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Geoarchaeology and myth's interpretation – possible approach for understanding the past.

Introduction

Rising questions about a limit of archaeological interpretation, we always asking - how much truth does this interpretation have? It is very difficult to distinguish the limit between scientific “myths” and truth. We are so many years away of the past that all our interpretations stay only theories and it is impossible to see the world in the same way as it was perceived thousand years ago. Archaeologists should be aware of being subjective and universalise when interpreting archaeological artefacts. To reconstruct material culture is much more easier then spiritual one, therefore some scientists reconstruct prehistoric humans mentality how they would like it to be. Sometimes they digress from reality. Then, other ways of interpreting prehistory became important. One of these ways is geo-archaeology and myths interpretation. How deep times do myths reach and how we can interpret the past from them. Do exploration of myths and geological, geographical processes could help archaeologist to interpret artefacts? I would like to give some possible ways of reconstruction the past using geology and remains of myths, I aim to show how it could be connected with each other. Maybe that could help archaeologist to interpret founded artefacts, to look at them more in objective way or to fill the gaps and find the links.

Geology and myth's interpretation

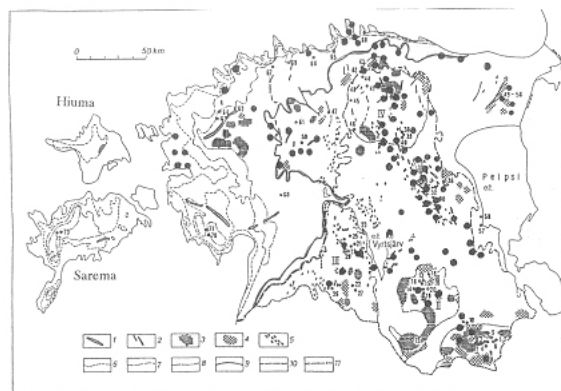
Environment in which prehistoric people lived, nature and all phenomena carried out that time very strongly affected them. Then, nature objects were gods, goddesses and environmental events were gods actions. Many natural geological events and processes were turned into gods, goddesses, mythological persons and their actions. In such myths people believed very strongly and they were passing from generation to generation and some of them even reached present times.

As an example of prehistoric people memory, preserved till modern times in myths I would like to give Estonian case with Kalevipoeg (the Son of Kalev). He is the legendary hero of the Estonian national epic. Among actions he undertook were a lot related with the geological objects he had created. They are so numerous, that even can be classified (Motuza G. Motuza V. 1999):

- Erratic boulders he moved or threw from place to place or put together making the bridges across the swamps;
- The hills of certain types as eskers, drumlins or kames, he made as his bed or pillow;
- Valleys he excavated and depressions he left as his footprints;

- Chains of moraine hills with random distribution of various land forms are explained as relicts of the battlefield, where Kalevipoeg fought against different enemies.

Mainly these are the reflection forms, which have been formed, in late glacial or postglacial period. All these objects related with the activity of Kalevipoeg are certainly localized and well known up to day by the local people (Siin-ja sealpool maanteed 1975-1982).



1 pav. Vietovardzių, susijusių su Kalevipoego veikla (pažymėta rutuliuokais), išsidėstymas pagal [3, 11]: 1 – galinės morenos ir kraštiniai ozai; 2 – radialiniai ozai; 3 – moreninės kalvos; 4 – keimų laukai; 5 – drumlinių laukai; 6 – Limnejos jūros riba; 7 – Litorinos jūros riba; 8 – Ancyliaus ežero riba; 9 – Baltijos ledyninio ežero BIII stadijos riba; 10 – Baltijos ledyninio ežero BI stadijos riba; 11 – aukštumų ribos.

Fig.1. Localisation of the places related with the Kalevipoeg (circles) [3, 11]. Other symbols: 1 - end moraine and marginal eskers; 2 - radial eskers; 3 - moraine topography; 4 - kame fields; 5 - drumlin fields; 6 - limit of the Limnea Sea; 7 - limit of the Litorina Sea; 8 - limit of the Ancylus Lake; 9 - limit of the Baltic Ice Lake BIII; 10 - limit of the Baltic Ice Lake BI; 11 - boundary of heights and uplands.

Fig. 1.

About 90 localities related with the activity of Kalevipoeg have been registered. Their position on the geological map of Estonia manifest very interesting regularity. Most (about 85-90 %) of such places are localized in the Eastern and Middle Estonia. The western limit of their distribution very well coincides with the former shoreline of the Baltic Ice Lake, particularly the phase BII when its level was the highest (fig. 1). The few localities, situated in western Estonia behind these limits are not so certainly related with Kalevipoeg. Boulders which Kalevipoeg threw from some another localities are most of the objects there.

The Baltic Ice Lake is the first stage in the history of the Baltic Sea. It existed between 12000 and 10690 BP. About this time first people - reindeer hunters came to this territory (Rimantienė 1995). Its level decreased suddenly, between 10690 and 10300 BP, then the water of the lake got access to the Ocean and its level dropped (Raukas 1997).

This regularity implies the presumption that legends of Kalevipoeg reflects the processes of formation of relief of eastern Estonia in early postglacial time about 10000 years BP. Very active processes in that period took place, intensified by the decrease of Baltic Ice Lake level and the uplift of the territory after retreat of the glacier. All these processes could have been noticed by the people, who lived in this area fixed in a form of legends and tales.

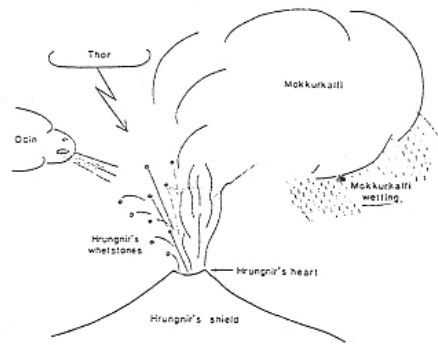


Fig. 1. Thor's battle with the giant Hrungrnir, who stands on his shield and throws stones at Thor. Hrungrnir is associated by Mjokkurkalfi, who was made of mud and fell to the ground when Hrungrnir gave up his breath.

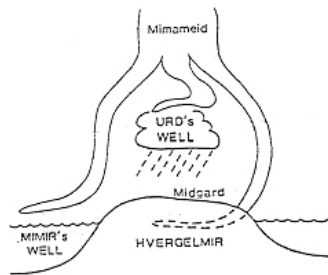


Fig. 2. The three roots of the world tree is over three wells: Urd's well in the heaven, Mimir's well in the direction of the giants who live on the other side of the sea, and Hvergelmir in the underground. The three wells apparently represent three profane water reservoirs, the clouds, the sea and the ground water.

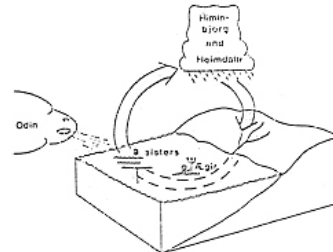
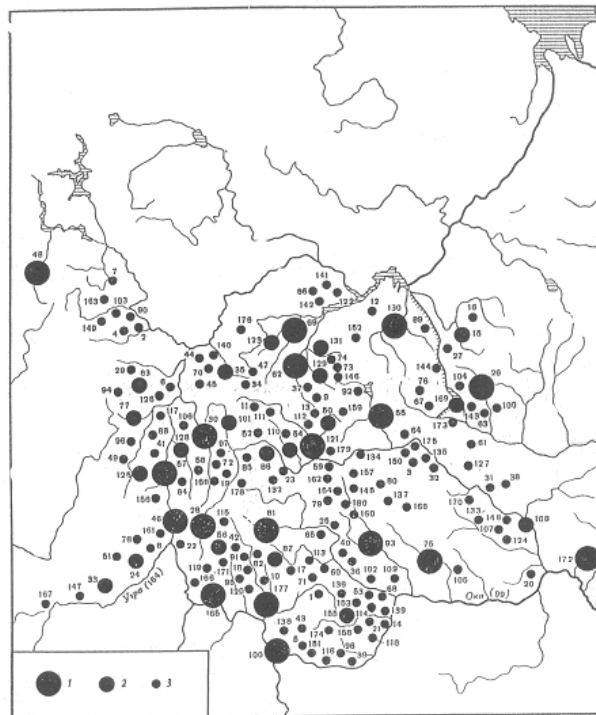


Fig. 3. The hydrological cycle is represented by a series of deities. Ægir is the sea god, owner (Swedish ägare) of the sea water alias mead. His daughters, the waves of the sea, are whipped up by the wind god Odin, and the resulting vapour forms their son Heimdallr, 'world watering-can', who is high, white, wet in his back and lives in his house Himimbjorg, 'heavenly castle'. Heimdallr is connected with the growth of vegetation, animals and man.

Fig. 2.

The personification of the geological processes and events is the case in mythology of various nations. Many stories of old Norse mythology described in Eddas by the Snorri Sturlusson (1179-1241) are interpreted by natural scientists as description of geological phenomena. The eruption of volcanoes is presented as the fight between god Thor and giant Hrungrnir (fig. 2 [Rokoengen 1992]). In the same way have been fixed also less inspiring processes as water cycle (fig. 3 [Raukas 1997]). The mythological locality Ginnungagap, related with cold and ice, mentioned in Eddas is explained by prof. K. Rokoengen, specialist in Quaternary, as the marginal part of the continental ice sheet, localised on the shelf of recent the Norwegian Sea (Rokoengen 1992). He also comes to conclusion, that these myths reflect the geographic situation having existed 12000-10000 years BP in certain localities of the recent Norwegian offshore.



Карта гидронимов балтского происхождения в Волго-Окском междуречье
 * — балтские гидронимы (размеры значков зависят от величины реки, озера)

Fig. 3.

How these information, acquired by people so different from recent population, probably belonging to different ethnic groups have been transmitted till our days?

The answer is complicated by the fact, that the name Kalev, according to the version by P. Ariste, is derived from the Baltic word “kalvis” - a smith. But the Balts, are not the original population of this territory. Moreover, Kalevipoeg is using a lot of attributes of the Iron Age. He has the sword, is fighting against the iron people *etc.* All these details reflects to much later times then postglacial period.

Looking for the answer on these difficult questions it is useful to remind the presumption of J. Bertgstrom that Edda myths describe not fantasy gods but the functioning of the world. One of the purposes of the old mythology was accumulation and transferring information about the natural environment of the ancient people and from this point of view it can be regarded as a kind of natural science (Bergström 1989). There are a lot of examples, demonstrating, that new ethnic groups substituting the previous population are inheriting and keeping a lot of their cultural features. It is the case with Baltic tribes which, being newcomers in the territory of recent Lithuania few millenniums ago, inherited a lot of cultural elements of previous populations, particularly many Goddess in their pantheon (Gimbutienė 1985; Gimbutas 1989; Marcinkievičius 1989).

Another example can be the Baltic names of rivers and lakes common in the wide area to east from

Lithuania up to the Volga and Oka rivers in the region of Moscow. They still exist there and are used by recent Slavic and Ugro-finnish population in spite of the Baltic tribe Galindians disappeared there more the millennium ago (Sedov 1971; Toporov 1979) (fig. 3).

Conclusions

Lacking direct archaeological evidences and artefacts, facing difficulties in linking certain periods other methods and approaches might be helpful. In order to be more objective reconstructing spiritual culture, archaeologist should involve more scientific spheres in their interpretations. Interpretation of ancient myths based on knowledge of geology, geography could be relevant. As some studies showed, many myths are reflections of geological processes, which took part thousand years ago. These processes and natural objects were humanized and got human names. Some examples of long term people's memory which preserved till nowadays in Estonia, Iceland and Norway were shown in the report. If myths in some ways convey prehistoric people's mind, it could be very useful for archaeologist to involve myths as certain method of past interpretation for studying prehistory.

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