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## AN AMBER PENDANT FROM ASTUVANSALMI IN RISTIINA, FINLAND

### *Abstract*

The Astuvansalmi rock paintings in Ristiina, Finland, are situated on a steep overhanging rockface. Two prehistoric arrowheads have previously been found on the terrace in front of the paintings. These finds and the fact that fresh lake water preserves organic matter excellently encouraged to begin underwater excavations with a mammoth pump. In the summer of 1990 an amber object was found in the deepest part of the excavation site, furthest from the shore. Only one eighth of the planned area has been excavated. The most promising area of finds is in the shallower part facing the shore, which will be dug with an ejector pump in the summer 1991.

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A number of trial excavations have been carried out in Finland in connection with the study of rock paintings. Finds from such contexts are potentially useful in providing information on the age of the paintings. Geological dating is only an approximate method of determining the age of paintings, and it can be used only in large basins such as Lake Saimaa.

The two arrowheads dug out of the terrace in front of the rock paintings at Astuvansalmi in Ristiina, Southern Savo, fit the geological time scale, which was estimated as corresponding to the Stone Age and Bronze Age on the basis of the elevation of the paintings (Sarvas 1969; Saarnisto 1969). Near the rock paintings at Taipalsaari in Valkeasaari pottery was found which was mentioned in connection with the dating of the paintings (Late Stone Age or Bronze Age; Luho 1968 & 1971). In 1975 during the copying of the rock paintings at Ruominkapia, Lemi, an excavation was carried out without any results (Sarvas & Taavitsainen 1976). In addition, a trial excavation with no results was carried out in front of the Puumala Syrjäsalmi paintings (Taavitsainen, oral comm.).

Rock paintings are often located on steep overhanging rockfaces ending in the water. A natural question is, whether it is also possible to

investigate the immediate underwater surroundings of the paintings? Underwater archaeology provides excellent opportunities for this kind of work. An interesting fact is that almost all materials are usually preserved much better in water, or in oxygen-free substrata, than in dry soil. It is not out of the question that some artefacts could have been thrown into the water, on purpose or unintentionally, when the paintings were in use. The first attempt to investigate this possibility was made in front of the Kotojärvi paintings in Iitti. Pieces of elk bone were dug out from test pits in shallow water at a depth of one meter (Ojonen 1974). The first inspection dive was carried out in 1975 by a young student, Ignatius, in Astuvansalmi (Sarvas, oral comm.). The next attempt was made at Väräkallio in Lake Somerojärvi in Hossa, Suomussalmi, when sports divers from Oulu investigated the lake bottom under the direction and supervision of A. Kehusmaa and J.-P. Taavitsainen. Loose sand and litter were sifted out manually to a width of 5–6 m on the underwater rock terraces in front of the paintings. There were no prehistoric finds (Kehusmaa 1984).

The lake bottom in front of the Astuvansalmi rock paintings was explored again in 1985 by the Maritime Museum of Finland.

A visual survey showed that the only way of getting results was to carry out an underwater excavation by pumping the bottom terraces in front of the paintings.

In 1988 Savonlinna Provincial Museum/Saimaa Museum excavated the lake bottom in front of the paintings for one week. A 15 metre-wide area immediately in front of the paintings was chosen to be excavated. Since the the bottom was rocky and covered by a 2 metre-thick mud layer, we were able to dig only about 11 square meters at a depth of 4.5–6 m. The excavation ended without any results (Grönhagen 1988).

In the summer of 1990 the Savonlinna Provincial Museum continued to carry out excavations in Astuvansalmi (Grönhagen 1990). The underwater excavation took place from a ship which was anchored directly above the excavation site and a mammoth pump was used. The capacity of the low-pressure compressor was 280 l/min and the power unit was a 5 hp combustion engine. The compressor was placed on the shore rocks behind an insulating plate, from where the air was conducted by a 20 metre-long hose to the adjustable mixing valve of the mammoth pump which was anchored above the excavation site. The materials sucked up were sifted through a sieve fixed to the ship's bulwark. An aluminium box with a removable sieve was used as a receptacle. The mud collected was carried away in a discharge pipe until it was no longer directly above the site. Care was taken to ensure that underwater visibility remained satisfactory during the excavation. The mud was lifted in layers and fed into the 75 mm diameter mammoth pump. This had to be done with extreme caution as detritus mud very easily clouds the water. As the work proceeded there was a danger of falling stones and logs. During the mammoth pumping, the divers were fastened to a safety rope as a precautionary measure.

The efficiency of a mammoth pump decreases drastically at depths of 0–5 m. For this reason the excavation area was enlarged to cover depths of 5–9 m, where the pump's efficiency was rather good.

Any attempts to enlarge the new excavation site to lesser depths were doomed. At a depth of 4 m the mammoth pump's efficiency was so greatly reduced, that the only way was to go deeper.

There was a lot of substantial material such as conifers and pieces of wood in the bottom layers. Next to the hard bottom clay was a layer of gravel and silt covered with soft cloudy mud.

The clay was considered to be the bottom layer, but in some steeper places the clay layer seemed to have slipped down; it was softer with organic matter, e.g. conifers, under it.

The final size of the excavation site was 25 m<sup>2</sup>. During 37 hours of pumping nearly 30 m<sup>3</sup> of soil was evacuated and sifted. In the final stages the site was divided into two metre-squares and buoyed to facilitate underwater drawing and photography.

On the fourth day of excavation when pumping at a depth of 9 m a remarkable find was made. The inspection of the pump's sieve brought to light an almost intact drop-shaped amber pendant (NM 25771); with a human face depicted on its narrow side. The figure, called "the old man of Astuva" has clearly distinguishable eye-brows, as well as a nose, mouth and chin. A cylindrical hole in its neck was meant for band of a leather or vein (Fig. 1).

The dimensions of this luminous, light honey brown coloured amber pendant are 25 x 14 x 9 mm. On the surface can be seen minor defects caused by abrasion. A piece has broken off the nose fairly recently, probably during pumping. The amulet was worn around the neck in an upside down position, so the owner could easily admire its face.

Amber ornaments were imported into Finland during the Comb Ware period mainly from Eastern Prussia and the Baltics (Äyräpää 1945 & 1960). In Sarnate, Lithuania an amber jewellery "workshop" has been excavated (Vankina 1970). In Finland two amber figures are known; a pendant from Metsäpirtti in Koukunniemi, Karelia, and another from southwestern Finland, from Kukarkoski in Lieto (Torvinen 1978). Both have plain human features on their broad sides. In the Baltic region about ten amber figures are known (Indreko 1949; Klebs 1882; Loze 1975 & 1983). Unlike the other figures, the face of the Astuva pendant is carved on the narrow side in a remarkably refined style.

The results gained at Astuvansalmi encourage us to continue underwater excavations. In the future an ejector pump will be used for excavating at lesser depths. By a method wellknown to gold diggers water is pumped by a fire pump through a 50 mm-diameter hose and a throttle into a three-way valve hung on floats near the lake surface. A 100 mm diameter suction hose at an angle of 45 degrees is conducted to the lake bottom, and a discharge pipe is assembled on floats leading to a mud sieve. This method allows effective pumping even at depths of less than a metre. At the Astuvansalmi site the most

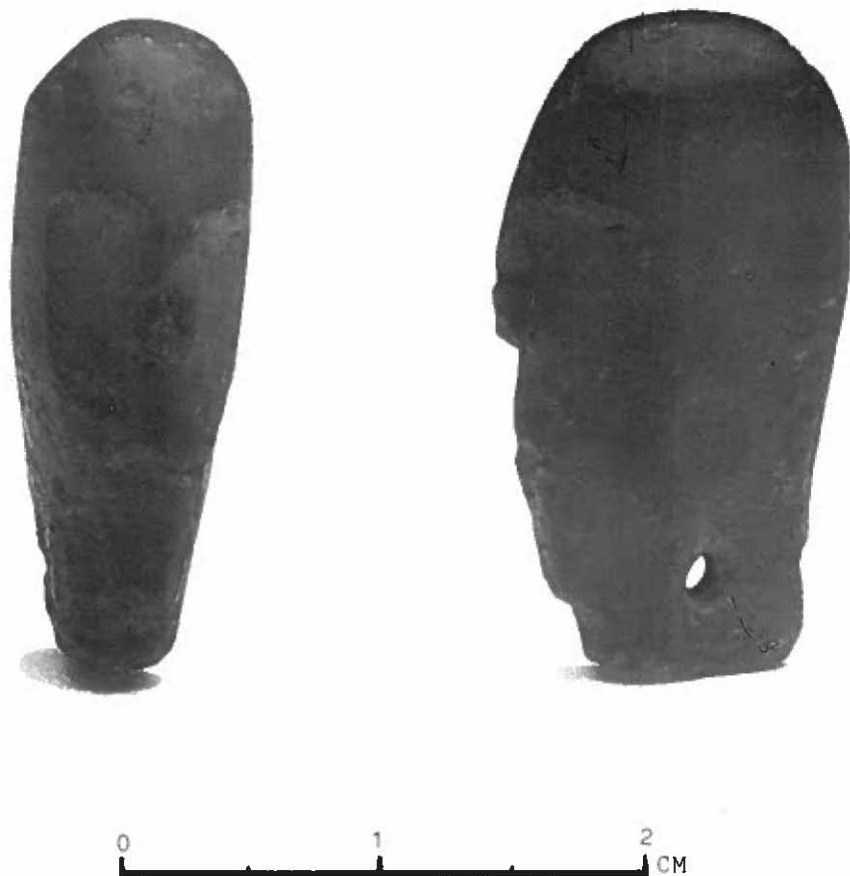


Fig. 1. The Astuva pendant. National Museum of Finland 25771. Photo Pekka Turtiainen.

promising areas for finds are immediately in front of the cliff at depths of 2–4 m.

By 1990 about 50 rock paintings had been found in Finland, fourteen of which are in the region of Southern Savo. Three new finds were made in 1990: at Hahlavuori in Hirvensalmi, Hirvilahti, at Partalansaari in Sulkava and at Haukilahti in Verijärvi, Mikkeli. So far there is no published material concerning them.

Many of the Finnish rock paintings are on steep rockfaces with antropomorphic features. They may have some connections with Lapp stone idols and other cult sites (Taavitsainen 1981). Such features can be distinguished on the rock profile of Astuvansalmi. Finally I would like to bring up a question for discussion: are

there any causal connections between the physical features of the rockface and the humanfaced amber figure – if so, what might they be?

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## ADDENDUM

Underwater excavations were continued 20.–30.5.1991. Bone, unidentified object of sand stone, a piece of amber and a second amber pendant with a human face were found.

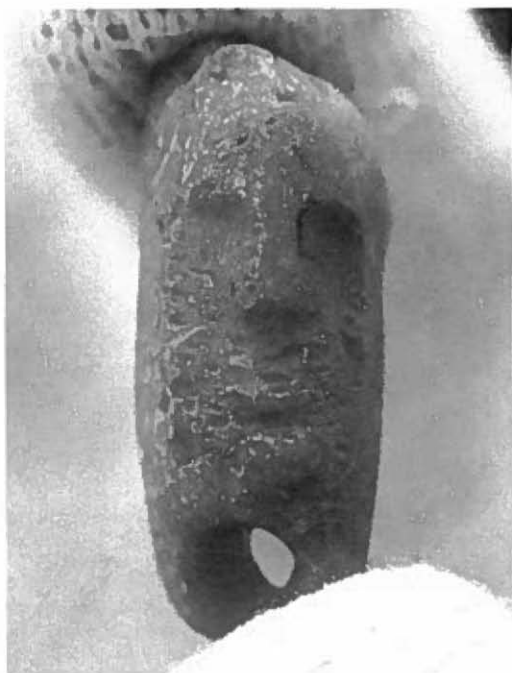


Fig. 2. The Astuva pendant found in 1991 (National Museum of Finland 26331). Dimensions 32×14×12 mm. Photo Juhani Grönhagen.