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# Rock Art Studies News of the World III

Edited by

Paul Bahn, Natalie Franklin and Matthias Strecker



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#### Preface

#### Paul G. Bahn, Natalie Franklin and Matthias Strecker

While rock art studies have been underway for a very long time, it is only fairly recently that rock paintings and engravings have come to be considered a form of world cultural heritage, and part of ongoing archaeological and anthropological research worldwide. Nowadays archaeological meetings normally include rock art sessions which help to integrate these studies into the academic mainstream, quite apart from the numerous regular conferences organized by specialized rock art associations. The first symposium on worldwide rock art studies, called "News of the World", was organized by Paul Bahn and Angelo Fossati at the NEWS 95 international rock art congress in Turin. It was followed by a similar meeting at the AURA congress in Australia in the year 2000. These meetings and the resulting publications – with contributions by invited specialists – have proved useful by providing surveys of new discoveries and advances made in rock art studies worldwide.

This book, the third volume in this five-yearly series, has the same strengths and faults as its two predecessors. For the first time, its content has not been linked to a symposium at an international conference; instead, it stands

alone. As always we have had to grapple with the constant problem of obtaining suitable material – some contributors produce their papers early, and conform precisely to what the volume requires. Others are incredibly slow, and do not always produce something that is as focused or general as requested. And unfortunately, we have been particularly let down this time by some previous contributors, and hence there are more gaps in the coverage than usual – we hope that these gaps will be filled in the next volume.

As ever, the content of the articles collected here gives some idea of the very varied approaches to rock art studies in different parts of the world. The volume presents examples from Europe, Asia, Africa, North America, Mexico and Central America, as well as South America. Some areas focus on discovery, others more on dating or interpretation, while management and conservation are of increasing importance in many regions. We are extremely grateful to all the contributors – and especially to Rodrigo de Balbín and Primitiva Bueno who stepped into the breach at very short notice – and hope that this collection will prove as useful as the first two.

# 8. ROCK ART STUDIES IN NORTHERN RUSSIA AND THE FAR EAST, 2000–2004

#### Ekaterina Devlet

As a result of the efforts of several generations of researchers throughout our country, many hundreds of rockart sites have been identified and investigated. Specially singled out have been local centres of rock art traditions which are characterized by petroglyphs and paintings of a particular type. Their form is believed to reflect the worldview and aesthetic ideals of the ancient populations of these regions. Each of these areas of rock-art is unique in nature due to the particular history of the region, the local environment, and climatic changes, and ethno-cultural and other factors, as revealed in differences in themes and styles, the arrangement of figures on the cliff-faces and their technique (Fig. 8.1). The fact that new sites have been discovered in these areas is an important issue.

In the Asian part of Russia, the most northerly rock art has been found only on the Chukotka peninsula. This is a unique rock art region with specific stylistic features. The main concentration is located above the Arctic Circle at the cliffs of the Kaikuul Bluff on the Pegtymel river. The site was discovered by geologist Nikolai Samorukov in 1965 and investigated in 1967–1968 by an archaeological expedition led by Nikolai Dikov who recorded 103 compositions in 11 locations and another small site 10 km downstream along the Pegtymel river. In 1986, Dikov again visited the Kaikuul Bluff and found several new compositions there, as well as 5 km below the Kaikuul near the mouth of the Dvurogii stream, where he recorded a surface with petroglyphs (Dikov 1992). In his monograph Rock Enigmas of the Ancient Chukchi (Pegtymel' Petroglyphs), which appeared in 1971, Dikov described and reproduced all the groups of petroglyphs and the archaeological material obtained. He discussed a wide range of problems relating to petroglyph analysis, style, technique, classification and dating, as well as various aspects of the interpretation and ethnic attribution of the rock art (Dikov 1971). An English version of Dikov's monograph was published in Anchorage (Dikov 1999).

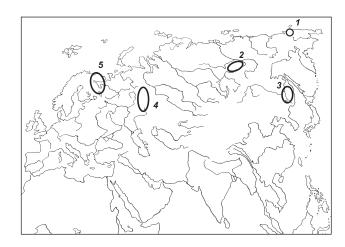


Fig. 8.1. Map of the rock art areas in northern Russia and the Russian Far East. 1: Chukotka peninsula; 2: the Middle Lena river; 3: the Lower Amur region; 4: the Ural mountains; 5: northwest of European Russia (Lake Onega, the White Sea, the Kola peninsula).

In recent years, the interest in rock art studies in this remote region has increased, new petroglyphs have been discovered and important details revealed in known compositions. In 1999, Andrei Golovnev, Vladimir Pitulko and Sergei Vartanyan found 24 new compositions and individual carvings, some slightly patinated, 300 m downstream from the final location of the Kaikuul Bluff, which they called location XII (Fig. 8.2.1). Traces of cultural deposits were identified near locations I–IV, and new radiocarbon dates were obtained from the material collected (Pitul'ko 2000, 2002). Vartanyan undertook a geomorphological study of the area. Golovnev produced an outstanding ethnographic film about the petroglyphs,

the indigenous people and the traditional practice of eating *Amanita Muscaria* as a drug. The film *Pegtymel'* received an award at the IInd Russian anthropological film festival in 2000 (www.norfest.ru). In 2002–2003, a new survey of the site revealed 74 figures and groups. It was also supplemented with a survey of the upper and middle reaches of the Pegtymel river, but no rock art was found there (Slobodzyan 2003, 2004). New publications regarding the dating and ethnic attribution of the site were produced (Golovnev 2000, 2002; Kir'yak 2001; Pitul'ko 2002), although support for the traditional semantic interpretation of the rock art images remained keen (Devlet M. 2004; Devlet E. and Devlet M. 2000, 2005).

Dikov has dated the Pegtymel petroglyphs to a period from the end of the 1st millennium BC to the second half of the 1st millennium AD, basing himself on the related archaeological material. Nearby he investigated two sites from the Late Neolithic and a shelter with images and archaeological material of the mid-1st millennium AD. A depiction of a rotary harpoon with a so-called stabiliser, or 'winged element', on its shaft in one of the compositions (Fig. 8.3) was considered to be another indicator for dating. Hunters of these periods used a rotary harpoon with a so-called winged element carved from walrus ivory on the shaft. Golovnev argued (and I share his opinion based on my own field observations) that in the group with superimpositioning the item considered by Dikov to be a stabiliser or 'winged element' is a whale's tail (in my opinion it is the end of a reindeer antler) and the petroglyphs may belong to the Punuk/Thule cultural tradition (Golovnev 2000; Devlet et al. 2006).



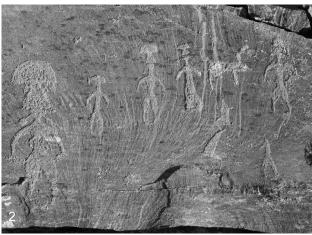


Fig. 8.2. The most original motif among the Pegtymel petroglyphs, Chukotka, depicts anthropomorphic figures wearing huge mushroom-shaped hats – probably Amanita muscaria.

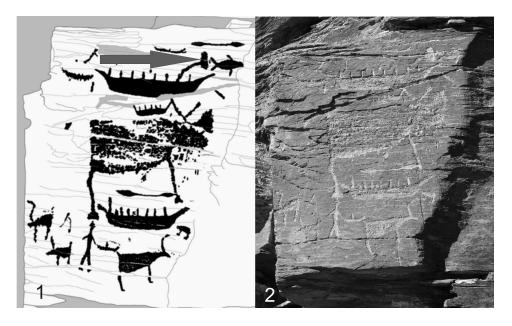


Fig. 8.3. Petroglyphs recognized by N. Dikov as chronological indicators. The arrow on the tracing points to a detail first recorded as a rotary harpoon with a so-called stabilizer, or 'winged element', on the shaft, but later determined to be the termination of a reindeer antler in a superimposition.

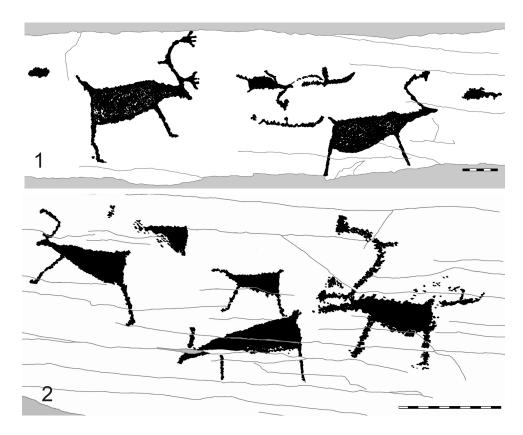


Fig. 8.4. New rock art panels from Pegtymel, Chukotka.

The Pegtymel petroglyphs are pecked, engraved or made with a combination of these techniques. Among the Kaikuul Bluff petroglyphs, there are both single figures and groups; in some groups a deliberate composition can be inferred. On some panels, images may display variations in technique, style, patina and state of preservation.

The themes of the petroglyphs are fairly consistent. Figures of reindeer with narrow muzzles and a characteristic outline to their antlers predominate in two stylistic variants: realistic and schematic (Dikov distinguished five variants) (Fig. 8.4). Among the images of other animals, it is possible to recognize polar bears, arctic fox and wolves. Figures of waterfowl and birds with long legs (cranes?) are also found. Different whales are typical, along with other sea animals. Images of boats have various outlines. One can recognize in them single-seated high-speed kayaks, boats covered entirely in leather with a hatch for the paddler. Multi-seat boats with high prows (some of them figurative) are also found. The oarsmen seated in them are depicted either fairly realistically or else entirely schematically in the form of vertical lines (Figs 8.5 and 8.6).

The following theme is the one most often repeated: a deer represented as if swimming in water (with hind legs sunk beneath the level of the forelegs) is pursued by a harpooner in a boat. Sometimes the person in the boat and the muzzle of the reindeer are joined by a line. The

weapon with which the hunter strikes his prey is clearly a harpoon and not a spear or boar-spear, because, in the majority of images, a line between man and animal is shown, shaped in a smooth arch. The unique example of a scene depicting the hauling of a dead animal, revealed in 2003, is also of particular interest (Fig. 8.4.1). Sometimes the boat with hunter and the figure of a bear are linked by a line, as we often see in other Arctic rock art, for example in the Kola peninsula (see Fig. 8.19) (Shumkin 2003). Other constantly recurring subjects are depictions of footprints and hoof-prints shown in, a very special manner which is to show reindeer hooves or their prints as if spread out. Scenes of sea-hunting for whales, seals, white whales and other marine animals are typical. The relative proximity of Kaikuul Bluff to the sea - the coast is about 35-50 km away – is probably the reason for the whaling scenes on the cliff.

Curious contemporary carvings dated to 1999 appeared which convey the new realities of Chukchi life. The only place inhabited by indigenous people located nearby is depicted (Fig. 8.7).

The most original motif among the Pegtymel petroglyphs depicts both male and female anthropomorphic figures, either singly or as part of a group, in each case wearing huge mushroom-shaped hats (Fig. 8.2). Almost all the anthropomorphs are shown full-face, with some of them in

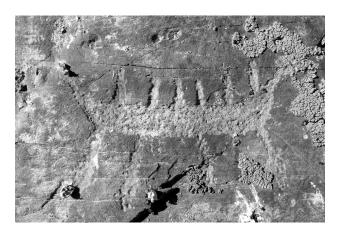


Fig. 8.5. A typical image of a boat was recently revealed at Pegtymel, Chukotka.

a dance-like posture. Sometimes the mushroom is above, or on the head of the anthropomorphic figure. There are images of mushrooms with hands, and with double or even triple caps positioned one above the other. N. Dikov considered these mushroom-shaped figures to be representations of the anthropomorphic fly agaric mushrooms (Latin name *Amanita muscaria*). Pitul'ko rejected this interpretation. He believes that the complicated heads of the anthropomorphs with double and even triple caps are female head-dresses (Pitul'ko 2002), that survived among the Eskimo population of Greenland, and were recorded by European travellers in the XVIIth–XIXth centuries, as well as shown in XXth-century photos.

Noteworthy are small slabs and stone plaques with graphic images - a 'mushroom' ornament, zoomorphic figures, dwellings, a hatching, etc – found in the western part of Chukotka in the cultural deposits of the Neolithic site at Rauchuvagytgyn (Kir'yak 1998, 2000, 2001, 2003). Identification of anthropomorphic figures as fly agaric mythical creatures was supported by Golovnev in his film, where he managed to record a story of an old Chukcha who knew this practice from his childhood. M. Devlet correlated mushroom-like rock art images from Chukotka, South Siberia and Central Asia with traditional mythological subjects from Northern Asia (Devlet M. 2004; Devlet E. and Devlet M. 2000). There were a number of ethnological observations documenting the still extant practice of Amanita muscaria eating among Chukchas (Simchenko 1997; Bat'yanova 2001; Shapovalov 2003). An interesting feature was mentioned regarding Amanita images: many of these groups have superimposed scratches, with these lines looking quite fresh, which may indicate that the indigenous population 'reused' the images or rendered them harmless (Fig. 8.8) (Golovnev 2000). In my own field experience, however, similar scratches may be seen on panels with other motifs, reindeer for example.

Rituals connected with the mystical realm had a



Fig. 8.6. Recently revealed rock art panel from Pegtymel, Chukotka.

significant place in traditional cultures. One such was the ritual consumption of fly agaric by Siberian natives. This is a species of hallucinogenic mushroom which causes artificial psychoses. Siberian natives not only drank fly agaric aqueous extract, but ate it in dried form, for example rolling it up and swallowing it whole. They would even go so far as to drink the urine of a person who had imbibed this poisonous potion. Symptoms of the poisoning were, firstly, strong intoxication which then developed into delirium tremens, followed by catalepsy and, finally, by deep sleep.

Amanita muscaria were believed by Siberian natives to be fantastic creatures, endowed with features both of people and of the poisonous fungi themselves. According to Khanty belief, the Amanita muscaria owes its intoxicating effect to a 'special spirit' dwelling within it. The Nivkhs have a popular belief that, on the taiga paths, fly agarics in human form may be encountered. The Chukchi believe that, to intoxicated people, fly agaric fungi come in strange anthropomorphic form — in the guise, for example, of a one-armed or one-legged person, although these are not regarded as spirits, simply forms of the Amanita muscaria.



Fig. 8.7. Curious contemporary carvings appeared dating to 1999, and convey the new realities of Chukchi life, Pegtymel, Chukotka.



Fig. 8.8. Some scratched rock art panels with Amanita images, Pegtymel, Chukotka.

The number seen corresponds to the number of mushrooms consumed. Such manifestations of fly agaric may take the affected person by the hand and lead him to another world; they are reputed to visit the land inhabited by the dead. The Chukchi ate *Amanita muscaria* in order to visit their dead relatives, sometimes to learn from them what intrigues were being planned by the spirit of illnesses. Eating *Amanita muscaria* was an important ritual act performed by the Koryak during the autumn seasonal feast. During the ritual consumption of *Amanita muscaria*, people had

visions of various representatives of the mythical fly agaric tribe. Participants in ancient ceremonies probably depicted mythical fly agaric creatures on rock surfaces.

The Khanty used to say of people acting foolishly that they had 'consumed fly agaric'. Itelmen and Koryak robbers, in common with those of the Khanty and Mansi, used to take *Amanita muscaria* to induce bravery before setting off to commit a murder. The Itelmen termed such a state of intoxication 'being in fly agaric'. Provided the number of mushrooms eaten did not exceed four or five, the person taking them would feel a temporary surge of power. For instance, a person could soon cover a distance of forty kilometres over hillocks of ice and deep snow, or succeed in dragging a huge stone which, according to legend, could only be lifted by epic heroes (Krasheninnikov 1949; Simchenko 1997). Many narrators of myths and heroic legends ate such poisonous mushrooms for inspiration and also to sharpen their memory.

In a number of Northern and Central Asian regions, where the cult of hallucinogenic mushrooms existed, ancient artists represented on the rocks fantastic creatures combining human features with those of the poisonous mushroom. Similar images are known in other rock art regions: in the upper Yenisei, Altai, Mongolia, and Kazakhstan. These figures, like the ones at Chukotka, are usually shown in a pose reminiscent of dancing, sometimes in combination with zoomorphic and smaller anthropomorphic figures (Devlet M. 2004; Devlet E. and Devlet M. 2000, 2005). The mushroom-shaped figures set above the heads of anthropomorphic characters do not feature a head-dress or a magnificent hairstyle, but are exact representations of mushrooms – the typical Amanita muscaria with a characteristic stem broadening from top to bottom, with either the convex cap denoting a young



Fig. 8.9. The Suruktaakh-Khaya Tokko rock art sites concentration is one of the most important in the Middle Lena rock art area. These locations are the subject of continued recording (courtesy of N. Kochmar).

plant, or else flat to show that it is already fully developed. The fly agaric creature in some cases held humans by the hand; it was for this reason, possibly, that they are shown removing living beings and taking them to the 'people of the realm above'.

The regional tradition in the basin of the Middle Lena river (Republic of Sakha [Yakutia] administrative territory) is known from a publication by Okladnikov and Mazin (1976), and later by Kochmar (1994). A special feature of the local art tradition is the predominance of paintings, executed mainly with a mineral ochre paint, and constituting chains of marks regularly arranged in horizontal, and in some cases vertical, rows. Sometimes schematic anthropomorphic and zoomorphic figures were placed within the rows. Also typical are rows of vertical or slanting lines, sometimes crossing each other like a grid. Most likely they represented traps similar to trapping-pens or nets. The drawings of 'fences' may be accompanied by figures of animals which have, presumably, already been captured. The anthropomorphic images are usually schematic and depicted full face, less often in profile. There are figures of hunters with bows in pursuit of an animal, and some rock drawings resembling anthropomorphic mask-images. Among the zoomorphic figures, the elk is predominant. The image of the elk – the largest animal of the Siberian taiga – occupied a central place in the beliefs and ceremonies of the ancient forest tribes. In prehistoric

times it dominated the repertoire of rock-art images. The cult of the elk, once extremely widespread among the taiga hunters, is, according to ethnographical evidence, still in existence today. Some figures of animals are rendered in the so-called X-ray or skeletal style, with the strokes on the trunk designating the internal organs and bone structure.

One of the most important in the region is the Suruktaakh-Khaya Tokko rock art site, which has been the subject of continued recording (Fig. 8.9), as well as comprehensive analysis of the rock art 's spatial characteristics. Today, there are 49 surfaces with 410 pictures in 16 locations, and probably dating to the 2nd millennium BC (Kochmar 1994; Knurenko 2002). From analyses of the geometrical and figurative motifs, Alekeev, Kochmar and Pen'kov interpreted them as mathematical models, and found similarities with Chinese pictographs (Kochmar and Pen'kov 1999; Alekseev *et al.* 2005).

The Russian Far East rock art sites are located in the territory of the Khabarovsk administrative district – known as the Lower Amur rock art area. There are 7 sites of paintings and petroglyphs, which predominate. Rock-art studies in the region have focused mostly on documentation and an extensive search for new ways to preserve the cultural heritage.

The most famous site with petroglyphs is Sakachi-Alian (Sikachi-Alian – as this site and the national Nanaian village was later named), located about 60 km below Khabarovsk,



Fig. 8.10. The petroglyphs of Sakachi-Alian, Lower Amur region, are still used for traditional rites and in the everyday life of indigenous people. A stone with a zoomorph in X-ray style, with an interior decoration of curl-spirals and concentric circles, is still considered to be an important place for performing rituals (1). The rock art requires proper management and protection.

on the right bank of the Amur river. The petroglyphs are mainly done as deep grooves on basalt boulders, and, partly, on a rocky ledge of the bank's terrace. They are concentrated along the waterside for a distance of 6 km, in the area of the direct water activity of the Amur river.

Information about the rock art of Sakachi-Alian first appeared at the end of the 19th century, in the diary notes of a Russian orientalist, Palladi Kafarov. The rock art was further published by Vetlitsyn (1895), in 1899 by an American orientalist Bertold Laufer – a participant in an ethnological expedition to Amur, organized by the American Museum of Natural History (Laufer 1899) – and by many other researchers. In 1935, and then from the 1950s, the petroglyphs were studied by an archaeological expedition headed by Aleksei Okladnikov, and later on by Anatoliy Derevyanko – this was the most important period of documentation and research at Sakachi-Alian (Okladnikov 1971, 1981).

Anthropomorphic mask-faces predominate in the Sakachi-Alian rock art. Among other motifs, animals (elk, tiger, boar), birds, snakes, boats, cup-marks, and concentric circles should be mentioned. The forms of the mask-images,

their details and sizes are diverse: oval, egg-oval, heartshaped, trapezium-shaped and combinations of several of these forms, some with strikingly pronounced contours and some without. There are also relief masks, made by connecting two or three sides of natural, skull-shaped boulders. The internal details of the mask-images have different variants, but almost all of them have eyes, nose and mouth, and many of them are filled with a complex ornamentation, consisting of angles, triangles, arches or their combinations. Some images have a halo of separate rays around them, which can be of different length and located not only on the top, but all around its contour. The larger ones can be up to 50-60 cm in length, while the smaller masks are about 10-15 cm long. An important composition of real interest is executed on the horizontal plane of a boulder. The image is that of a small stylized personage, shooting an elk with a bow. The animal is done in an X-ray style, with internal elaboration in the form of ornamental curl-spirals and concentric circles. This stone is still considered to be the main place for performing rituals (Fig. 8.10.1).

According to Okladnikov, the petroglyphs of Sakachi-

Alian belong to different periods, and can be dated to the Mesolithic period, the Neolithic, and the early Iron Age - these petroglyphs, in his opinion, are made with deep grooves pecked with a stone tool - and also the early Middle Ages, when the engravings were made with an iron implement. The dating of the Sakachi-Alian petroglyphs suggested by Okladnikov is based on a comparison of styles and forms of images, and also on a comparison with the archaeological finds in the Lower Amur area. The earliest Mesolithic and early Neolithic images are dated to the 10th millennium BC. These are primitive in technique and style, with images of horse? (elk); bird figures; masks with eyes, mouth, and nose; and also skull-shaped mask-images. According to Okladnikov, the peak of the Neolithic epoch of the Lower Amur (4th-3rd millennia BC) was characterized by masks with complicated geometric elaboration of their interior. This stylistic tendency continued through the final Neolithic and the early Iron Age (2nd – beginning of 1st millennia BC). This stage includes images of elks in an X-ray style with a complicated elaboration of the body. The latest images of the first half of the 1st millennium BC were made using a carving technique.

The peculiarity of the Sakachi-Alian rock-art site is the continual displacement of the boulders by the Amur river, with maximum movement during the process of the spring ice drift. Because of the great depths and speed of the current, the ice plates up to one and a half metres thick come up against the basalt blocks and rocky ledges of the cape. At the same time, many stones overturn easily and get chipped from bumping against each other, shifting higher up or along the line of the drifting ice. As a result of this irreversible, recurring natural phenomenon, new images are found, while some that were documented earlier have now disappeared. Field investigations in 2000-2003 were focused on the development of rock-art protection projects, and allowed a comparison of the present location of the petroglyphs with the drawings from the 1950s, made by Okladnikov. Over a period of just 50 years, more than 25 stones with petroglyphs were overturned or shifted from 0.2 to 55 m distance. New rock art was discovered, while some of the already- documented boulders with images were missing (Laskin, in press). In 2000, in the course of preparatory work for the site protection project, it became obvious that, at one of the locations (there are 2 main locations at the Sakachi-Alian rock art site), during the last 50 years about 10 boulders with petroglyphs have shifted from 2 to 10 m due to drifting ice; they were moved or overturned, and several new carvings were discovered (Gornova 2000). In June 2003, the level of the Amur River was very low (-75 cm), which helped greatly to clarify the location of the petroglyphs (Laskin ibid.). It turned out that large-sized stones were mostly untouched, but smaller ones, located in places of shallower depths, had been shifted from 3 to 20 m, and even up to 55 m; many of them were shifted relative to its their axis (Laskin and Dyminskii 2006; Laskin, in press). The fact that boulders

with images documented by Okladnikov could not be found, however, doesn't testify to their loss; they could have simply been overturned. Two surfaces with mask-images, schematically drawn by Okladnikov based on information from local people, but hidden from view at the time of his work, could now be documented (Okladnikov 1971). Ten new boulders with petroglyphs were revealed, with predominant mask-images of different forms, and also an image of a swimming (?) elk. One outstanding find that has no analogy was a large relief mask with a wavy decoration inside, and also an impressive laconic mask-face in basrelief (Fig. 8.11.1).

The goals of the site research over these past few years were an inventory, the discovery of new images, and evaluation of the art's preservation, which indicated a necessity for further research and documentation with regard to contemporary standards, and a real need to provide complex preservation of petroglyphs (Laskin et al. 2005). It was demonstrated that among the active, natural destructive factors were those of ice drift during the spring; drifting of ice and autumn freezing; seasonal fluctuations of the river's water level; temperature changes and freezing; wind erosion; and vegetation. The river moves masses of sand and silt deposits which, in their turn, dislodge the stones located in the flood zone. The images on the stones, which were temporarily covered by water, are barely visible after its retreat because of the silt which, under the influence of wind, sand and the sun, turns into a hard crust. The soil alluvium assists the active growth of plants, and their roots increase the cracks in the stone. The dark surfaces of the stones help to increase the temperature change between the shady and sunlit sides of the boulders by up to 30 degrees in the period of high solar activity (from April to August), which creates a 24-hour cyclical tension in the stone, and promotes the creation of the cracks (Laskin, in press).

The rock art site is also impacted by the following types of negative anthropogenic destruction: modern carvings; a renewal of petroglyphs; fire making; trashing of the territory - the result not only of unregulated tourism, but also of the activities of the local inhabitants in the area. Fishermen tie metal parts of their fishing nets to the boulders, which leave deep scars on the stone. The peculiarity of Sakachi-Alian is that it is located in the village territory of the indigenous people of the region, and this site presents fairly unusual problems for Russia in terms of traditional ownership. Motifs similar to Sakachi-Alian petroglyphs, to this day, exist in the traditional rituals and ornamental art of Nanaicy, Ulchi, Nivkhi and, Udegei. Local people consider they may use the boulders for their everyday needs, putting their food and drink right on the stones. The ritual use of some boulders visibly changes their surface, as happened with the previously mentioned boulder with an image of an archer aiming at an elk, executed in an X-ray style.

A non-commercial fund "The Historic Heritage of the Amur Region" (www.amurfund.org), headed by a businessman from Khabarovsk, Albert Babaev, has initiated





Fig. 8.11. Mask-face in bas-relief is one of the new finds at the in Sakachy-Alian rock art site (1). Making positive silicon copies (2).

a project focused on the popularization of the regional rock art heritage, making casts and exhibition copies of petroglyphs (by 2004, more than 20 silicone matrices of images had been made) (Fig. 8.11.2). The copies are of good quality (Fig. 8.10.2), except fort the problem that I could see when visiting the region in December 2004 – i.e. the penetration of the rock surface by the silicone oils (Fig. 8.10.3). In the silicone products used, the oils act as a

separating layer between the silicone and the rock for easy removal of the silicone mould after application. But where rock art conservation is concerned, it is almost impossible to remove an oily stain from a rock surface (Devlet 2002; Kochanovich and Devlet 2006). The educational and cultural project of the fund "The Historic Heritage of the Amur Region" is the creation of an open-air museum containing replicas of Sakachi-Alian petroglyphs in the centre of Khabarovsk, which could divert the destructive impact of tourism away from the site itself. In collaboration with the department responsible for cultural heritage protection and management, the fund initiated construction of interpretive points and stelas marking the borders of the sites (Fig. 8.10.4).

In order to protect the site itself, in the last 30 years different scientific-research institutes and project organizations have proposed and discussed many options for creating different ethno-cultural and scientific centres in this unique historical place, which, unfortunately, have still not had a consistent and practical follow-up. However, researchers have put considerable effort into rock art documentation and the understanding of natural and anthropogenic influences and decay (Laskin *et al.* 2005; Laskin, in press).

In the Ural mountains, on both the Asian and European slopes, about 90 rock art sites are found in an area of more than 800 km – from the Belaya river in the South to the Vishera river in the North. Four caves with rock art, Kapova, Ignatievskaya, Serpievskaya 2 and Muradymovskaya, are known in a mountain-forest area of the South Urals. Other open-air rock art sites are located mainly along the river and lake banks, with the largest concentration of 19 sites being in the Tagil river basin. The most ancient images are dated to the Upper Palaeolithic period, the latest to the Middle Ages (Shirokov 2002; Shirokov *et al.* 2005a, b).

The world-famous *Kapova Cave* is located on the right bank of the Belaya river, about 250 km south of the city of Ufa. The length of the cavity, with 3 levels, is more than 2 km. More than 50 different images are known in the upper and middle levels, divided by a 14 metre gap. All images are made in red with different shades, and only the image of a horse in the middle level is done in black paint. Naturalistically depicted animals (bison, rhinoceros, 6 or 7 mammoths, and 4 or 5 horses), different geometric signs, zooanthropomorphic and undetermined forms are represented. The largest animal figure is over 1 m in size, while the smallest is only 6 cm. There are about 4 times more signs than animals; the most common are trapezoids with an outlined inner space, which can be seen as a type specific to Kapova Cave.

The creation of the images is connected with cultural deposits of small capacity, which were discovered during excavations in the middle level of the cave about 200 m from the entrance. The remains of two small and one big fire place and about 200 stone artifacts made of nephrite, siliceous shale, limestone and sandstone were found. There were also ornaments (including 4 beads made of



Fig. 8.12. The entrance to Kapova Cave. Although it is closed with a grid, more restrictions on access are required (by B. Aguzarov).

serpentinite, and many perforated shells – the remains of a necklace) and a unique clay lamp. Excavated pieces of ochre provide evidence of the production of paints in this place, and a small block of limestone with an image, which had fallen from the wall, make it possible to synchronize the images on the walls with the cultural deposit. Radiocarbon analysis of charcoal from the deposits indicates that the age of the images is about 14–16 thousand years. Comprehensive information about the cave was presented by Ščelinskii and Shirokov in a monograph published in 1999 (Bader 1965; Ščelinskii 1990, 1996, 1997, 2001; Ščelinskii and Shirokov 1999; Shirokov 2002, 2004b).

In recent years, researchers have been concerned about a situation of uncontrolled entry into the cave, which afterwards led to different kinds of violations, including illegal digs. This happened despite the fact that the cave entrance is closed and it is within a reserve territory (Fig. 8.12). In 2004, Ščerbakova initiated new archaeological investigations in the cave and identified traces of deposits in the Painted Hall (Ščerbakova and Ščelinskii 2005). Another problem discussed was the preservation of images, climate changes as a result of tourist visitation, and the build-up of a calcite crust over the paintings. This discussion was initiated much earlier without any definite solution to the problem (Loskutov and Loskutova 1997; Loskutova and Firsov 1997; Lyakhnitskii 1997; Lyakhnitskii et al. 1997). All this generated heated debates on the ways, methods and individuals who could really carry out a complex of measures aimed at preservation of palaeolithic art. French experts were invited for consultations. At governmental

level and among the research community there were suggestions that new structures should be created to fulfil the obligations to preserve the unique cultural heritage of the Urals (Ščelinskii 1990, 1993; Ščerbakova and Ščelinskii 2005; Abdullin 2005). Kotov (2001) also discussed some aspects related to perceptions of the cave in ethnographically-recorded mythological tradition (2001).

Ignatyevskaya Cave (Jamazy-Tash) is situated on the right bank of the river Sym, a tributary of the Belaya Rriver, approximately 200 km to the north of Kapova Cave. The whole length of its horizontal tunnels is more than 600 m. More than 50 drawings were documented, which are concentrated only in the Great and Far Halls, more than 100 m from the entrance. In the Great Hall, the figures were drawn on vertical and inclined walls, and semi-arches in numerous depressions and ledges. In the Far Hall the majority of the paintings are located on the ceiling and only a few can be found on the wall. Practically all the figures were drawn from the floor or blocks, and only one group of dots may have needed some other constructions.

All the images were made in paint of two colours – red in various shades, and black. There are animals, signs, anthropomorphic figures and indeterminate decorative motifs. Dominating among the signs there are groups of lines and separate features, groups of dots, meanders, and cross-like and arrow-like forms, etc.

In different parts of the cave they have discovered cultural deposits with numerous particles of charcoal from torches and flares, stone and ivory objects, pieces of ochre, decorative objects and animal bones. The decorative

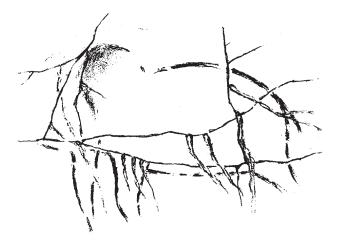


Fig. 8.13. An image of a mammoth made in charcoal that gave a date of 7370± 50 BP (from Shirokov).

objects are represented by two pendants made of an arctic fox canine, and the tooth of a bull or buffalo, and by two small flat round beads made of bone or tusk. Radiocarbon analysis of charcoal and bone from the cultural stratum dates to 12–14 thousand years ago (Petrin 1992; Ščelinskii and Shirokov 1999).

In 1998, V. Shirokov and M. Rowe selected 18 samples for analysis of the chemical composition of the pigments, and for AMS 14C dating, for AMS 14C which produced some unexpectedly young results: a mammoth  $-7370 \pm 50$ BP; a radial line  $-7920 \pm 60$  BP, and a line  $-6030\pm100$ BP (Fig. 8.13) (Steelman et al. 2002) (See above, p. 8). However, V. Shirokov (2005, 2006) working on the problem of the Ignatyevskaya cave art dating, examined another tradition of the Mesolithic and Neolithic rock art in the Urals region, with a predominance of signs, as well as the archeological context of the materials from the Great Hall, and argued that the images of the Great Hall can only be of Palaeolithic age. Three radiocarbon dates made on charcoal from the cultural stratum of the Great Hall placed the decoration of Ignatyevskaya Cave at the end of the Pleistocene:  $14,240 \pm 150$ ;  $13,335 \pm 193$ ;  $10,400 \pm 100$ 465 (Petrin 1992; Ščelinskii and Shirokov 1999). Shirokov also stressed that the repertoire of Ignatyevskaya images suggests their upper Palaeolithic age due to the fact that big mammals such as mammoth disappeared from the territory of the Southern Urals at the end of the Pleistocene (Kosintcev 1990, 1999). Near the paintings in a the Big Hall only Upper Palaeolithic artifacts were found, and there are stratigraphic arguments for their relative synchronism with some drawings from the Great Hall. During the excavation near a panel with a Red Horse, a thin layer of *Mondmilch* was noted under which they found numerous fragments of wood charcoal, together with stone objects, small pieces of ochre and a pendant made of an arctic fox canine – a species

which inhabited the Southern Urals only in the Pleistocene. *Mondmilch* also overlaid some decorative motifs on the cave wall, enabling them to be dated to a minimum of 10 thousand years. Thus, the researcher does not believe that the dates from the direct radiocarbon analysis are entirely certain (Shirokov 2006).

Paintings are known on open cliffs in the Northern, Middle and Southern Urals within a territory stretching for approximately 800 km: the most northerly images were found on the rivers Kolva and Vishera, the most southerly on the Belaya river. There is an uneven distribution of sites within this territory, with two main regions localized on the eastern slopes of the Middle Urals, on the Tagil, Neiva, Rezh and Yset rivers, and on the western slopes of the Southern Urals, on the Ay and Juryuzan rivers. All of them are associated with a mountain-forest zone, a homogeneous natural environment.

The height of the cliffs where the ancient images were discovered is from several metres to hundreds of metres. Almost all the figures were made on the cliffs facing the river. The paintings made there were highly visible, with the most colourful located at a significant height, and they can be seen not only from the river but also from the opposite bank. Some groups can be seen simultaneously from one place; in other cases in order to see the whole ensemble one must move along the surfaces and blocks, sometimes for dozens of metres. The orientation of the cliff surfaces with the ancient paintings is almost always to the south, sometimes with deviations to the east or west. Recently, Shirokov found an engraved image on one of the cliffs on the Rezh river, and Viktorova probably revealed pecked images at Palatki I on the Izet' River (Shirokov et al. 2005b); but paintings still remain the predominant rock art technique known in the Urals tradition. The depictions there include animals, anthropomorphic figures and a number of indeterminate forms. Among the animals there are numerous ungulates, such as elk, deer and roe deer. There are also images of bears and bear-paws. Among the figures of birds, images of ducks, geese, and swans predominate. Anthropomorphic characters were, as a rule, represented en face with half-bent legs. The geometrical figures and symbols found there are extremely diverse. Among recent finds should be mentioned paintings at Ajatskoe lake revealed by S. Chairkin in 2004, where geometric and zoomorphic figures are painted in red on the granite surfaces (Shirokov et al. 2005a). In recent years there have been many publications concerning the interpretation of open-air rock art (Shirokov 2000, 2004a; Kotov 2001; Shirokov et al. 2000, 2005b; Kerner 2004; Viktorova 2004a, b; Volkov 2004; Kul'tovye pamyatniki ... 2004), but the basic ideas announced by Chernetsov (1964, 1971) remain current.

New information was obtained regarding rock art techniques both as a result of studying pigment samples under the microscope, and from studying the pieces of these minerals bearing incisions which were discovered during excavations below some of the painted panels. Gematite, goetite, limonite and other iron oxides were used as red pigments. Shirokov (2002) emphasizes that there was a preference for the colour red in different shades, and that the creators of the images tried to place them on surfaces covered by deposits or patinas of white and yellowish colours. The widths of painted lines were not usually more than 1–1.5 cm, and they were most likely made with a finger, although wider lines, up to 4–5 cm, probably made with a brush, are also known.

Petroglyphs from the northwest of European Russia are distinguished by their uniqueness. In this region, the local features include a predominance of petroglyphs and their localisation on the subhorizontal outcrops on river-banks, and, equally, the presence of multi-figured compositions in which anthropomorphic characters play an active role. Concentrations of petroglyphs are found on Lake Onega, in the White Sea area, and on the Kola peninsula (Fig. 8.14) (Kare 2000; Bertilsson 2004).

The first concentration, in the region of the Kola peninsula, and the very northernmost Russian concentration of petroglyphs, Chalmn-Varre, were discovered during archaeological prospection of the region in 1973, on the right bank of the Ponoi river, in its middle course. About 200 carved petroglyphs were located on big flat stones. Their technique, style and altitude gave both Gurina (1992, 2005) and Shumkin (2003) reason to differentiate two groups of images belonging to different periods. The first, earlier period is represented on the stones located right near the water's edge, and some of the images are even hidden under the water for part of the year. They are characterized by a rough pecking and a naturalistic manner of depicting animals. Besides the profile figures of deer, there are schematic anthropomorphic figures full-face. The closest analogy for these images can be found among the petroglyphs of Karelia. Based on archaeological and geological data, they were dated to the final Neolithic period – the end of the 3rd millennium BC. The discovery of the first rock art on the Kola peninsula included this region in the zone of the hunting tradition of Fennoskandia. The later carvings are located a little higher up, and may belong to the 2nd–1st millennium BC. In this group there are deer, anthropomorphic and fantastic characters, solar signs, and cup marks. They are characterized by complicated compositions of figures and their intensive concentration in a single panel. Shumkin (2003) believes that this original group was under the constant influence of the petroglyphic tradition (cup marks, wheels/circles) of the Scandinavian agricultural south, and also demonstrates a similarity with the north Norwegian petroglyphs of Alta. Other images of a dog, deer and 2 anthropomorphs close to the Ponoi petroglyphs are considered to be late works, probably engraved by Saams 200-300 years ago.

Vladimir Shumkin (2000b, 2003) published his observations on the rock art site known as "The Gallery", that was revealed in 1985 on the Rybachii peninsula, on



Fig. 8.14. Localisation of petroglyphs on the subhorizontal outcrops on the banks of lakes and rivers, is a typical feature of the Russian Northwest. The Umba Rriver petroglyphs on the Kola peninsula are a newly discovered rock art location (by V. Terebenin).

the right bank of the Pyaiva river, 1.5 km from its exit into the Barents Sea. He divided the paintings and engravings into two chronological groups. The first, earliest art belongs to the Mesolithic (8000 years ago) and includes geometric figures and linear images of deer done in red ochre, while geometric engravings are located on the upper, differently orientated blocks; they were created by metal tools and are dated no earlier than the 1st millennium BC. In 1986, not far away, on the left bank of the Maika river, in a cave opening, paintings were found, consisting of two anthropomorphic and one zoomorphic figures, supposedly created at the turn of the 2nd–1st millennia BC.

In 1997, the first images were found in the southern part of Kola on the Kan Lake, which is the expansion of the Umba Rriver, 40 km from its confluence with the White Sea. V. Shumkin and his team commenced documentation of the petroglyphs of this large complex in 1998, work that is still continuing. It resulted in the discovery of 19 groups, including more than 800 carvings, located on three islands, and one coastal stone remains in the area of where the Muna Rriver flows into the lake. New groups

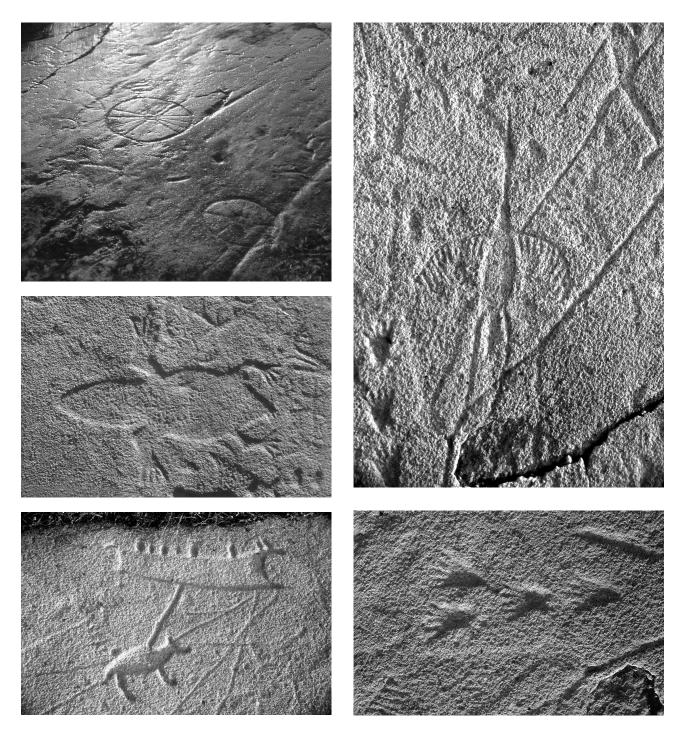


Fig. 8.15. The Umba river petroglyphs, one of the new rock art locations recently discovered on the Kola peninsula (by V. Terebenin).

are still being discovered here (http://kae.rekvizit.ru). Observations of their vertical and horizontal localization gave Shumkin (2003) the grounds for separating the art into five consecutive periods, from the Neolithic to the Saam Middle Ages, each with its own technical and stylistic characteristics. This could be a sacred centre, that

functioned, perhaps intermittently, for more than 5000 years. The images that stand out are those of whales, a crane, a beaver, a winter bear hunting scene, and wheels/circles (Fig. 8.15).

The petroglyphs of Lake Onega were discovered by K. Greving in 1848 (more than 80 images on the Peri Nos

and Besov Nos). The first scientific recording of the 412 images was made by G. Haltrem in 1910, 1914, and in the 1920s–1930s. The more than 700 Onega petroglyphs were recorded by A. Linevskii and V. I. Ravdonikas (Ravdonikas 1936). An important contribution to the discovery of new petroglyphs and their scientific research was also made by Yu. A. Savvateev (1967, 1970, 1983, 1990) and N. A. Lobanova (2005). The 2004 data show that on the east coast of Lake Onega, there are 1239 rock images recorded in 9 main groups. They are located on the sloping banks from the right bank of the Chernaya Rriver to the Vodla River, about 20–25 km in length, and on the coastal islands. Petroglyphs are concentrated mainly in the river mouths flowing into Lake Onega, and in the area of Besov Nos, where there are more than 40 sites, and graves are also found. The most important recent discovery was in the mouth of the Vodla Rriver, which was possible thanks to the research of the Estonian Society of Prehistoric Art (chairman Väino Poikalainen) and was quite recently published in every detail (Fig. 8.16) (Poikalainen 1997, 2004, 2005; Poikalainen and Ernits 1998; Ernits and Poikalainen 2003; Aurinkopeura 2004). There are two locations that make up this group in the mouth of the Vodla, and also a site on the Bol'shoi Golets island: the group of Besov Nos, with 19 known locations including Karetskii Nos (1), Peri Nos (7), Besov Nos (3), Kladovets (4), Gajyi Nos (1); and also the islands of the Bol'shoi and Malyi Gurii (3).

On Lake Onega, at Peri Nos 6, a separate block with a contour image of an elk was found in 2004. It is presumed that it was detached from the core rock and thrown out on the shore by ice. Blocks with images like this may be quite numerous at the bottom of the lake along the shoreline (Lobanova, personal communication). This may be supported by the fact that Savvateev's expedition in 1972–1973 carried out underwater exploration near all the capes with rock art, and revealed 14 petroglyphs in the depths from 3 to 6 metres. Some of them were traced on transparent film.

Among the typical Onega petroglyphs are figures of waterfowl, animals (elk and deer), solar signs, fishing and hunting scenes, and erotic scenes. A form of personification of the Onega petroglyphs is a large anthropomorphic figure of a so-called demon, surrounded by figures of burbot (sheatfish) and an otter (lizard), which were probably the centre of an ancient sanctuary. The sizes of the petroglyphs differ greatly. Most of them are not more than 25 cm, the largest are the images of a swan on the Swan Cape (Vodla River) -4.1 m – and the figure of the Besov Nos Demon -2.4 m.

In terms of chronology, the Onega petroglyphs were believed to be correlated with the comb ceramics archeological culture, dated to between 6400 and 5000 years BC, or the pit-rhomb archeological culture (5000–4000 BC). It is believed that they can be dated to the period of 5500–4000 years. The termination of the rock-art tradition was no later than the mid 3rd millennium BC.

Different projects are being discussed for the protection

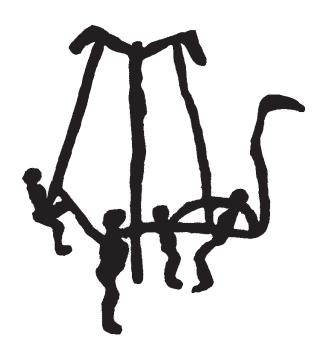


Fig. 8.16. A unique rock art motif from the Vodla River estuary, Lake Onega (from Poikalainen).

and management of the Onega petroglyphs, such as the possibility of organizing a historical-cultural park on in this territory based on the similar projects in Scandinavian countries, preservation as a particular protected natural territory status, and the creation of a national park museum. The petroglyphs suffer from vandalism such as the appearance of new figures, renewal, graffiti, and fires that destroy the upper surface of the stone. In 2002, the Onega petroglyphs were included on the list (The World Monuments Fund list) of 100 world-famous monuments under threat of destruction (Shumkin 2000a; Gusev *et al.* 2005).

The petroglyphs of the White Sea form another massive concentration of rock art in 12 locations in an area about 2 km long, about 6–8 km from the mouth of the Vyg river. Thanks to the work of A. M. Linevsky, V. I. Ravdonikas (1938), and Y. A. Savvateev (1970, 1983, 1990) in the 1930s–1980s, about 2100 individual images were found, many of which are organized in complicated compositions. The main concentrations are located on the Bolshoi Malinin island (Staraya and Novaya Zalavruga), Shoirukshin island (southern and northern groups of the Besovy Sledki), Yerpin Pudas and on a group of unnamed islands.

When the Vygostrovskaya hydro-electric power-station was constructed in the 1950s–1960s, the river-bed was practically drained, which materially changed the landscape, and the "islands" became quite accessible. The southern group of Besovy Sledki was covered up because of the dam building. In order to avoid the destruction of Besovy

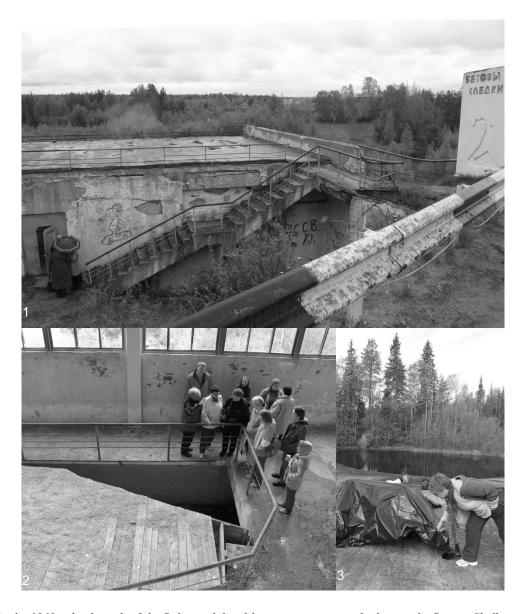


Fig. 8.17. In the 1960s, this branch of the Belomorsk local history museum was built over the Besovy Sledki rock art site to protect it from a dam. Now the building itself is collapsing (1). In 1999, this surface with rock art was covered with sawdust, a thick fabric and duckboards (2). New discoveries in the area, such as this, were made thanks to the new approach for recording rock art, revealing under light-proof film in a slanting light (3).

sledki (the northern concentration on Shoirukshin island), a concrete construction – a branch of the Belomorskii local history museum – was built above it, but this is now closed due to collapse. In the autumn of 1999, the museum administration covered the decorated surface with a layer of sawdust, a thick fabric and duckboards, which in their opinion should help to preserve the petroglyphs (Fig. 8.17.1–2). Unfortunately, the consequences for the state of the rock were unknown: in 2005 a small part was temporarily uncovered and contamination with fungus was detected (Lobanova, *personal communication*).

In 2001 and 2004, petroglyph studies recommenced

under the supervision of Nadejda Lobanova (2005), yielding some excellent results: new groups of engravings were discovered on the unnamed islands in the drained river-bed of the Vyg. Among 40 new images, boats predominate. The petroglyphs are somewhat hard to see because of erosion, but the technique of searching under a black film has provided an opportunity to see them. This method was borrowed from Norwegian colleagues who enthusiastically collaborated with the Karelian archaeologists in the same project of preserving the petroglyphs of Karelia in 1988–2002. Interesting views were expressed relating to the functioning of the White sea petroglyphs complex

(Gjerde 2005). Lifting up the edge of the light-proof film, the researcher can see under it in slanting beams of light the contours of even badly eroded images (Fig. 8.17.3). This method of searching also gave sensational results in 2005 during research at the world-famous site of Staraya Zalavruga. The images so discovered completely changed notions about relative chronology, and stylistic change. The total number of petroglyphs revealed came close to 2500 (compared with the 2100 identified previously) but it is the subject of further review.

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