, 1968b; Okladnikov and Zaporozhskaia 1959, 1969).

The most recent discovery is another unique branch of Siberian art, the northernmost rock illustrations in Asia at Pegtymel', and undoubtedly another powerful source of early art in Siberia for its time in the polar tundra in Chukotka.

Passing along the Pegtymel' bluff (this can be done vicariously by turning to the description of all the petroglyphs at the end of the book), it is impossible not to recognize what an important center of social, artistic, and religious life of the early population it was over the course of a very long time. At the same time we see how the style and the spirit of the art itself changed from cliff to cliff. On the central, most spectacular Stone IV, splendidly realistic studies of living nature occupied the best place. Later, welded by utilitarian magical canons, sometimes quite schematic, the figures were located predominantly on

peripheral stones. Later illustrative canons are more often seen on the side—on Stones V, VII, VIII, and X. The history and the course of time acquire, as it were, spatial expression.

Analysis of the content of the illustrations portrays rather vividly a picture of early life, of the kind of economic activity. Perhaps it even shows the course of settlement of this remote Asian territory at the crossroads with America in the Neolithic, and later in some measure the ethnic association as well of those who created the petroglyphs.

In summary, the Pegtymel' petroglyphs we investigated in 1967–1968 have extraordinarily great significance as a historical source. At the same time they represent a valuable source for the study of the world history of art and clearly demonstrate the uniquely original creative contribution of those "hyperboreans" living on the polar sea.

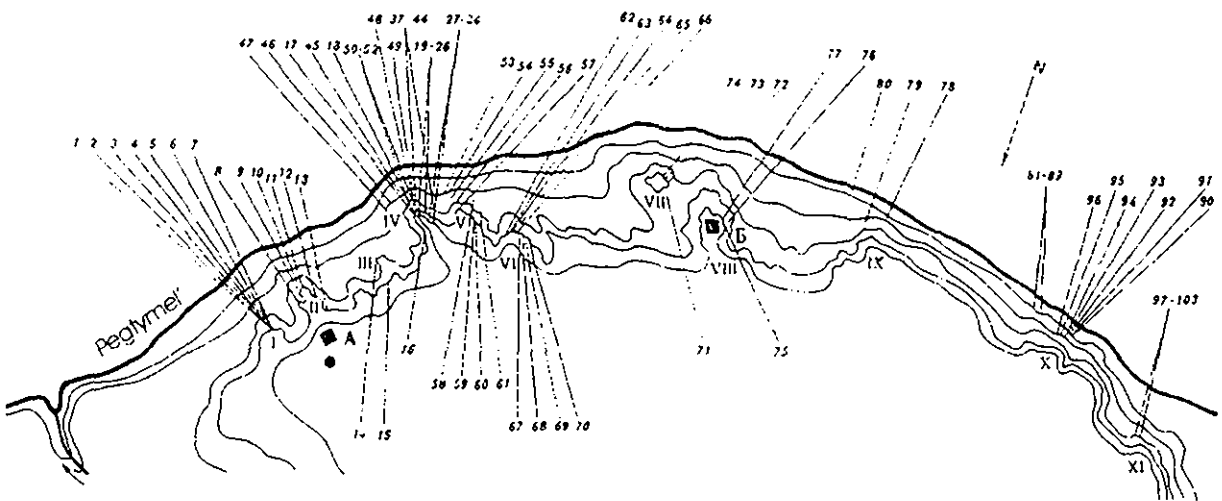


Figure 50. Diagram of the location of the petroglyphs of the Kaikuul' precipice.
 A—excavation of the first site and burial. B—excavation of the second site.

PEGTYMEL' ROCK ILLUSTRATIONS

Petroglyphs of the Kaikuul' Bluff

A description of the petroglyphs is given in the order of their location on the eleven rocky ledges of the bluff ("Stones") from upstream to downstream along the Pegtymel' River (see Fig. 50). The numbering of the compositions of rock illustrations published at the end of the book corresponds to the numbering in this description of the petroglyphs.

Stone I

As seen in Figure 51, the stone is broken up into a multitude of blocks with rather large surface panels. On five of them, facing south, we see the following compositions.

1. The extreme lower right group of petroglyphs. It is remarkable that here two layers of illustrations are clearly different. In the middle is a very shallowly pecked (in the third style), large silhouette of a deer with its head to the left. It is surrounded by small deer silhouettes pecked (in the fourth style) substantially deeper. Two of them are going toward the four coming from the right (the front one only partially preserved). It can be clearly seen that the legs of the upper one of the lighter, and consequently relatively later, silhouettes overlies the large, weakly pecked central deer figure. Two small deeply incised figures of deer are represented upside-down. The lower one covers the forelegs of the large deer. Several spots were pecked in above the latter. On the right part of the illustrated panel is a schematic male figure. This two-layered composition of petroglyphs is exceptionally significant for clarifying the stratification of their styles and technique of execution (see Fig. 25).

2. One meter above the previous composition. Two human figures are walking, holding hands. On the head of the left figure is a mushroom with a double cap, and close by is the silhouette of a dog with its muzzle toward these anthropomorphic images. A little higher is a small figure of a deer without antlers.

3. Two meters to the left of Composition 2 is the central composition: an anthropomorphic figure—a mushroom on its head—between two others. On all three the legs and arms are spread apart. The figure to the right is a male. Near him is a small figure of a deer with its head turned toward him. Above the right figure is a spot. The illustrations were pecked in shallowly, their outlines indistinct.

4. An isolated humanlike figure with a mushroom on its head. The arms and legs are spread apart. It was ground in forty centimeters below Composition 3, beneath the image of the deer on the adjacent panel.

5. Just below and to the left of Composition 4 is a boat with a man.

6. On the adjacent panel, just to the left of the previous one. A very finely drawn scene of the hunting of swimming deer from a boat.

7. A little more to the left. In the middle is a circle—a ring (the sun?). To the left are two anthropomorphic silhouettes (sexless or female), above is a deer without antlers, to the right a larger but partially effaced figure of a deer, above it a paddle, and below to the right a schematic anthropomorphic figure with hands raised.

Stone II

Just as on the previous one, all six compositions on this stone are located on its upper rocky ledges. But in contrast to Stone I, they are arranged not on one side but on three sides of the stone and at significant distances from each other.

8. On the east side. In the upper composition are seven crude and shallowly pecked deer moving to the left. Under them are two schematic humanlike figures with spread legs and arms ("lamenting people"); one is a man. And below are two deer going to the left, their tracks being followed by two wolves one after the other.

9. On the south side, three meters lower than Composition 8.

A herd of deer is going to the right. In front is a large deer, the antlers on its small, elegant head bent back. Its whole figure is distinguished by rare grace. The remaining three small deer, located below, were executed more primitively. Behind the large deer is a vague fourth figure of a deer. Farther to the left, behind them, is a boat with a pointed bow raised upward and six paddlers represented by vertical strokes. The images were made by rubbing, and their outlines are not clear.

10. The same south side of the stone, five meters from the previous composition. It is interesting that the deer are represented facing one another. A total of six rather crude, weakly pecked or ground silhouettes: two, one behind the other, look to the right; two others to the left toward the first; and the remaining two, drawn in a lower row under the last two, look to the right. The antlers of these deer are bent forward.

11. On the southwest side, twenty meters from Composition 10. In the upper part is the silhouette of a distinctively stylized deer with antlers (and two tines on the front) turned forward and hair beneath its neck. In front of the deer is a wolf, and another wolf is behind it. Both wolves have their backs aggressively humped. Something about their form is also reminiscent of Arctic foxes (see Fig. 17). To the left and slightly higher is a vague, partially effaced figure, and even higher is a figure of a deer in a different, simpler stylistic manner placed vertically. In the lower part of the composition are two ground-in deer, one below the other, illustrated as on the central figure with hair beneath their necks, but different from it in that each antler was drawn separately and not superimposed one on the other. The illustrations were pecked in lightly.

12. A group of petroglyphs on the northwest side of the stone. They are located five to six meters above Composition 11, under a cornice at the very upper edge of the cliff. A long, deep crack divides it into two parts. The upper part illustrates the scene of a deer hunt while they are crossing a river. Four deer are rushing forward and to the right. The last has been pierced by a spear aimed from a sharp-bowed boat containing three paddlers. A fifth deer, drawn behind the boat, swims (or runs) in the opposite direction—to the left. The little scene is very dynamic, giving the feeling that the hunting boat

had burst into the very middle of the swimming herd. The deer are represented simply yet dynamically (see Fig. 13).

The lower part of the composition illustrates a scene of maritime hunting. A whale is harpooned from a boat with a sharp bow; in the boat are eight men rendered as vertical strokes. Behind and below are two more moving boats, the one in the rear with six paddlers and the lower one with eight). One more, capsized and sinking with four paddlers in it, is being trampled down and kept submerged by an anthropomorphic figure of schematic appearance. Its arms and legs are spread apart. Three deer were drawn among the boats on the left side of this composition. The whole illustration was lightly pecked in, the outlines unclear.

13. On a separate projection of the cliff just to the right of the preceding petroglyphs. Lightly pecked in is a triangularly stylized deer with two antlers and four legs; they are all indicated individually. Behind it is a boat with a high bow and four people sitting in it. Below is the figure of a person holding on its head some kind of large animal (see Fig. 41).

Stone III

Located approximately 150 meters from Stone II. The petroglyphs were found in two places: on an upper projection and somewhat lower.

14. On a smooth, south-facing panel, under a shallow cornice. Filled with illustrations, the panel is separated by two horizontal cracks. On the upper part is a whale hunt from a baidar. The baidar—judging by its form it is skin—is typically Chukotsk Eskimo with a paddle. In the bow is the harpooner aiming at the whale. Behind and just below is a deer and even lower, a wolf. In the middle part are several figures of deer pecked in lightly and carelessly.

The lower part of the panel contains one of the most magnificent scenes: five dancing anthropomorphic figures and three silhouettes of deer, two of which are represented vertically—evidently killed (see Fig. 21). The far left figure—a female, with a large mushroom on her head—was executed

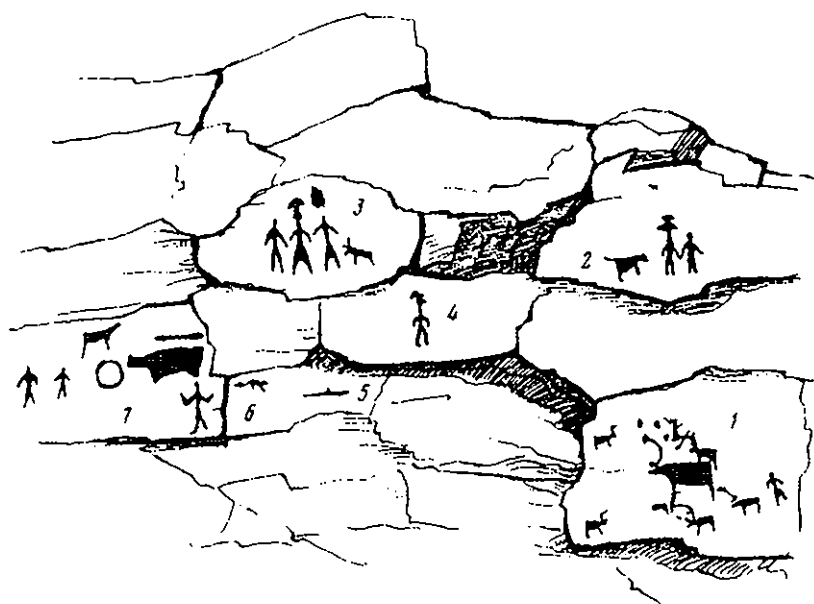


Figure 51. The location of the petroglyphs on Stone I.

very realistically. Her arms and legs are spread apart and two braids are clearly drawn (Fig. 43). The next figure is a male with a mushroom instead of a head. Beyond him is another female with a mushroom on her head. All three of these figures are naked. The fourth figure is a person clothed to the feet (if this is not the stem of a mushroom), with a mushroom instead of a head and one more above the head. Next are a deer and the last figure, a female with a mushroomlike cap on her head. All five figures, like the remaining anthropomorphic rock illustrations, appear in frontal view with their faces looking forward. They are all weakly pecked in, and their outlines are vague in many places.

15. On a smooth panel, facing east, three to four meters below the previous composition. It consists of a large number of deer figures going mainly to the left, toward the river. Both large and small figures are all illustrated quite carelessly and crudely. Among them are silhouettes of single-seat and multiseat boats with pointed bows. Below is the figure of a wolf and some spots. Here we see for the first time the combined technique of fine pecking

with a deep, ground-art form. The latter technique was only used on the largest figure of a deer. It is interesting that one of the single-seat boats of this composition is illustrated with a double-bladed paddle.

Stone IV

In the immediate vicinity of Stone III. It has the most spectacular appearance. The cliff is steep and majestic, with small caves at a height of about fifteen meters (see Fig. 33). On all sides there are many good panels. Almost all were used for illustrations. There are thirty-seven groups here.

16. On the eastern side of the stone, on an obliquely separated, broad panel (see Fig. 7). On a dark background light silhouettes of numerous deer are clearly visible, moving predominantly toward the river. Almost all were executed realistically with keen feelings for nature—quite gracefully and dynamically. Especially magnificent is the figure of a grazing deer, the largest on this "canvas." Among the deer figures (ground or lightly pecked in) are also extremely schematic humanlike figures and half-obliterated illustrations of boats. The largest boat, a multiseat also outlined by pecked grooves, has a high bow crowned by the head of an animal (see Fig. 8).

17. On this same eastern side of the stone but substantially higher, on a small rocky projection. Here is the scene of deer being speared. They were drawn with their heads to the right. Silhouettes of deer and a silhouette of a six-seat boat with a high bow were carelessly executed by grinding. In the lower part of the composition a two-bladed paddle was pecked.

18. Still higher on the end of a stone block. The silhouette of a deer was executed very artistically and realistically; it is twenty centimeters long with its head to the left.

19. On the opposite side of the stone, on its southwestern side and near the top, at a height four meters above the path that goes around the stone. It is the crude silhouette of a single deer with its head to the right.

20. Two meters lower. A single deer has its head to the right.¹³ Its

lightly pecked silhouette is fifteen centimeters long.

21. Above, over a rocky cornice. Seven deer are illustrated; a wolf stands with its muzzle toward the upper central deer—both surrounded by four spots. Behind the lower group of three deer is a single-seat boat.

22. Up high under the cornice and slightly to the left. There are a pecked triangular figure, a spot, and the figures of two deer and two dogs going toward them from the left.

23. Forty meters to the left. Two fragments are visible of some silhouetted illustrations, one of which appears to be a man with a stick or shaft.

24. Two meters below. The scene portrays a bear hunt: a man is spearing the bear with a lance,¹⁴ and three dogs are attacking it from the rear.

25. Approximately two meters left of Composition 24. The scene shows the hunting of swimming deer. Five deer are surrounded by six dogs; one of the deer has been harpooned by a hunter sitting in a boat with a two-bladed paddle. The hunter is shallowly pecked (see Fig. 12).

26. Nearby, slightly to the left, on a broad panel of the cliff. In the left section is an anthropomorphic mushroomlike figure and a deer. In the right is the largest (about half a meter), barely visible, ground figure of a harpooned deer that is triangularly stylized. The hunter strikes it while sitting in a small boat. The deer is facing to the right, toward the river. Under it are two more small deer.

27. This and the following compositions (28–35) are located close to one another and completely fill a panel of a south-facing cliff under a greatly overhanging cornice (see Fig. 52). We distinguished individual groups by the cracks and projections in the cliff that separated them. This composition, on the extreme right, illustrates a marine hunt: a multiseat boat with a high bow pursues two sea mammals. In the boat sit eight men represented, as usual, by vertical strokes. At the stern of the boat is a steering paddle. The silhouettes were deeply made by pecking—about one centimeter deep.

In the upper part was preserved the fragment of a figure, evidently a deer. To the left is an illustration of a seal (see Fig. 14).

28, 29. These are a continuation to the left of Composition 27. On a projection bordered by a crack, three multiseat marine baidars, an orca, a whale, and a polar bear are illustrated by the same deep pecking. Everything generally represents a sea hunt (see Fig. 15). It is possible that these are two independent compositions, since the named animals—being pursued by baidars—are swimming in different directions, toward one another. The baidars, especially two of them, are strikingly like those of the Chukotsk Eskimos. In one are eight paddlers, or eight pairs (Composition 29); in another, five (Composition 28). Farther to the left, on the very edge, is the silhouette of a deer with its muzzle facing these baidars and sea mammals. The same figure of a deer going in the same direction was also pecked in the lower part of this upper circle of illustrations dedicated to a maritime theme. It is interesting that the band of petroglyphs preserved below, under a deep crack, is wholly related to a theme connected with a life of wild-deer hunters of the tundra.

30. All figures in the group at the extreme right in the lower row of Compositions 30–35 are weakly pecked or only ground. Among several small spots pecked in the cliff is the silhouette of a deer looking to the right, and behind it a figure resembling a woman's knife (*ulu*) or a mushroom with a very short, broad stalk.

31. Left and above the former. The spearing of swimming animals is illustrated: five deer, three of which have been harpooned from a boat. Three deer, two of them harpooned, are large; one is quite small, and beside it is a tiny boat with a hunter. The largest deer has a hump and a peculiarly styled muzzle (with a transverse projection below and above). Between the deer figures are several small pecked spots; on the left edge is a polar bear with its head down.

32. Below, under a crack. Here is a similar humped deer, but with two antlers, and not an image that is common on the Pegtymel' cliffs. It looks to the left, and in front of its muzzle is a hammer. Swimming toward it to the

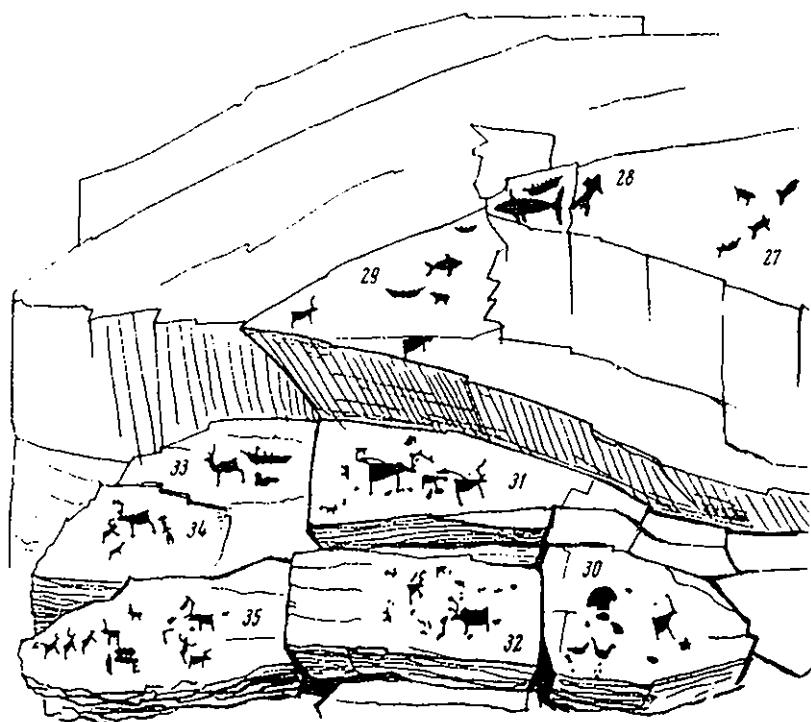


Figure 52. The location of the petroglyphs on the upper part of Stone IV.

right is another deer whose rear legs sag and whose hooves are splayed, like a goose's feet. Behind, in front, and below it are fragments of four smaller deer silhouettes as well as several spots. Just to the right and above the large humped deer is what appears to be the silhouette of a small boat containing a hunter. A similar boat and hunter are in front of this deer figure, between the hammer and an axe and a long, narrow rectangular tool. On the left edge of this composition is a figure of a dog drawn vertically with its tail down.

33. Close to the left, on the surface of the cleavage face of a ledge. A baidar with a pointed bow is illustrated, and in front of it is a very realistic and splendidly executed deer. Below it is a figure reminiscent of some kind of sea mammal such as a bearded seal or walrus. To the left and below are small round spots.

34. On the left, below, on a separate cleavage face of the same rock

panel. A triangularly stylized deer stands with its muzzle pointing left; in front of it two smaller deer face it (one of them, the lower, is probably a calf). To the right of the large deer is an anthropomorphic figure of a man with a double mushroom in place of a head.

35. Beneath the previous two compositions, below a deep crack. In the left section is a deer—harpooned from a boat—that swims with two others. Opposite them are two more deer. Under the front one is a leaf-shaped figure and two spots of indefinite outline. In the right part of the composition is a deer surrounded by spots. Behind it is a very small deer figure, and below it are two mating deer. To the left of the latter is an illustration of a pick.

36. A series of petroglyphs are revealed that are preserved on the lower section of the cliff. This is one of the extreme left compositions (as seen from the river). Rather crudely and primitively pecked are two deer going or swimming to the right. To the left and a little above them is a baidar with a steering paddle and three people seated in it.

37. To the right. Nineteen half-obliterated figures appear to illustrate the spearing of deer. Two silhouettes of deer are completely preserved. Behind one are two boats, drawn in the usual schematic manner, containing one and four people respectively. A fragment of a deer shows a foreleg whose hoof is splayed like a goose's foot. Above and to the left is something resembling a flying swan.

38. To the right of Composition 37. In the middle are four fragmented, crudely pecked deer figures going toward the left. Opposite them to the left stands another deer, and behind them are two silhouettes of wolves or dogs (their tails lowered like wolves).

39. More to the right and somewhat higher. A well-preserved silhouette of a deer running toward the left. In style it is similar to the triangularly stylized type.

40. Lower. Among four spots of indefinite outline is a scene of the hunting of swimming deer. A deer with exaggeratedly large, splayed hooves is

between two boats. One of them, a small single-seater, is behind the deer; the other, a large boat with a high bow in the form of an animal's head, is in front. Below on separate ledges are two more isolated deer figures.

41. To the right of Composition 39. The lightly pecked upper group portrays five deer walking or swimming toward the left. One of them has been speared from a single-seat boat. Among the deer is a schematic illustration of a person with legs spread apart (the arms are not preserved) and some objects, one of which is similar to a mushroom or scraper for working skin. To the left is another human figure whose arms and legs are spread apart as well as a small, single silhouette of a deer going toward the whole deer herd.

The second group of this composition consists of very light, weakly pecked silhouettes located ten centimeters lower. It contains two anthropomorphic figures and a deer figure illustrated to the left of them with its head down; the head itself has not been preserved. The arms of the left anthropomorphic figure were illustrated akimbo, with its hands on its belt. Above its head is a large mushroom, the cap of which is drawn in outline. Two short braids can be easily seen on this female, whose leg and arm positions suggest a dancing figure. The figure is entirely covered, atop light pecking, by careless shading with thin lines running vertically or somewhat aslant—like a light “rain” in a child's drawing. At the same time, the shading produces the impression that someone wanted to obliterate this figure, to destroy it. The right figure evidently illustrates a dancing anthropomorphic being with a relatively small mushroom on its head. One of its arms, spread out to the side, is hypertrophically elongated.

42. To the right and down, behind a curve of the cliff. Here are three lightly pecked, graceful silhouettes: a large swimming deer with splayed hooves, a dog, and a small deer with bent legs (see Fig. 36).

43. To the right and down. Three dogs were pecked in—two going left, the third toward them—with legs up. Below is a deer harpooned from a single-seat boat, and the scene of hunting a large animal such as a deer. From its back stick the ends of embedded arrows or spears; in front of it is an anthropomorphic figure with male sexual traits and a mushroomlike head.

The small figure of a wolf or dog is below.

44. Farther to the right and down, beside a cave. In the upper portion are six crudely pecked deer and an anthropomorphic figure with a mushroom on its head; the figure is in a dance pose with arms akimbo, hands on hips. Below are fragments of five or six more crudely pecked deer. Among them is a well-preserved illustration that is very reminiscent of a bison with its massive body, blunt muzzle, and antlers bent forward.

45. Four meters below Composition 44. Six deer are going toward the right. Near the lower deer, overgrown with lichens, were preserved the remains of an illustration of two mushrooms. The anthropomorphic figures connected to them were obliterated. In the lower left corner two schematically illustrated "little people" remained.

46. Two and a half meters to the right of the previous one, below the cave. In the upper left corner is the figure of a person with a round object in its right hand (a drum?). To the right and down is a herd of seven deer going in various directions. One of them, with bent legs, was pecked in more elegantly.

47. Four to five meters farther to the right. Three deer are going toward the right and three face them. All were pecked in very carelessly.

48. Five meters above the cave. Five half-obliterated deer figures are visible; one, pecked only in outline, is incomplete.

49. Nearby, to the right. There are two separate, lightly pecked scenes of the spearing of deer, a single deer, and a drawing of a vessel. The first spearing scene illustrates two deer swimming toward the left followed by a single-seat boat. The illustration of the person sitting in the boat is quite unusual: a vertical stroke and three short transverse ones, with a spear or lance in his hand. The second scene, located to the right, shows only one crudely pecked deer, harpooned from two single-seat boats, in the characteristic pose of swimming with splayed hooves. All of these deer are oriented

with their heads to the left. The single deer was drawn with its head to the right. The vessel, carelessly scratched in at the very bottom, is in the form of a tall jar. Along the edge of the rim runs a line, and between the line and the rim are four dots that evidently provide a dimpled decoration. The lower part of the body of the vessel is decorated by two carefully rubbed-in, parallel bands (see Fig. 39).

50. On the back wall of the cave. A deeply pecked deer is visible and beyond it something like a dog, while above it is another deer with its legs up. The illustrations were done quite carelessly.

51. On the left at the entrance to the cave. A crudely pecked, humped deer with long hair beneath its neck—a bull—stands. In front of it is the small figure of a doglike animal. A rather strange animal, though probably a dog, stands facing them with open mouth and long ears. It is not impossible, however, that this is a carelessly illustrated deer.

52. On the opposite, right wall of the cave. This is one of the largest petroglyph compositions, but it is not noteworthy for its masterly execution. In addition, the crudely and deeply pecked figures of which it is composed are very badly preserved. The impression is even created that someone purposely defaced them. It is interesting that over the undoubtedly earlier, silhouetted illustrations were later applied linear drawings or simple shading (see Fig. 28). This is one of the few cases where the petroglyphs clearly have two layers (see also Comp. 1). In subject matter the drawings on the right side of the cave are rather monotonous and of little significance.

The earlier layer is represented by illustrations of deer going predominantly in one direction, to the right, toward the cave's exit and the river. The total preserved, or guessed at, here is twelve or thirteen illustrations of deer. One of them, the earlier and largest, also attracts attention by its emphasized stoutness. Three or four dog figures and several boats add to the general picture, giving it a completely definable meaning: here before us is the same spearing of swimming deer. The boats are single-seat and multiseat, two of them evidently overturned. Finally, clearly distinguished here are

intentionally pecked spots and in the very middle of them, on the left edge of the composition, is a schematic human figure with legs and arms spread apart.

In the second layer among the linear drawings overlying the silhouettes is the familiar schematic male figure with a rectangular head (see Fig. 28). This humanlike illustration was engraved with deep strokes over a large, half-obliterated deer silhouette, the head of which is crossed out by three similarly deep strokes. Below, two more linear drawings can be distinguished: probably two deer, but both without heads, oriented toward opposite sides. The body of the lower one is shaded or crossed out by transverse lines. The shading is also clearly distinguished over other silhouettes, predominantly in the middle part of the wall. The impression is created that by this shading someone tried to cross out the previous, older figures pecked in the cave. However, on the left side of the wall, though significantly rarer, the reverse picture can be seen: relatively lighter and consequently most recent silhouettes of deer and dogs pecked on top of this shading (see Fig. 37).

Stone V

Located right beside Stone IV. The petroglyphs on it were preserved on individual panels both above and below. We found one petroglyph (Comp. 55) on the slope, on a large stone that had fallen away from the cliff.

53. On the upper edge of the cliff, on the right side. On a broad stone panel is a multifigure, silhouetted picture of the spearing of deer. These figures were pecked lightly and rather carelessly, but nevertheless their stylization is seen as triangular. On the largest deer both antlers are shown. The deer are swimming in various directions, and one sinks (tail down). On the edges and in the middle of the deer herd are five small boats, from one of which the hunter has already pierced a deer.

54. The lowest, lightly pecked composition, at a height of no more than ten meters. From a spearing scene only two deer silhouettes and some fragments were spared as well as fragments of depictions of boats and several isolated spots. On the other hand, twelve silhouettes of waterfowl were excellently preserved.

55. This very dynamic picture was pecked into a large, oblong stone that had broken from the cliff and slid down the slope. It had settled deeply into the ground and is located somewhat above Figure 54, under the ledge with Figures 56 and 57, from which it evidently had split off. The lower part of this composition had to be dug out, and when the illustrated panel of the stone was revealed, the picture presented us with quite a spectacular spearing of swimming deer. Three large baidars—with five, six, and eight paddlers—are directed from the left toward two deer, which evidently symbolize the whole herd. The deer figures are triangularly stylized. The upper one, with long hair under the neck (evidently a bull), has been struck by a harpoon from a single-seat boat; the lower, larger deer, without hair under its neck, has not yet been harpooned. Behind the two deer is the canonical form of the naked, dancing female with two braids, a large mushroom on her head, and arms and legs spread out. On the left behind the baidars, a dog also takes part in the hunt.

56. Three to four meters above the previous composition, under a cornice. A scene of spearing deer was pecked, from which only one deer illustration was preserved in its entirety. Illustrations of another deer and two dogs were partially preserved.

57. In a deep, narrow crevice between outcrops of the cliff and four meters higher. A female anthropomorphic figure was pecked in a dancing pose—arms and legs apart—with a mushroom over her head. Beside her are two large oblong spots and three small round ones; one of the large spots in combination with two of the small ones form something similar to a human footprint. To the right the silhouette of a whalelike animal was drawn with the head down, and below it a deer and a paddle.

58. Six to seven meters to the left, on the left side of the stone, at middle height, seven to eight meters from the upper edge of the precipice. Two large deer walking or swimming to the right were pecked very lightly. The front one, with long hair beneath its neck, is evidently a bull. The figure of the following deer is surrounded above and below by large baidars in which five to eight paddlers are seated. Above each of these baidars a double-bladed paddle was drawn, and over the topmost baidar something like a "winged

object" is set on the end of a shaft that is thrust into a whalelike sea mammal (see Fig. 30). Under the lower baidar small, pecked-in figures comprise a scene of spearing deer from a small boat. Between the harpooned deer and the two figures of another pair of deer, an anthropomorphic figure with a mushroom on its head is depicted.

59. *On the left side of the stone, at the very top above Composition 58.* Here is a combination of two petroglyphic methods: the light pecking of silhouettes and illustration by means of scratching lines. The silhouettes depict two pairs of deer standing opposite each other as well as eight isolated deer. From the muzzles of seven of these deer come bunches of long lines, possibly symbolizing either the soul of a deer coming from its nostrils or some kind of connection—at present not yet decipherable, but very similar to connections of the Yukagir *tosy*. It is curious that similar bunches of lines connect the muzzles of the central pair of largest deer (see Fig. 40). Behind one of these animals the silhouette of a dog was pecked, behind the other a single-seat boat. A boat with one hunter was drawn behind a lower, isolated deer. Over this boat a double-bladed paddle was pecked, and a spear or harpoon is directed from the boat at a deer. In the upper left corner two very small scenes of spearing deer from such boats were depicted, and the pursued deer are looking in opposite directions. Several spots were added to this silhouetted composition in various places; some of them are reminiscent of paw tracks, while others are possibly the remains of defaced illustrations. The latest elements of this combination of petroglyphic forms, in our view, are the linear illustrations of a baidar and an anthropomorphic figure located on the right side of the illustrated stone panel. In style they are very similar to known Chukchi illustrations published by Bogoras (see Fig. 38).

60. Several meters to the left, on the upper edge of the precipice. Below a deeply incised illustration of an orca are a lightly pecked deer, and under it to the right are two undecipherable, oblong spots and a schematic, linear figure of a human.

61. Below on this same projection of the cliff. Two dogs run one behind the other; in front of them is a bear with its back to them.

Stone VI

Near the previous one, but farther to the west. In its upper right part, six meters from the upper edge of the precipice, rocky ledges form a broad, deep niche that is open from above, facing south toward the river. Petroglyphs were discovered both on the walls of this niche and on the sides of it. In 1968 we considered it expedient to change the numbering of the stones and combined the closely located Stones VI and VII into one, Stone VI.

62. To the right of the niche, on the outside of the outcrop that forms it. Five deer silhouettes of various sizes were pecked. All are facing in the same direction, to the left. One has two clearly illustrated antlers.

63. On the right wall of the niche. A weakly rubbed, silhouetted figure of a triangularly stylized deer with "goose's feet" is overtaken by a hunter, seated in a boat, who has already pierced it in the back with his spear or harpoon (see Fig. 26).

64. On the front wall. Barely noticeable traces of several lightly pecked deer figures were preserved.

65. On this same wall, to the left. Above is a large, anthropomorphic figure (in *kerker*?) with a double mushroom on its head (see Fig. 24). To the right of it are two anthropomorphic figures. Sixty centimeters below are two more humanlike figures with mushrooms on their heads (one is fragmentary), something like a boat, and—on the right—a horizontal stroke (see Fig. 19). The upper figures were lightly pecked in, the lower ones deeper.

66. On the left wall. A large, deeply and crudely pecked deer, somewhat "triangularly stylized," faces left, toward the river. It has been overtaken by a hunter, sitting in a boat, who has pierced it in the back with his spear. In front of the deer's antlers is a spot with a line running from it (see Fig. 10). The composition is completed by nine more deeply incised figures of smaller deer located either in front of the central deer figure or behind and somewhat above it. One of the upper deer has also been speared from a boat by a hunter. Among the deer is the schematic figure of a standing man illustrated in the

same deeply pecked art form. Because the deer in this composition face in different directions, yet form five groups going in the same direction (right or left), here we evidently are dealing not with one composition but five—four of them illustrating scenes of the spearing of swimming deer. Two of the compositions, where the hunters pierce the deer, are clearly visible. In the other two, the hunting boats probably have already been obliterated. The fifth composition (above the central deer figure) depicts a small deer being pursued by a wolf.

67. To the right of the hollow with Compositions 63–66. On an open cliff panel two triangularly stylized deer with hooves splayed like goose's feet swim to the left, one behind the other. The rear deer has been pierced by the harpoon or spear of a man seated in a boat. Under this deer is something like a boat but without paddlers; behind is an oval spot. All the figures are ground in (see Fig. 11).

68. Farther to the right. Here are two clumsily illustrated deer, their hind ends pierced by spears or harpoons directed from single-seat boats. Above the upper deer are a male anthropomorphic figure, a vaguely outlined spot, three birds, and one or more fragmentary deer figures.

69. On the upper left part of the stone, left of the niche with Compositions 63–66, under an overhang, and on the front wall of a hollow in the cliff. The central figure of the composition is a large, triangularly stylized deer with double antlers, an eye in the form of an opening in the silhouette of the muzzle, and three legs. This deer has been harpooned from a boat. Under its muzzle is almost the same kind of deer but significantly smaller. Both silhouettes were pecked shallowly and very lightly. The remaining deer were drawn in a quite different manner, almost the same realistic way as in Composition 16 on Stone IV. Two of them run, one after the other, above the large deer (under the belly of the rear one is a calf), and behind them a dog is pressing on their heels. A little higher and to the right is the front half of a deer silhouette; above and in front of it is an indeterminate, probably humanlike, figure. Above and to the right is a scene of the spearing of deer from a boat. Under the harpooned deer is a spot and another clumsily drawn deer. The lower five deer silhouettes were pecked shallowly and are very light; the upper

silhouettes are darker. Here are evidently two or three compositions of different chronologies.

70. On the side wall of this same hollow. Depicted is a dance of anthropomorphic amanitas and simple little people. Two figures have double amanitas over their heads: on one it is attached to the head, and on the other it replaces the head. One human figure is male; the rest are probably female. Two figures—a man and an amanita—dance with arms akimbo. On the remaining figures, the arms are spread to the side. Above is the figure of an animal. All the silhouettes are very light and shallowly pecked (see Fig. 20).

Stone VII

Ten meters below the previous stones and separated from them by a wide slope. Here four petroglyphic compositions were observed.

71. On the left side of the stone, at the top. There are two easily seen, small zoomorphic figures (deer without antlers or dogs without tails) and one anthropomorphic male figure with arms and legs spread apart.

72. Slightly below and to the right. Four elegant, lightly pecked silhouettes of deer are visible. Three of them face to the left in single file; the fourth swims below them toward the right, and behind it is a single-seat boat. A fragmentary silhouette of a fifth animal is discernible.

73. On the same stone outcrop, but around the corner, on another of its panels. Above is a small anthropomorphic, very schematic figure and beneath it probably the upper part of a vessel drawn as graffiti: between the edge of its rim and a line parallelling it are four dots, probably illustrating dimpled decoration. Below this are two deer standing back to back. The larger one faces to the left; with long hair under its neck and both antlers drawn, it is distinctively stylized. The smaller deer is pecked in a realistic manner, very elegantly, the antlers superimposed on one another. Above this deer are the silhouettes of two birds—one in profile, the other from below. To the right are two incompletely pecked deer silhouettes.

74. On the lower part of the cliff, on its front, facing the river. The center of the shallowly pecked composition depicts a large deer with head stretched forward and bent legs. Below are two smaller deer and a dog behind one of them. To the right of the large deer is a female dancing figure with a mushroom cap over her head. Beside this female figure but farther to the right are a double-bladed paddle, two indeterminate spots, and one more deer. About a half meter above this group are two fragmentary deer silhouettes.

Stone VIII

It is noteworthy that on its top were two stoneworks, around which we found the remains of Neolithic production. This is quite a spectacular stone, almost as impressive as Stone IV. Petroglyphs were visible in four places.

75. On the left edge, on the lateral side of a subprismatic small cliff, separated from the main part. The spearing of deer is depicted. Three deer are swimming to the right, and a fourth is evidently sinking (tail down). Behind the deer are two boats. In the upper one six hunters, represented by vertical strokes, have harpooned a sea mammal. In the other, single-seat boat a more realistically illustrated man has thrown his spear or harpoon into a deer. At the hunter's back is a row of four oval spots (tally marks?). All were characterized by rather deep pecking (about one to two millimeters).

76. Around the corner on the front panel of the previously mentioned small cliff that contains Composition 75. Here is another picture, shallowly pecked, of the spearing of swimming deer. On one of the four deer, swimming to the left, the hooves are characteristically splayed. In this scene a dog appears in the upper right corner, behind a deer. The boats are single-seaters. The illustration of one is preserved only partially, and its paddler holds a double-bladed paddle. This boat clearly catches up with the largest deer on the left. In the second boat the paddler holds the paddle in one hand; with the other he has pierced a deer with his harpoon. Meanwhile the strange, sharply bent line that runs below the muzzle of the harpooned deer remains unexplained. It is darker than the silhouette of the deer and evidently older. Petroglyphs of this group are overgrown by lichens.

77. Several meters to the right, farther toward the river, and at the same height as the previous composition. A deer swimming to the left was depicted by weak pecking. Behind it is a boat with one hunter who has lifted his spear or harpoon. Farther in this same direction, a distance of several meters from Composition 77, two deer were illustrated with muzzles to the right, one below the other. Below them is a boat with several hunters, each characteristically denoted by a single stroke.

Stone IX

A broad cliff formed by stony silty-sandstone outcrops above and in the middle part of the precipice. Below, it is covered by a steep talus of this bedrock. Petroglyphs were in three places, at three different levels on the right side of the cliff.

78. At a height of six to seven meters directly above the embankment, at the base of the bare cliff. Very weak grinding depicted a dance of amanita people and below them a boat with high bow and stern. There are five anthropomorphic figures—two are scarcely distinguishable, the rest preserved rather well. One of them, in the center, is precisely the same as in Composition 14 on Stone III: with enormously large mushrooms over her head and adorned by two braids, each with a round ornament on the end. Her breasts are clearly denoted, and her arms and legs are spread. On the right is a figure of indeterminate sex in the same pose and with a mushroom on its head. A male figure to the left has a mushroom in place of a head, his arms and legs in the same position. The ends of his thickened hands were drawn in the form of large fists, though it is possible that the artist wanted to illustrate something else—perhaps some round object in each hand of this half mushroom-half human. The next figure to the left is preserved only as a silhouette of a mushroom with a double cap (in two layers). The fifth is almost completely obliterated.

79. Twelve to thirteen meters higher than the previous composition, under a rocky cornice, in a broad and low nichelike cavity. The surface used for the petroglyphs, pecked lightly here, is broken up by cracks and projections; thus what we tentatively called a composition is separated into at

least four petroglyphic groups. The first, most extensive group consists of five deer running or swimming to the right, two dogs chasing them, and four unique anthropomorphic figures. The deer were reproduced realistically and dynamically, in a manner close to the better examples of this kind on the Pegtymel' cliffs. The hooves of three of them are splayed. Quite significant is the unusual fact that two deer figures (probably incomplete), in contrast to all the other silhouettes, were done in outline—the "grooving" technique, which was widely spread in the taiga of Siberia during the Bronze Age (see Fig. 6). It is notable that two anthropomorphic figures are presented in profile rather than facing forward. The smallest figure, at the extreme left, is half bent to the left toward two deer running toward it. Another stands upright, over its head a mushroom cap half destroyed by weathering. The two other human figures, illustrated en face, are also a unique pair. The larger one, with a mushroom on its head, is dressed in *kerker*, typical of Chukotsk Eskimos, which immediately indicates that it is a woman. In her left hand she holds the hand of a child also dressed in *kerker* (see Fig. 44).

Beyond the transverse crack that confines this large composition on the right and above is a common scene: swimming to the left, toward the female figures, is a deer with characteristically splayed hooves that has been pierced by a harpoon from a hunter sitting in a boat. Below, under a horizontal crack, is a somewhat unusual scene: from a large scagoing baidar a large bear—evidently a polar bear—is "harpooned," though it is possible that it has simply been pierced by a spear. In the baidar sit five or six hunters, represented as always by vertical strokes. Under the bear is a short and broad vertical stroke, under the baidar a four-pointed indeterminate spot.

About fifty to sixty centimeters to the right and somewhat higher, on a separate outcrop that forms the boundary of the niche on the right, is a fragmentary depiction of a deer running to the left. Its antlers were not preserved, and it is most interesting that its silhouette was pecked into the cliff not solidly but with gaps running transverse to the body (Fig. 79a). Such an illustrative manner is reminiscent of the "skeletal" style of the Siberian Bronze Age. However, in our view, this illustration is simply unfinished; the interior of the grooved outline was incompletely pecked.

80. This illustration is only one crudely pecked "triangularly stylized" deer. It was preserved on a large block of stone lying at the base of the talus at the very water's edge across the streamside path. The deer was drawn on the left side of the boulder and thus heads in the direction from the river toward the cliff.

Stone X

This is the same cliff on the lower panels of which Samorukov noted several petroglyphs in 1965. He found them under a narrow overhang in a nichelike cavity and along its sides (within a radius of five to six meters from the niche) at a height of about five meters. We did not find these petroglyphs until 1968. They were found here on an area of the cliff over a distance of ten meters (Comp. 81-89). In addition, we found seven more groups of images (Comp. 90-96) at a height of fifteen to twenty meters on the left side of this same cliff, twenty to thirty meters from the petroglyphs seen first by Samorukov.

81. On the right side of the niche at the top, under a cornice on a sheer panel extending horizontally. On the left, along the upper edge of the panel, a row of human tracks was lightly pecked. Below these tracks and parallel to them are the tracks of an animal, probably a dog. To the right, just where these tracks end and space for drawing expands out, the artist illustrated several images in a row: a baidar with five paddlers represented by strokes; then an animal, possibly a deer, only an indeterminate fragment of which is preserved; followed by a very realistic deer walking or swimming to the right; two tracks of a walking human; two schematic anthropomorphic figures whose arms and legs are spread apart—the second with a head in the form of a mushroom; and two tracks of a standing human. Below the last is a small silhouette of a sinking deer (tail down) and a large oblong track of an animal's paw (or simply a spot). After an interval of eight to ten centimeters the series continues: a fragment of a large animal silhouette (possibly a deer); another silhouette of a deerlike animal, also tail down (sinking or killed); an oblong spot like a track; and a track (of a bear?) with two clearly visible claws. Below the previously mentioned anthropomorphic figures, two large six-toed tracks and a fragment of an animal silhouette comprise the second, lower row of figures that on the whole have a clearly reflected narrative character.

82. Pecked (shallowly) into the very middle of the niche, in two mutually perpendicular panels of one of the lower slate blocks into which the walls of the niche are divided by broad, deep cracks (see Fig. 1). On the left edge of the facing, front panel was incised a boat with a person sitting in it (the latter in the form of a stroke). Beneath the boat is a strange, very schematic human figure whose spread arms are extended straight out to the sides. The end of the right arm (if we assume the figure is looking at the viewer) is slightly bent down, and on the end of the left arm a large round spot (a drum?) was pecked. Below the large spot is a short, broad, vertical stroke and nearby to the right another. Eight more spots of approximately the same size and isolated clusters of small dots were applied in various parts of the composition around the figures farther to the right. The central character of the whole composition is a large deer swimming to the left toward the above-mentioned, long-armed figure. The deer was depicted realistically though somewhat stylized. Its head is narrow and small, the neck smoothly transforms into a trunk that broadens toward the back, and the hooves are splayed in a slightly stylized way. Around the back hoof is an oval area of dots all pecked close to each other. The trunk of the deer was outlined by a grooved line, the whole inner expanse of which is filled with thickly pecked dots (see Fig. 1). Pursuing the deer is a boat with a person sitting in it (in the form of a stroke) and an animal very reminiscent of an Arctic fox, though it might be a wolf or a dog. The end of its tail passes into the next panel (beyond the corner) perpendicularly to the rest of it—in the print this was shown in a sharp fold of the tail—and the action continues on this panel. Here two more deer figures move in the same general direction (to the left). They are situated one below the other, and the upper figure is only partially preserved.

83. Beside the previous one, to the right and above it, beyond a broad crack. It is composed of some shallowly pecked spots or tracks of various sizes and forms: relatively large oval ones to the right and small round ones to the left. They appear to belong to deer, dogs, and humans. Evidently, this composition is also continued below where, beyond a crack on the other panel, a row of tracks was pecked coming down from above, and where various figures of animals and people probably connected with all these tracks (see Comp. 84).

84. Along the sides of the double row of tracks going down from the

left side of Composition 83. A small deer was pecked facing head down, probably killed, as well as a cluster of six tracks: three large and three small, oval, possibly human. Farther down, this double chain of tracks changes into a row of figures going first right and horizontally, then up in a semicircle to the right edge of the tracks in Composition 83. Both compositions thus form a single, closed ring of tracks and various gently pecked, very light figures: deer, dog, and anthropomorphic. One of the main figures is probably, as usual, an anthropomorphic illustration of a mushroom (a mushroom on the head of a person), drawn under the double vertical row of tracks on the left. Beside it, but a little farther left and higher, was pecked something like a dog or an Arctic fox and three more figures, fragments of which were preserved that are reminiscent of people (two figures above) and a deer. To the right, continuing the row of characters, is the central and—judging by the dimensions and expressiveness—chief personage of the composition: a large though schematic illustration of a humanlike figure with arms widely spread and turned down in a rounded fashion (his legs, probably also spread out, were incompletely preserved). To the right of this figure are two horizontal characters, most likely depicting two boats, one under the other. The boats point from the central, manlike figure toward the right, behind three deer that are being pursued by two dogs. In the bend of the compositional band, toward the top and above the deer at the extreme right, a very strangely stylized, long-tailed animal was pecked. Higher, completing the band, is a deer whose small head on a gracefully outlined neck is turned to the right. Over this deer's back was pecked a horseshoe-shaped band with its convex side up. Except for the last deer, the style of this composition is distinguished by its carelessness. Nevertheless, among the remaining deer, though crudely executed, both antlers were drawn—and on one, even the two front legs.

85. Directly to the right of Composition 83, beyond a crack on a separate panel. On the left an anthropomorphic figure was very schematically pecked with legs spread apart and arms uplifted. To the right is a fragment of an illustration of an animal, perhaps a deer; a human foot track; and two more somewhat smaller spots.

Below, on a narrow cleavage plane of the stone, is a continuation of the composition: the figure of a deer tail down (killed?), a mushroom cap,

and the upper part of an anthropomorphic figure with a double mushroom on its head.

86. On the right side of the niche. A crude illustration shows a deer with its head to the right, toward the river, and below it an anthropomorphic figure with a mushroom on its head. Its arms and legs are spread, and under it is a horizontal line.

87. In the same place, to the right. An anthropomorphic figure has short, spread legs, similar to a swallow's tail, and open arms—one of which is very similar to a raven's wing. Obliquely to the right are a horizontal line and a mushroom.

88. On the face of an oblong slab among piled-up stones in front of the niche, near its left edge. Two baidars were pecked—one containing four men; below it is a deer with its muzzle to the right.

89. On the right side of the niche, under a cornice on a large, sheer panel of a huge outlying block. A significant number of the shallowly pecked petroglyphs were covered with lichens here. After their removal a tall (about thirty centimeters high) figure of a man was revealed standing in a tranquil pose with slightly spread arms. Two deer are above him; a group of five large baidars and a single-seat boat move toward him. All these silhouettes were pecked rather carelessly but, owing to the diagonal composition, on the whole transmit the movement well. It is remarkable that the deer were drawn with two antlers, four legs, and an ear. In the baidars sit four, four, five, six, and ten men.

90. This composition starts a series (90–96) that has been preserved well above the niche with petroglyphs on the left side of Stone X. This lowest composition, twelve meters above river level, is about twenty meters to the left of the niche. Among the fragments of three almost entirely obliterated, indeterminate figures, only the silhouette of a deer swimming to the right with a single-seat boat behind it was preserved.

91. Directly under Composition 90, on a separate panel, also in a

vertical corner of the cliff. Illustrated going to the left are a bear, a triangularly stylized deer with a single-seat boat behind it, a multiseat baidar, a very crudely pecked deer, and three spots (fragments of figures?) between them and the baidar.

92. Several meters to the right and somewhat higher than Composition 91, on a neighboring ledge of the cliff. A triangularly stylized figure of a deer going to the right and a single-seat boat were pecked in.

93. On the butt end of a slab, projecting toward the right from the previous petroglyph, two to three meters to the right of it. A triangularly stylized deer with broadly shoveled antlers was depicted going to the right. A dog attacks it from the back. Between it and the deer is an oval spot, a similar spot is in front of the deer.

94. On a neighboring ledge, two meters higher and to the right. A crudely pecked deer is visible.

95. Two meters farther to the right and higher, on a separate ledge. The picture is not so much real as it is symbolic. In the middle are a kayak and a hunter, denoted by a vertical stroke, sitting in the boat paddling with a two-bladed paddle. To the sides of the boat are two deer moving in opposite directions; each has been pierced by a projectile weapon directed at the back of the animal from a place just above the head of the hunter. Each of these projectile implements is denoted by a straight line entering the tail part of one deer, the back of the other.

96. One-and-a-half meters higher and to the right of the previous composition, on a ledge of the same crest of the cliff. A triangularly stylized deer was pecked going toward the right.

Stone XI

This last illustrated cliff rises where the path along the right bank of the Pegtymel' River gradually changes into a sloping, sandy spit. All the petroglyphs on this stone were found on the side of a steep hollow on the

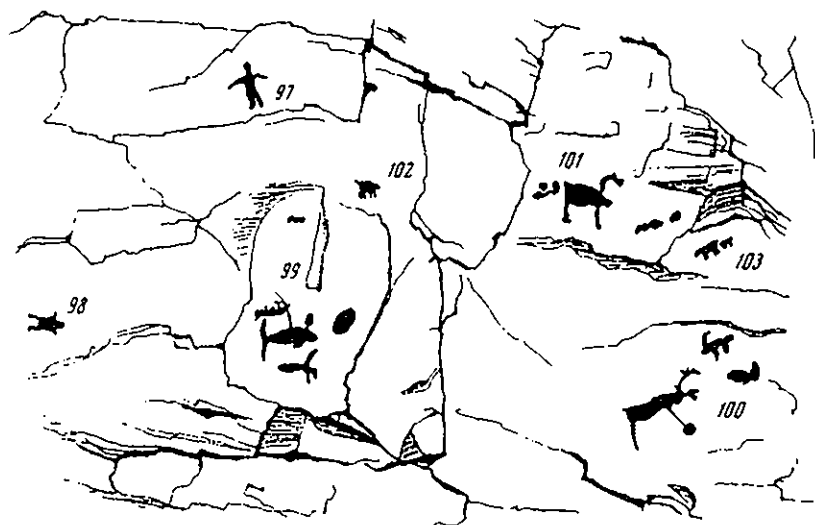


Figure 53. Petroglyphs on Stone XI.

south side, facing the river. They were all shallowly pecked—very light, almost white. They are quite close in one place, on the cleavage planes of a large panel of the rocky ledge (see Fig. 53). Occupying a comparatively small area (about two meters by eight-tenths of a meter), they nevertheless do not form a single composition but are grouped into several isolated compositional groups, each joined by its subject.

97. In the upper left corner of the panel. A figure of a man stands with arms stretched out to the sides.

98. Sixty centimeters to the left and lower. Almost the same figure appears—except for his genitalia and horizontal position.

99. Fifty-five centimeters to the right of the previous petroglyph. Occupying the whole area of the separated cleavage plane surface is a scene of whale hunting from a baidar. In the baidar are six men. Five of them are represented, as usual, by vertical strokes. The sixth, standing in front in the bow of the baidar, was illustrated more realistically. In his hand is the harpoon with which he struck the whale. From its blowhole spouts a spray of water (in the form of a spot of small, thickly pecked strokes). The figure of

the whale and the baidar were deeply pecked. Below the whale, pecked less deeply, is another whale-shaped figure with excessively long fins. In front of the nose of the harpooned whale is a rounded spot of thickly pecked dots (see Fig. 16).

100. Eighty centimeters to the right of Composition 99. A group of three figures was pecked. A deer with open mouth goes to the right. Its back hooves are stylistically suitable for a bird's foot, and around the front hooves is a disk. Another probable deer figure, turned with its muzzle toward the first, was executed quite carelessly, and only a fragment of the third was preserved (see Fig. 9).

101. At a distance of sixty-five centimeters to the right of Composition 99. A very crudely pecked deer is surrounded on the sides and below by several spots of indeterminate form. Two of them (behind the animal) might be a boat containing a hunter.

102. At a distance of thirty centimeters to the left of the deer hunting scene in Composition 101. A dog is drawn with four legs.

103. At a distance of ten centimeters from the spot in Composition 101, on a projection of the panel. A bear is depicted with a cub going along behind it.

Petroglyphs near the Third Site

An isolated cliff with petroglyphs found in 1968 is located ten kilometers below Kaikuul' Creek, which empties from the right side into the Pegtymel' River. On top of the cliff were preserved the remains of the third Pegtymel' site of early hunters. The sheer cliff rises to a height of more than twenty-five meters (see Fig. 5). A large composition was pecked in the middle of it (see Fig. 54).

104. Three deer silhouettes swim to the right. The front two (one beneath the other) are somewhat smaller, those behind larger (about forty centimeters long), and beyond them is a small boat. The hunter sitting in the

boat holds a two-bladed paddle and a lance, aiming at the deer. Below this boat and behind the deer are the tracks of its hooves. Above the boat is a silhouette of a dog pursuing the deer. And finally the most interesting detail: behind the dog was pecked a long row of its tracks—five times four tracks with an interval between each four tracks. On the other end of this row is a coarsely and schematically pecked figure of a man with a staff going along these tracks. The man is illustrated in profile. Evidently he is following the dog's tracks on skis, possibly short ones—a type of Chukchi "raven's feet"—and therefore were not especially marked on him. It is also possible that the skis in the illustration have simply deteriorated. It should be noted that these most interesting but shallowly pecked petroglyphs are poorly preserved. In many places, especially over the middle part of the composition, there are large accumulations of bird droppings. Birds settled on this unassailable cliff a long time ago. Their nests are built above the rock figures as well as in the deep cracks to the left of them, where a thick deposit of bird dung has accumulated.

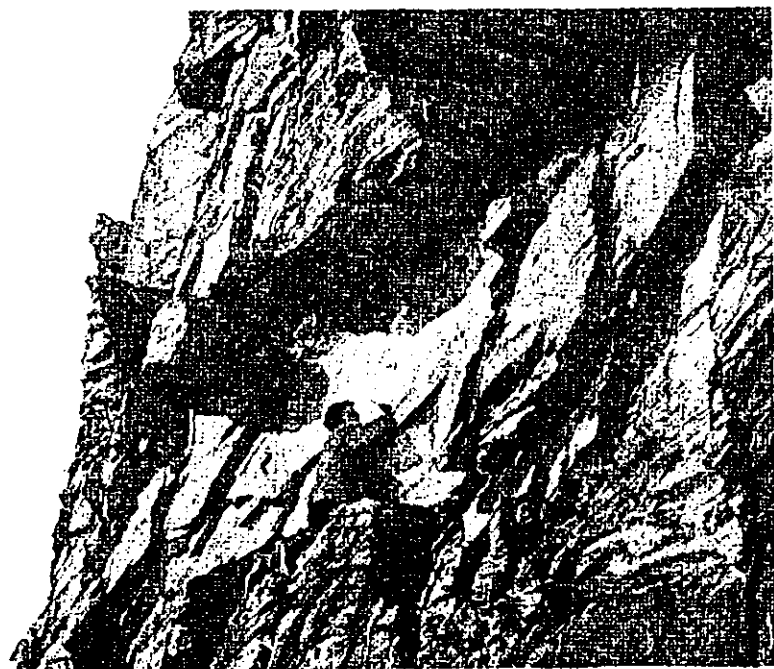
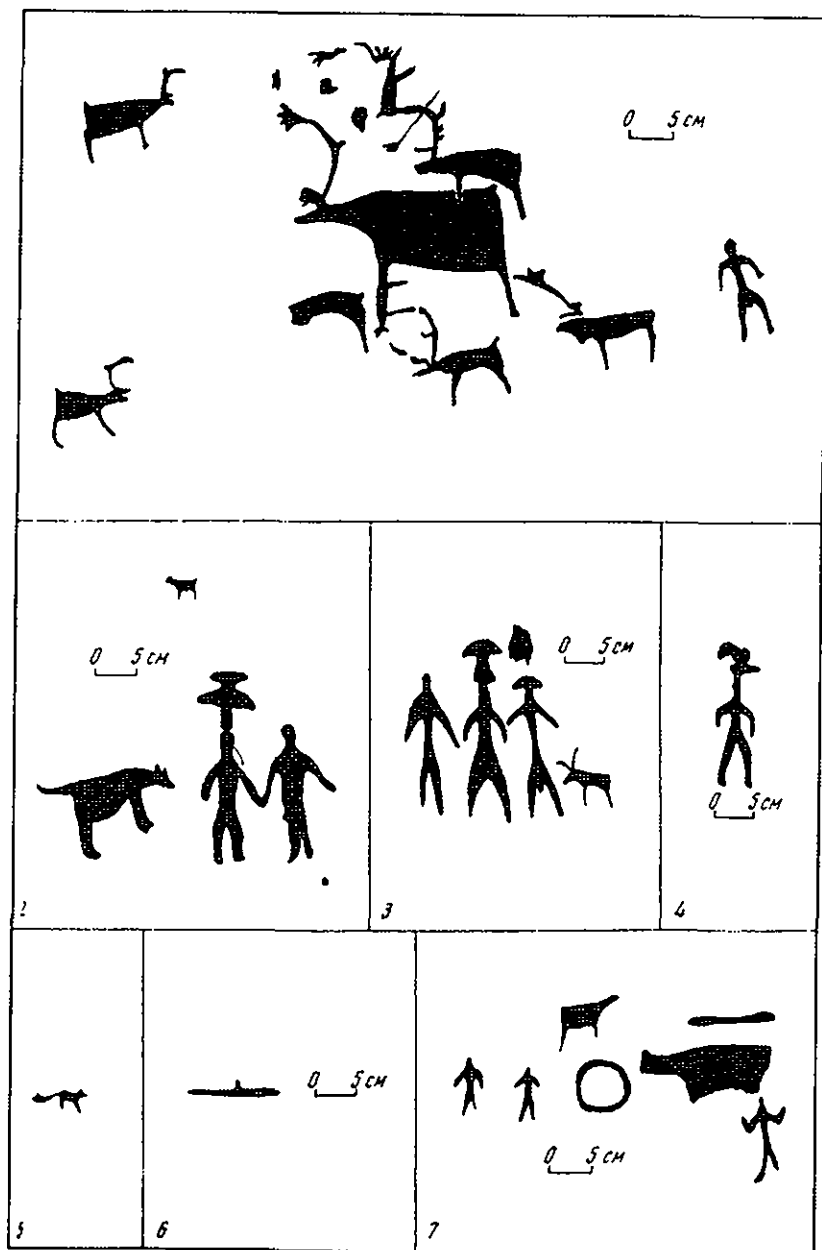


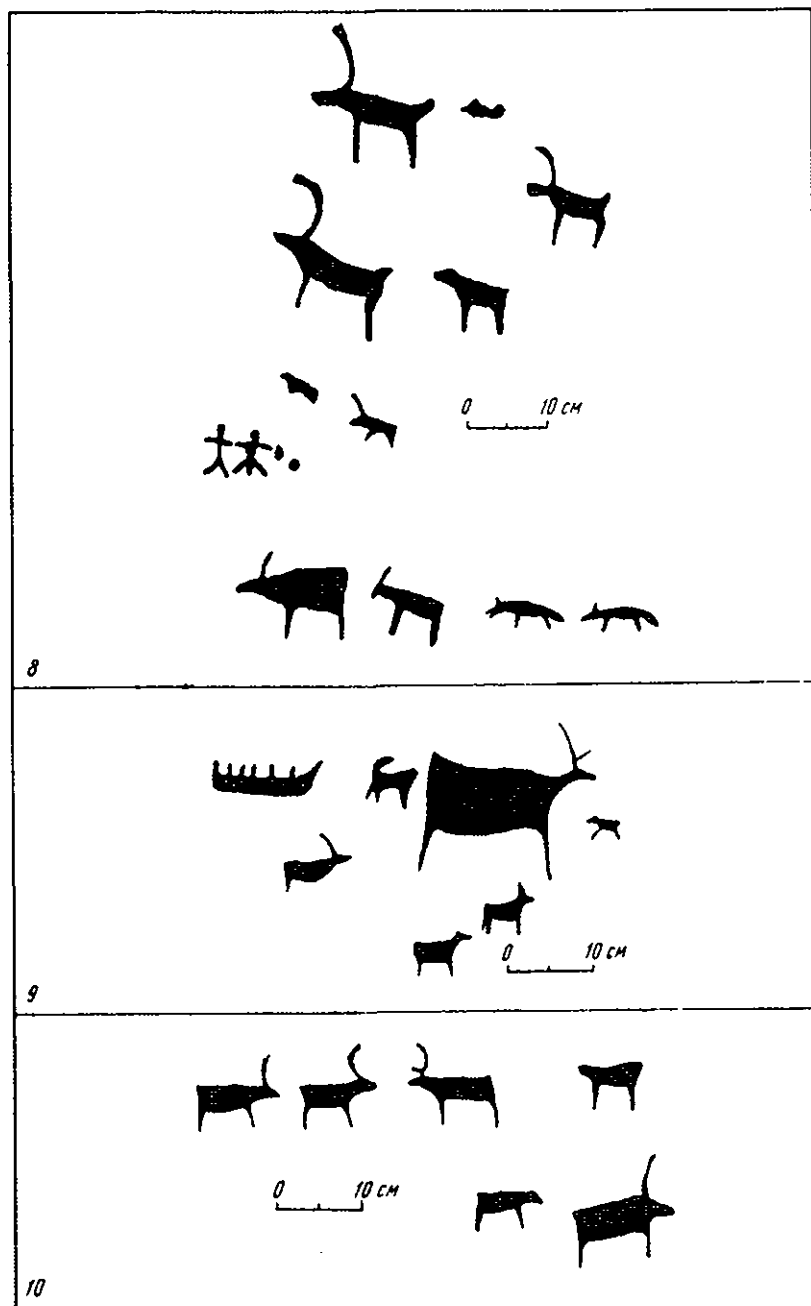
Figure 54. View of the cliff containing Composition 104.

COMPOSITIONS

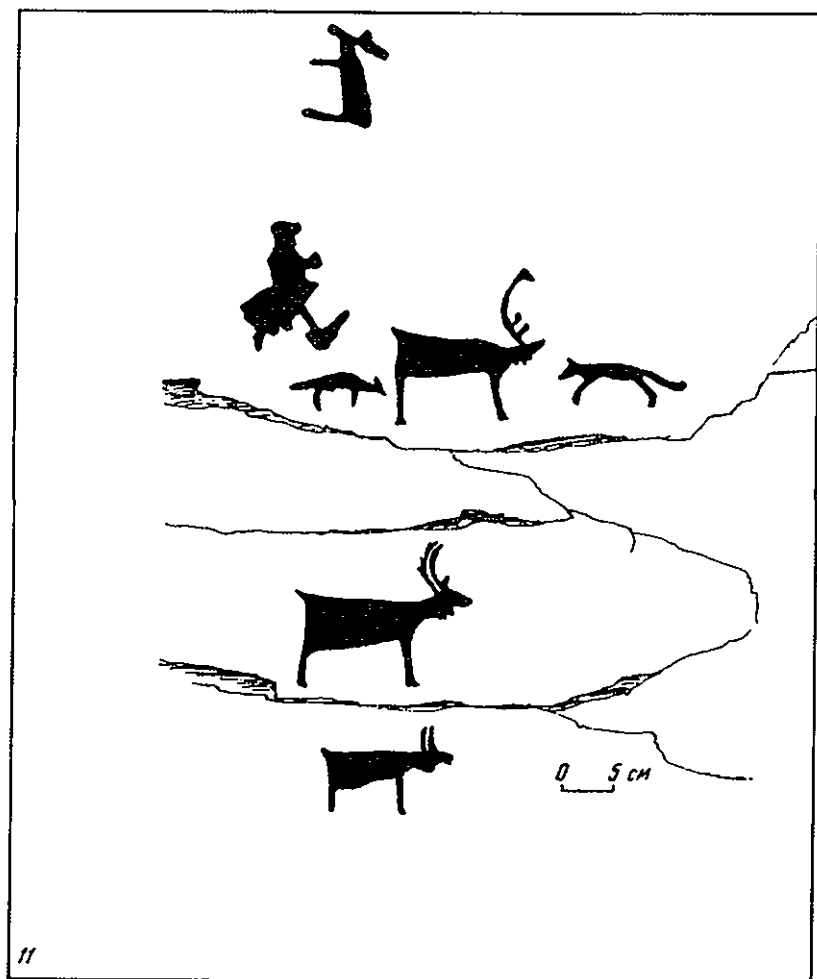
Stone I



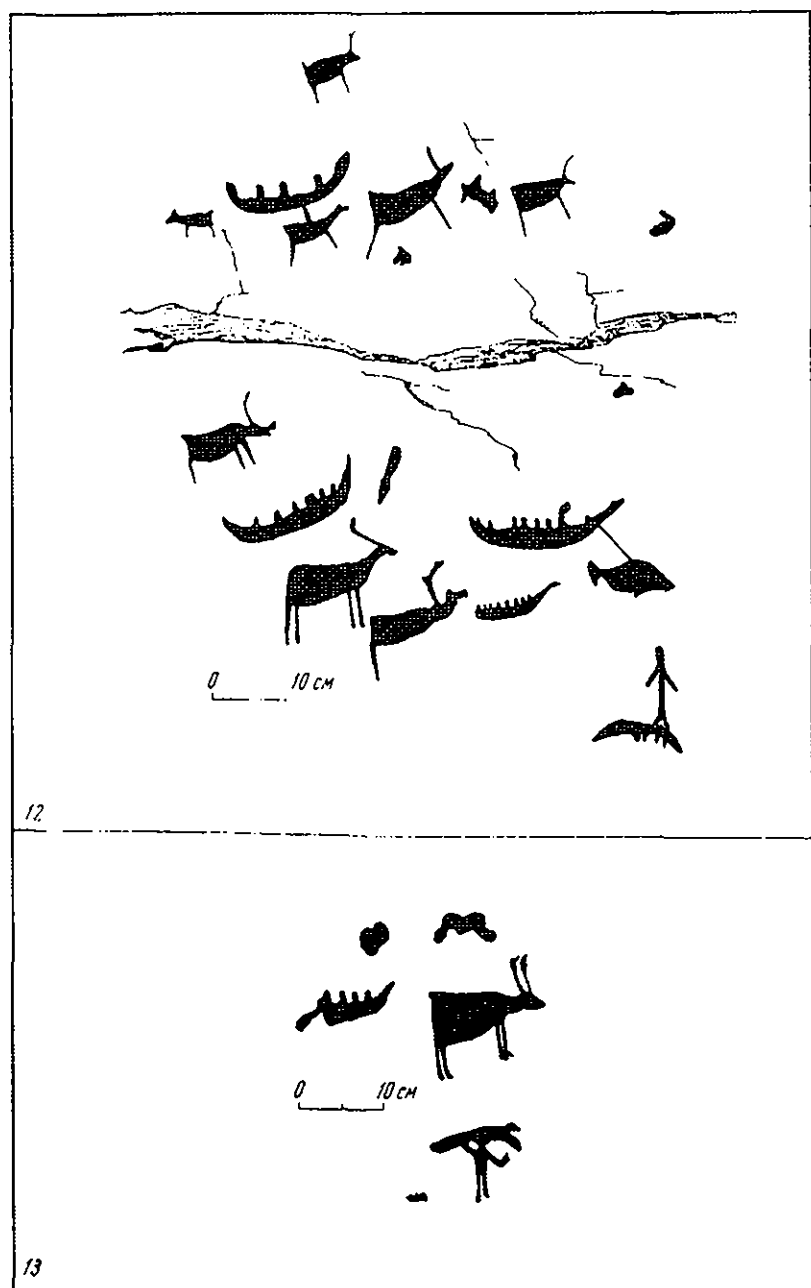
Stone II



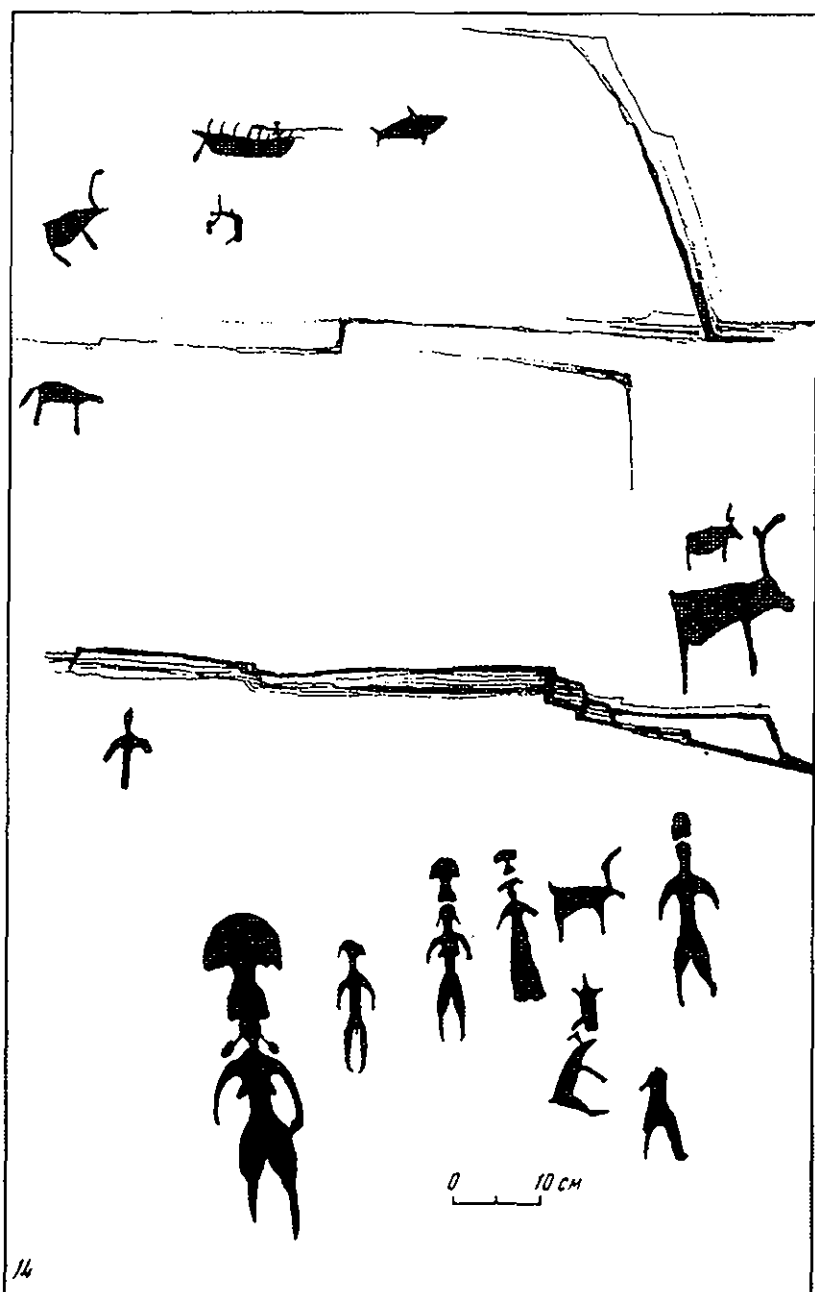
Stone II

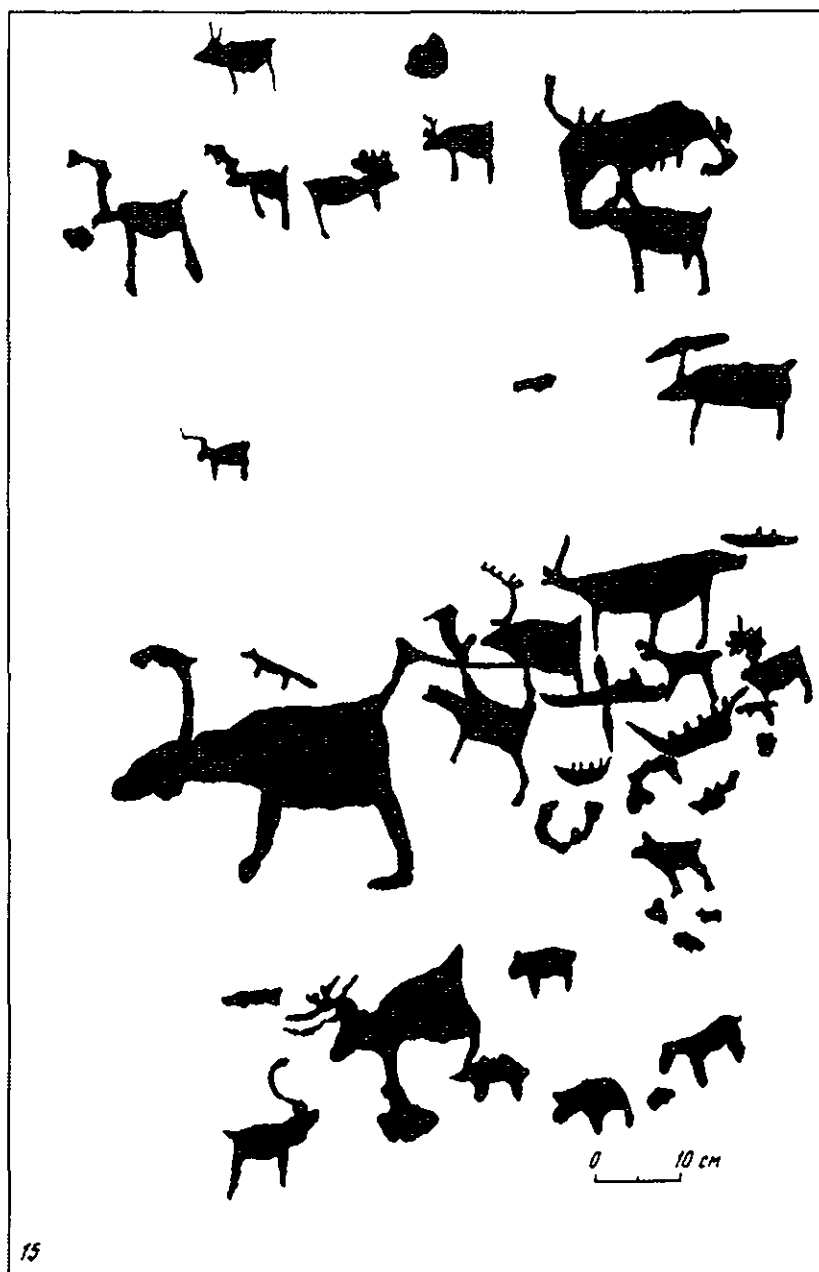


Stone II

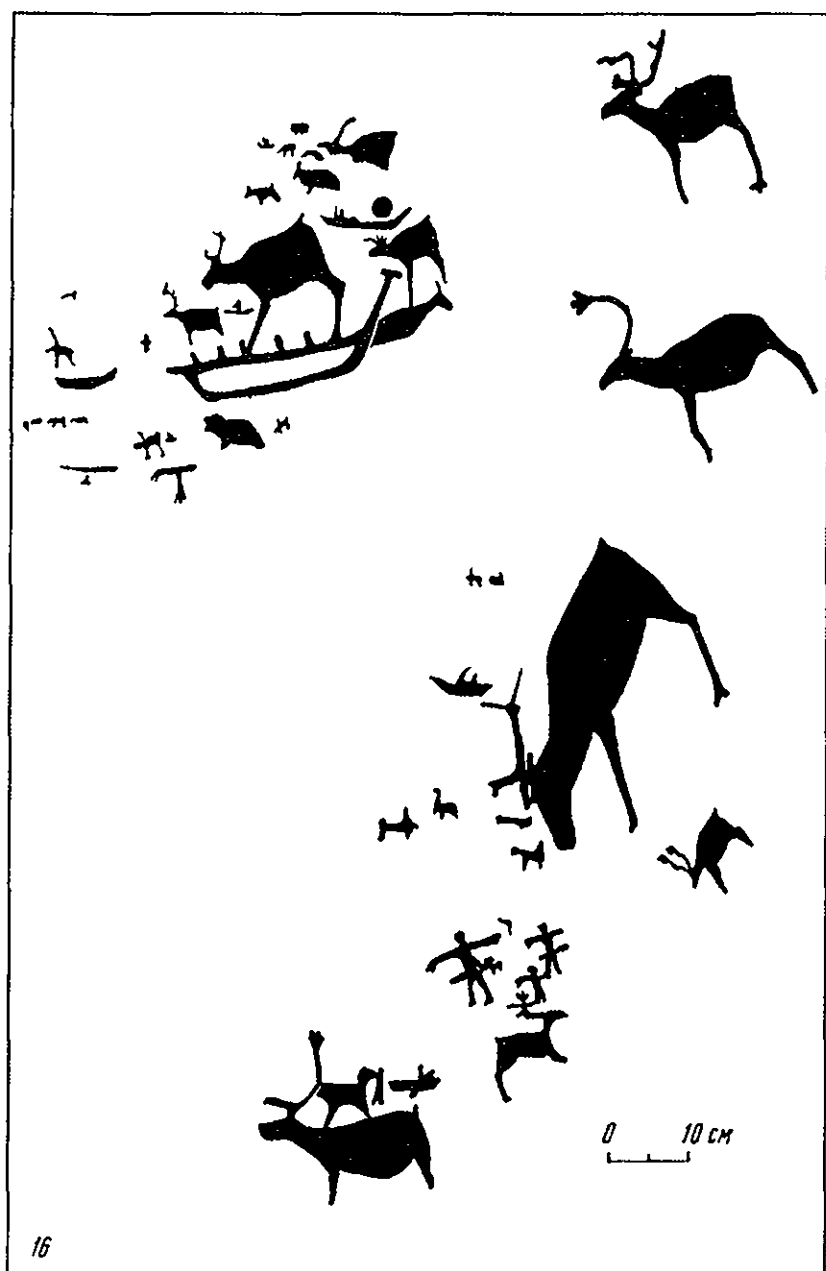


Stone III

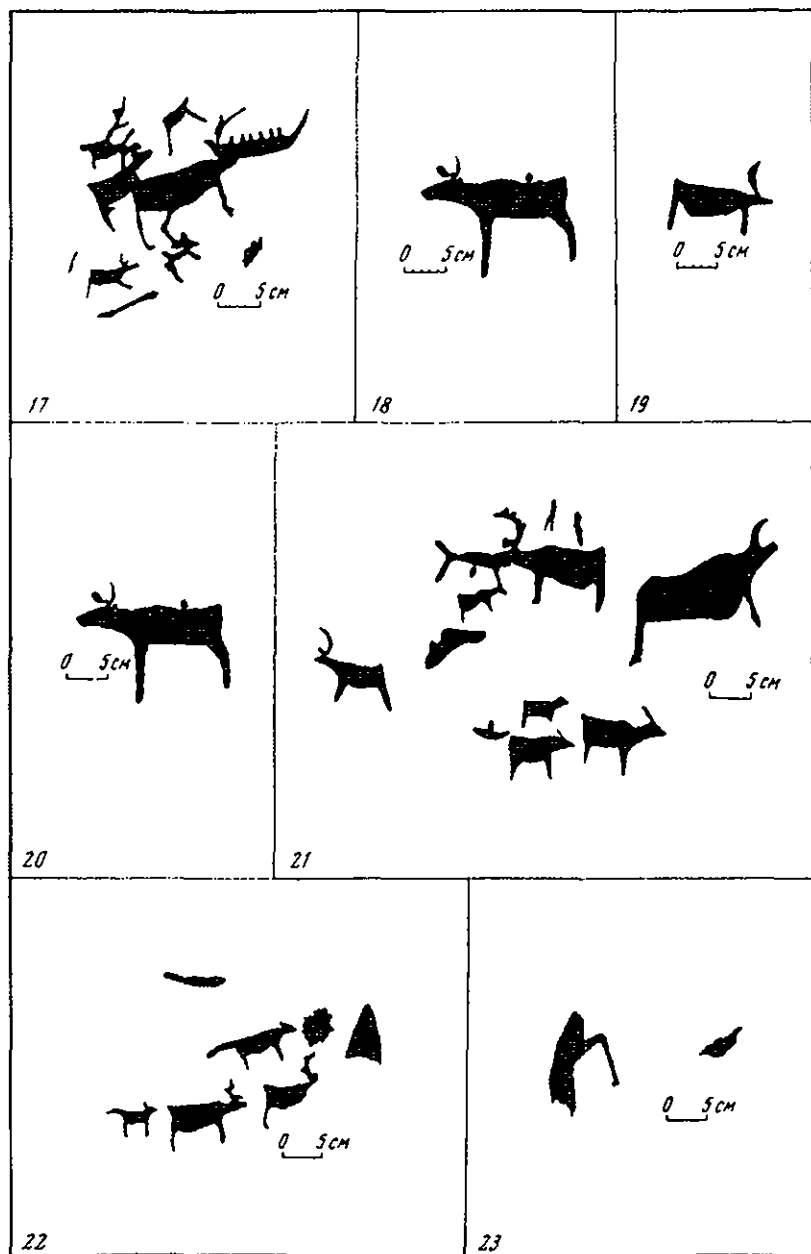


Stone III

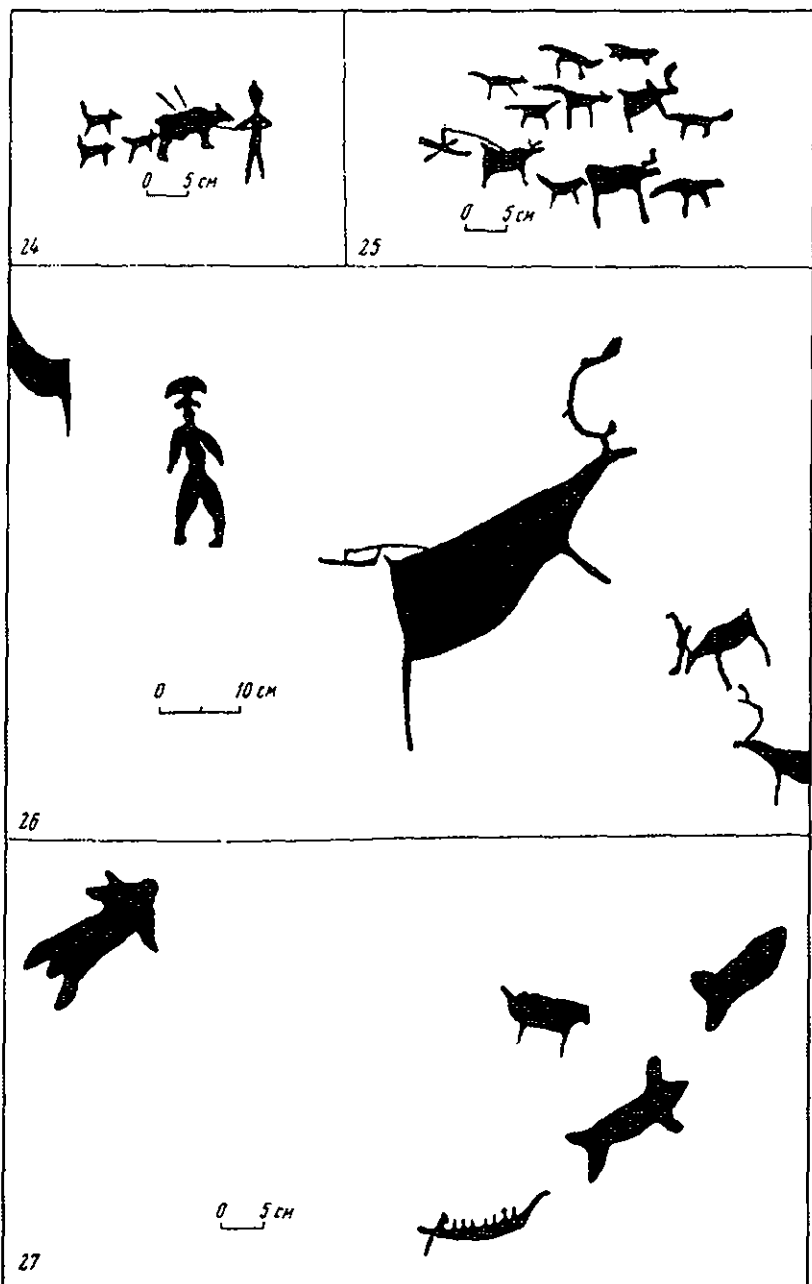
Stone IV



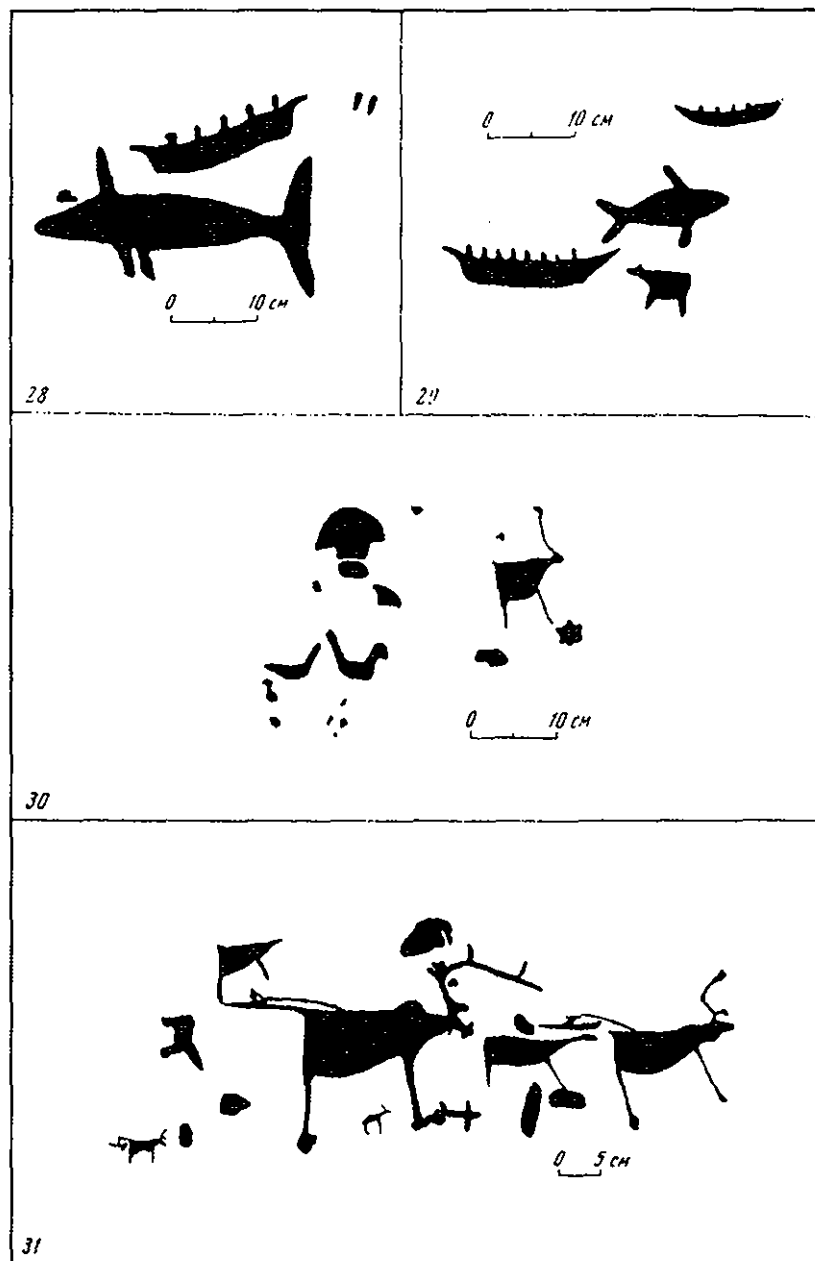
Stone IV



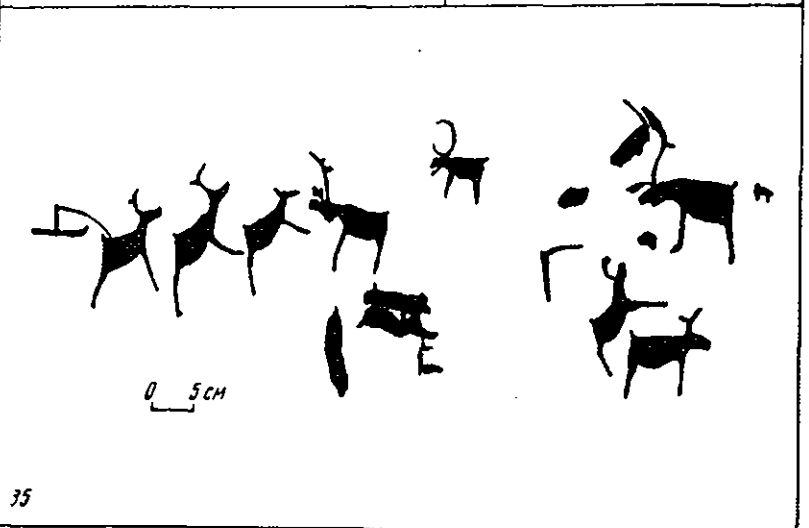
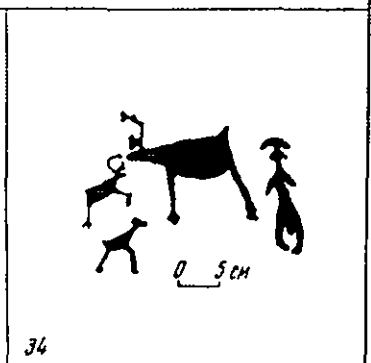
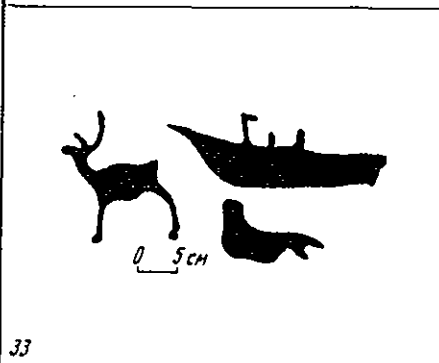
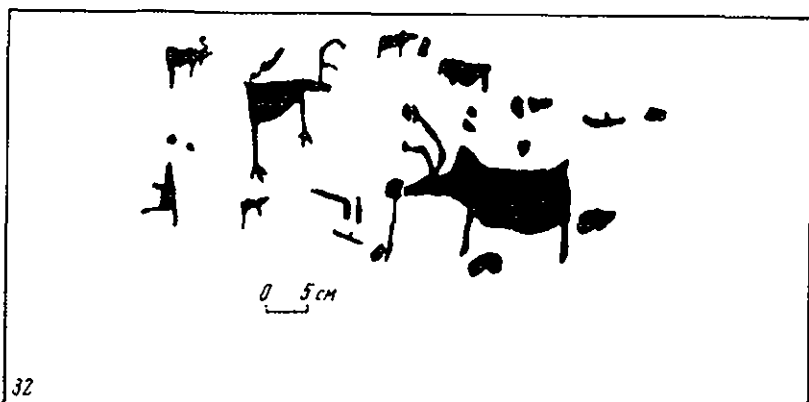
Stone IV



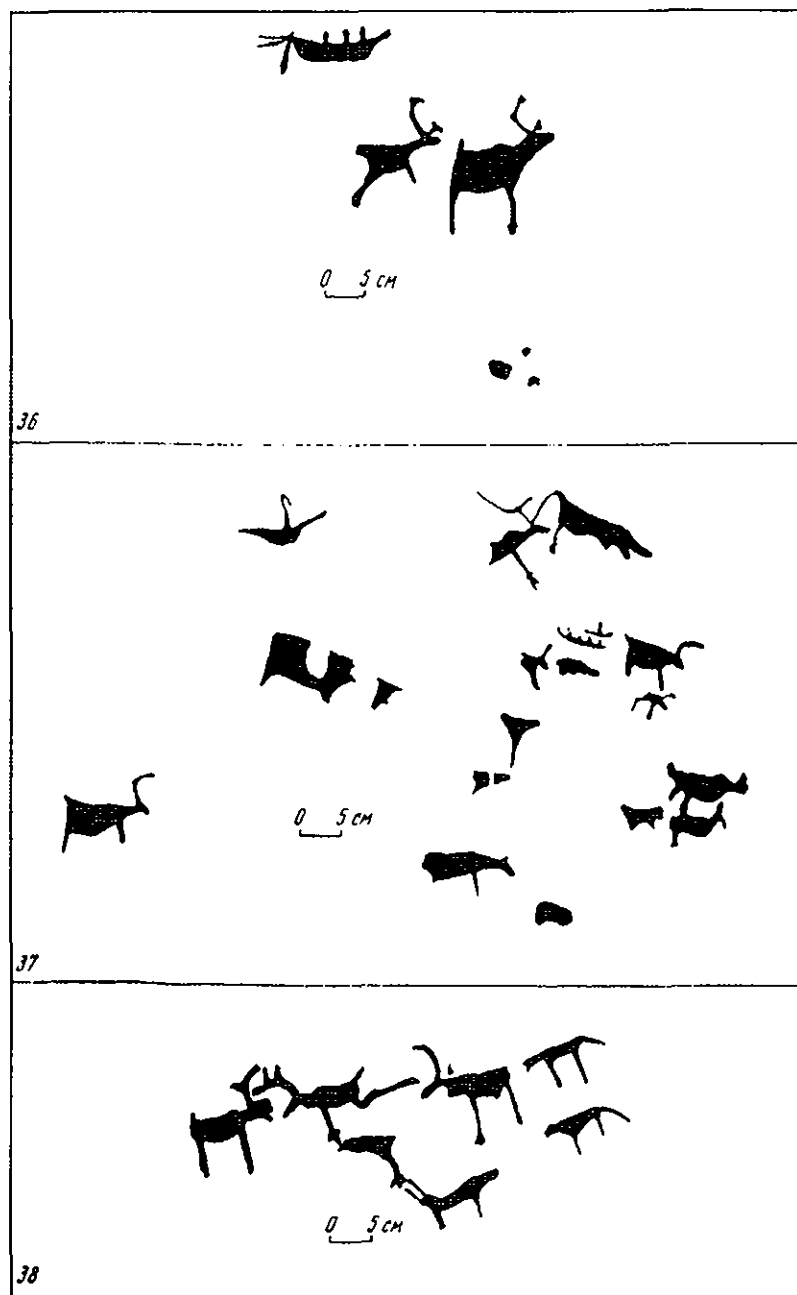
Stone IV



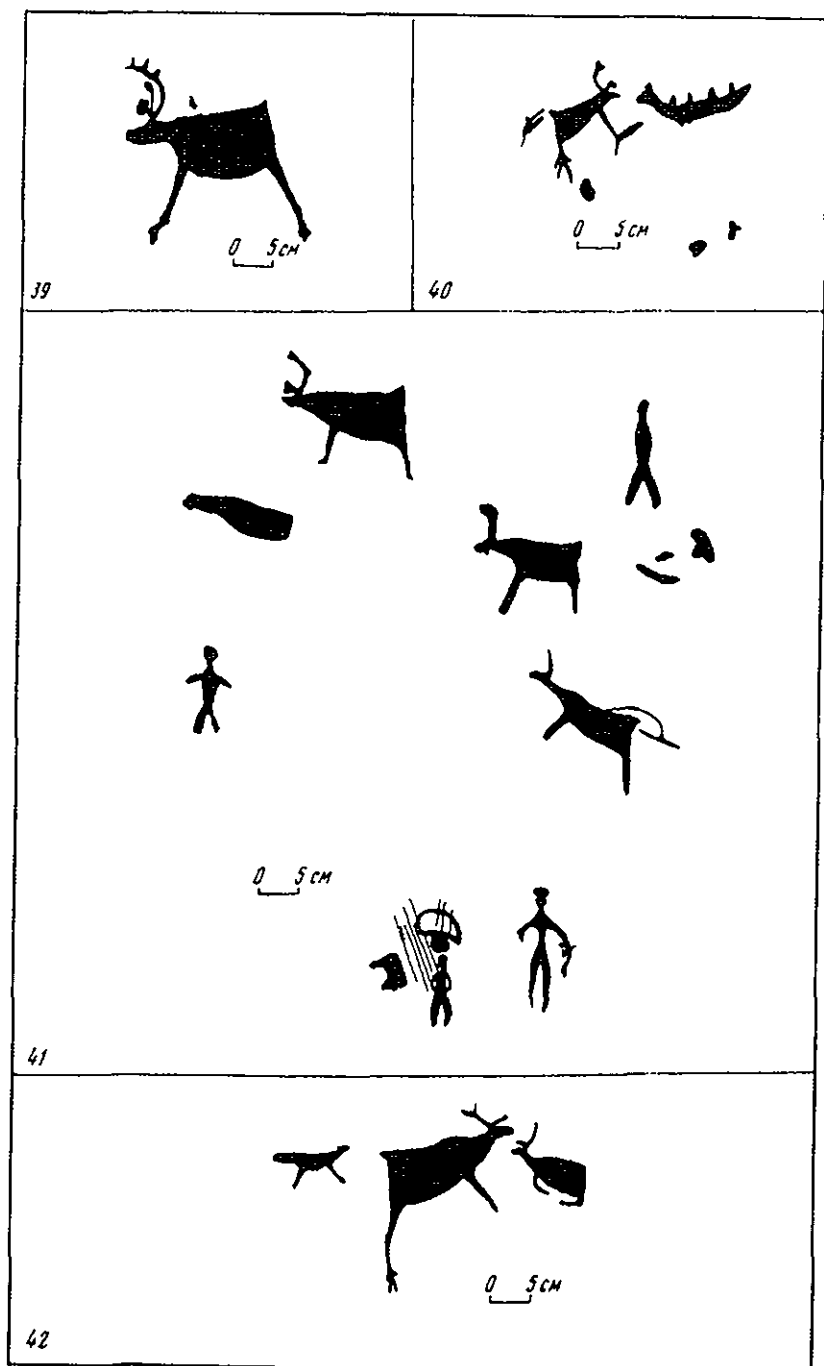
Stone IV



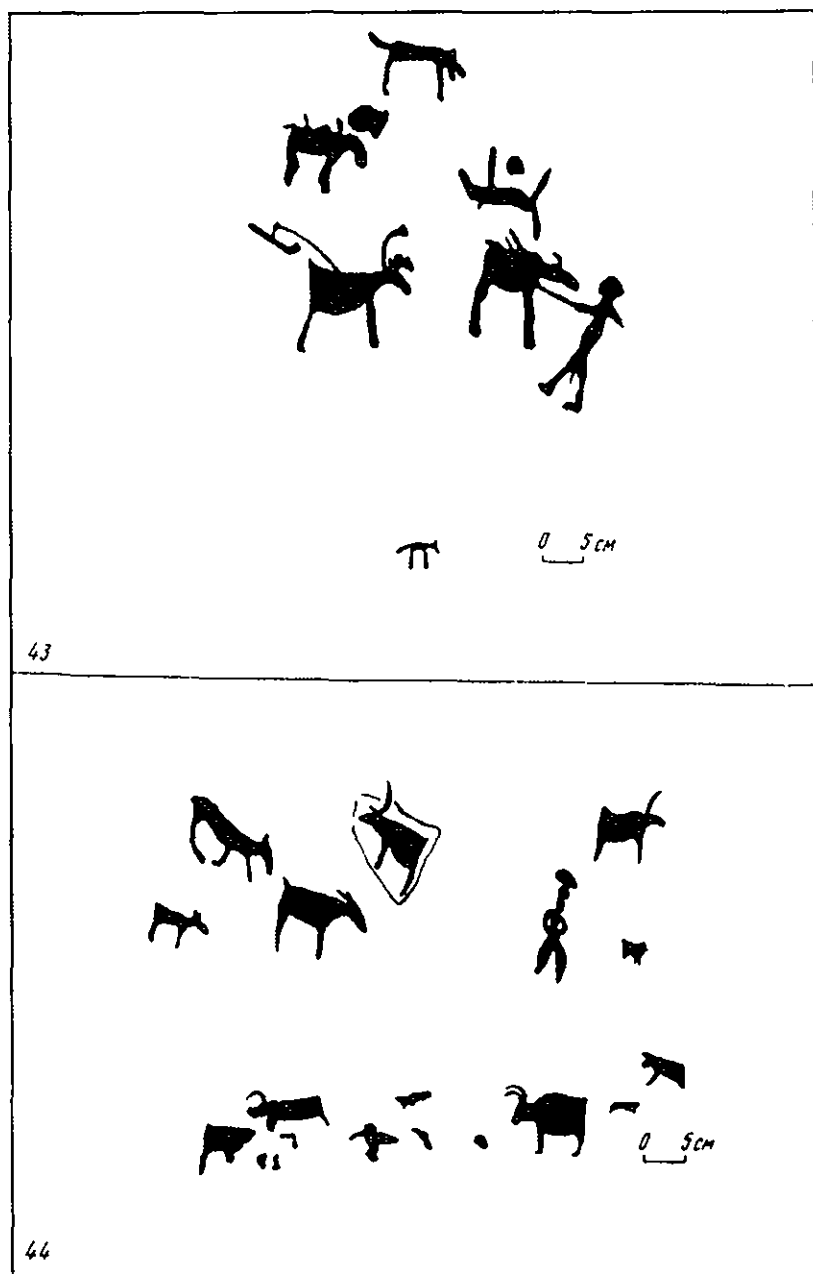
Stone IV



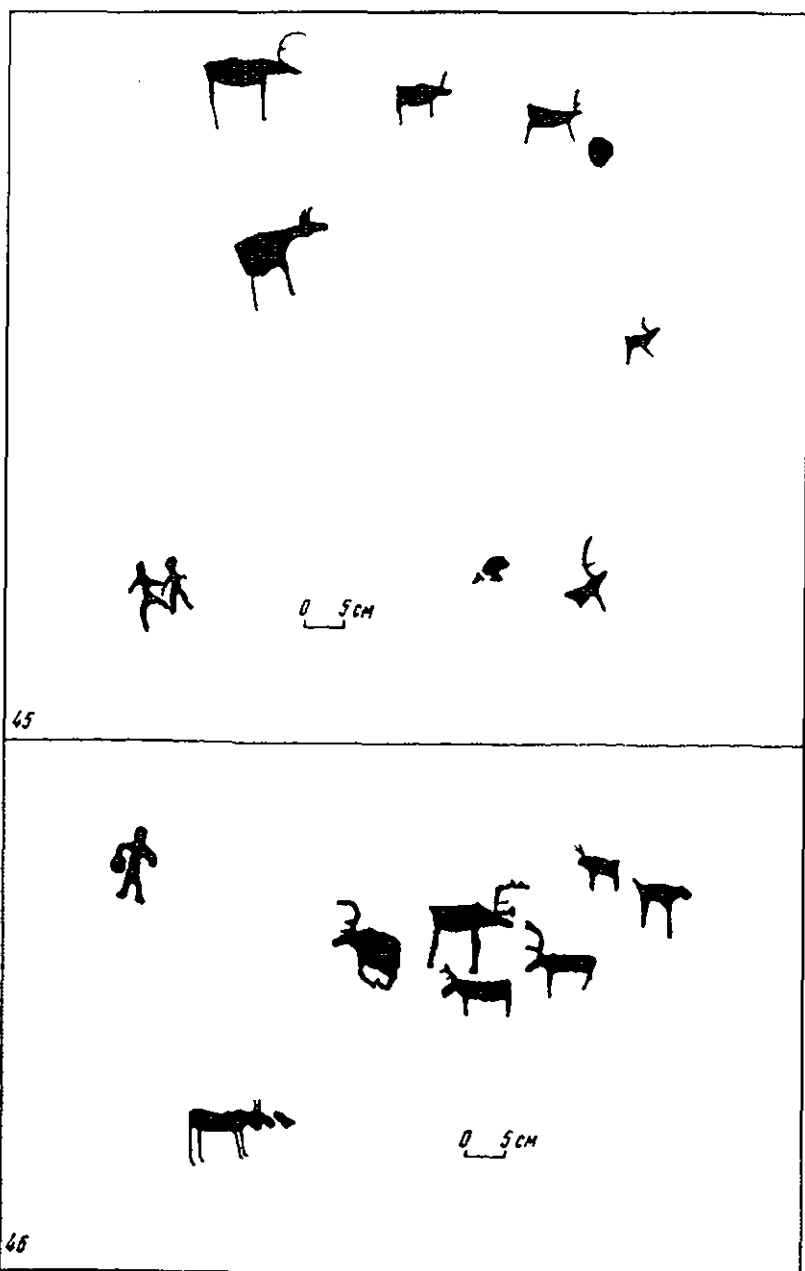
Stone IV



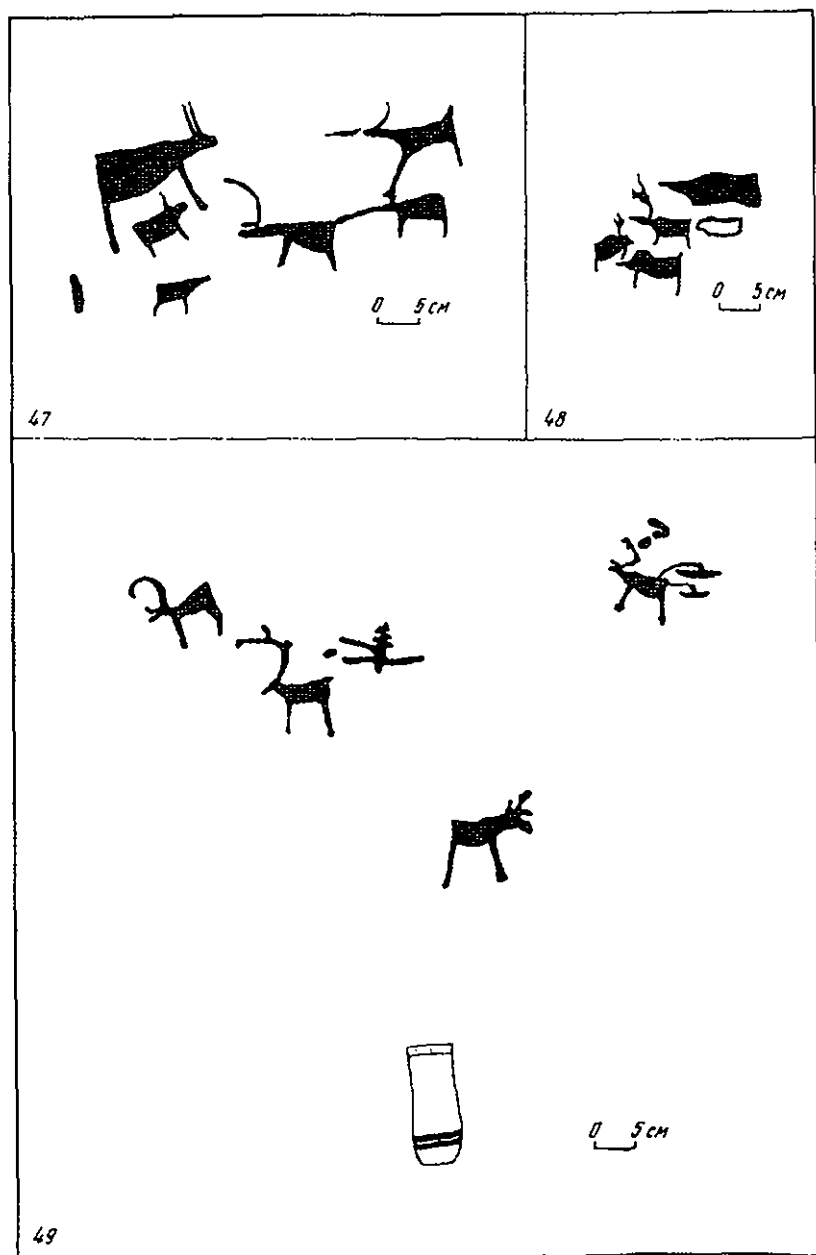
Stone IV



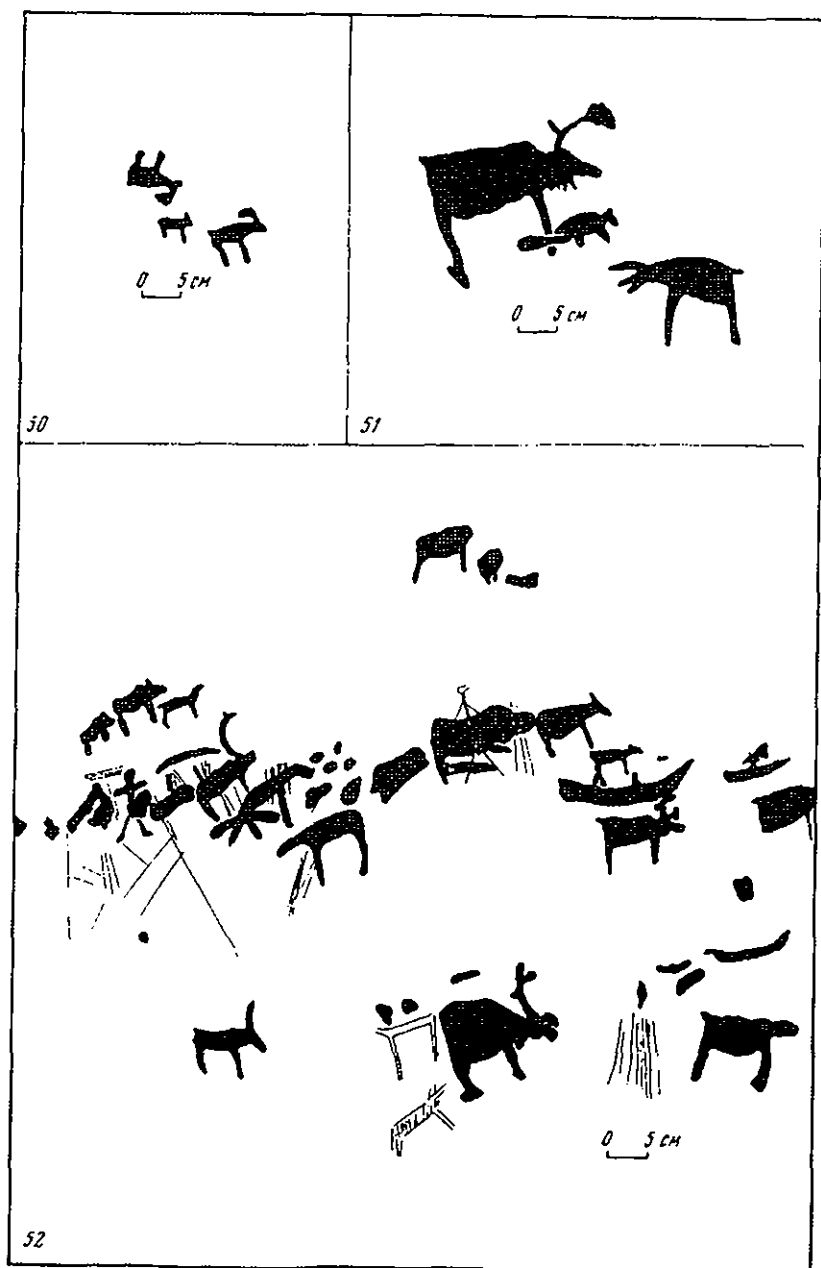
Stone IV



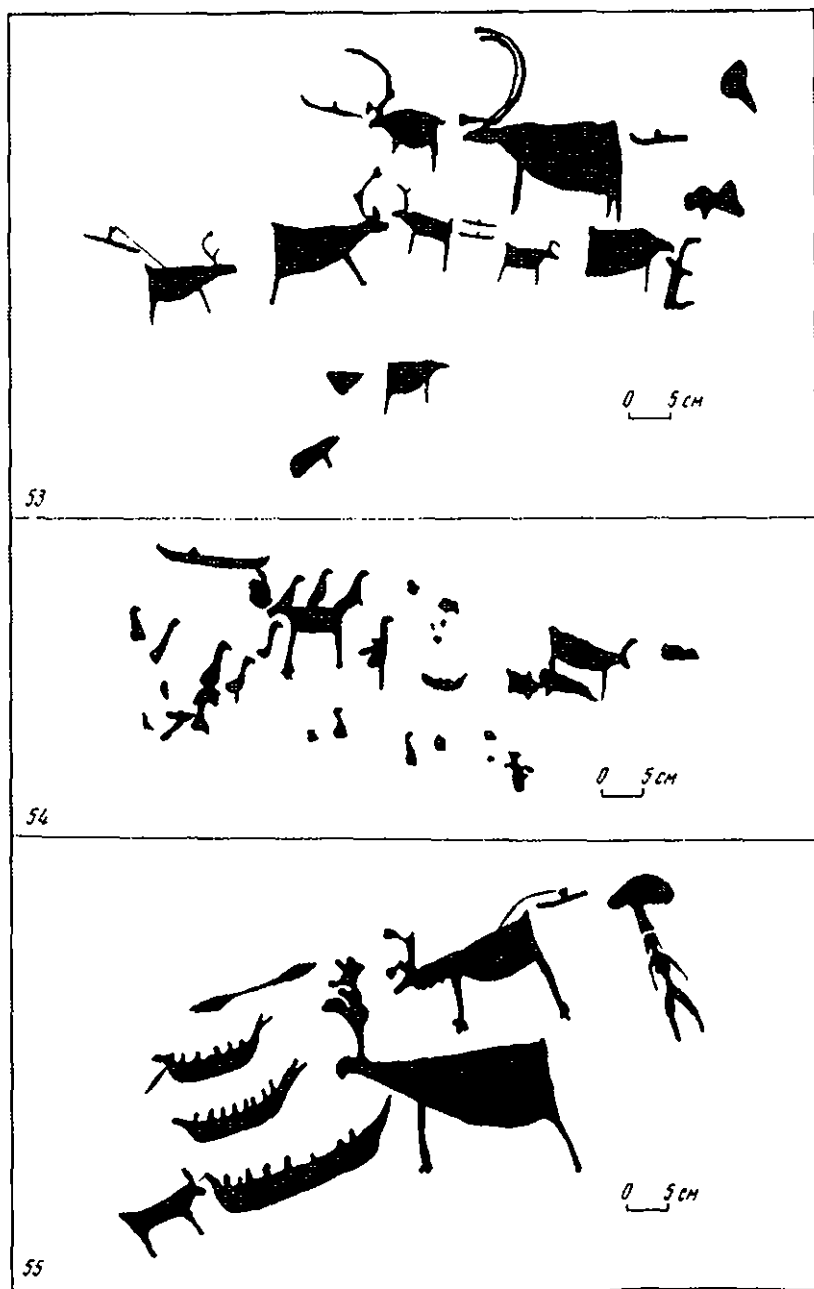
Stone IV



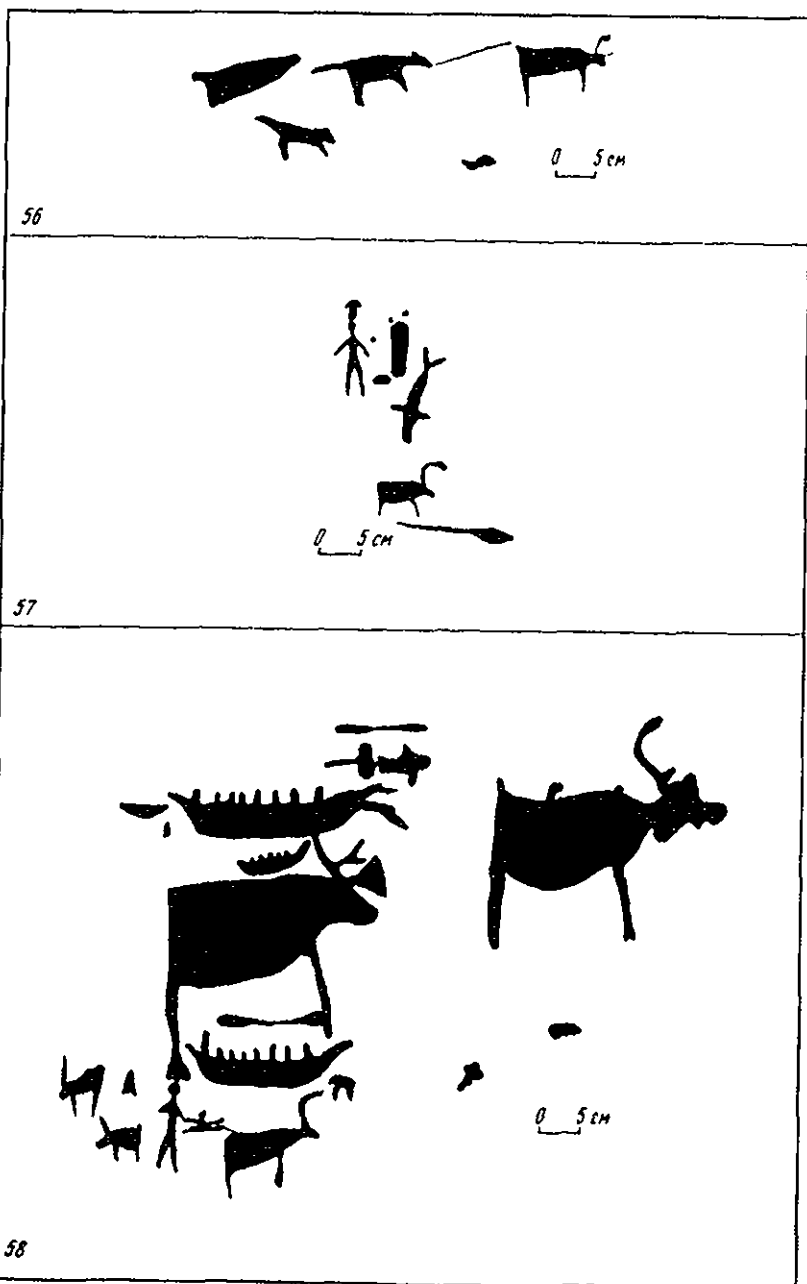
Stone IV



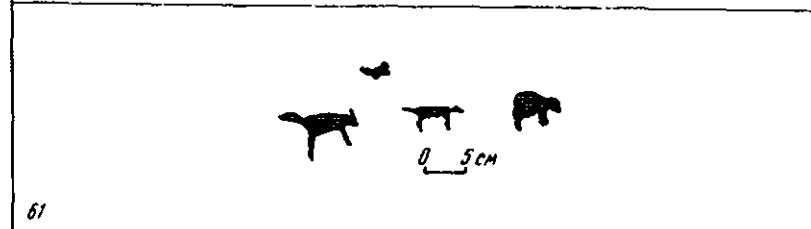
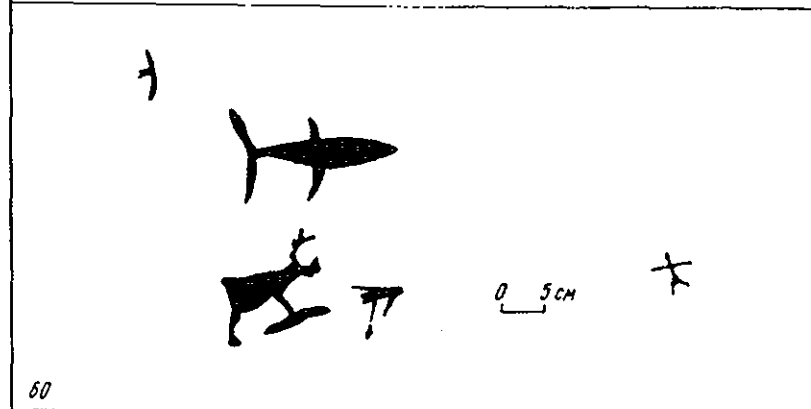
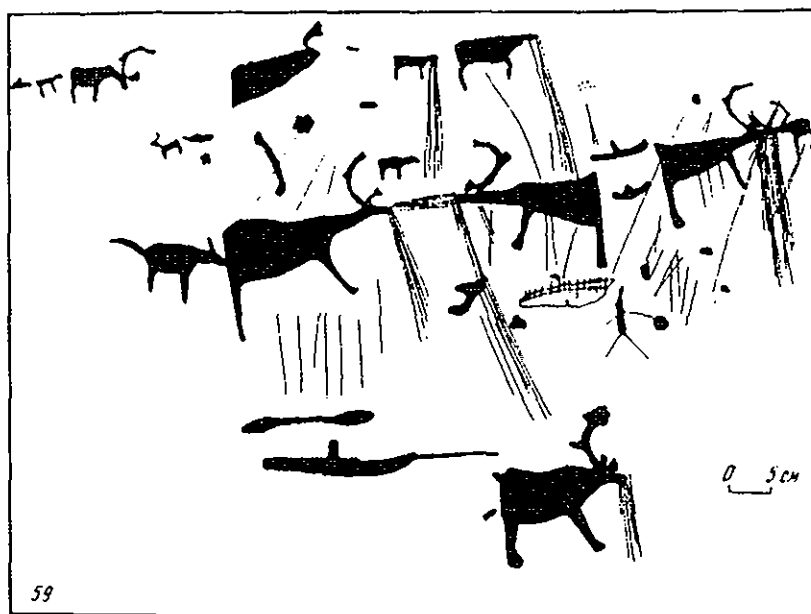
Stone V



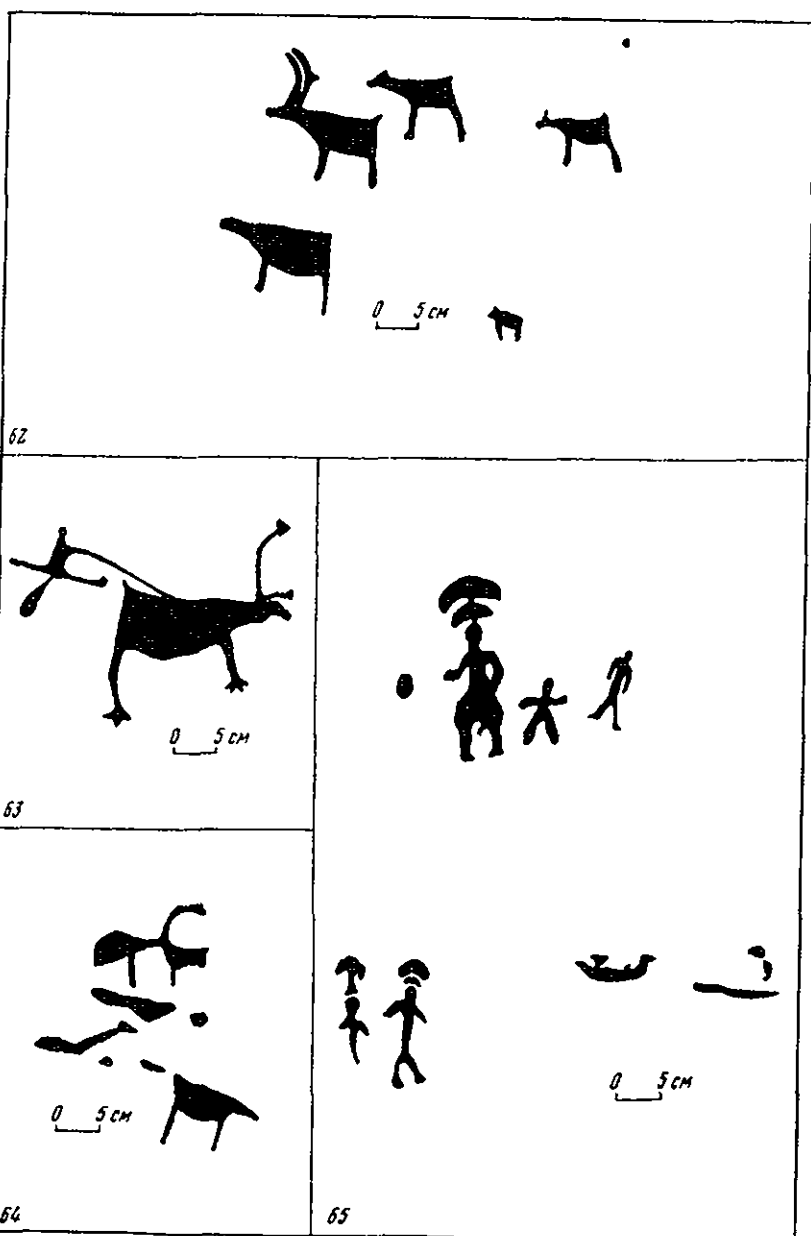
Stone V



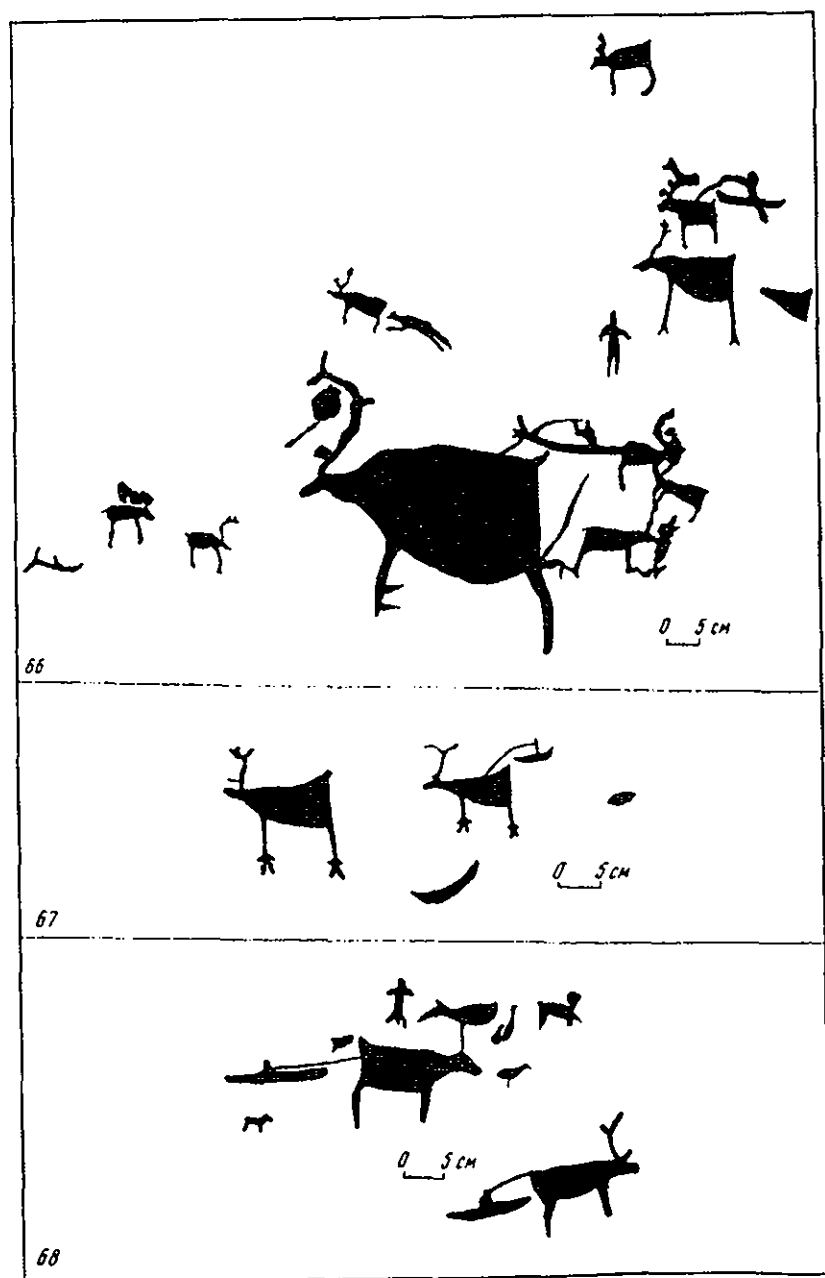
Stone V



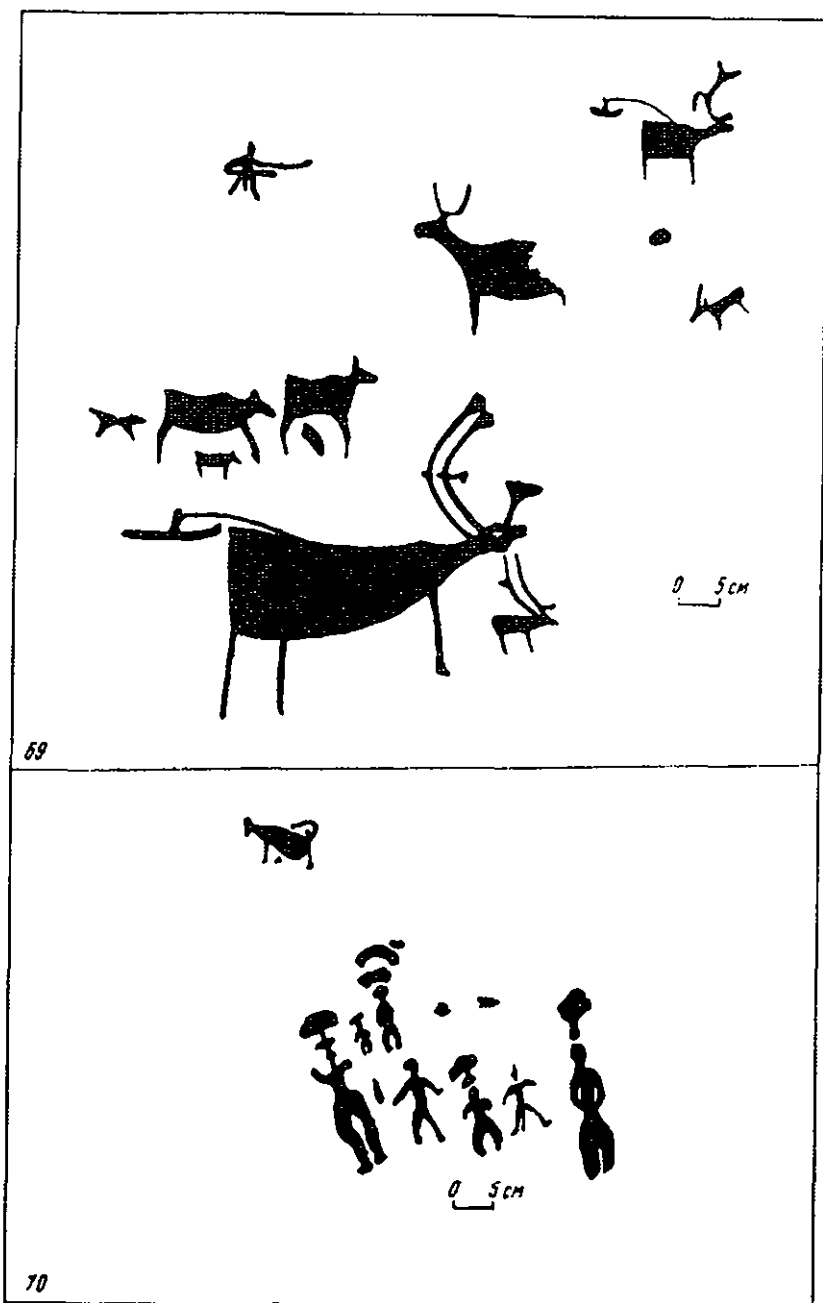
Stone VI



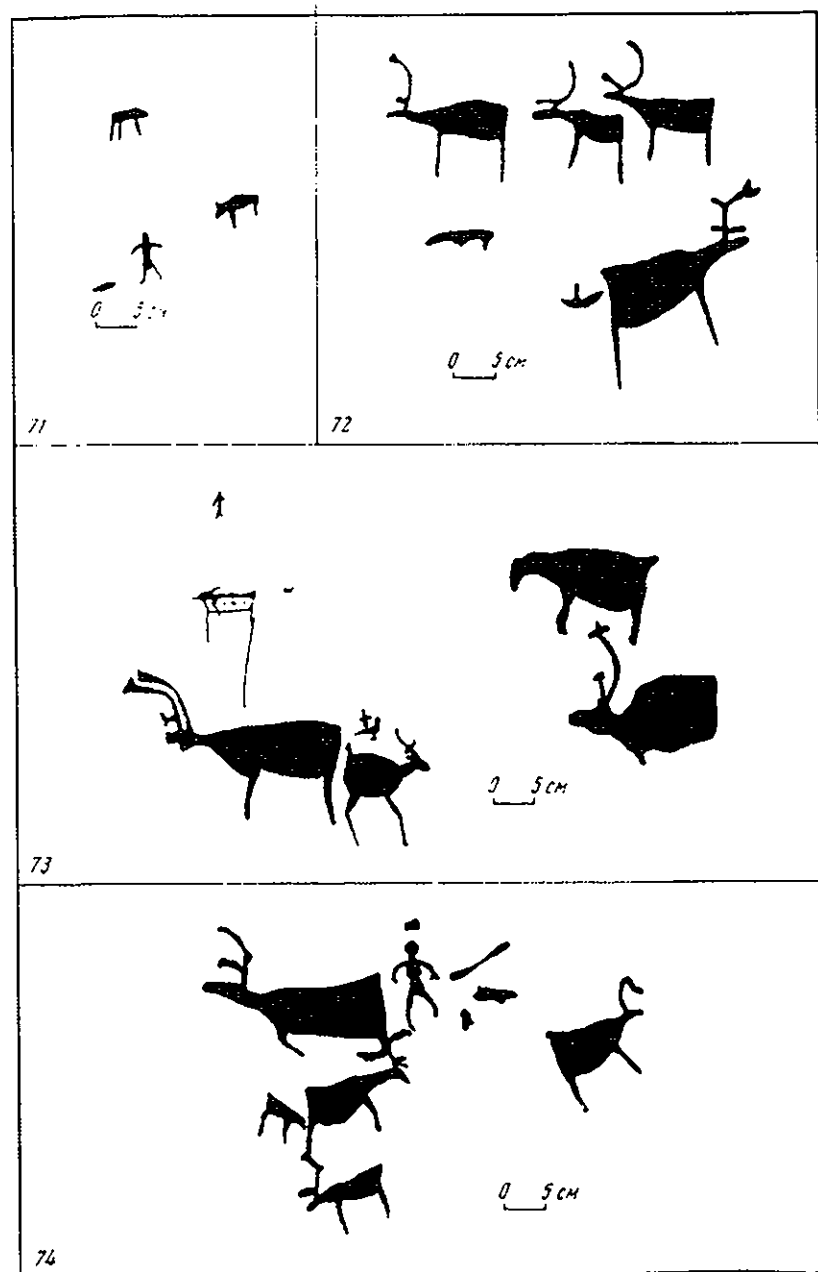
Stone VI



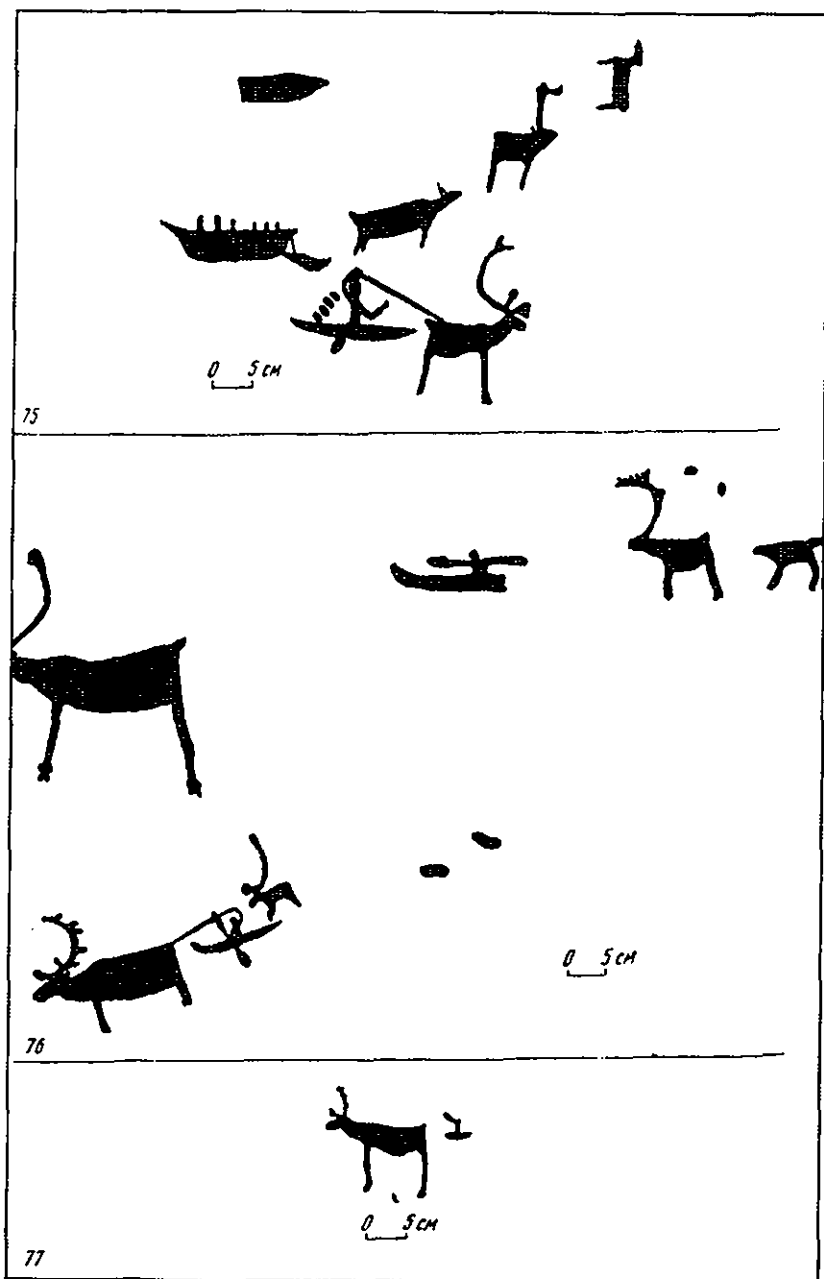
Stone VI



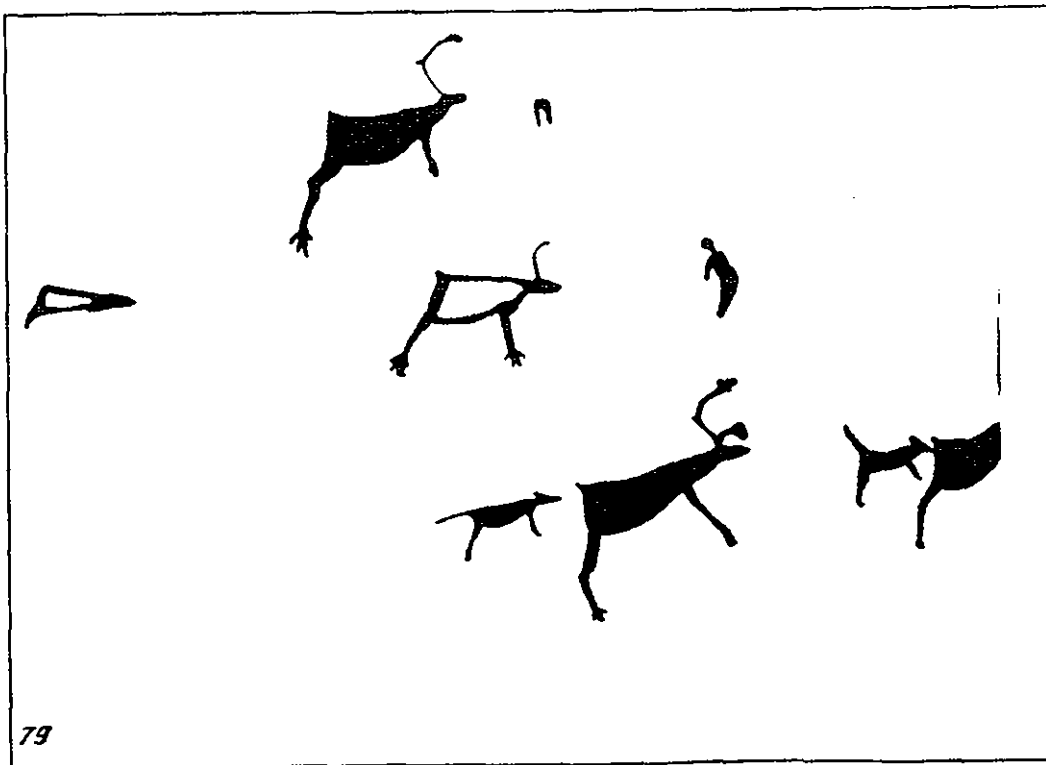
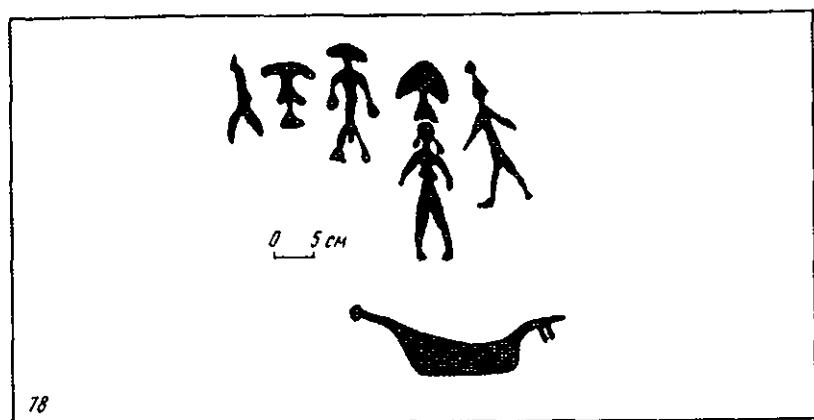
Stone VII



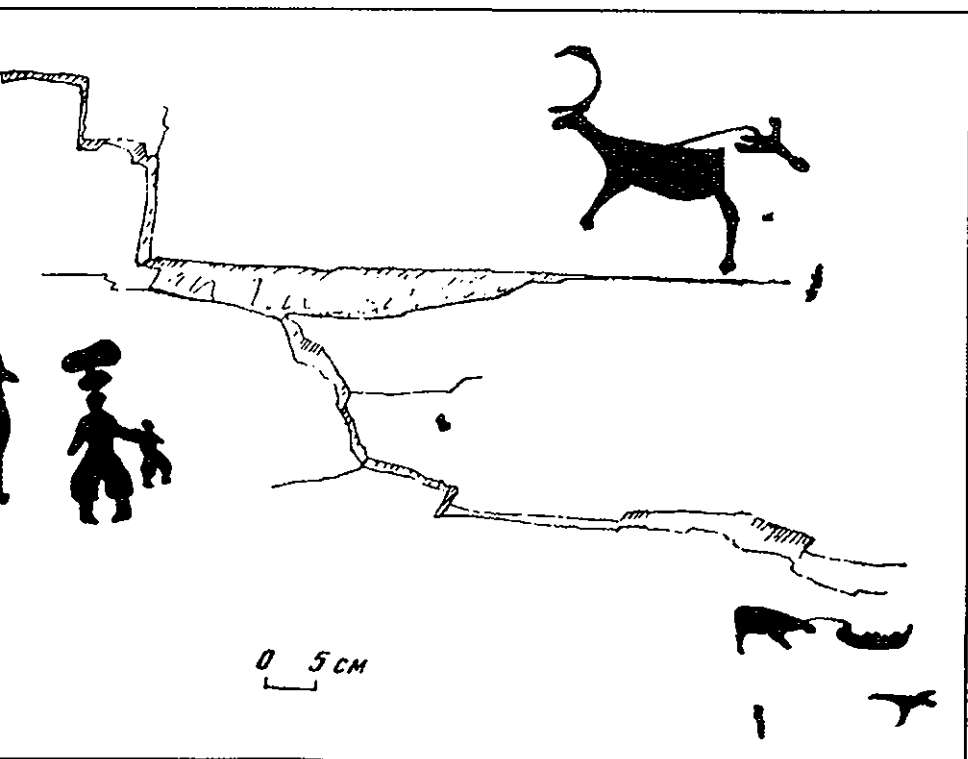
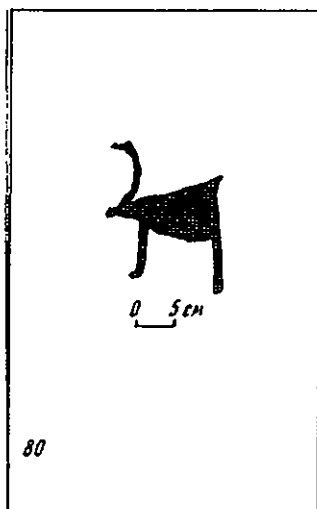
Stone VIII



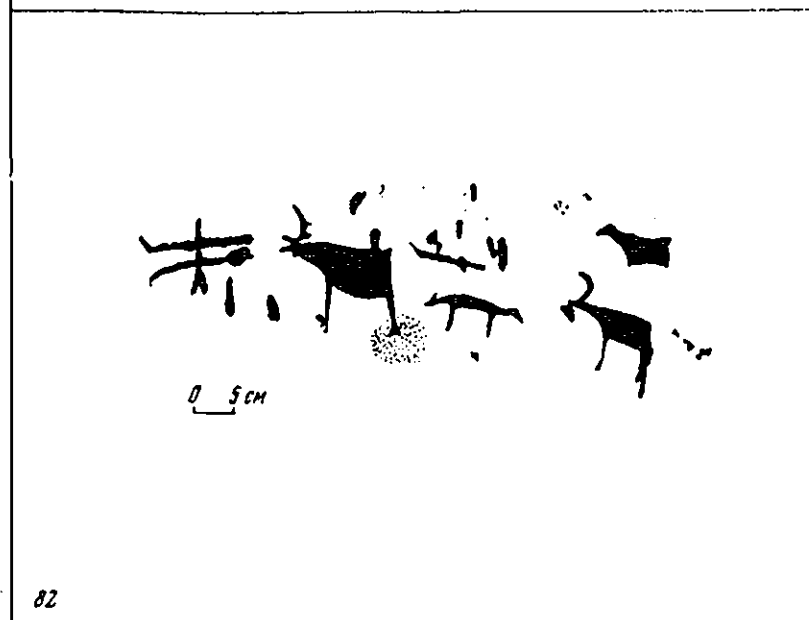
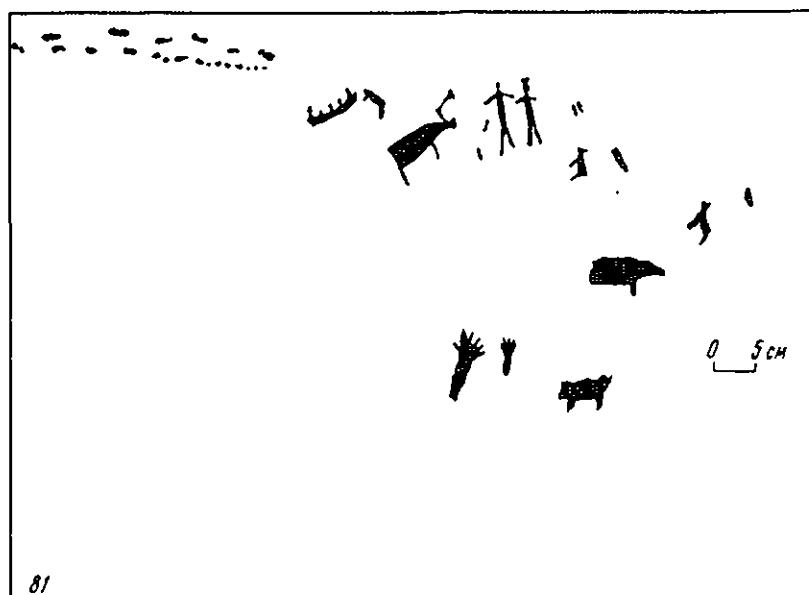
Stone IX



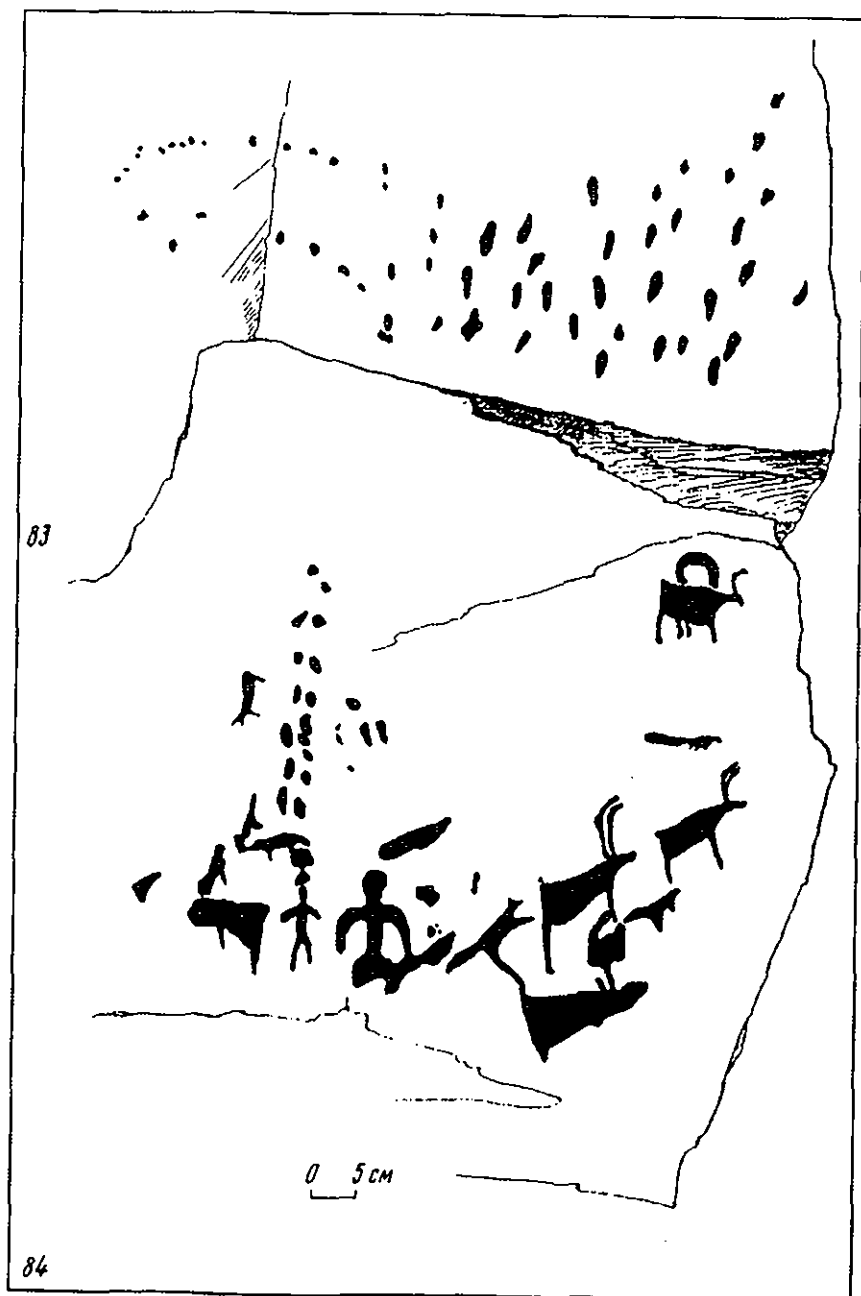
Stone IX



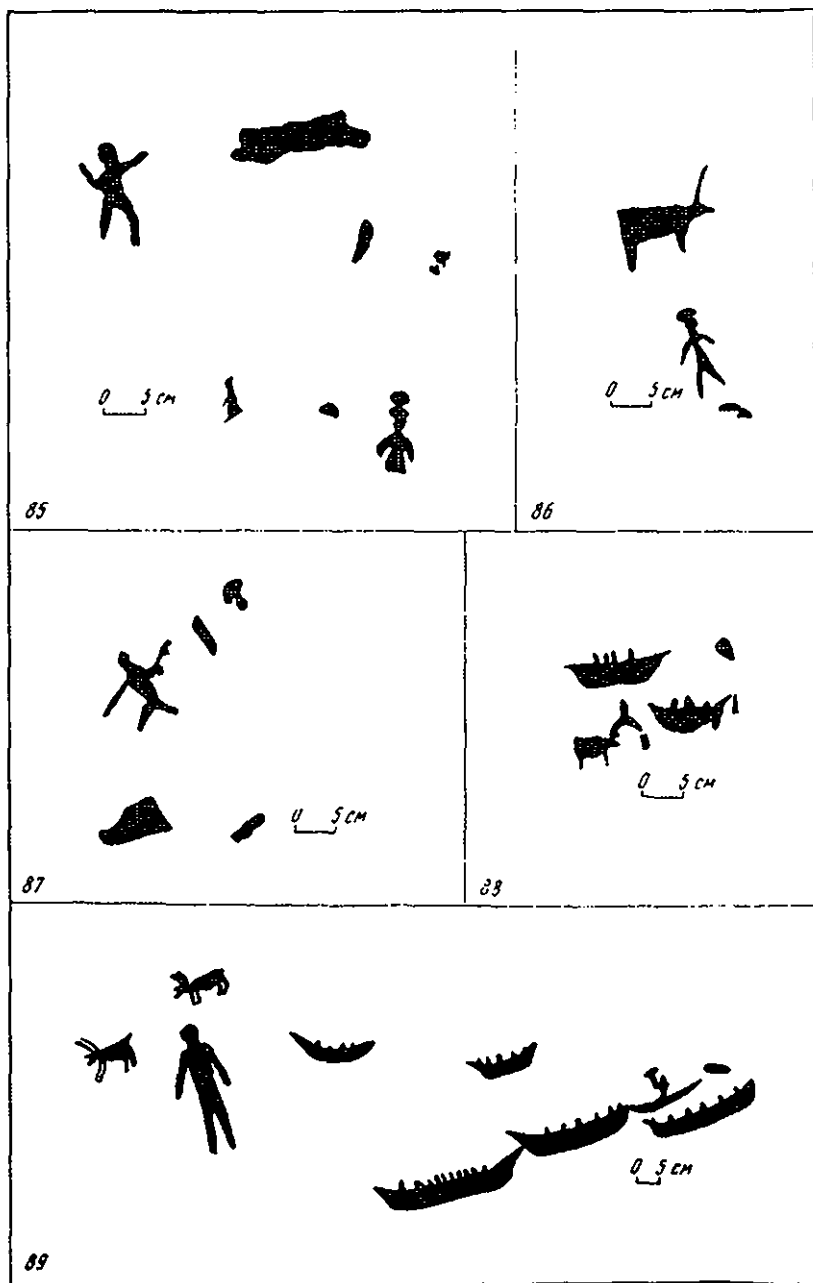
Stone X



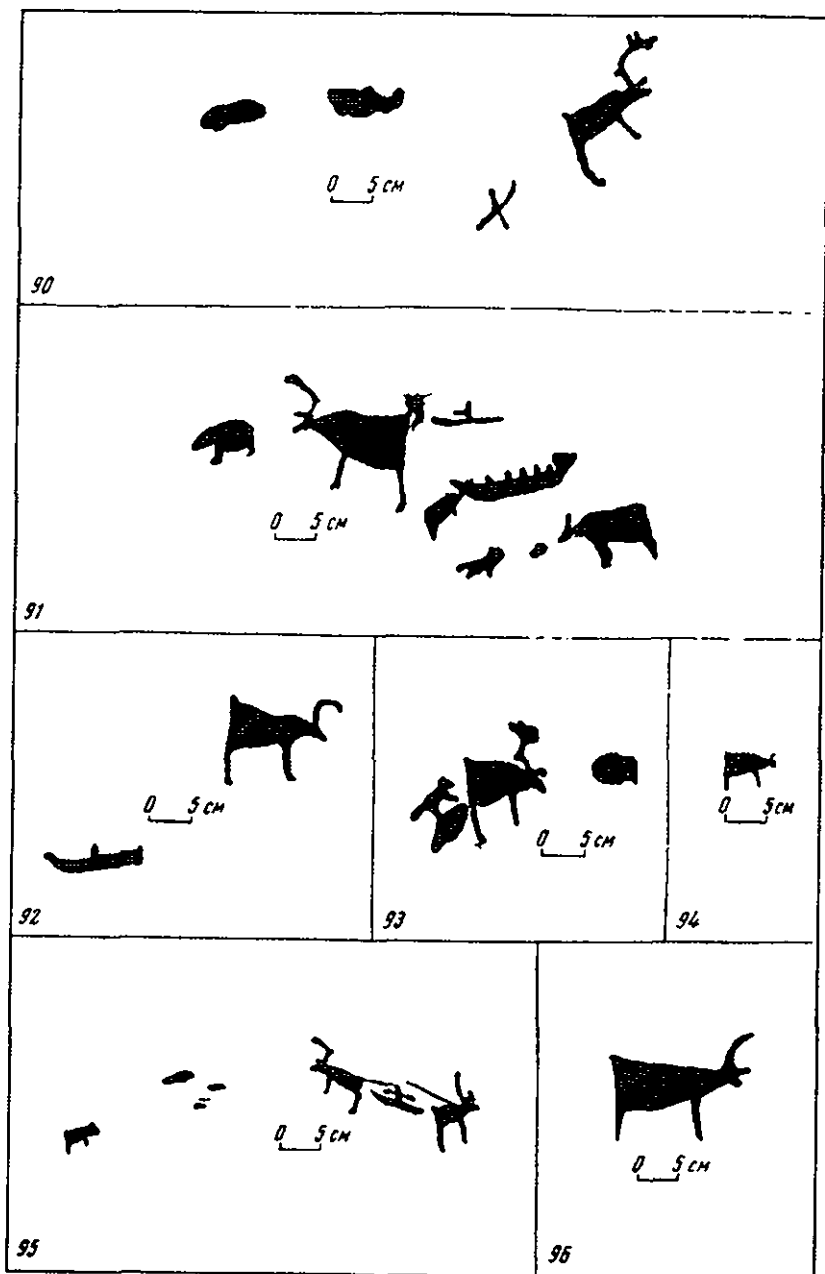
Stone X



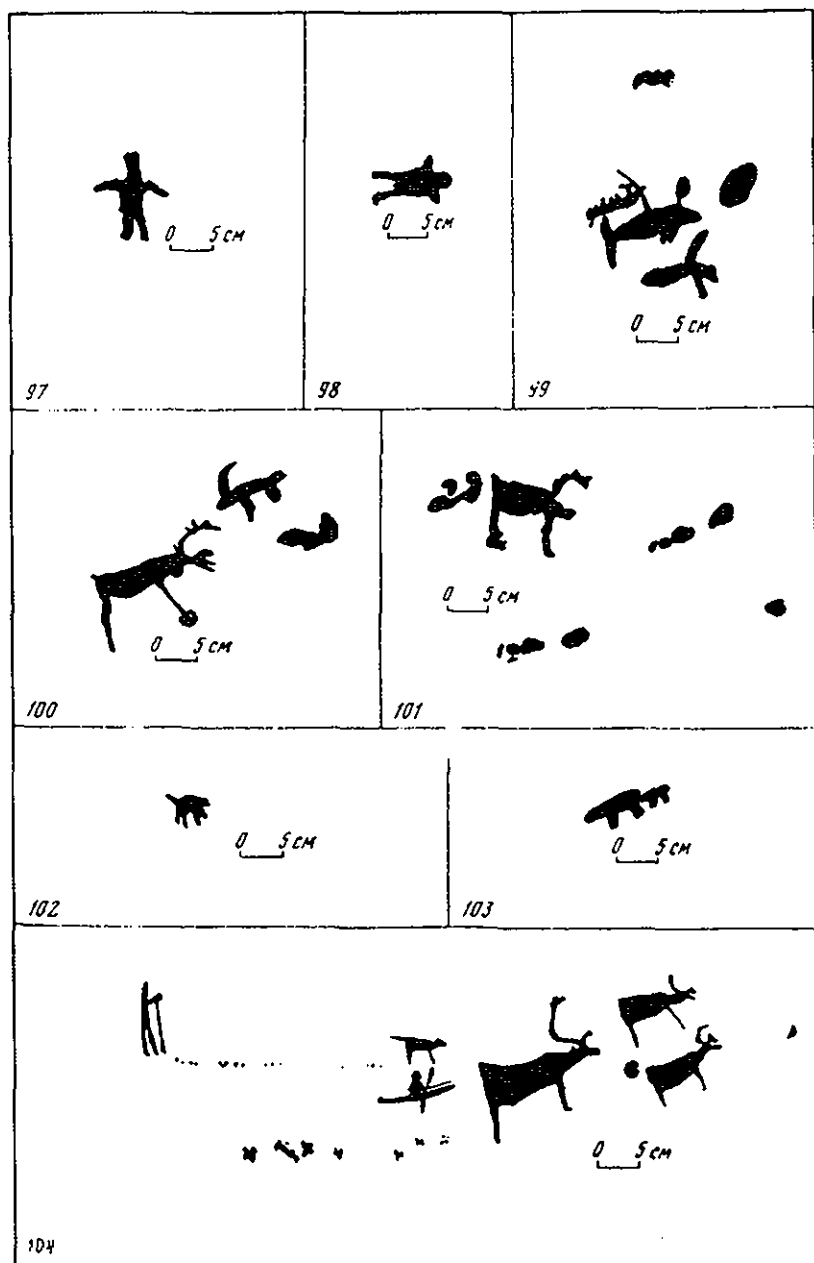
Stone X



Stone X



Stone XI



NOTES

¹Also known as fly agaric or fly amanita.—*Trans.*

²The term "cult" follows Russian usage. That is, a cult should be viewed as "a system of religious beliefs and ritual" (*Webster's Ninth New Collegiate Dictionary*, 1985), not as something unorthodox.—*Trans.*

³Oral reports of V. N. Chernetsov and A. A. Vaiman.

⁴On the interpretation of this composition, see Dikov (1969b:218, 219). However, an illustration representing a fragment of this composition was erroneously placed in the article by A. I. Mazin, *Risunki na skalakh v ust'e Oneni* [Illustrations on the Cliffs at the Mouth of the Oneni], in this same collection on page 211. The illustration on page 218 represents a petroglyph on the right bank of the Niukzha and belongs to the named article by Mazin.

⁵For this information I would like to thank V. P. Churikov, science collaborator of the Magadan System of Land Tenure Expedition.

⁶It is unfortunate to have to use this term here, since to the English-speaking public it conjures up movie fantasies of evil. However, it is accurate in the strict sense of *wer* 'man' and *wulf* 'wolf' in Old English. One simply needs to omit the evil connotation.—*Trans.*

⁷We would like to thank P. V. Inenlikeia for this information. It is interesting that the Eskimos have a mushroom phobia and call all of them *tug'nyg'am sigug'utn'at*—"devils' ears" (Menovshchikov 1959a:71). Perhaps in this name are hints at the former supernatural role of mushrooms among the Eskimos, connected with the illustrations of them on the cliffs.

⁸Exposition of the Museum of Anthropology and Ethnography, Academy of Sciences of the USSR (in Leningrad). On the relationship of the Aleut and Eskimo languages, see Menovshchikov 1959b, 1960, 1968:352-365).

⁹On the economic-cultural type as an ethnic feature of the first order, see Okladnikov (1969).

¹⁰In contrast to the Chukchi, Koryak, Yukagir, and Itelmen, who used

amanitas, until the arrival of Europeans there were no intoxicants among the Eskimos. See L. A. Fainberg (1964:102).

¹¹N. A. Beregovaia is inclined to connect the named pithouses of maritime hunters with the Shelagi, which in her opinion were of Eskimo origin. Dolgikh (1960a), considering the Shelagi Chuvantsi, categorically rejects assigning these sites to them but shares Beregovaia's point of view about the Eskimo ethnic association of the latter.

¹²This translation of the hydronym "Pegtymel" from the Chukchi language comes from the ethnography of the Northeast Interdisciplinary Scientific Research Institute, Academy of Sciences, USSR, by V. V. Leont'ev.

¹³The deer in the illustration is obviously facing left. Upon examination, one wonders if Composition 20 is an accidental duplication of Composition 18, and if the intended Composition 20 was omitted.—*Trans.*

¹⁴The word used here is *rogatina*, a term translated as "bear spear" and deriving from the word *rog* 'horn.' I am told this lance is probably forked on the end.—*Trans.*

BIBLIOGRAPHY

Alekseev, V. P.

- 1966 *Gavriil Andreevich Sarychev*. Moscow.
1967 *K kranologii aziatskikh eskimosov. (Materialy k etnogenezu)*
[On the Craniology of Asiatic Eskimos. (Materials toward
Ethnogenesis). *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp.
IV. Magadan.

Altin, C.

- 1945 *Studien zu den bronzezeitlichen Felszeichnungen von Skane* [Studies on the Bronze Age Rock Illustration of Skane]. Bd. II. Stockholm.

Arutiunov, S. A., and D. A. Sergyev

- 1969 *Kul'turnye svyazi drevnikh narodov Tikhookeanskogo poberezh'ia SSSR* [Cultural Connections of the Early Peoples of the Pacific Coast of the USSR]. Materials of the conference *Etnogenez narodov Severnoi Azii*. Novosibirsk.

Babkin, P. V.

- 1968 *Kto, kogda, pochemu. Proiskhozhdenie nazvanii na karte ordena Lenina Magadanskoi oblasti* [Who, When, Why: The Origin of Names on the Map of the Magadan Region]. Magadan.

Bergovaia, N. A.

- 1953 *Nakonechniki garpunov iz drevnikh poselenii Baranova mysya* [Harpoon Points from the Early Sites at Cape Baranov]. *MIA*, No. 39.
1954 *Arkheologicheskie nakhodki na ostrove Chetyrekhshtolbovom (Medvezh'i ostrova k severu ot ust'ia r. Kolymy)* [Archaeological Finds on Chetyrekhshtolbovom Island (Medvezh'i Islands North of the Mouth of the Kolyma River)]. *Sovetskaia arkheologiya*, XX.

- 1960 Arkheologicheskie nakhodki na ostrove Shalaurova [Archaeological Finds on Shalaurov Island]. *MIA*, No. 86.

Birket-Smith, K.

- 1929 The Caribou Eskimos. *Report of the Fifth Thule Expedition 1921-24*, vol. V. Copenhagen.

Bogoras-Tan, V. G.

- 1934 *Chukchi* [The Chukchi], ch. I. Leningrad.
- 1936 Sotsial'nyi stroi amerikanskikh eskimov [The Social Structure of the American Eskimos]. *Trudy Instituta antropologii, arkheologii i etnografii*, t. IV. Moscow, Leningrad.
- 1937 *Luoravetlansko-russkii (chukotsko-russkii) slovar'* [Luoravetlan-Russian (Chukchi-Russian) Dictionary]. Moscow, Leningrad.
- 1939 *Chukchi*, ch. II, Religii [The Chukchi, Pt. II. Religion]. Leningrad.

Borchegiy, S. T.

- 1959 The Enigmatic Mushroom Stones of Meso America. *Middle American Research Record*, pub. 19. New Orleans, Louisiana.

Brem, A. E.

- 1865 *Zhizn' zhivotnykh* [The Life of Animals]. Vol. 3, p. 482. St. Petersburg.

Chernetsov, V. N.

- 1964 Naskal'nye izobrazheniia Urala [Rock Art of the Urals]. *Svod arkheologicheskikh istochnikov*, vyp. V:4-12.

De Laguna, F.

- 1932 A Comparison of Eskimo and Palaeolithic Art. *Amer. Journ. of Archaeol.*, vol. 36, n. 4.
- 1934 *The Archaeology of Cook Inlet, Alaska*. Philadelphia.

Devlet, M. A.

- 1965 Bol'shaia Boiarskaia pisanitsa [The Great Boiarskaia Pictograph]. *Sovetskaia arkheologiia*, No. 3.

Dewdney, S., and K. E. Kidd

- 1962 *Indian Rock Paintings of the Great Lakes*. Toronto.

Dikov, N. N.

- 1960 Po sledam drevnikh kostrov [On the Trails of Ancient Hearths]. *Arkheologi idut po Chukotke*. Magadan.
- 1961a Pervye arkheologicheskie issledovaniia na ostrove Aion [The First Archaeological Investigations on Aion Island]. *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp. 2. Magadan.
- 1961b O raskopkakh Ust'-Bel'skogo mogil'nika po dannym 1958 g. [On the Excavations of the Ust'-Bel'skaia Burial Ground according to the 1958 Data]. *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp. 2. Magadan.
- 1961c Predvaritel'nye dannye ob arkheologicheskikh rabotakh na Chukotke v 1959 g. [Preliminary Data on Archaeological Work in Chukotka, 1959]. *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp. 2. Magadan.
- 1965 The Stone Age of Kamchatka and the Chukchi Peninsula in the Light of New Archaeological Data. *Arctic Anthropology* 3(1):10-25.
- 1967 K izucheniiu kul'turnogo nasledniia korenного naseleniia Chukotki (petroglify na reke Pegtymel') [Toward the Investigation of the Cultural Legacy of the Native Population of Chukotka (Petroglyphs on the Pegtymel' River)]. *Problemy nauki na Severo-Vostoke SSSR. Trudy SV KNII SO AN SSSR*, vyp. 31. Magadan.
- 1968a Otkrytie petroglifov na Chukotke [The Discovery of Petroglyphs in Chukotka]. *Arkheologicheskie otkrytiia 1967 g.* Moscow.

- 1968b Prizraki Pegtymel'skikh skal [Phantoms of the Pegtymel' Cliffs]. *Vokrug sveta*, no. 3.
- 1968c Vankaremskie drevnosti [The Antiquities of Vankarem]. *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp. V. Magadan.
- 1969a Problema etnicheskoi prinadlezhnosti pegtymel'skikh petroglifov [The Problem of Ethnic Association of the Pegtymel' Petroglyphs]. *Etnogenez narodov Severnoi Azii*. Novosibirsk.
- 1969b Mestonakhozhdenie petroglifov, neoliticheskie stoianki i peshchera v nizov'iakh reki Pegtymel' na Chukotke [Petroglyph Locations, Neolithic Sites, and a Cave on the Lower Pegtymel' River in Chukotka]. *Arkheologicheskie otkrytiia 1968 g.* Moscow.
- 1969c *Drevnie kostry Kamchatki i Chukotki. 15 tysiach let istorii* [Early Hearths of Kamchatka and Chukotka: Fifteen Thousand Years of History]. Magadan.
- 1971 La pétrographie en Sibérie du Nord-Est [Petrography in North-eastern Siberia]. *Inter-Nord*, no. 12. Paris.

Dikov, N. N., and N. M. Samorukov

- 1971 Naskal'nye risunki, obnaryzhennye na Chukotke v 1965 g. [Cliff Illustrations Found in Chukotka in 1965]. *Kraevedcheskie zapiski*, vyp. IX. Magadan.

Dolgikh, B. O.

- 1960a Prinesenie v zhertvu olenci u nganasan i entsev [Sacrificing Deer among the Nganasan and Ents]. *KSIE*, XXXIII.
- 1960b Rodovoi i plemennoi sostav narodov Sibiri v XVII v. [Clan and Tribal Composition of Peoples of Siberia in the Seventeenth Century]. *Trudy Instituta etnografii AN SSSR*, nov. ser., t. 55.

Domanskii, Ya. V., and A. D. Stoliar

- 1962 *Po besovym sledam* [On Devils' Tracks]. Leningrad.

El'kin, A.

- 1952 *Korennoe naselenie Avstrali* [The Native Population of Australia]. Moscow.

Engelstad, E. S.

- 1934 *Østnorske Ristninger og Malinger av den Arktiske Gruppe* [East Norwegian Inscriptions and Paintings of the Arctic Group]. Oslo.

Fainberg, L. A.

- 1964 *Obshchestvennyi stroi eskimov i aleutov* [The Social Structure of the Eskimos and Aleuts]. Moscow.

Formozov, A. A.

- 1966 *Pamiatniki pervobytnogo iskusstva na territorii SSSR* [Sites of Primitive Art in the Territory of the USSR]. Moscow.

Gjessing, G.

- 1932 *Arktiske Hellenistninger i Nord-Norge* [Arctic Rock Inscriptions in Northern Norway]. Oslo.
- 1936 *Nordenfjelske Ristninger og Malinger av den Arktiske Gruppe* [Northern Mountain Inscriptions and Paintings of the Arctic Group]. Oslo.

Gokhman, I. I.

- 1961 *Drevnii cherep s Chukotki* [An Ancient Skull from Chukotka]. *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp. II. Magadan.

Grach, A. D.

- 1957 *Petroglify Tuvy, I (Problema datirovki i interpretatsii, etnograficheskie traditsii)* [Petroglyphs of Tuva, I (The Problem of Dating and Interpretation, and the Ethnographic Tradition)]. *Sbornik Muzeia antropologii i etnografii*, t. 17.

- 1958 Petroglify Tuvy, II (Publikatsiia kompleksov, obnaryzhennykh v 1955 g.) [Petroglyphs of Tuva, II (The Publication of the Complexes Found in 1955)]. *Sbornik Muzeia antropologii i etnografii*, t. 18.

Griaznov, M. P.

- 1933 Boiarskaia pisanitsa [The Boyarskaia Pictograph]. *Problemy istorii dokapitalisticheskikh obshchestv*, No. 7-8.

Gribanovskii, N. N.

- 1946 Svedeniia o pisanitsakh Yakutii [Information on the Pictographs of Yakutia]. *Sovetskaia arkheologiia*, VIII.

Gurina, N. N.

- 1961 Drevniaia istoriia severo-zapada Evropeiskoi chasti SSSR [The Early History of the Northwest of the European Part of the USSR]. *MIA*, 87.

Gurvich, I. S.

- 1966 Etnicheskaia istoriia Severo-Vostoka Sibiri [The Ethnic History of Northeastern Siberia]. *Trudy Instituta etnografii AN SSSR*, nov. ser., t. 89.

Hagen, A.

- 1965 *Rock Carvings in Norway*. Oslo.

Heim, R., and R. G. Wasson

- 1958 Les champignons hallucinogènes du mexique [Hallucinogenic Mushrooms of Mexico]. *Archives du Museum National d'Histoire Naturelle*. Septième Série, t. VI. Paris.

Holtved, E.

- 1944 Archaeological Investigations in the Thule District. *Meddelelser om Grønland*, vol. 141, pt. I. Copenhagen.

Istoriia . . .

- 1968 *Istoriia Sibiri, t. I. Drevniaia Sibir'* [The History of Siberia, vol. 1. Ancient Siberia]. Leningrad.

Ivanov, S. V.

- 1954 *Materialy po izobrazitel'nomu iskusstvu narodov Sibiri XIX-nachala XX v.* [Materials on Representative Art of the Peoples of Siberia of the Nineteenth to the Beginning of the Twentieth Century]. *Trudy Instituta etnografii AN SSSR*, nov. ser., t. XXII.

Ivanov, V. G.

- 1934 *Siberskie paralleli k magicheskim izobrazheniiam epokhi palcolita* [Siberian Parallels to Magical Representations during the Paleolithic Epoch]. *Sovetskaia etnografiia* 14.

Jochelson, W. I.

- 1897 *K voprosu ob ischeznuvshikh narodnostiakh Kolymского okrug*a [On the Question of the Disappearance of the Peoples of the Kolyma District]. *Izvestiia Vostochno-Sibirskogo otdeleniia Russkogo geograficheskogo obshchestva*, t. XXVIII, no. 2.

Kinzhalov, R. V.

- 1968 *Iskusstvo drevnikh maiia* [The Art of the Ancient Mayas]. Leningrad.

Krasheninnikov, S. P.

- 1755 *Opisanie zemli Kamchatki* [A Description of the Land of Kamchatka]. Vol. II. St. Petersburg.
- 1949 *Opisanie zemli Kamchatki* [A Description of the Land of Kamchatka]. Moscow; Leningrad.

Laushkin, K. D.

- 1959 *Onezhskoe sviatilishche* [The Onezhskii Sanctuary]. *Skandinavskii sbornik*, IV. Tallin.

Lebedeva, L. A.

- 1949 *Opredelitel' shliapochnykh gribov* [A Determinant of Capped Mushrooms]. Moscow, Leningrad.

Lebedinskaia, G. V.

- 1961 *Protsess vosstanovleniia golovy po cherepu iz Ust'-Bel'skogo mogil'nika* [The Process of Reconstruction of the Head from the Skull from the Ust'-Bel'skaia Burial Ground]. *Zapiski Chukotskogo kraevedcheskogo muzeia*, vyp. 2.

Levi, V. L.

- 1967 *Okhota za mysl'iu. Zametki psikhiatra* [Hunting for Thoughts: Notes of a Psychiatrist]. Moscow.

Levin, M. G., and L. P. Potapova (eds.)

- 1956 *Narody Sibiri* [Peoples of Siberia]. Moscow; Leningrad.

Mathiassen, Th.

- 1934 Contributions to the Archaeology of Disco Bay. *Meddelelser om Grønland*, vol. 93, no. 2.

Menovshchikov, G. A.

- 1959a *Eskimosy* [The Eskimos]. Magadan.
- 1959b *Eskimosko-aleutskie yazyki* [Eskimo-Aleut Languages]. *Mladopis'mennye yazyki narodov SSSR*. Moscow; Leningrad.
- 1960 *Eskimosko-aleutskie paralleli* [Eskimo-Aleut Parallels]. *Uchenye zapiski Leningradskogo gosudarstvennogo pedagogicheskogo instituta*, t. 167.
- 1963 *Paleoeskimoskie toponimy Severo-Vostochnoi Sibiri* [Paleo-Eskimo Toponymy of Northeastern Siberia]. *Voprosy yazykoznaniia*, No. 6.
- 1964 *Yazyk sireniskikh eskimosov. Fonetika, ocherk morfologii, teksty i slovar'* [The Language of the Sireniki Eskimos: Phonetics,

- Outline of Morphology, Texts, and Dictionary]. Moscow, Leningrad.
- 1968 Eskimossko-aleutskaia gruppa yazykov [The Eskimo-Aleut Group of Languages]. *Yazyki narodov SSSR*, t. V. Leningrad.
- 1969 *Eskimosskie skazki i legendy* [Eskimo Tales and Legends]. Magadan.
- Mowat, F.
- 1968 *Ne krichi, volki!* [Never Cry Wolf!]. Moscow.
- Murdoch, J.
- 1892 Ethnological Results of the Point Barrow Expedition. *Ninth Annual Report of the Bureau of Ethnology*. Washington.
- Nelson, E. W.
- 1899 *The Eskimo about Bering Strait*. Washington.
- Norden, A.
- 1939 Die Schiffbaukunst der nordischen Bronzezeit [The Art of Ship Building of the Northern Bronze Age]. *Manus*, jg. 31, h. 3. Leipzig.
- Okladnikov, A. P.
- 1948 Arkheologicheskie issledovaniia v Buriat-Mongolii v 1947 g. [Archaeological Investigations in Buriat Mongolia in 1947]. *Vestnik drevnei istorii*, No. 3.
- 1959a *Dalekoe proshloe Primor'ia* [The Distant Past of Primor'e]. Vladivostok.
- 1959b *Shishkinskie pisanitsy* [The Shishkinskie Pictographs]. Irkutsk.
- 1961 U istokov iskusstva Sibiri [Among the Sources of Siberian Art]. *Iskusstvo*, No. 1.
- 1966 *Petroglyfy Angary* [Petroglyphs of Angara]. Moscow-Leningrad.

- 1967 *Olen' Zoloty'e Roga. Rasskazy ob okhote za naskal'nymi risunkami* [The Deer with Golden Antlers: Stories about Hunting for Rock Illustrations]. Leningrad.
- 1968a *Arkheologiya Sibiri—vchera, segodnia i zavtra* [The Archaeology of Siberia—Yesterday, Today, and Tomorrow]. *Vestnik drevnei istorii*, No. 5.
- 1968b *Liki drevnego Amura* [Faces of the Ancient Amur]. Novosibirsk.
- 1969 *Petroglify Sibiri i Dal'nego Vostoka kak istochnik po etnicheskoi istorii Severnoi Azii (metodologiya i nekotorye obshchie vyvody)* [Petroglyphs of Siberia and the Far East as a Source in the Ethnic History of Northern Asia (Methodology and Some General Conclusions)]. Materials of the conference *Etnogenez narodov Severnoi Azii*. Novosibirsk.

Okladnikov, A. P., and V. D. Zaporozhskaia

- 1959 *Lenskie pisanitsy. Naskal'nye risunki u der. Shishkino* [The Lena Pictographs: Rock Art at Shishkino Village]. Moscow, Leningrad.
- 1969 *Petroglify Zabaikal'ia* [The Petroglyphs of Zabaikal'e], ch. 1. Leningrad.

Plan . . .

- 1968 *Plan vnutrikhoziaistvennogo zemleustroistva olen'ikh pastbishch sovkhosa "Bol'shevik"* [The Plan of the Domestic Economic System of Land Tenure for Reindeer Pasturage of the Bol'shevik sovkhos]. *Fondy Magadanskoi zemleustroitel'noi ekspeditsii Respublikanskogo proektnogo instituta "Giprozem."* Magadan.

Polesskikh, M. P.

- 1955 *Zaval'skie pisanitsy* [The Zaval'skie Pictographs]. *Sovetskaia arkheologiya*, XXIII.

Popov, A. A.

- 1948 *Nganasany* [The Nganasany]. Moscow; Leningrad.

Ravdonikas, V. I.

- 1936 *Naskal'nye izobrazheniia Onezhskogo ozera* [Rock Illustrations of Lake Onezhskii]. Moscow, Leningrad.

Rubtsova, E. S.

- 1954 *Materialy po yazyku i fol'kloru eskimosov (chaplinskii dialekt)* [Materials on the Language and Folklore of the Eskimos (Chaplino Dialect)], ch. 1. Moscow; Leningrad.

Rudenko, S. I.

- 1947 *Drevniaia kul'tura Beringova moria i eskimosskaia problema* [The Ancient Culture of the Bering Sea and the Eskimo Problem]. Moscow, Leningrad.

Sapper, C.

- 1898 Pilzförmige Götzenbilder aus Guatemala und San Salvador [Mushroom-Shaped Idols from Guatemala and San Salvador]. *Globus*, vol. 73.

Savenkov, I. T.

- 1910 *Odrevnikh pamiatnikakh izobrazitel'nogo iskusstva na Enisee (sravnitel'nye arkhologo-etnograficheskie ocherki)* [On the Early Sites of Graphic Art on the Yenisei (Comparative Archaeological-Ethnological Essays)]. *Trudy XIV arkheologicheskogo s'ezda v Chernigove (1908 g.)*, t. I. Moscow.

Savvateev, Yu. A.

- 1967 *Risunki na skalakh* [Figures on Cliffs]. Petrozavodsk.

Shargorodskii, S.

- 1895 *Ob yukagirskikh pis'menakh* [On Yukagir Writings]. *Zemlevedenie*, kn. II-III. Moscow.

Sher, Ya. A.

- 1966 *The Stone Statues of Semirech'ia*. Mosco.; Leningrad.

Simchenko, Yu. B.

- 1964 Osnovnye cherty kul'tury okhonikov na dikogo olenia Severnoi Evropy [The Primary Features of the Culture of North European Wild Deer Hunters]. VII Mezhdunarodnyi kongress antropol. i etnogr. nauk. Moscow.

Svedeniia o . . .

- 1852 Svedeniia o Chukchakh kapitana Shishmareva [Information of Captain Shishmarev on the Chukchi]. Zapiski gidrograficheskogo departamenta Morskogo ministerstva, t. X. St. Petersburg.

Vasil'kov, B. P.

- 1955 Oчерк географического распространения шляпочных грибов в СССР [An Outline of the Geographical Distribution of Capped Mushrooms in the USSR]. Moscow, Leningrad.
- 1967 O gribakh (mikromitsetakh) Sovetskoi Arktiki [On Mushrooms (Micromycetes) of the Soviet Arctic]. Mikologiya i fitopatologiya, t. 1, vyp. 1. Leningrad.

Vdovin, I. S.

- 1944 Rasselenie narodnostei Severo-Vostoka Azii vo vtoroi polovine XVII i nachale XVIII v. [The Resettlement of Peoples of North-east Asia in the Second Half of the Seventeenth and Beginning of the Eighteenth Centuries]. Izvestiia Vsesoiuznogo geograficheskogo obshchestva, t. 76, vyp. 5.
- 1954 Istoriia izuchenii paleoaziatskikh yazykov [The History of the Study of Paleo-Asiatic Languages]. Moscow, Leningrad.
- 1961 Eskimoskie elementy v kul'ture chukchei i koriakov [Eskimo Elements in the Culture of the Chukchi and Koryaks]. Sibirskii etnograficheskii sbornik. Trudy Instituta etnografii AN SSSR, nov. ser., t. 64.

Viatkina, K. V.

- 1949 Shalabolinskie (tesinskie) naskal'nye izobrazheniia

[Shalabolinskic (Tcsinskic) Rock Art]. *Sbornik Muzeia antropologii i etnografii*, t. 12. Moscow, Leningrad.

- 1961 Naskal'nye izobrazheniia Minusinskoï kocl'oviny [Rock Illustrations of the Minusinsk Basin]. *Sbornik Muzeia antropologii i etnografii*, t. 20.

Volkov, F. K., and S. I. Rudenko

- 1910 Etnograficheskie kollektzii iz byvshikh rossiisko-amerikanskikh vladenii [The Ethnographic Collections from the Former Russian-American Possessions]. *Materialy po etnografii Rossii*, t. 1. St. Petersburg.

Vrangel' [Wrangel], F. P.

- 1948 *Puteshestvie po severnym beregam Sibiri i po Ledovitomu moriu, sovershennoe v 1820, 1821, 1823 i 1824 gg.* [Travels on the North Coasts of Siberia and the Arctic Ocean Carried Out in 1820, 1821, 1823, and 1824]. Moscow.

Wasson, V. P., and R. G. Wasson

- 1957 *Mushrooms, Russia, and History*. Vol. I. New York.

Zubov, A. A.

- 1969 Odontologicheskii analiz cherepnykh serii iz Ekvenskogo i Uelenskogo mogil'nikov [Odontological Analysis of a Series of Skulls from the Ekven and Uelen Burial Grounds]. Preface to *Drevnie kul'tury aziatskikh eskimosov* by S. A. Arutiunov and D. A. Sergeev. Moscow.
- 1977 Nekotorye dannye po odontologii drevnego naseleniia Chukotki [Some Data on Odontology of the Early Population of Chukotka]. In *Arkheologicheskie pamiatniki Kamchatki, Chukotki, i Verkhne: Kolymy*. N. N. Dikov, ed. NAUKA, Moscow.