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ИСКУССТВО,
САКРАЛЬНОЕ ПРОСТРАНСТВО
И МИФОРИТУАЛЬНАЯ ПРАКТИКА

ART,
SACRAL ENVIRONMENT,
AND MYTH-RITUAL PRACTICES
NEW DEVELOPMENTS IN THE STUDY OF ROCK ART OF NORTHERN EURASIA

The study of the northernmost in Asia petroglyphs on the Pegtymel river (geographic coordinates 69°32' n.l. and 174°32' e.l.) was performed during the 2005-2008 seasons by the expedition of the Institute of Archaeology RAS. This polar site was first studied and published by N. N. Dikov [Dikov 1969; 1971; 1992; Dikov 1999], later on the pool of data about this site was complemented by other researchers [Kiryak 2001; Golovnev 2000; Pitulko 2002; Slobodyanov 2004; Petroglyphs of Pegtymel 2007]. Main petroglyphs locations are concentrated in the approximately one kilometer long area on the sandstone and aleurolite rock outcrops of the steep right bank of the Pegtymel river, one km down of the Kaikuul brook estuary.

All identified panels have been recorded in accordance with the modern requirements and technologies. The copying was done by means of tracing on transparent material or reproduction on special porous fabric, as well as obtaining silicon negatives of petroglyphs, photographs were taken with both digital and film cameras, also various options of conservation were considered. An innovative aspect of the study was the technological analysis program involving the study of techniques and the material of the tools used for the creation of petroglyphs. In the process of recording all information characterizing the method of petroglyphs copying, as well as the state of rock art preservation and the cleaning of surfaces methods has been registered. A significant number of panels with petroglyphs were in a very poor condition: there were instances of caving in places of the images, destruction of the rock surface and intensive lichen occlusion; birds' nesting resulting in pollution and destruction of rocks, etc. There were also traces of anthropogenic impact — even this remote location did not escape the vandalism of the visitors.

The tracing of the Kaikuul Bluff petroglyphs was performed in various years by the archaeologists E. A. Miklashevich, A. N. Mukhareva (Kemerovo State University), and the architect A. M. Sorotokina; M. B. Slobodyan (the State Hermitage) participated in recording, the restoration aspects were supervised by A. V. Kochanovich (State Research Institute of Restoration), the technological studies program was led by E. Y. Girya (Institute of the History of Material Culture RAS), mineralogical definitions have been made by I. V. Tibilov (St. Petersburg State University), the video materials have been prepared by V. L. Solonitsyn, photo recording — by I. Y. Georgievsky (KarRC) and other participants of the project. It would have been impossible to fulfill the whole volume of research without the financial and organizational support of the Presidium of RAS, the Government of ChAO, and RHRG (project No 08-01-00102a).

It was believed formerly that in addition to the well known location on the Kaikuul Bluff and the recently discovered 12th location, as well as the two locations 5 and 10 km down the Pegtymel river (fig. 1, 2) there could be some new rock art sites. Verification of the facts provided by informers and the reconnaissance work did not confirm this hypothesis; however the study of the Kaikuul Bluff itself has quantitatively and qualitatively improved the existing rock art database. As a result we have today about 350 units of petroglyphs localization — rock panels, conventionally called stones grouped in 12 locations on three conventional elevation tiers — the upper, the middle and the lower. A significant increase of the number of units occurred as a result of clearing the surfaces from loose sediments, the examination of areas covered with shrubs branches also proved fruitful. A discovery on the south-west
Рис. 1. Центральная плоскость в скоплении III (1); плоскость с петроглифами, расположенная в устье ручья Двурого ниже по течению р. Пегтymель (2)

Fig. 1. Central panel on location III (1); panel with petroglyphs located in the Dvuroy stream estuary downstream on the Pegtymel river (2)
slope of location IV of three massive sub-triangular independently sitting stones should be mentioned separately. Each of them had images on two adjacent faces, two of them, apparently, were found in upside down position (fig. 2, 1–3).

Рис. 2. Камни с изображениями на соседних гранях, расчищенные в скоплении IV (1–3); фрагменты с изображениями строительных конструкций (4–5)

Fig. 2. Stones with images on adjacent faces cleared on location IV (1–3); fragments with building structure images (4–5)
Рис. 3. Изображения каяков и байдар

Fig. 3. Kayaks and canoe images
Significant results have been achieved after removing the lichen, thus in locations I-II new array of information was recorded, and the range of images characteristic for the Pegymel petroglyphs was expanded. Some panels were cleared from lichen with water with the use of soft brooms and brushes, on others the surface-active substances were used with the following washing with water. In view of intensive lichen invasion a long-term effect of the local biocide application was tested according to the methodology developed in the State Research Institute for Restoration; as was demonstrated by the follow-up monitoring the clearing effect was maintained and no new lichen growth was registered.

The rock mass destruction resulted in the change of the initial position of rock fragments, some caving of rocks with images occurred, some of the objects slid down the slope, three such plates even ended up in the water (fig. 3, 6), though during the recession of water level in the river they become accessible for a short period of time (location V). In location III a group of scattered stones was found which, apparently, initially formed a destroyed later vertical rock outcrop with petroglyphs formerly located east of the panel featuring one of the so-called “title” groups with the images of anthropomorphic personages in mushroom-shaped headdress, as well as a sea mammals hunting scene (fig. 1, 1). It was possible to align two of the stones: the junction area could be traced by the preserved fragments of a hoofed animal figure and the anthropomorphic personage in a mushroom-shaped hat (fig. 4, 1).

In general the motifs and groups of the Pegymel petroglyphs were homogeneous because of the specifics of the economic and cultural type and the natural and geographic characteristics of the region. Analysis of the motifs demonstrated that at a remote from the coast site there were both the motifs related to the life of the tundra population,
Рис. 5. Промысловые сцены

Fig. 5. Hunting scenes
and the occupations related to the maritime type of adaptation of the region's population. In the same way as in the small plastic art objects the tundra and the sea motifs were closely intertwined in the art of petroglyphs [Tishkov 2008].

The dominating images were the silhouette profile figures of reindeer, single and in a herd. The most recurrent motif was a kayak hunting scene for swimming deer (fig. 2, 1-3; 5, 2-4, 6; 6, 1; 7, 1, 3-4; 8, 1). In a majority of versions the hunter hit an animal with a harpoon from a one-man boat, less often — with a long-shafted spear; such scenes could be found independently or as parts of more complicated motifs compositions. Often only the harpoon lanyard was shown, either strained or slack, a man in a small kayak was often simply indicated by a vertical stroke, however there were other variants, when both the hunted animal, and the man together with the hunting gear and the boat were represented realistically and in greater detail. Many of the harpooned deer figures were represented with the hind legs dropped lower than the front, as if the animal was swimming in the water. The game animal was sometimes shown as disproportionally big.

From the ethnographic sources it is known that about one hundred years ago wild reindeer permanently living in the same habitats moved in large herds from the outskirts of the forest into the tundra. According to the ancient Yukagir custom overland hunting was strictly prohibited, but the deer were ruthlessly slaughtered at a river crossing which happened annually in one and the same place. Later

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**Fig. 6.** Panels from locations I (1-2) and II (3-4) with anthropomorphic figures
Рис. 7. Техника выполнения петроглифов Пегтъмеля

Fig. 7. Pegtymel petroglyphs making technique
the killing of deer at the river crossing ceased to be solely the Yukagir prerogative, and along the banks of the rivers other hunters — the Chukchi, the Even (Lamut), and the Russianized aborigines formed the ethnic based hunting teams and set ambush a little way down the river from the crossing. “When the herd comes to the river the dominating male is normally the first to enter the water. During the crossing the herd is taken some distance down the river by the current. When the deer reach the middle of the river, the hunters rush to the boats and try to cut them off from the land. The frightened animals rush upstream, however their strength is normally soon exhausted... Then one or two boats approach the herd in order to cut off ways of retreat and the deer slaughter begins. The deer flock together and swim helplessly in the middle of the river. People in boats come close to the herd and strike the deer with spears with long shafts and small iron tips, which are used only for this type of hunting. Sometimes a double-blade oar may be used for this purpose, in this case one end of the oar is equipped with a small iron spear. This kind of weapon is not very long, but quite convenient. The deer slaughter proceeds with an unbelievable speed, one man can kill up to a hundred animals in one hour... Some hunters, who are particularly skilled rowers get into the middle of the herd and, placing their boats between two large bucks hit all deer within reach with their spears ... The old men, women and children catch the spoil down the river... [Bogoraz, 1991: 71–72]. Most of the depicted hunting scenes on the water were rather schematic, however there were true masterpieces. An example of successful reproduction of movement was the discovered in 2008 dynamic deer hunting scene with two kayaks, another panel demonstrated a kill of two deer by one hunter. One of the unique motifs represented transportation of a deer, whose
Рис. 9. Сцены с участием антропоморфных персонажей
Fig. 9. Scenes with the participation of anthropomorphic personages
overturned carcass was tied to the kayak and the rower by a lanyard (fig. 5, 2, 3, 6). The motif of an overturned — killed (?) animal occurred also in other groups (fig. 2, 1, 3), certain anthropomorphic figures were also rendered in a similar way, as being apparently defeated or prostrate (fig. 4, 5; 2, 1).

While it would be impossible to give here a detailed description of all specific features of the deer images I'd like to note the great variety of positions (swimming, grazing with heads turned down, in repose with bent legs, with lowered hoofs, etc.) as well as stylistic diversity. A group might have two adjacent figures different in style. Sometimes only the head and part of the back of an animal could be shown — this was how the deer appeared in a herd while swimming or coming out of the water (fig. 7, 2–3). There were drawings of the hoof imprints — a sort of symbolic substitution for the animals (fig. 8, 5). Other hoofed animals' images included elks and argali. The scenes of deer pursuit by wolves or dogs could be found in isolation and in relation to other motifs (fig. 2, 5; 7, 1; 9, 1).

The walking hunting scenes with spears, pikes, or forks (fig. 10, 1) for a bear or an elk were less frequent, dogs also could be represented as the participants of the scenes of pursuit. An archer's figure was unique (fig. 9, 2). There were several images of dogs, wolves, polar and brown bears, gluttons, polar foxes were represented, as well as the numerous sea mammals — whales, seals, etc. Birds' images occupied a special position. There were groups consisting exclusively of profile figures of cranes, some silhouettes of these birds could have been included in compositions. There were also pictures of other birds represented both in multi-figure compositions and independently (fig. 3, 6; 8, 2; 9, 1).

Fig. 10. Compositions with anthropomorphic footprints
Hunting motifs were related not only to the reindeer, but also to the sea mammals (fig. 1, 1; 5, 1), the deer figures and the hunting scenes with them could accompany compositions related to the sea mammals hunting (fig. 11, 1). In the sea mammals hunting scenes most often a different means of transportation was used — the pictures featured large canoes, the crew of which was frequently indicated with strokes (straight or slightly folded), less often these were more elaborated anthropomorphic figures (fig. 1, 1; 3, 3-6; 4, 3-5; 6, 1; 6, 1-2; 9, 1; 11, 1). The canoes could be equipped with stern oars. In compositions with canoes a very wide range of images and motifs was found: in addition to the objects of hunting from canoes themselves — the whales and other marine fauna — there were deer, deer hunting scenes from kayaks, bears, various birds, wolves/dogs, anthropomorphic figures, people — toadstools, double blade oars, footprints, kayaks. Thus it is impossible to distinguish between the scenes related to the tundra and to the sea. According to some scholars' opinion the presence of high-occupancy boats in the kayak deer hunting scenes could be explained by the fact that these boats could have been used for collective hunting, to go upstream and cut off the deer at the crossing; however the motifs' analysis did not confirm this hypothesis. In addition to canoes there were many pictures of one-man kayaks, mane variants of these boats were represented with a forked nose (fig. 3, 1-2, 6), similar forking was known in the ancient small plastic art objects, there were also ethnographic analogues of the Aleut kayaks [Bronstein 2009: 232]. If there was a man in a boat, he could have been shown with a double-blade oar, a harpoon, or a spear. Thanks to the excavations in Ekven it was established that in the I millennium AD there existed several related cultures, however their main hunting objects were different: the bearers of the Okvik culture hunted seal and fowl, of the Old Bering Sea culture — walrus and deer, and of the Punuk culture — whales [Arutyunov, Sergeev 1975; Bronstein 2009a:218]. Similar diversity of the adaptation mechanisms existed also in the later periods. It is difficult to say whether the tundra nomads in the their migrations perceived and reflected the images belonging to other cultures, or the important events of the calendar festivals brought the inhabitants of the coastal regions to the rocks of the Kaikuul Bluff, which remain to this day a unique of its sort place of the asynchronous "pilgrimage". Most likely the Pegtymel petroglyphs were a result of the long-term complex cross-cultural contacts.

Another unique image was the representation of a structure, which could be interpreted as an outline of a house (fig. 2, 4). The ethnographers mentioned that in the coastal Chukchi and Eskimo villages it was possible to find ruins of the so-called "whale jaws houses", which probably belonged to a very ancient period. The framing and beams of the houses were made from whale bone fixed in stone foundations. Some of the houses of this kind could have been round in the plane — up to 16 bone supports formed a regular circle to which led a long elongated in the plane winter underground passage. In the summer it was filled with water, and in winter served as a sort of heat insulation structure. Such houses were built with the participation of all neighbors, were passed on from generation to generation and were eventually abandoned by their inhabitants [Bogoraz 1991: 114-116]. Some unusual signs have also been identified, which could tentatively be interpreted as the pictures of structures made with the use of whale bones (possibly for drying the boats) (fig. 2, 5).

The recurrent group of signs included the anthropomorphic footprints varying from the single and twin, to the signs forming a chain of footprints designating a path, and even filling up the whole space of a panel (fig. 6, 1; 9, 1, 3; 10). There was a single imprint of a man on
ski. Identification of some of the figures resembling a solitary footprint gives rise to doubts, it is quite possible that these were not footprints, but the representations of some material culture objects.

The new systematized material offered a new vision of the place of man in the Kaikuul Bluff art — as a dominant personage, a successful hunter (fig. 6; 9-11). Despite the schematic graphics the place occupied by the people in the compositions suggested their active position. There were many full length enface figures with outstretched arms and legs represented rather laconically. Sometimes clothes' elements were indicated. The context of the images suggested that they were men, the attributes included the oars, the kayaks on the shoulders or the head, as well as the weapons. The double-blade oars also often occurred as an independent symbolic image in compositions with a significant imagery repertoire, which was not surprising since the oars equipped with a small spear point were used as a hunting weapon (fig. 3, 1; 4, 2; 6, 1; 9, 1; 11, 1).

The most original motif of the Pegtymel petroglyphs was represented with the full face anthropomorphic figures (though there was also one unique profile image) in mushroom-shaped headdress, both standalone and as parts of the compositions (fig. 1, 1; 4, 1; 7, 1). Many of them were shown in a dance-like posture. A mushroom was placed over the head or on the head of an anthropomorphic figure, sometimes it was used as a head substitute, in some cases the hats were represented in several tiers. The feet with the soles turned inside, or the flaring mushroom stipes were also indicated. On the sides of the heads of the best dressed female figures braids or pendants were shown, some of the figures were either dressed in fur kerker-coveralls or there was no clothes indicated. N. N. Dikov considered these mushroom-shaped figures to be representations of the anthropomorphic fly agaric mushrooms, mentioned in the Chukchi mythology and the folklore of some other northern peoples. Let me, without attempting an analysis of some alternative interpretations of these personages, and based on the recent finds draw attention to their motif context. The panels with the mythological fly agaric mushrooms (a standalone figure is also known) could also contain: accompanying anthropomorphic personages without a mushroom-shaped hat, signs (circles, footprints and chains of them, an open hand with an arm), reindeer and other hoofed animals (including the partial and uncompleted figures), wolves/dogs, bears (?), double-blade oars, canoes, whales and other sea mammals, deer and kayak deer hunting scenes. An interesting detail of some groups of the Pegtymel petroglyphs was the presence of the specific scratches on the surfaces with rock drawings, those sub-vertical or somewhat curved lines occurred on the panels with the anthropomorphic fly agaric mushroom images (fig. 1, 1), however they were found also in groups with other motifs, where numerous deer figures were represented, including twin images facing each other. Apparently on the Kaikuul Bluff rocks the mythological anthropomorphic fly agaric mushroom figures were related to the ritual practices, part of which was the use of magic mushrooms, which was reflected also in the rock art [Devlet, Devlet 2006: 186-203]. In the A. V. Golovnev's film "Pegtymel" there was a story told by the late old man Nataleko from the nearest to the Kaikuul Bluff camp about the outrages of people under the fly agaric effect. V. G. Bogoraz mentioned that the mythological fly agaric appeared to the people in a strange anthropomorphic shape and took them to another world, showed them around there, and performed unbelievable feats [Bogoraz-Tan 1939: 5]. Y. B. Symchenko recorded that the Chukchi took fly agaric for communicating with the dead relatives: "... a fly
agaric would ask you in a sleep: Eh, where shall we go? Where shall I drag you?”, and it will always listen to you. Then you tell him: “take me to my father... It would know everything himself. Would know where your father would be and would drag you along the road to the dead people” [Simchenko 1993: 50–52]. One more new find — a schematic image of an anthropomorphic figure with a tambourine — was still another evidence of the formation of the shamanistic ideas complex in Chukotka (fig. 6, 4).

The whole rock art complex of Pegtymel belongs to the petroglyphs category, no painted images, or images with pigment traces have been identified there. The vast majority of images were pecked, there were also figures with the elements of polishing and engraving. The completed petroglyphs were made as the silhouettes, however the contour of the pecked images was often finished with deepened grooves. The pecking was quite varied in depth and density, on some artistically made deer figures the pecking with tools placed perpendicular to the surface and the elongated traces of striking at an angle could be distinguished, which produced an effect of imitation of the described animals’ wool. On miniature drawings the pecking was made with a metal tool, possibly a thick needle or an awl.

Some images were made with the use of polishing — in some cases the outline of the animal’s body was pecked and the body itself slightly polished (fig. 2, 2). There were examples of a combination of engraving and pecking, however the majority of such samples were the uncompleted figures — a significant number of sketches, rough drafts, unfinished images was another interesting feature of the site. On some petroglyphs the outlines of the future image scratched in thin lines were clearly seen — this was the author’s initial layout to be filled later by pecking. Some petroglyphs’ groups demonstrated combinations of outlines and the finished images (fig. 7).

A series of items illustrated the sequence of the work on a figure (most often a deer). It included samples with the completely finished contour which was afterwards filled by pecking (fig. 8, 7), there were also variants of alternative sequences — the pecking started from the back, a leg or antlers of an animal, however the work was interrupted and left unfinished (fig. 8). Quite often such unfinished figures were placed separately. In complicated compositions there could be some deliberately incomplete partial figures — this technique was apparently used by the author for rendering a perspective: behind the animal figures placed in the foreground only the backs and the heads of other animals could be seen in the background.

For N. N. Dikov the instances of overlaying images made with different technique served as a chronological marker (fig. 9, 1–2). Since there was a very limited number of the motifs variations in the rock art of Chukotka, and the “graphic canons” defined by N. N. Dikov could well have no chronological sequence, in this research significant attention has been given to the study of the techniques and the materials, which could have been used for making the images. The problem of adaptation of the existing methodologies and approaches of the use wear analysis to the Chukotka rock art material was to be solved by E. Y. Giriya, a researcher of the experimental use-wear laboratory of the Institute of the History of Material Culture RAS.

Evidently the use of stone tools must have produced a significant amount of scales and flakes, which potentially could be preserved in front of the petroglyphs’ panels provided they were not moved under the effect of the natural factors. Taking this into account a platform in front of the vertical panel with numerous anthropomorphic fly agaric and the sea mammals hunting scene was selected for study (fig. 1, 1). As a result of washing the soil from a
4 m² sondage pit numerous quartz fragments were obtained, the microscopic study of which did not reveal any traces of anthropogenic flaking or other use. Further research produced convincing evidence that the composition on this panel was made with metal tools.

Since the local quartz, the outcrops of which were clearly seen on the Kaikuul Bluff were presumed by N. N. Dikov to be the most likely material of the tools for making the Pegtymel drawings, we have made an attempt of using this material for experimental pecking. As a result a series of experimental pecked pits on the surfaces of several blocks of local rock was obtained, and the changes on the quartz tool itself caused by direct and indirect pecking were recorded. The end of the quartz tool started changing practically immediately, the geometry of the pecked pits was non-uniform, and the sharpened tool continued wearing with the same intensity. Lots of quartz fragments were left in the experimental area. A striking tool for which the local pebbles were used also acquired traces of usage – on the platform the characteristic stone working traces appeared. A similar tool, which it would have been tempting to relate to petroglyphs making, was found between the top tiers of location I and II and the located somewhat higher on camp site excavated by N. N. Dikov. A sub-triangular shaped pebble had traces of working characteristic for the use as a striking tool for indirect percussion working of stone.

Comparison of the experimental stone tools reference materials with the rock art massive demonstrated that only a small part of the historical petroglyphs had comparable use-wear traces. These were, as a rule, isolated non-figurative spots in compositions, as well as some rather roughly, stylistically, made images (fig. 11, 2), the existence of which could be explained rather by the poor skills of an individual person attempting creation of a particular drawing, especially since many of them were left unfinished, than by the relative chronology of the images.

The main body of petroglyphs, the majority of which were made with the shallow uniform in geometry pecking looked quite different. According to the experimental data this type of standardized traces could be left only by the metal tools. Modeling of the work demonstrated unsuitability of 7% tin bronze – such tools were deformed after the very first strikes. The iron tools produced reference traces which were practically identical to the ones recorded on the pecked petroglyphs of the Kaikuul Bluff. As was to be expected no traces were left of the striker as a result of work with a metal tool.

By the result of the Pegtymel experiments the main diagnostic attribute distinguishing pecking pits left by a stone intermediary-tool from the iron tool traces was the quick change of the work area of a stone tool, the traces of which showed a dynamic transformation pattern from the sub-rounded or sub-quadrangular to the linear elongated ones. Another important attribute of the use of stone tools was the wide entrance hole and the lack of sharp drops between the peaks and depressions. There were also significant differences in the striking tools which were used with a stone or metal intermediary; there were clear wear traces (concentration of dents and rough scratches) exclusively on those strikers, which were used with the stone intermediary. As a result of work with metal intermediaries or stone adzes with antler mounts no such traces were formed.

Thus in addition to the traditional observation and description, various other sources were employed for the study of the petroglyphs making technique: sondage pits were made followed with soil washing for identification of tools or their fragments, specific techniques
and methodologies for observation, recording and technological analysis of petroglyphs have been developed. As a result of focused experimental technological research on the Kaikuul Bluff the techniques for creation of stable oblique lighting were tested, which was necessary for the accurate defining of the contours and the specifics of images located on vertical rock surfaces, as well as traces of tools used for making the images. Methodology for making contact silicon negatives of surface fragments with traces of pecking while protecting the rock surface with the help of a separating layer allowed obtaining material for further magnification analysis of traces.

The silicon negatives were used for making positive casts from high hardness plaster suitable for laboratory studies of the artificial modification of stone relief. The nature of the tools application traces produced as a result of making petroglyphs was recorded and studied in the plane and side-face with the use of linear shadow technique. As a result the macrographs of the artificial stone relief were obtained and the differences between the traces made by the stone and the metal tools were described. The development of criteria for identification of the said differences was supported with documenting of experimental pecking traces on rock fragments of similar rock types and the mineralogical opinions.

As a result of the technological analyses program involving the study of the techniques and the material of the tools used for the creation of petroglyphs it was established that the vast majority of the images in the covered sample was made with the metal tools, though there were individual petroglyphs made with stone tools (fig. 11, 2) [Giry a, Devlet: 2008]. The outcome of the study was a new methodology for documenting traces of tools with which the petroglyphs were made, which has been tested in the project and can be used in future on other rock art sites [Giry a, Devlet: 2010].

Stylistic analysis allowed N. N. Dikov, whose innovative study deserves greatest respect, distinguishing 5 graphic canons and related to them images, which were dated by him as approximately II millennium BC. The proposed 5 stage typology of the deer images (the “deer silhouette style”) provided for the grouping of the known to the researcher statistically processed petroglyphs massive in a chronological sequence from the realistic to the more schematic ones. The definition of styles used by N. N. Dikov was also based on the remote analogies and concepts of the contemporary to him stage of the rock art research development, which followed the stage-focused stylistic trends from realism to schematization. More detailed studies of the rock art regions have since significantly undermined the notions of the linear trends in the graphic styles development, this contradiction was successfully resolved by the D. G. Savinov’s concept of graphic layers [Savinov 2008: 73–74]. N. N. Dikov’s typology correctly grouped the pooled data by formal attributes in accordance with the criteria selected by a researcher, however it was rather difficult to determine the chronological boundaries of the given styles existence.

A significant contribution was made by a new pool of data, which affected not so much the N. N. Dikov’s statistics, but rather his observations. For instance a realistically made deer image (fig. 11, 3) was included into a hunting composition found in location V, which disagreed with N. N. Dikov’s understanding presuming that such figures occurred only outside the deer hunting scenes [Dikov 1971: 33]. The double-blade oars were not necessarily accompanying the deer figures (fig. 3, 1), which was dictated by canon 5 (deer+oar according to N. N. Dikov), presuming their mandatory combination. The reference point for building
the Pegtymel petroglyphs chronology based on the local material culture realities was an image interpreted as the swivel harpoon. The study of the panel to which the reference was made by the researcher (fig. 11, 1), demonstrated that the element of the group interpreted by him as an image of a harpoon balancer was in fact a fragment of a palimpsest: the line of the antlers of a reindeer image was superposed with a silhouette of a high-occupancy canoe depicting, probably, a pursuit of a whale. Because of the overlapping of the images the deer antler was practically adjacent to the tail of a whale — it was that element that was interpreted as a balancer. At present numerous motifs of harpoon hunting scenes have been discovered among the Pegtymel petroglyphs, however no images of the so-called “winged objects”, or balancers were found.

An analysis of the material demonstrated that the Pegtymel petroglyphs had a complicated chronology. Within the framework of the current research and outside of stylistic reconstructions the only information available for us so far was the use-wear analysis definition of metal tools used for making the pecked images, which in itself made the whole body of the Pegtymel petroglyphs much younger.

Taking the rock art state of preservation as indirect chronological testimony it is necessary to note some significant differences in the degree of patination, surface erosion, cracks expansion and lichens and moss overgrowth. Unfortunately, in the same way, and maybe even greater than in the other regions, the Arctic zone conditions prevented drawing any absolute conclusions about the rate or intensity of these processes. Though it is known that the cultural layer in the Arctic zone could accumulate extremely slowly, we have an indirect evidence of the fact that the colluvium sedimentation, lichens and moss growth could quickly result in a situation when the rock blocks were completely hidden under the effect of the natural processes over a relatively short time. One example could be a rock from location IV, which was completely covered with soil, its upper part densely overgrown with moss and lichen

![Fig. 11. Panels with palimpsests which served as the chronological markers for N. N. Dikov (1-2); fragment of a panel cleared on location V (3)](image-url)
and covered with shrubs (fig. 2, 1). Nonetheless the fragments of reindeer antlers found in the clearing were aged only about 160 years, which means that these processes could have intensively developed quite recently. The clearing works and the follow up observations on a stone excavated forty years ago [Dikov 1971: 36], as well as on other cleared objects demonstrated that they could be covered with soil even within one year.

The Pegtymel petroglyphs also raised a question about whether every petroglyphs' location could be treated as a rock art monument, and whether open air sanctuaries (sacral places) always implied public exposure of the images. The study demonstrated that part of the situational locations apparently was intentionally made accessible for large groups of people and visible from several convenient points. A unique scene was represented on the end face of a massive plate lying on the bank. In addition to the numerous deer figures the central place was occupied by the motif of hunting a special deer marked with a symbolic circle with a point in the center (fig. 7, 4). This was the only marked animal figure among the hundreds of the Pegtymel reindeer images. In many northern cultures an unusually colored deer was dedicated to the gods. The stone, on the end face of which an ancient artist pecked this group, in all probability stood out for its unusual hourglass shape, which could make it rather special in the eyes of the creators of petroglyphs, who could treat it as a kind of a natural "altar" [Devlet, Devlet 2006: 272-312].

Other locations seemed to be intentionally hidden in crevices. Some scenes surprised us with their location: whoever made them sitting on a tiny bench high on top of a wall could do so only out of personal valor. The difficulty of access, the size of petroglyphs and their public visibility potential were negligibly small compared to the invested effort. Such scenes were not limited by the images of deer hunting on a river crossing, they could represent wolves, individual boats, sea hunting scenes and other motifs.

Over hundreds and even thousands of years different generations of people came back to the Kaikuul Bluff creating petroglyphs on rock outcrops and marking in this way the sacred nature of stone. In the tradition of many peoples some rocks and stones became ritual objects, particularly the ones marked with an unusual shape or covered with ancient hand-made images or inscriptions. Such object was perceived as a sort of repository of some added force which made it valuable and endowed with a specific meaning. Unmovable, invulnerable in the generation’s memory mass of rock was an antithesis to the temporality of human life, the decay, the disintegration and frailty of a well-being. The reality of the sacred nature of stone immune to the destructive effect of time was strengthened by the rock art images.

Rock art is a unique historical source. The images made on rock — the most lasting natural material left in their natural context became the permanent personages in the changing from season to season decorations. As a material manifestation of spiritual life of the people, a sort of "frozen myth", they brought to us also the realities of every day life; the pulse of life which was felt in the hunting scenes, the desires and ambitions of inhabitants of this severe land remained relatively stable — an evidence of this was offered by the hunting scenes created in different periods and going through the ages as the one leading motif.

The study of the rock art, an integral part of the treasure house of the world culture, opened a window into the world of the past, the art created a bridge between cultures and millenniums. In addition to the academic recording another task of the project was enhanced by the modern methods popularization of the Kaikuul Bluff petroglyphs by means of creating


moldings of the rock images using modern restoration techniques, which allowed in addition
to creation of back up copies of the originals in case of their loss (which, unfortunately, occurs
rather frequently), organize a "remote" viewing of the rock art images [Kochanovich, Devlet
2006: 47-50]. This formed a basis of the exposition introducing the rock art of Chukotka.

An collection of photos, reproductions on special porous fabric and 3D moldings made
from silicon negatives already has some history; beginning from 2006 it was exhibited in
several cities. The exhibition materials have also been transferred to the permanent exhibitions of the Museum center "Heritage of Chukotka" in Anadyr, where they draw invariable
attention of the visitors [Petroglyphs of Pegtymel 2007 (CD)]. The moldings were presented to
the Pevek museum, and the copy of a panel from one of the Kaikuul Bluff compositions was
donated to the Museum of Anthropology of the Moscow State University on the occasion of
its 125-anniversary. The moldings were also used in a GIM project addressing the needs of
the poor-sighted children — the natural relief well reproduced by the moldings gave the children an opportunity to feel the images contours. Cooperation with the "Travelling Northern
Film Festival" also proved quite fruitful: the travelling exhibition including the northern rock art materials was presented within the framework of the Russian public events related to its
2008–2009 chairmanship in the Barents Euro-Arctic Region, at the Council of Top Executives
of the Barents Region held in Moscow, as well as on Spitsbergen archipelago, and in Kirovsk.
As part of the UN sponsored International Polar Year in March 2008 the exhibition was pre-

teated in the UN Information Center in Moscow. We’d like to hope the world of Chukotka
rock art images will not only contribute to the academic knowledge pool, but also form an
important part of the global historical and cultural heritage.

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САИ — Свод археологических источников
СО — Сибирское отделение
СПбГУ — Санкт-Петербургский государственный университет
Тр. ЗИН — Труды Зоологического института
УНИДРУА — Международный институт унификации частного права
УрО — Уральское отделение
ФЦП — Федеральная целевая программа
ЧАО — Чукотский автономный округ

ChAO — Chukotka Autonomous Okrug
EestiNSV — Eesti Nõukogude Sotsialistlik Vabariik
(Эстонская Советская социалистическая республика, Estonian Soviet Socialist Republic)
ICOMOS — International Council on Monuments and Sites
KarRC — Karelian Research Centre
RAS — Russian Academy of Sciences
RFN — Russian Foundation for the Humanities
RHRC — Russian Humanities Research Grant
UNIDROIT — International Institute for the Unification of Private Law
Urb — Ural Branch
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