

Exaggeration is the message

Sometimes in rock art there are patterns that can be interpreted as a message or as emphasizing a certain activity. This article focuses on one such petroglyph in the Republic of Karelia in Russia. It was engraved 6,700 years ago on the shore of Vyg River, which flows into the White Sea.

The echo of whales in Karelian petroglyphs

I am lying on lichen-covered rock on the shore of the dried Vyg River. My fingers are probing the surface of the rock under the lichen. I am looking for the edge of a petroglyph. Why am I here of all places?

The simple answer is that my interest in ancient rock art has brought me here. I know that the Soviet researcher Vladislav Ravdonikas (1938) went to Vyg River in 1932 and made rubbing copies of several petroglyphs. The river flows to the White Sea near the town of Belomorsk, previously called Soroka. The petroglyphs are about 8 kilometers away from the mouth of the river. However, the most immediate reason for my trip is also related to whales and music.

I had set up a page focusing on whale conservation in the Internet Virtual Library in 1994. I called it Whale Watching Web. The following year I was contacted by the Vancouver musician and writer Jim Nollman (1999), with whom I started a correspondence about communication between humans and whales. Before getting to know Nollman, I had not heard of anyone using music to communicate with animals. Among other things, he founded the first underwater radio station in the world. It was situated in front of the state of Oregon and transmitted sound from the ocean to a live broadcast in a local radio station. He did notice that traveling gray whales keep fairly quiet.

In 1995, Nollman asked me "Do Finns have experience with communication between man and nature". My blunt answer was no, we do not. Yet, at the same time my hand was already seeking The Kalevala (1849) from my bookshelf. Nollman's question made me read through The Kalevala from this perspective. Poem 15 (1849), "The Death of Lemminkäinen" had a hit. It is about a close relationship between man and nature. Lemminkäinen was going to

Figure 1. North West Russia has three important petroglyph areas with several depicting beluga whales. 1= Lake Kanozero, 2= Vyg River and 3= Lake Kanozero



return to the form of his power animal. Was Lemminkäinen a member of an ancient whale clan?

In the poem, a raven arrives to tell the mother of Lemminkäinen that the game is over and a new round will not be coming.

*Ei ole miestä menneessä
eikä tuiki tullessa:
jo silt' on siika silmät syönyt,
hauki hartiat halainut.
Sie päästä merehen miestä,
työnnä Tuonelan jokehen!
Ehkä turskakasi tulisi,
valahaksi vahvistuisi.*

*"There is no man in one gone
in one come to grief: by now
whitefish have eaten his eyes
a pike has split his shoulders.
Let the man go in the sea
push him into Tuonela's river!
Perhaps he'll become a cod
do well as a whale".*

*Tuonela's river = The river of a Death
(Bosley, 1989)*

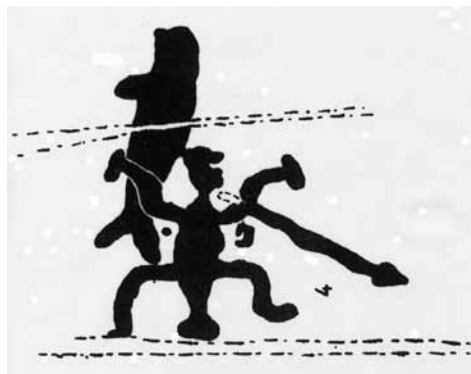
Nollman was inspired by my reply and through Finno-Ugric folklore we arrived at my hobby, rock art. There are two known petroglyph areas in the Republic of Karelia. In 1848, the professor of geology in Tartu University, Konstantin Grewink stopped at the village of Pudozh on the east bank of Lake Onega. Grewink was returning from a geological expedition to Kola Peninsula. Grewink examined the area and made a report to the Academy of Sciences in St. Petersburg. There are six pictures of beluga whales among the Lake Onega petroglyphs. I knew that whales in petroglyphs are most often depicted as prey. The pictures on the shores of Onega are therefore puzzling, because there has not been a beluga whale population in the lake since the end of the last glacial period. Yet, the species of the cetacean in the petroglyphs was easily recognizable.

Another area with petroglyphs was found in 1926, when the archaeologist Linnovsky found engravings in the rock shores of Vyg River. The studies were continued by the archaeologist Ravdonikas, who published a book about the subject partly written in French. This book was among those that a teacher from the Finnish city of Varkaus, Eero Autio, found while studying rock art on his own. He went so far as to learn Russian just to be able to read original studies concerning Karelian findings.

In a book by Autio, The petroglyphs of Karelia (1981: 62), there is a poor quality copy of the picture that was to be the main focus of Nollman and myself. There is an engraving 80 cm high on the horizontal rock by the riverbed of Vyg. In the same composition there are both a beluga whale and an anthropomorphic figure, a hybrid of man and whale. The beluga has been depicted in a typical peeking position. It rises above the surface of the water leaning backwards. The whales typically swivel above the water and observe their surroundings. There is an oblong engraving coming from the mouth of the figure and there is no consensus of what it means. Ravdonikas, who was the first to record the shape, interpreted it as a

Figure 2. Ravdonikas (1938: 17) described the figure as follows:

...Figure schématique, représentant probablement un homme en face aux jambes largement écartées et les bras étendus. Entre les jambes se trouve une figure en forme de queue de poisson. Le bras gauche est traversé par une figuration de lance ou de javelot (?). Longueur de la figure humaine—0.36 m, longueur de l'arme—0.29 m...



spear and even drew a tip at its end (there is no tip in the actual petroglyph). On the other hand, he had used dotted lines to denote how the lines continue to the mouth of the figure.

Ravdonikas interprets the beluga whale as a fish and the oblong shape protruding from the mouth of the anthropomorphic figure as a spear.

I began thinking of the chronicle of Adam of Bremen and I proposed that the "spear" of Ravdonikas was an exaggerated tongue. How else could voice be represented in a petroglyph than with an exaggerated tongue? There are other examples of petroglyphs, where a message is conveyed through an exaggerated shape. The figure is holding ellipse-shaped objects. Nollman saw them as musical instruments. They reminded him of the instruments Australian aborigines used to mimic the so-called click-sounds of dolphins. Certain Australian tribes called dolphins by clacking together pieces of steelwood underwater and thus producing these click-sounds.

As I was sitting at the petroglyph and the rubbing copy and examining the anthropomorphic figure, I thought of the recently released volume 15 of Finnish Folk Poetry

Figure 3. Vyg River. A beluga whale at the surface of the sea and a human-whale hybrid. Rubbing: Jim Nollman. Photo: Rauno Lauhakangas, 2000.



(1997: 245), where I had read a poem transcribed by Lönnrot.

*Kolme koskea kovo,
kolme vuorta korkeinta,
kolme kuohua kosessa,
tuli kunki kuohun päällä,
mies kunni tulen eessä,
kappale valaskaloa
joka miehen vartalossa.*

*Three harsh rapids,
three highest mountains,
three waves in the rapids,
a fire on every wave,
a man in front of every fire,
a piece of a whale
in the body of each man*

Why is there a whale in human form in the poem? Could it be connected with the message in the petroglyph?

The chronicle of Adam of Bremen

While studying the communication of dolphins and beluga whales I had come to the conclusion that where these cetaceans meet humans, communication happens between species. I asked my friend Ole Lindquist, if he had ran into evidence of this type of behavior when writing his PhD dissertation on the significance of whales to humankind (Lindquist 1994). Ole Lindquist had previously worked as scientific adviser for the International Whaling Commission. His reply to me was positive, but he did not remember where he had read about the subject. After a year of searching, he sent me a letter saying my hypothesis hit the bull's eye. The reference was found in the chronicle of Adam of Bremen. It was written around 1074 and consists of four volumes. The final volume is titled "The history of the northern islands". In chapter 31 of the book, Adam tells about pagans, who "live beyond the christian Norway. Every summer they arrive at the sea shore and sing joiks together with the great cetaceans" (... Tunc etiam potenti murmure verborum grandia cete maris in litora trahunt,...(Bremensis 1435, Capitulum 31). The Latin verb murmure

means a sound produced by a deep guttural voice. The text further explains that during the winter, the pagans stay in the high mountains in hellish living conditions. Apparently the description is about Sami people, who followed wild deer to the shores of the northern sea and hunted them.

Big cetaceans are connected to another northern story in a special way. In a bay called the White Sea in the Arctic Ocean there is a rugged island, where a monastery was founded in the 15th century. At the time of the founding of the monastery of Solovetsky, the White Sea was in its natural state. The impact of man was barely visible. There were beluga whales, orcas, seals, walruses and even polar bears. The petroglyphs carved on the coast of the White Sea depict such a time around 7,000 years ago.

Experimental archaeology

I continue to arrange experiments. This time I am traveling the road along the south coast of the White Sea, on my way to a Pomori village called Kolezhma. The Pomoris are a population, which arrived gradually to the coastal areas of the White Sea starting from around the 12th century. According to the chronicles of the Solovetsky monastery, Kolezhma was founded on around 1560. Five kilometers away in front of the village is an island called Myagostrov (Hill Island), which has a peak height of 52 meters from the surface of the water. The archipelago can be seen from the hill. Before this trip I had studied the area during the last four years and the previous summer I studied the area from the sea.

There are seven places in the White Sea, where beluga whales come to give birth and to procreate. In these places the whales behave in different ways depending on the shape of the archipelago and the seafloor. Myagostrov seemed like an appropriate location to recreate the situation of interspecies communication described by Adam of Bremen and the petroglyph at Vyg River.

A new member in our research group is David Rothenberg, who has contacted me

through Jim Nollman and asked to come along and try to make contact with beluga whales through music. This professor of music and philosophy from New Jersey has experience with playing music with birds (Rothenberg 2005). Rothenberg plays the flute, clarinet and saxophone. Can it be claimed that vocalizing has musical elements? Over the years, a hypothesis has formed about whales occasionally using their voice in the same way as humans. It can be singing or vocalizing for the joy of it.

The famous American dolphin researcher John Lilly and the Russian whale researcher Vsevolod Belkovich had both come to the conclusion that dolphins have a language for conveying messages. This conviction lead Lilly to try and teach English to dolphins in the 1950s (Lilly 1992). The results were not promising, even though the dol-

Figure 4. Adamus Bremensis, *Description insularum Aquilonis*. Copy from 1435. Kept in the Royal Library of Denmark. The description of joik singing is in row 9. On the same page, skiing Finns, "Scritefingi", are mentioned.



phins were able to repeat some words and even say "One, two, three".

According to Belkovich, there lives an alien intelligence in the White Sea and us humans have a final chance to try and communicate with this intelligence before we pollute the seas to the point they are unfit for life. The astronomer Carl Sagan launched a project to search for alien intelligence in radio frequencies coming from outside of our planet, but such an intelligence has been living as our neighbor the whole time.

We build our research station on the shore of Myagostrov. We place two underwater hydrophones connected to buoys 100 meters from the shore at an appropriate depth, taking into account the shifting of the tides. The hydrophones are connected to an amplifier, which allows us to follow the underwater soundscape. An underwater speaker is installed only five meters from the shore. The beluga whales are able to follow the playing of music from kilometers away. On the shore we set up an ordinary microphone, which captures the sound of Rothenberg playing his instruments and the speaker transmits it underwater. We have reserved two weeks for this experiment.

Rothenberg starts with his clarinet. Before this research trip he had been to the dolphinarium of Chicago, which houses beluga whales and experimented with different sound signals trying to figure out the responses of the whales. They seem to take the coaxing signals of Rothenberg and throwing them back in an approximately identical manner.

Researchers from the bioacoustic laboratory of the Shirshov Institute in Moscow are on the highest peak of Myagostrov, observing the social interaction of the beluga whales and our own activity. An hour after our first experiment, Alexander Agafonov runs down the hill and tell us that they noticed we established contact with the whales through music. Agafonov has recorded the musical grooving with his own



Figure 5. David Rothenberg plays the clarinet on the White Sea Myagostrov Island in 2006. Photo: Anna Koivisto.

high-quality hydrophone. He also mentions that he will send the recording to professor Vsevolod Belkovich in Moscow for a more detailed analysis. During a week, Rothenberg is able to develop evermore complex sound patterns with the whales.

With our experiment, the hypothesis regarding the 6,700 year-old petroglyph in the bank of Vyg River became plausible. The petroglyph has been our clue for over ten years. What happened 6,700 years ago? Whether the act of communication was unique or a regular event will remain a mystery.

*Rauno Lauhakangas
Helsinki Institute of Physics
P.O. Box 64
00014 University of Helsinki, Finland
rauno.lauhakangas@helsinki.fi*

Adoranten 2015

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