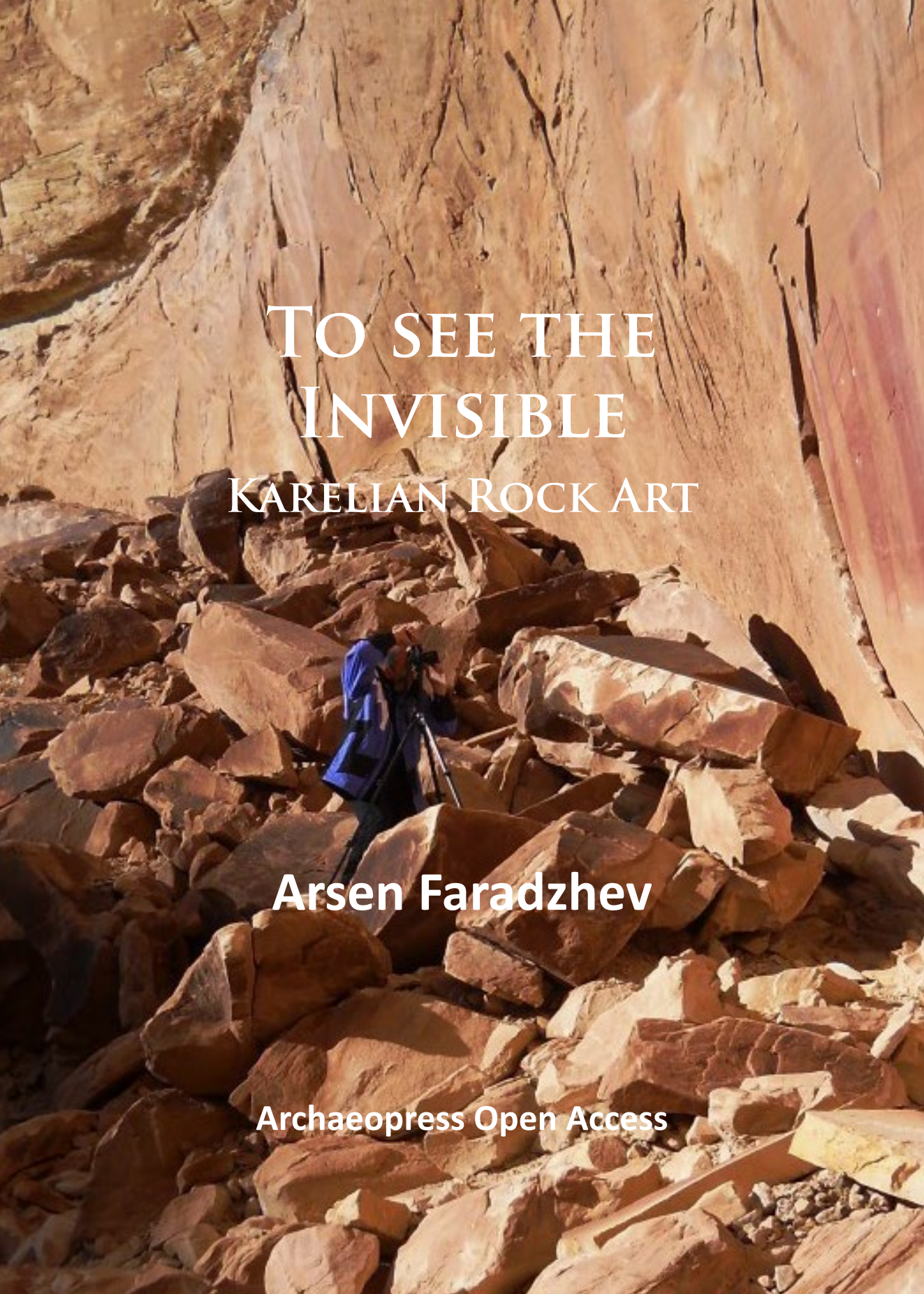

To see the Invisible

Karelian Rock Art

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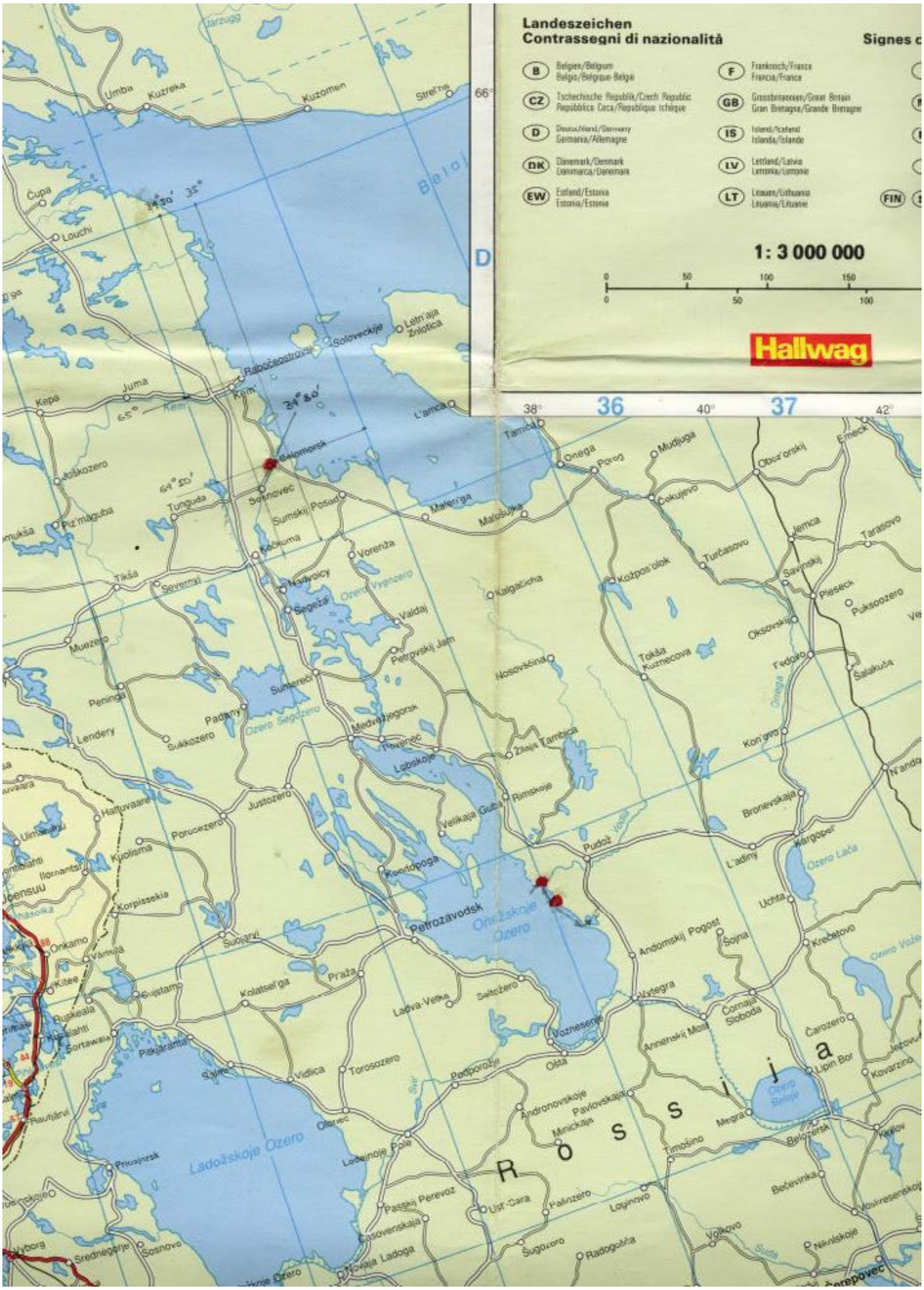
Contents

The Author in the Field

Abstract

This contribution considers 25 years of discovery of the possible origins and development of the Rock Art Tradition to create Karelian Rock Art images under the open sky through the analysis of different type of intercessions into the horizontal surface of granite rocks.

Karelian petroglyphs are located-at the eastern bank of the Onega Lake (Russia) and 300 km to the north, close to the southern bank of the White Sea. One of them, the 'New Zalavruga,' was discovered by the expedition of U.Savvateev under the Neolithic cultural layer and sterile sand layer in 1963-1968. This is a great and very rare opportunity to obtain direct dating of the end of the tradition to create Karelian Rock Art images around 5-6 ka ago. Therefore, the task was to find the 'Invisible' evidences of the tradition's origins and development similar to both regions via the different use of context.



Map of Karelian region

Introduction

It could be a quite suspicious feeling because of the intrigue in a title of this article. Everybody knows that it is impossible to see the Invisible. At the same time, I describe the physical evidences on thegneiss-granites landscape's surfaces available for everybody. It is possible to verify those evidences at any time, (except winter period) and to see the rock art images in its natural context, which allows seeing the most impressive part of the Invisible – the evidences of the **Prehistoric Ego**. It is possible to observe not only different levels of the prehistory's artists self-consciousness, but as well as several transition periods from one level to another (Faradzhev 1992a; 1992b; RAR 1993. Vol.10. N.2).

A history of discovery

Karelia is one of the most beautiful regions of Russia with pictorial forests and thousands of lakes. One of them is Onega Lake formed by Pleistocene glassier. At the middle of XIX century, in 1848, Konstantin Grevingk provided the scientific minerals investigation as an associate of the Mineralogical Museum of the Imperial Academy of Sciences. One day Grevingk discovered the rock engravings on the eastern granite shoe of Onega Lake. In the same year, local school teacher, Paul Shwed, made his discovery of the same petroglyphs at the same place named Besov Nos ('the Devil's Nose') (Fig.1).

The first new discoveries were followed-by a discovery 300 km to the north near the southern bank of the White Sea by Soviet scientist Alexander Lynevsky. In 1926, one of the local fishermen, Alexander Matrosov, showed Lynevsky the rock engravings at the middle of the low reaches of the Byg river steam. This site became known later as Besovy Sledky ('the Devil's tracks') (Fig.2). Ten years later, in 1935, the same local fisherman showed another soviet scientist, Vladislav Ravdonikas, another group of rock engravings 2 km away from the Besovy Sledky on the island in the steam of the same Byg river known as Zalavruga in the direction of the White Sea. This site is famous as a Central rock of Zalavruga (Fig.3).

Lynevsky and Ravdonikas became enemies very soon because of the different interpretation of one type of the Karelian symbol - abstract rock art engravings (Fig.4). Lynevsky insisted that it is an image of the trap and Ravdonikas insisted that it is a solar-lunar image. The whole Soviet archaeological association was divided in to two parts. One part supported Lynevsky's opinion and another – Ravdonikas' point of view.

In 1963, the expedition of Yuri Savvateev from Petrozavodsk started excavations in the basin of Zalavruga Island. One day the members of the expedition discovered new groups of the petroglyphs under the Neolithic cultural layer of a settlement and sterile sand layer. Tradition to engrave petroglyphs on the rocks was lost for the Neolithic people. It was a very rare opportunity to obtain **direct** dating of the end of the tradition that created Karelian Rock Art images around 5-6 ka ago. The expedition of Savvateev discovered 26

new groups with 1176 engraved figures that were close to the Central rock of Zalavruga's Island petroglyphs during the five field seasons. This was named the New Zalavruga. These discoveries were extremely important. For the very first, time some of the rock art groups provided easy understandable stories (Savvateev 1970:199) (Fig.5).

Conceptual world of the hunters in Holocene

The Karelian region's ecology was restored after the last of the several Pleistocene glaciers withdrew. Researchers count at least ten climatic oscillations during the Holocene period from 11 ka to 2 ka. The human occupation occurred against a background of dynamic processes in Holocene nature. However, the natural environment could be inhabited by various animal species before the human's arrival. One of the passages of the river Byg would have been an important access point near the small island named Zalavruga close to the Belomorsk city near the southern bank of the White Sea. This passage is between two neighboring islands at the southwestern corner of the 'Central rock'. The channel becomes wider after this point, strewn with many granite boulders (Savvateyev 1977:196).

In contrast to this, 'the natural crossing is smooth, among what looks like rapids with small cascades before the river's diversion' (Ravdonikas 1938:3). The reindeers would have been followed by the early Holocene hunters. They would have been familiar with such natural river crossings. The art of tracking was a decisive skill in their lives. Contemporary evidence of the power of observation and the visual memory of hunters is illuminating.

For example, experienced hunters of the native Siberian Evenks and Yakuts tribes can easy identify from the snow tracks of a fox, not only its sex, but also color, discerning by signs known only to them. They could even distinguish between the manner of behavior (narysk) of the valuable silver fox and the common red fox (Formozov 1989:5). The everyday observations of dozens of generations, over thousands of years, of a changing environment inevitably created a specific system of perception, 'perception, which rises to the level of deliberate observation, is an act of will' (Rubinshtein 1989).

The instability of climatic conditions begins in Karelia region from the middle of the Atlantic period (6,5-6,3 ka) which, according to A. Deviatova, 'escalated in the middle of the Sub-Boreal' (5-3,5 ka). These included changes in the prevalent wind directions, and it may have lost their significance for reindeer. At the same time, it would have had a profound effect on the hunters, and on their visual perceptions. All the natural and unusual features on thegneiss-granites landscape's surfaces could be examined and interpreted long before the creation of the very first petroglyph of Zalavruga site.

About perception

The durability of 'tracks on stone' allowed the development of local conceptions over generations, providing prehistoric imagination a lot of 'affordances', if 'an affordance is an invariant combination of variables, and one might guess that it is easier to perceive such an invariant unit than it is to perceive all the variables separately' (Gibson 1979: 134-5). This is the basis of the hypothesis of ecological optics: 'The hypothesis of information in ambient light to specify affordances is the culmination of ecological optics. The notion of invariants that are related at one extreme to the motives and needs of an observer and at the other extreme to the substances and surfaces of a world provides a new approach to psychology (Gibson 1979: 143).

Experienced rock art researchers are well aware of the significance illumination plays, for example at different times of the day. Ravdonikas mentions 'not a few cases of visual loss of rock depictions with very smooth relief' (Ravdonikas 1936: 29). It is possible to distinguish in ecological optics the invariants of illumination and invariants of observation points. The prehistoric observers were surprised to see, having witnessed innumerable combinations of these invariants, 'tracks on stone' vanish, e.g. at noon with the sun in its zenith.

Such visual perception was called 'direct' by Gibson (Gibson 1979: 143): 'Direct perception is the activity of getting information from the ambient array of light. In indirect or mediated perception, the observer experiences visual impressions 'at second hand' (Gibson 1979: 42). He allows direct visual perception to interact with artificial images containing already visual images emerging at Zalavruga represent attempts to utilize the existing diverse irregularities of the rock relief.

Concrete creativity

The rock engravings of the Onega Lake and the White Sea are executed on the flat granite surfaces formed horizontally by the volcanic effusive eruption. The petroglyphs of the central rock at Zalavruga have been described as the result of 'figurative activity of a series of generations' (Stoliar 1977:32) in Neolithic (Formozov 1989:126). Nevertheless, it is easy to see, that all natural rock markings of the pre-figurative period were under the visual analysis of hunters as well (Fig.6).However, it was a big difference in between the physical and visual events on the rock surface. The physical stability of different natural 'tracks on stone', as glacial striate increase in density to dozens of parallel hollows or feldspar intrusions, they are not identical to the visual stability, since the changes of visual impression are 'caused by a moving point of observation, and the changes caused by a moving source of illumination, usually the sun' (Gibson 1979:87).

The very first artificial visual images could emerge as the attempts to utilize the existing diverse irregularities of the natural rock surface's micro relief. The connection between

the reindeer image No.127 more than 3 m long from the nose to the tale and the local place of the rock surface is the most intensive in between all engravings in both regions of Karelia. At the same time, from the moment when the natural rock markings have been interpreted ones by creating an engraved image of reindeer No.127 from them, right up to the present time, the ichnographically defined image subdues all alternative perception of this part of the rock (Fig.7). Since that moment, all observers have touse their direct perception of the rock surface to be prompted into seeing the created image. Mediated perception dominates direct perception and as a result we have, according to Ravdonikas 'only integral, sometimes extremely strong artistic impression' (Ravdonikas 1938:22).

The diverse irregularities as a part of the natural rock surface micro relief, which is possible to touch as physical objects blocks the invariants of lighting and point of view. The first of concrete creativity engraving is a kind of an inhibitor of all further possible physical invariants on the rock surface. Instead of natural irregularities on the surface appear new intermediate image. However 'this is not a new environment – and artificial environment distinct from the natural environment – but the same old environment modified by man' (Gibson 1979:130).

Transition from concrete to visual creativity

For the concrete creativity someone need to touch physical stone tracks first. As well as, to see how those natural tracks looks like. For the visual creativity, the most important process is to be able to observe the local part of natural surroundings. Transition from one to another is combining different parts of both creativities. The study of boat petroglyphs at Zalavruga showed that both glacial striations and their parallel occurrence were utilized in the production of these images. The artists tried to solve complicated creative tasks: the local possibility is taken into account together with the glacial striate of the upper section of the Central rock. However, the petroglyphs of the second and third boats in the row were created against the direction of the striate, and the last two boats were created one over the other, and hence, are orientated on two planes across a watershed boundary in the Central rock topography.

The Central rock top was extremely important for the prehistorical artists for some reason. The giant image of the dear #128 was engraved – firstly to connect with read colour intrusion as a sex symbol and secondly – in order to dominate over the three long images of the boats ##130, 131 and 133. This is a quiet unusual case of palimpsests in rock art of Zalavruga (Fig.7a) and well known for the Nӧmforsen in Norway (Sapwell **?** I don't know the year of this publication).

There is no apparent connection between the deer petroglyphs of the 'southern row' and the rock relief. The prehistoric artists seem to have taken into account the visual aspect – the southern limit of the pronounced edge of the Central rock, which is 15 m. long.

The referenced visual point seems to have been the water level in the channel, for the 'western row' 18 m. long, as already mentioned by Abram Stoliar (Stoliar 1977:33). The important factor in the positioning of both rows of petroglyphs is that they are orientated towards the natural river crossing at Zalavruga, from one island to another, (i.e., towards the southwestern corner of the Central rock) (Faradzhev 1992b).

Visual creativity

The best way to show example of the visual creativity is to make a computer model. I took away all petroglyphs on the rock of Besovy Sledky ('the Devil's tracks') (Fig.2). The only images I left were the engravings of the human tracks (Fig.8). Now it is clear that the task was to artificially combine and, so to say, 'cover' the whole surface of this single rock by the same image.

Some of the New Zalavruga groups of petroglyphs, No: VIII, XXVI, as well as No: X to XV, extended along the right hand shore of the river Byg for a distance of 80 m. Modern and prehistoric observers could not see all of them at once. They could only remember the iconic contents of different groups. All these petroglyphs occupy only naturally polished parts of the rock surfaces of the riverbed. However, there is another natural phenomenon that has had a similar effect of prompting the responses of artists – it is the feldspar intrusions. On the upper part of the Central rock at Zalavruga, the intrusions are of potassium feldspars-orthoclase and microcline, the two being hardly distinguishable (Milovski 1969). Both minerals exhibit the glassy reflection that is the result of their pronounced crystals and perfect cleavage, as implied by their names: orthoclase splits directly, microcline slightly inclined. Both minerals have mirror-like cleavage faces. This fact that has greatly assisted Robert Bednarik in testing his micro erosion dating method (Bednarik 1992a, 1992b) at Besov Nos on the bank of Onega Lake.

When observing the reflection of sunlight from a wet rock surface, an impressive spectacle can be seen: thousands of icy sparks seem to flicker on the surface (Fig.9). Sometimes those deceptive sparks align as shining beams along the glacial striations. The slightest move of the observer displaces the sunlit patch of rock, shifting the flickering lights on the wet granite surface. The feldspar intrusions stand out because of the moisture, bringing to mind the proposed solar cults of early cultures (Okladnikov 1964).The application of artificial sources of light on the wet rock surface at nighttime may be even more effective with the moving flare lights. Here the creative abstraction seems to be more advanced.

Transition from visual to abstract creativity

Petroglyphs have been created on glossy surfaces in much of Karelia and Scandinavia (Helskog 1985, Sognnes 1988, Hugen&Bengtsson 2000). There are surfaces on granite-gneisses, which were not eroded by Pleistocene glaciers. The giant ice masses, more than 2 km tall, only pressed on them, are affecting complex physical-chemical processes on the rock surface. Glossy surfaces on rock are often not related to the composition of the support rock, but are attributable to other sources. On Zalavruga's Central rock, an area of surfaceglossoccurs on its northeastern slope with the different type of small engravings (Fig.3) similar to the engravings of the New Zalavruga groups. What is very important to mention, that glossy surface gave new possibilities for the rock art creators. They were able to engrave as very small images, less than one centimeter, as well as abstract ones, without any sense.

Abstract creativity

Abstract creativity corresponds to the greatest imaginative potential. Evidence of such creativity can be illustrated with some of the petroglyphs in Group No.4. The close interrelationship between petroglyphs and their placement on the rock relief can be readily appreciated in the field. Savvateyev mentions this in connection with one of the well-known scenes involving ski tracks. It is the hunting scene of three hunters tracking three elk. The local micro relief acts as a miniature landscape, a replication of a natural environment that is clearly a part of the composition (Fig.10).

This composition starts from the engravings of walking, then it changing for the skiing, then walking again, then long images of skiing and after all, back to the walking (Savvateev 1970; Janik 2007).

Such creations are at the level of recording information in accordance with the 'Frazeogram' category of pictography (Gelb 1952; Istrin 1965:30-9). Looking at such a depiction of a hunt, the modern observer appears to be a giant who surveys the created scene from some height. The prehistoric artist may have considered himself or herself as a similar giant during the creation of the figures, presiding over the surface and interpreting its relief. A glossy surface provided the opportunity to depict an elk hunt on the thin crust of ice over snow. It is appropriate to recall the observation that 'a successful artistic solution is so compelling that it looks like the only possible realization of the subject' (Arnheim 1954:116).

At the same time, the glossy surface provided another opportunity. It is very convenient to depict whatever artists wanted to engrave – as well as small single abstract images (Fig.4).

Conclusion

All rock art images are unique historical sources and belong to the History of Fine Art. At the same time, what Fine Art is doing? Art is using something very simple to create something very complicated and powerful. Art images are stronger than death and, more than this, they are stronger than even time. Images are timeless, they are always modern. From the other hand, what science is doing? Science is doing opposite. It takes something very complicate and 'makes' it very simple. However, science is not simple. The outstanding English astrologer Dr. Stephen Hawking use to say: 'The greatest enemy of knowledge is not ignorance; it is the illusion of knowledge'.

This article has considered some aspects of the correlation of the prehistoric ego with the micro relief of the rock surfaces as a part of the natural environment. They are available physically at the rock art sites of the White Sea as well as at the rock art sites of the Onega Lake 300 km to the south. The evidences of described correlation could be check at any time. Three levels of creativity and transition periods from one to another are proposed to define the described rock art engravings: '***concrete***', 'visual', and 'abstract'. They emerge from the study of the petroglyphs them self. Concrete creativity corresponds to tangible, as the most sensitive for humans, aspects of the subject. Prehistoric creative imagination is directed towards real subjects. The relief and topographic peculiarities of a rock surface prompt production of the rock art, and they become constituent parts of it. The process may be one of 'combining the facts', or of accentuating natural traits (Rubinshtein 1989:358), for instance, an eye-like diamond-shaped hole – artificially enlarged part of the natural crack on the surface of the Central rock. The same type of concrete creativity is available to see and check with the large engravings at Onega Lake: Besov Nose and Kochkov Navolok.

'***Visual***' creativity corresponds to possibilities of direct perception according to James Gibson (1979). It is revealed in the interconnection of local natural environment situation with the limited sections of glossy surface. Visual creative orientation corresponds to a level of an actually existing shore of the Byg River along the Zalavruga and Besovy Sledky near the White Sea, as well as at the several sites on Onega Lake.

'**Abstract**' creativity corresponds to self-consciousness of the creators, which exceeds substantially in its own thoughts or, better to say, imagination what exists in the surrounding nature. Topographic and micro relief peculiarities of rock surfaces are auxiliary elements of visual artificial images. They are capable for the rock art creators of attaining various significances: for example, in the depiction of an elk hunt on a thin crust of ice over snow. The unlimited section of glossy surface was naturally prepared for such scene. Nevertheless, after several meters to the east the same glossy surface of the granites was very useful for the 'abstract' creativity to depict the scene of the hunt for the whale from a sailboat (Fig.9).

In each case, the modern researcher's direct perception conflicts with indirect or mediated visual impressions. The simultaneousness of these rock art forms, even though they occur

in a single location, on one technique, as percussion petroglyphs, is extremely doubtful. One feels compelled to look forward in fascination as the exciting study of rock art, so deceptively simple as it is unfolds.

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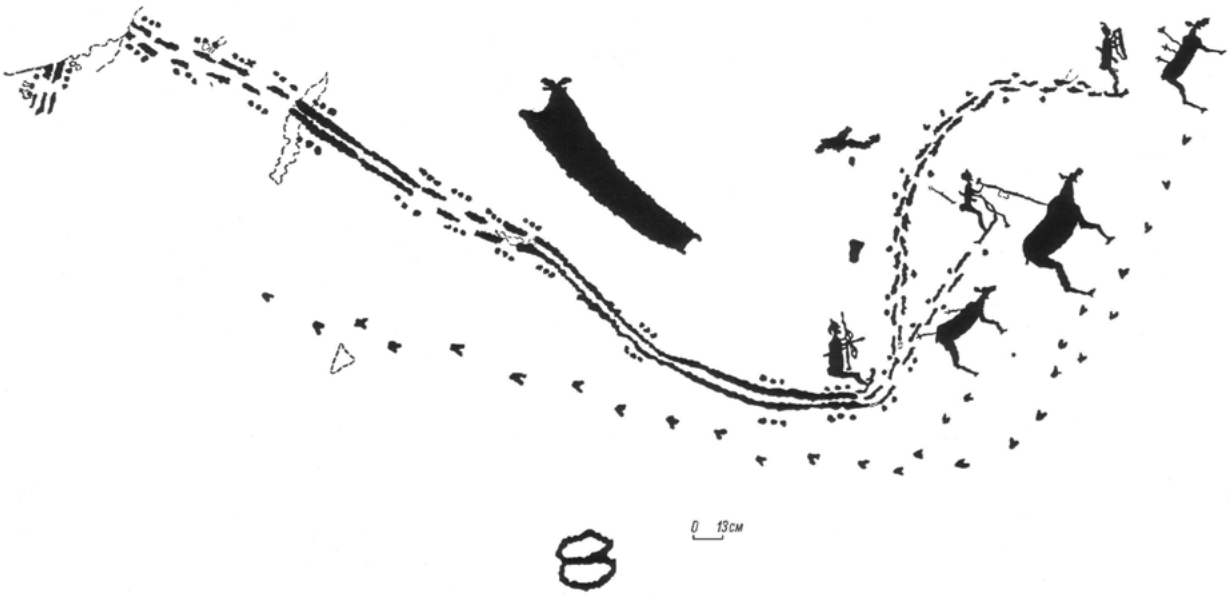

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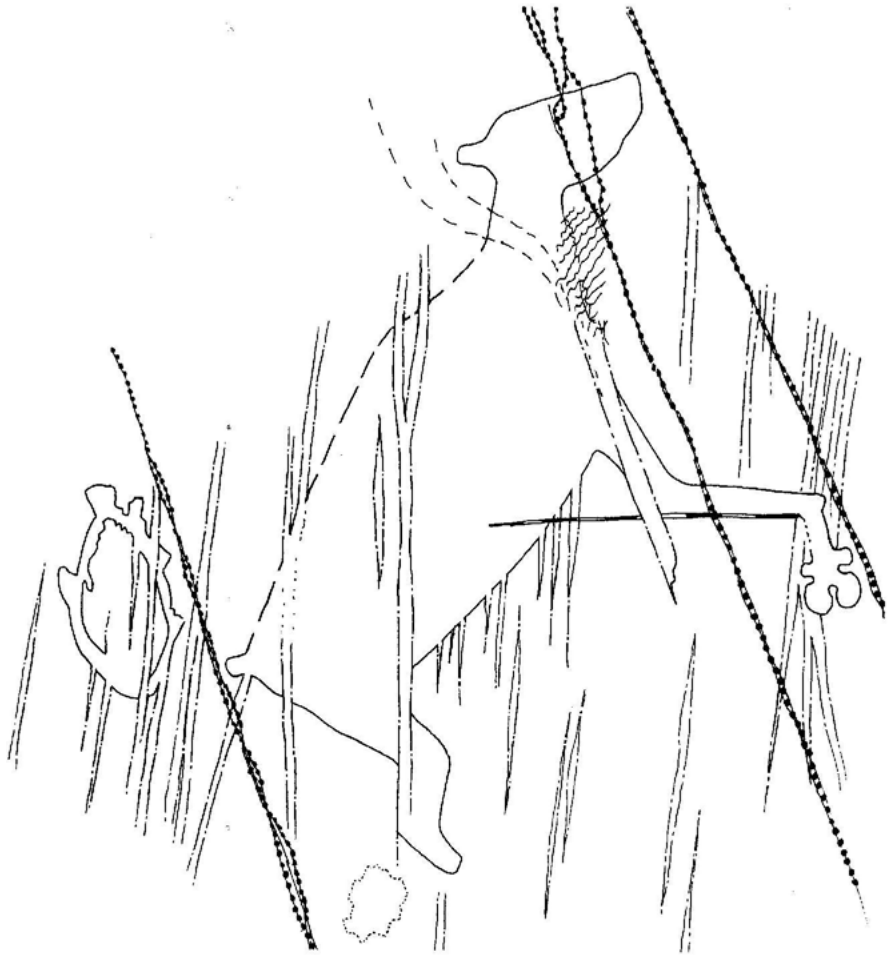

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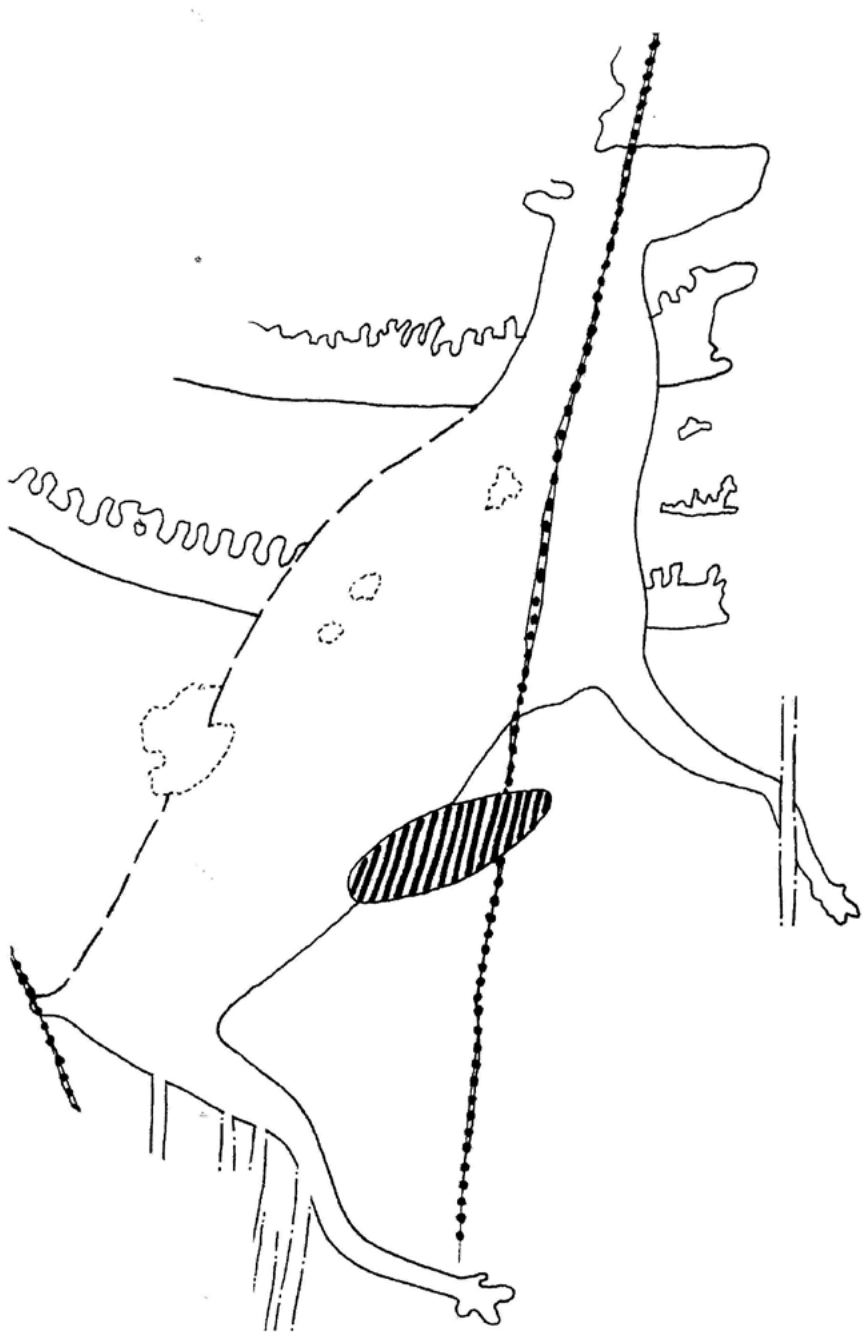

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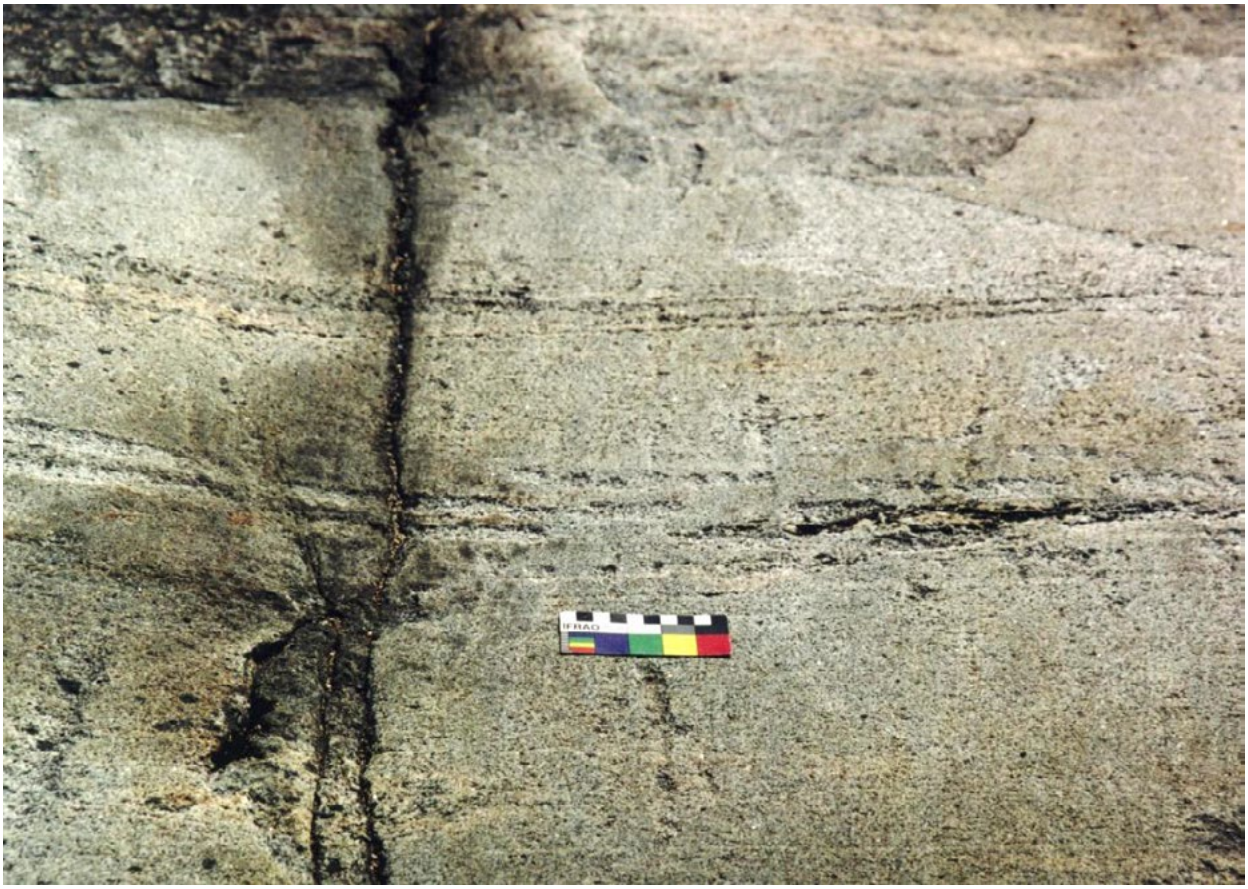

Figure 10