

# MT. OCHAROVATELNAIA AND MT. SINIAIA IN ALTAI: LEGENDS AND REALITY

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## **Abstract**

The article explores the relationship between oral narrative heritage and specific material monuments on the example of two actual objects situated near the Kolyvan settlement in Western Altai. The State Hermitage Museum's archaeological fieldwork in the Saian-Altai region was conducted in 1993 and 1996 on Mt. Ocharovatelnaia and Mt. Siniukha.

There is a rock precipice of zoomorphic shape on Mt. Ocharovatelnaia that has been used as a sanctuary, but possibly also for astronomic observation by prehistoric people. In one observation site, the sun can be observed as setting in the mouth of the animal-shaped rock during vernal equinox – the animal as if swallows the sun. A Christian sanctuary was later erected on Mt. Siniukha, and a wooden cross stood there even in the early 20th century. On the foot of the mountain there was an Old-Believers' nunnery. Mt. Ocharovatelnaia rises 670 m and Siniiaia Sopka, the highest peak of the Kolyvan ridge south of Mt. Ocharovatelnaia 1,210 m above the sea level. It is a rule rather than a coincidence that the zoomorphic pagan sanctuary on Mt. Ocharovatelnaia in the north is located twice as low compared to the Christian cross on the Siniiaia mountaintop in the south. In the Christian tradition the warmer South is more revered than the cold North. In several ancient Russian geographic maps, south was situated above and north below. The position of cultic objects on mountaintops situated opposite of each other appears to symbolise the triumph of Christianity over paganism in the 18th century.

**Keywords:** rock sanctuary, Christianity, prehistoric astronomical observation, paganism, paleoastronomy, animal swallowing the sun, equinoxes, sacred places, movement of luminaries.

## **INTRODUCTION**

The association of oral narrative legend to specific physical monuments can be observed in two real objects situated in the vicinity of Kolyvan village in Western Altai.

The area surrounding Kolyvan is famous not only for its picturesque scenery, but also for rich ore resources and gemstone deposits. More than 90 first-rate stone products were sent to the Imperial Hermitage from the famous Kolyvan Lapidary Works. Interestingly enough, in Old Slavonic chronicles, the name Kolyvan was also used for Tallinn, the present capital of Estonia.

In 1843 the world's largest Kolyvan vase, cut from Revnev jasper and called "the Queen of vases", was finished, delivered and mounted for display in the New Hermitage in St. Petersburg. For this purpose a wall of the palace had to be partly demolished. In 1993, exactly 150 years later, the first archaeological expedition of the State Hermitage Museum to Altai, Kolyvan, was launched.

While observing the detailed topographical map of the area I noticed the unusual names of two mountains – namely, Ocharovatelnaia and Siniukha (Fig. 1). I wondered about traces of human activity on the mountains and decided to explore their peaks and slopes during the 1993 State Hermitage archaeological expedition to the Saian-Altai area (SAAE GE) and later investigation of the same objects in 1996 (Marsadolov 1996, 1998).

### **LEGENDS ABOUT MT. OCHAROVATELNAIA**

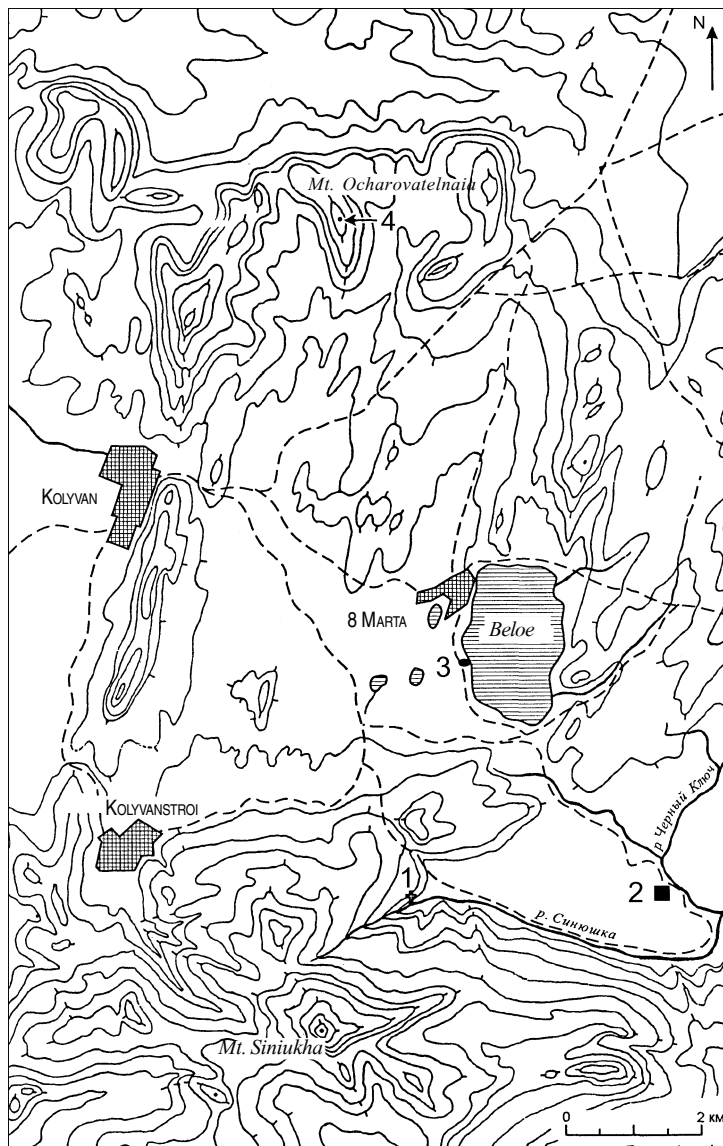
The people of Kolyvan know many legends associated with Mt. Ocharovatelnaia. A legend tells that the mountain was given this name by "cabinet ministers" who were "charmed" by the mountain's natural beauty in the mid-18th century. The name – 'alluring', 'charming' – acknowledges the beauty and perhaps also the cultic magnetism of the mountain.

According to another legend there used to be a high watchtower for fire-fighting on the northern edge of Kolyvan from the 18th century to the early 20th century. At sunset, the peak of the mountain (Mt. Ocharovatelnaia) seemed "unearthly picturesque", or "charming".

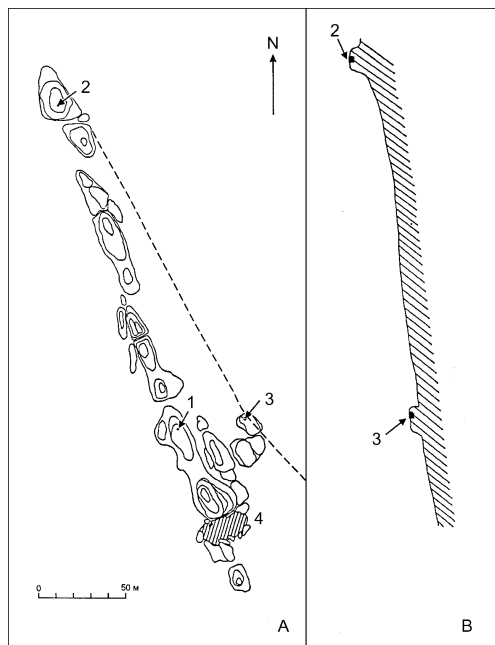
While the former legend poses almost no questions, the latter deserves more detailed examining and proof.

### **LAKE AND THERIOMORPHIC ROCK ON MT. OCHAROVATELNAIA**

The peak of Mt. Ocharovatelnaia is situated half a kilometre west of a village road passing through the Kolyvan village to the pastures of the forest farm (Kuriinski district, Altai region; 5 km north-



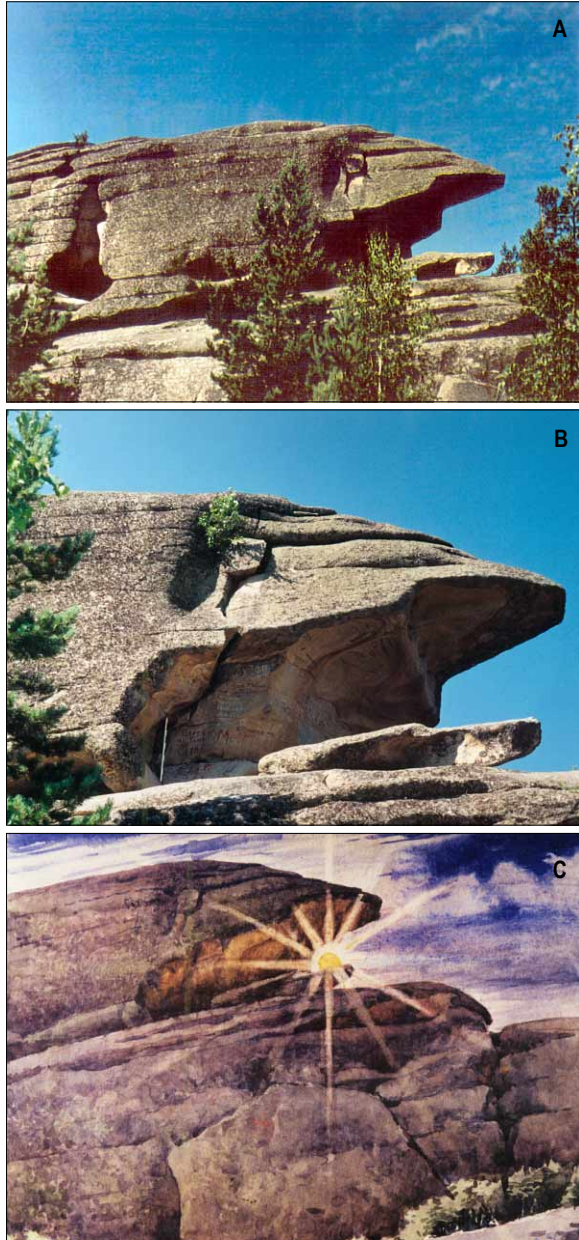
**Figure 1.** Western Altai. Topographic outline of the Kolyvan settlement and Lake Beloe area. Archaeological monuments: 1 – site of the nunnery; 2 – Podsiniushka village; 3 – group of kurgans on the shore of Lake Beloe; 4 – prehistoric sanctuary on Mt. Ocharovatelnaia.



**Figure 2.** Outline of the upper part (A) and cross-section (B) of Mt. Ocharovatelnaia. Objects: 1 - theriomorphic or ichthyomorphic main sanctuary; 2 - upper observation site; 3 - lower observation site; 4 - lake. Dashed line marks the cross-section.

northeast from Kolyvan, 6 km north-northwest from the 8. Marta (March 8) village – Fig. 1).

In the southern part of the peak of Ocharovatelnaia there lies an overgrown marshy lake of limpid ferruginous water (Fig. 2). Except for this small lake of rain and melting water, there are no other sources of water on the peak of Ocharovatelnaia. The lake is irregularly oval and its southern shore is overgrown with birch trees. The rock bottom of the lake is covered with a thin layer of sapropel. Owing to the stepped slope the southeastern part of the lake is easily accessible. A pit, 30 cm in diameter and 10–17 cm in depth, has been carved in the rock outcrop. It is possible that the edges of the pit have been polished by prehistoric people and the pit was used to sacrifice to spirits of the lake. Vadim Borodaev has found an anthropomorphic sculpture carved from wooden log, a unique pagan idol, from the bottom of the lake. The lower part of the log is left unfinished; the upper end is slightly pointed.

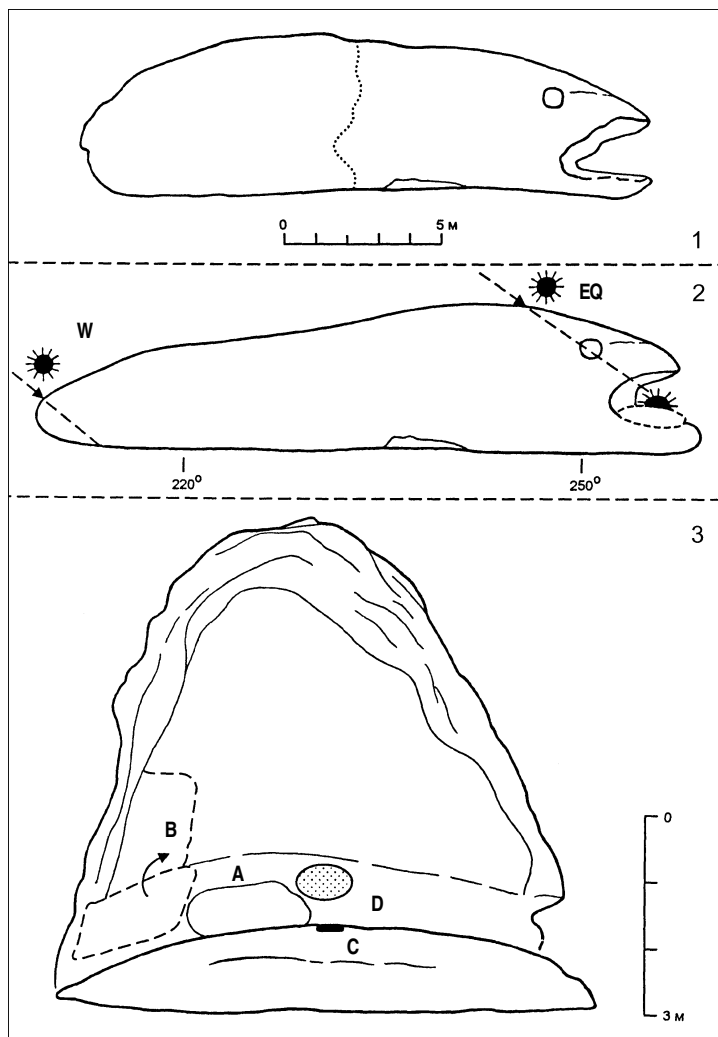


**Figure 3.**  
*Mt. Ocharovatelnaia.*  
*Main sanctuary:*  
*A – view from the east;*  
*B – therio-, ichthyo-, or-*  
*ornithomorphic head;*  
*C – reconstruction of the*  
*sun setting through the*  
*“animal’s mouth” on*  
*vernal and autumnal*  
*equinox.*

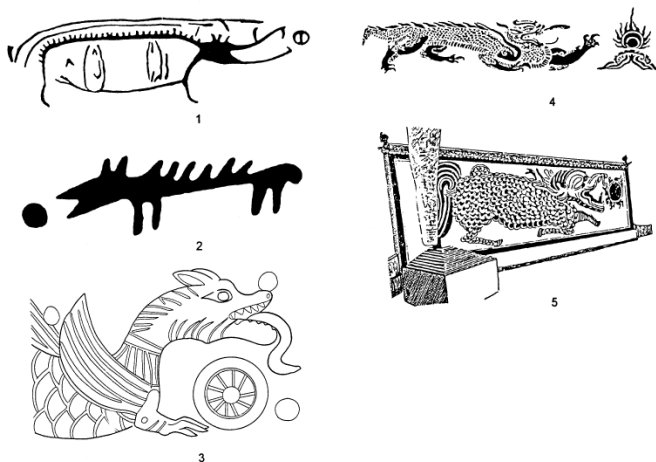


**Figure 4.**  
*Mt. Ocharovatelnaia.*  
 Centre of the main sanctuary:  
 1 – rock of the shape of an agape “fish-animal mouth” (view from the front);  
 2 – depression on the lower level of the rock.

The highest and the most massive rock outcrop of the peak Ocharovatelnaia is located in the northern part of the lake (Figs. 2, 3). This is a greyish brown layered granite rock with dark spots, and virtually all its slopes are steep. The peak is most easily accessible by the northeastern slope. From the east the northern upper part of the rock resembles the head of a fish, animal or bird with an open mouth or beak, and even has a protruding “eye” (Fig. 3). The resemblance becomes even closer when looking at the creature’s “mouth” from the upper terrace of the northern part of the rock. This more than 5 metres high agape “mouth” has smooth inner walls (Figs. 3, 4) and a pointed upper end, which dilates into a lower “jaw” and through “mouth cavity and throat” into “an oesophagus”. Inside the “jaws” there are two large stones, more than a metre in diam-



**Figure 5.** *Mt. Ocharovatelnaia*: 1 – view of the upper part of the mountain from the east (outline of the therio- or ichthyomorphic rock); 2 – view of the rock from the lower observation site (perspective from the northeast); setting of the sun on winter solstice (W) and on vernal and autumnal equinox (EQ); 3 – front of the rock (open “animal mouth”), view from the north. Symbols: A – altar, C – depression, D – hollow, “mouth”, arrow pointing to a fallen slab (B).



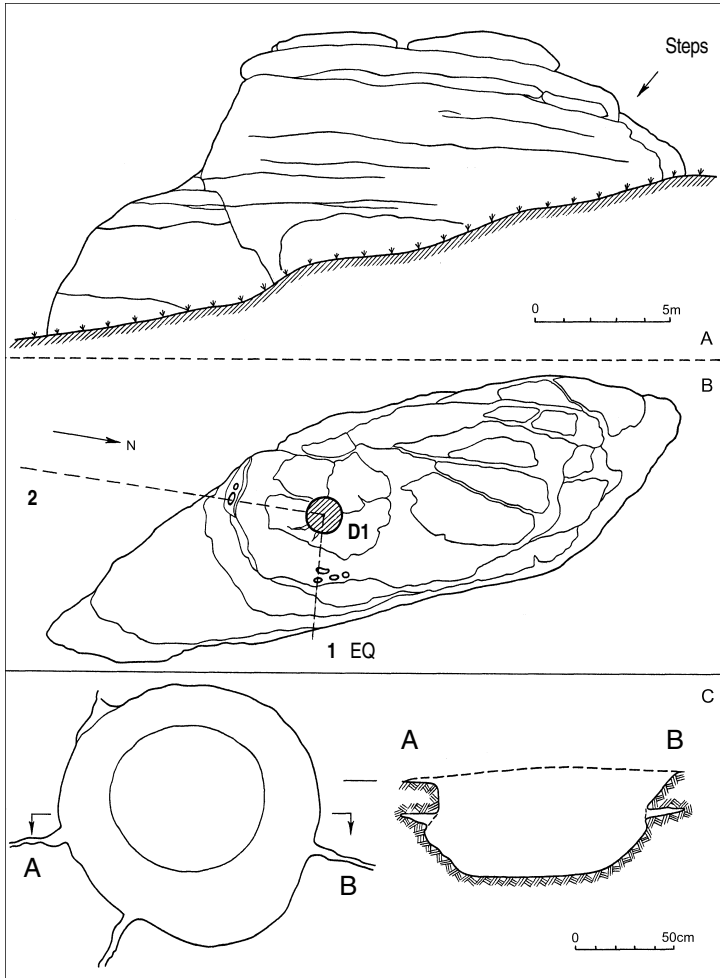
**Figure 6.** Image of an animal or a mythological creature swallowing the sun: 1 – Shishkino; 2 – Arbi; 3 – Chernovaia VII; 4–5 – Chinese (according to the material by A. P. Okladnikov (1), A. P. Okladnikov and A. I. Mazin (2), E. B. Vadetskaia, N. V. Leontev, G. A. Maksimenkov (3), G. J. Grum-Grzhimailo (4 and 5)).

eter (Fig. 5.3). The stones have a fulcrum at the upper end, forming an upward acute angle. The stone to the east has probably broken off from the upper end of the rock. It is questionable how the stone to the west, with polished edges, ended up in the “mouth”. It is possible that prehistoric people placed the stone there, and it functioned as an “animal tongue” altar of a kind.

There is a small hole in the front inside the “mouth” (Fig. 4.2), which resembles the hole on the lake shore. The hole inside the “mouth” appears to be man-made, as it has the darker rock surface removed from the edges, thus making the hole clearly discernible. This appears to have been a central worship place in the animal, bird or fish-headed rock sanctuary.

## OBSERVATION SITES

Two main observation sites were discovered north of the worship centre. The more important of the two, which the expedition team referred to as the upper observation site, is situated on the highest



**Figure 7.** *Mt. Ocharovatelnaia.* Upper observation site: A – outline of the rock opening from the east; B – outline of the upper level of the rock (1 – direction of sunrise on equinoxes; 2 – direction to the peak of Siniukha; streaked area – Depression 1; C – outline and profile of Depression 1.

point in the northern part of the summit of Mt. Ocharovatelnaia (Figs. 2, 8). The outcrop is a tapered, more than 15 metres high “tower”, which remains inaccessible from the south. From the east the southern part of the rock appears higher than the northern part.

The “tower” is easiest to reach from the northern side along terrace steps formed of projecting layers. The rock outcrop is 25 m wide in a northwest-southeast direction and 7.5 m in a west-east direction (Fig. 7).

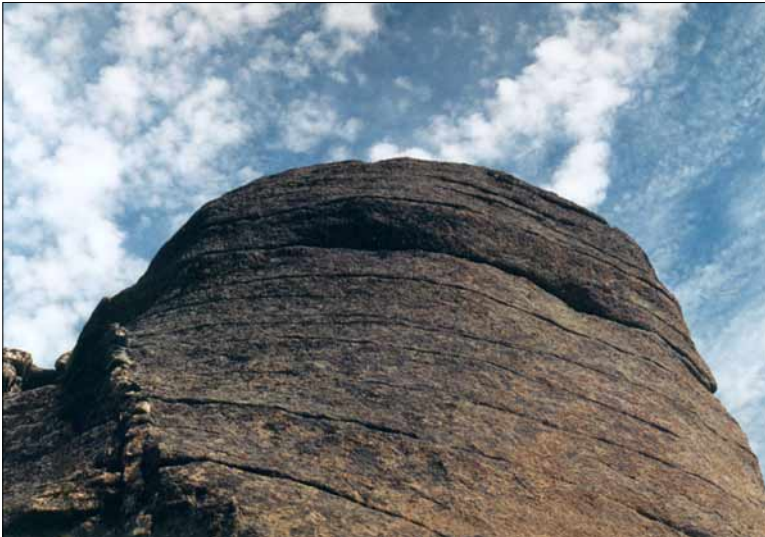
There is a flat terrace on top of the “tower”, which has an apparently natural depression of 1.4 m in diameter and 0.6 m in depth, in its southern end. The upper part of the depression is round, with walls narrowing downward. The bottom of the depression is flat, approximately 0.8 m in diameter (Fig. 7).

A depression of this shape may have formed of a small hole, which filled with rainwater and alternately froze and melted, eventually making the surface to flake. The rock is of stratal structure. The uneven density of the rock has been the cause of various projections and cup-marks on the walls of the depression as well as on the rock in general. The possibility that the walls of the stone depression may have been altered by prehistoric people cannot be ruled out either.

The functions of the depression may have been connected with its location on the topmost peak. It may have been an observation site, as it gives a fine view to the surrounding area in at least a 20–25 km radius, without any objects (rocks, trees, buildings, etc.) obstructing the view. During longer observations the depression could easily hold one or two persons standing or sitting.

The depression may have also been used as a fixed point for astronomical observation. Astronomical information as well as the position of the sun, the moon and stars on important ritual holidays (vernal and autumnal equinoxes and summer and winter solstice, etc.) were of highest importance to prehistoric men.

The astronomical calculations by V. L. Gorshkov, scholar of the Pulkovo Observatory and member of the expedition, were published in 1996 (Marsadolov & Gorshkov 1996). Since the period during which the depression might have been used for astronomical observation is not exactly known, the calculations are made for three periods in history: 1 – division of eras (year 0); 2 – 800 BC (beginning of the era of prehistoric Altaic nomads); 3 – 1800 BC (middle of the Bronze Age). Calculations revealed that regard-



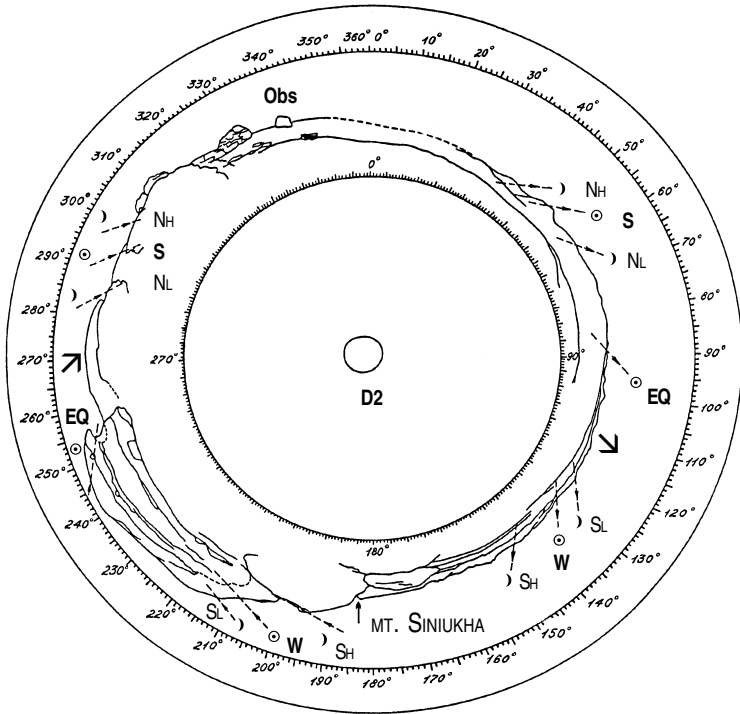
**Figure 8.** *Mt. Ocharovatelnaiia.* Upper observation site: above - view to the rock opening from southeast; below – view to the top of the rock opening (the “tower”) from the northwest.

less of the passing of two millennia the movement of the sun and the moon varies in the range of 1 degree.

Ancient observers linked the astronomically important rising of the Sun and the moon to fixed benchmarks in the surrounding area, and most importantly, with the most prominent mountain summits. The same principles have been followed on Mt. Ocharovatelnaia.

Archaeological and ethnographical information indicate that the southern horizon, especially the astronomical point of the south was particularly revered among the Saian-Altai peoples. It is possible that a large hole 2.5 m south of the edge of the depression points to the peak of Mount Siniukha in the south (Fig. 7). In the eastern part of the opening, 1.5 m from Depression 1, four small cup-marks were discovered, 20–30 cm in diameter and 5–10 cm in depth. The cup-marks may have served as additional benchmarks and pointed to important astronomical moments or the approach of these moments. It is possible that a small stone was placed inside a cup-mark, and shifted from one cup-mark to another depending on the approach of the important ritual holiday. The largest cup-mark is situated on the line which marks the point where the sun rises on vernal and autumnal equinox and the astronomical benchmark of the east. Additional cup-marks are located north of the largest cup-mark and may serve as evidence that if these holes were used for calculating the movement of the sun, and that these calculations were made in summer (since the sun moves north only after the vernal equinox) and not in winter (otherwise the cup-marks should have been situated more to the south, since after the autumnal equinox the sun sets in south). Calculations indicate that other important points of the rise and setting of the sun and the moon often fall on the summits or slopes of mountains, though presently there is little evidence of their significance.

Another, lower observation site is located in the southern part of Mt. Ocharovatelnaia (Fig. 2). The rock outcrop is convex and oval in the east and concave in the west. There is a flat terrace of the size of 12 m in the north-south direction and 6.5 m in the east-west direction on the rock. In the northernmost end of the terrace Depression 2 has been carved in the surface. Two thirds of the depression was filled with soil, with a small pine tree growing inside. After the pine was transplanted the soil was removed from the depression



**Figure 9.** *Mt. Ocharovatelnaia. Panorama from the centre of Depression 2 in lower observation site. Symbols: Obs - upper observation site. ↘ - rise, ↗ - setting, ⊙ - the sun: W - winter solstice; S - summer solstice; EQ - equinoxes (vernal and autumnal). The moon: N - in the north; S - in the south; H - high; L - low. Example: NL - the moon is low in the north.*

and its walls were cleaned. The depression is oval: 2.1 m in the north-south direction, 1.9 m in the west-east direction, and 1 m in depth. Owing to the varying density of the rock the walls of the depression are irregular. The bottom of the depression is flat and rounded, up to 1.2 m in diameter.

The mountain peak with Depression 2 may have functioned as an additional observation site. In the northern part of the rock adjacent to and south of Depression 2 there is a projection with a punctured hole. A stick or a rod can be fitted in the hole. While observ-

ing the vertical rod from the centre of Depression 2, the rod marks the peak of Mount Siniukha. This sighting device also marks the setting of the sun high in the south. Also, Depression 2 is a good sight for observing the rise and setting of the sun on equinoxes and solstices (Fig. 9). Some marks of sunset fall on the main sanctuary, located southwest of Depression 2. The lower point of winter sunset falls on the “animal croup” (Fig. 5.2). After winter solstice (December 22–23) the course of the setting sun gradually shifted north, higher up the “animal’s” body. On vernal equinox (March 22) the sun passed through the “animal’s mouth”. The “fish” or the “animal” “swallowed” the sun and it gradually grew darker. In warmer spring days and in summer the sun set behind the adjacent mountain further north. After summer solstice (June 22) the course of the sun started to move back south, and on autumnal equinox (September 2) the sun was, again, “swallowed” by the “animal”. The weather grew colder, and the sun moved lower on the “animal’s body” until it reached “its croup” (on December 22). And the sun repeated its path like the year before.

We cannot rule out the possibility that some rituals performed at the main sanctuary may have been associated mainly with the movement of the moon and the sun, which often played an important role in the lives of prehistoric people. Possibly, it was a certain stage in the formation of religious and scientific conceptions about the surrounding world, and the stage was connected with both mythological as well as early natural scientific observations (i.e. the period when people could not yet explain where the sun sets, or phenomena like eclipse, etc.) In the oral, written and figurative tradition of many Eurasian peoples (Fig. 6) the image of an animal, fish or a mythological creature who swallows the sun has been widely popular since the Bronze Age; even folktales speak of a crocodile who has swallowed the sun (Grum-Grzhimailo 1926: 200; Okladnikov 1959: 98–100; Okladnikov & Mazin 1976: 181, Table 59, 1; Vadetskaia & Leontev & Maksimenkov 1980: 143, Table LII, 117; Leontev 1985: Figures 1, 2; Larichev 1991: 98–100; Studzitskaia 1997: 253–262; Devlet 1997: 12–15; Darkevich 2002: 91–92, etc.).

The sanctuary forms a polyfunctional complex of reciprocally related objects (Fig. 2). Enticing and ritually important natural objects – mountains, lakes, trees, rock ledges and holes – were

discovered and skilfully taken into use at rituals (holes, cup-marks, etc.) by prehistoric people. It is possible that regular sacrifice to spirits (water or earth spirits) was performed on the southeastern shore of the lake. In many religions water symbolises life and death and purification. Rituals dedicated to the worship of spirits of the central and upper spheres were conducted in the “mouth of the fish, animal or bird” at the centre of the peak of Mount Ocharovatelnaia. Sites for observing stellar bodies in the northern and southern part of the peak enabled to determine and foretell the beginning moment of the ritual. The upper and lower observation site may have served different functions. The upper site was more favourable for observing the rise and setting of the sun and the moon, while the lower site was more favourable for observing and also associating the setting of the sun with the most important element of the ritual, i.e. the swallowing of the sun by the “animal”.

Numerous inscriptions, carved or painted to the rock in modern times, suggest that the ledge of Mount Ocharovatelnaia has been visited repeatedly. One of the earliest inscriptions originates in 1912. Tourists from different parts of Russia, some even from as far as from Vladivostok, have carved their “signatures” in the rock. The surface of the rock, which is exposed to rainwater, winds, the sun and frost, is deteriorating, its upper layer is scaling. All these factors may have added to the destruction of traces of prehistoric people – petroglyphs, cultic structures, ritual elements, etc.

## **SUNSETS AND REALITY**

Here it is necessary to emphasise some facts. The peak of Mount Ocharovatelnaia cannot be observed in the settlement of Kolyvan, it can be seen only from the top of the mountain to its north. The sun sets west of the settlement, while Mount Ocharovatelnaia remains northeast of the settlement. This explains why **sunset over the peak of Mount Ocharovatelnaia cannot be observed from the observation tower** (only gleam of the sunset can be seen at times). We cannot rule out the possibility that the survived legend about sunset on Mount Ocharovatelnaia, which could be explained in astronomical terms, reflects rituals which have become obsolete by now.

Another sacred place in the vicinity of the sanctuary of Mount Ocharovatelnaia is Mountain Ak-Baur in Western Altai. This site was examined by the expedition team SAAE GE in 1997. Z. S. Samashev has studied petroglyphs discovered there (Samashev 1992). There may have also been an astronomical observation site on the foothill of Mountain Ak-Baur. The expedition discovered a round hole about a metre in diameter in the ceiling of the cave. Images of a goat, carriage, crosses, geometrical symbols, etc. have been painted in red on the cave walls. The southwestern part of the horizon, i.e. the sun's position in winter and spring can be observed from inside the cave. During this period the constellation of Capricorn, which is also the only animal representation on the cave walls, can be observed in this part of the sky. The goat and geometrical figures have been painted in red sometime in the 2nd millennium BC. Another goat figure has been carved directly under the entrance hole in the Early Scythian Age in the 8th–7th century BC (Marsadolov & Samashev 2000; Marsadolov 2002).

It should be noted that sanctuaries analogous to these on Mount Ocharovatelnaia and Mountain Ak-Baur have been discovered elsewhere in Southern Siberia but have not been investigated from the palaeoastronomical perspective.

### **LEGENDS AND REALITY ABOUT SINIAIA SOPKA AND BELOVODYE (WHITE WATERS)**

Twelve km south of Mount Ocharovatelnaia the peak of Siniukha, formerly known as Siniaia Sopka is situated (Figs. 1, 11). We heard from the locals on more than one occasion that there used to be a wooden cross and “baptismal bowls” on top of Mt. Siniukha even as late as in the first quarter of the 20th century. Some people even told us that the cross was gilded or made of gold.

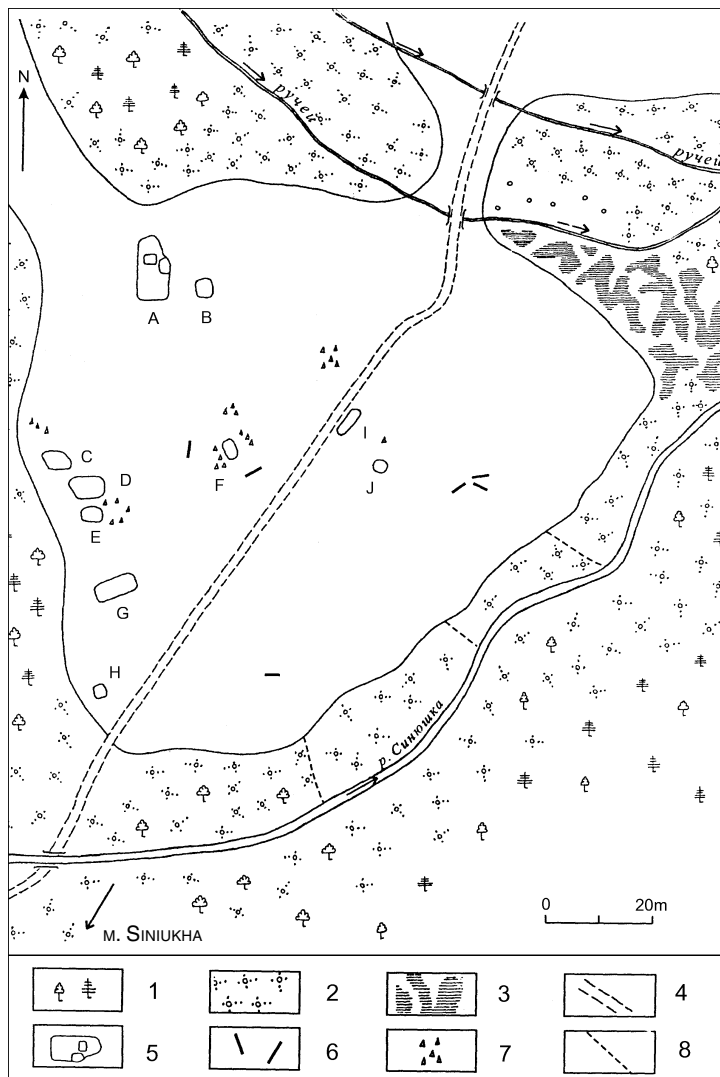
In search of evidence to confirm this information, members of the expedition decided to explore the peak, and climbed up the northern slope, but found no traces of a cross there. The wooden cross, mounted on a small opening on the highest top of Siniaia Sopka, however, has been described by French traveller E. Patren, who visited Kolyvan in 1781 (Patren 1825).

It is possible that the cross remained there over one and a half century and was then taken or thrown down around the 1920s–1930s. Depressions in the huge rocks may have been used as “baptismal bowls”. Rock projections on the top of the Siniukha are unique and quite picturesque (Fig. 11.3). In bluish fog the mountaintop reveals a vista of the surrounding area, in clear weather the range of sight covers tens of kilometres.

We learned from the inhabitants of Kolyvan and 8. Marta villages that there used to be a nunnery in the Siniukha area. Finding it, however, proved rather difficult. The first time we went to Mount Siniukha we accidentally passed it. In summer 1993 we met a local woman who had visited the nunnery in her childhood. She led us to the site of the former nunnery and told us that it had been active for quite a long time. In the 1930s the nunnery had been closed, some of its inhabitants moved to the neighbouring villages, and nothing is known about the others.

The ruins of the nunnery are situated on the northern slope of Mount Siniukha, 2 km from its peak and 5 km south of the village of Vosmogo Marta (Figs. 1, 10). The nunnery had been built in a clearing in the woods and was surrounded by shrubbery, birch trees and coniferous trees from nearly all sides, particularly in the southwest (Fig. 11). The area northeast of the ruins is marshy. A pathway from northeast to southwest crosses the site and coincides with a path leading to the mountain top. The nunnery was built on a flat triangular site, which one angle pointed to the mountain top. In the north the clearing stretches over 90 m (in the east-west direction) and along the pathway from northeast to southwest the clearing is around 120 m wide. The small Siniushka River passes the site in the south and in the east, and two small streams flow past it in the north. Thick shrubbery in the east reveals passages leading to the riverbank.

The extent and speed of the nunnery falling into ruins over the past 50–60 years has been astonishing. There are almost no remnants of the former structures left. After long search we were able to find traces of buildings, holes, piles of stones and bricks, single logs, all overgrown with weed (Figs. 10, 11.2). Most of the hollow depressions and perhaps also remnants of buildings were found in the western part of the site. The largest of the nunnery buildings



**Figure 10.** Outline of the nunnery and the surrounding area on the foothill of Siniukha (1993). Symbols: 1 – (deciduous and coniferous) trees; 2 – shrubby; 3 – marshland; 4 – village path; 5 – remnants of buildings and excavations (marked with letters A-J); 6 – logs; 7 – rocks; 8 – passages to the river.

(12 x 6 m) was positioned in the north-south direction and situated in the northwestern part of the clearing (Fig. 10.A). It is also possible that the nunnery also owned several buildings in the village of Podsiniushka (Fig. 1). Thorough inspection of the site enabled to distinguish between remnants of at least three buildings. The most conspicuous of these is a cellar, which walls have been meticulously constructed of small stone slabs. The style of masonry indicates that the cellar may have been made in the 18th–19th century. The date of the cellar construction can probably be more precisely estimated by comparing the pattern of wall and ceiling masonry with the already dated buildings in Kolyvan and Zmeinogorsk. The cellar was rectangular with a vaulted ceiling, stone stairs and floor.

The nunnery on the foothill of Mt. Siniukha was most likely for the followers of the Old Believers' (Staroverets') faith.

Narratives about “the Land of White Waters and High Mountains” – a faraway land of freedom and wealth – is mentally and physically reflected in the toponyms of the area. Place names like Lake Beloe ‘White Lake’, Siniiaia Sopka ‘Blue Mountain’, stream Chernyi Kliuch ‘Black Spring’, etc. are suggestive of settlers of Russian origin. These settlers came from the border areas of Kazakhstan, Mongolia and China, and discovered here a place where the centuries-long popular dream of Belovodye ‘White Waters’ and Sinegoye ‘Blue Mountains’ had materialised.

## CONCLUSION

Folklore motifs of an animal swallowing and battling with the sun and of the peaceful and happy life in the White Waters are contradictory in contents and orientation. Time and space divide these motifs as well as real physical objects on the peaks of Mt. Ocharovatelnaia and Siniukha.

Their position high above the landscape, clean air, picturesque rock projections of various shapes, woodlands on mountain slopes and other factors appear to have favoured the choosing of the peaks of Mount Ocharovatelnaia and Siniukha as sanctuaries. Mt. Ocharovatelnaia rises 670 m above the sea level, and Siniiaia Sopka rises 1,210 m above the sea level. Siniiaia Sopka is the highest and the



**Figure 11.**  
*Mt. Siniukha:*  
top – view to the mountain from the northeast;  
middle – view of the clearing, the former site of the nunnery;  
bottom – rock outcrops in the top of Mt. Siniukha.

most picturesque peak in the Kolyvan mountain range, and remains south of Mt. Ocharovatelnaia on the same north-south direction,  $\pm 1-3$  (Figs. 1, 9).

It is a rule rather than an exception that the theriomorphic pagan sanctuary on the top of the northern mountain (Mt. Ocharovatelnaia) is situated virtually two times lower than the Christian cross on top of Mt. Siniukha. In Christian tradition the warmer south is more revered than the cold north. On many ancient Russian maps, for example, south was depicted in the upper part of the map. In sum, the existence of cultic objects on peaks of the two mountains in the Kolyvan area appears to attest of the Christian triumph over paganism in the 18th century in the region.

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### **References**

Darkevich, Vladislav 2002. *Drakon i solntse* [Dragon and the Sun]. *Rodina*, 6. Moscow, pp. 91-92.

Devlet, Marianna A. 1997. *O soliarnykh znakakh "solntserogikh" i "solntsegolovykh" v naskalnom iskusstve* [About Sun Signs "Sun-Head" and "Sun-Horns" in Rock Art]. *Naskalnoe iskusstvo Azii*. 2nd edition. Kemerovo, pp. 11-17.

Grum-Grzhimailo, Grigorii E. 1926. *Puteshchestvie v Zapadnyi Kitai* [Travels in Western China], II. Leningrad.

Laritsev, Vitalii E. 1991. *Drakonicheski kalendar drevnekamennogo veka Sibiri* [Draconic Calendar of Early Stone Age Period in Siberia]. Maltinski zhezl. Preprint. Novosibirsk.

Leontev, N. V. 1985. *Pisanitsy ustia reki Kantegir* [Paintings at the Mouth of River Kantegir]. *Rerikhovskie chteniia*. Novosibirsk.

Marsadolov, Leonid S. 1996. *Drevnee sviatilishche na gore Ocharovatelnoi v Zapadnom Altae* [Ancient Holy Site on Mt. Ochrovatelnyi in Western Altai]. *Arkheoastromia: problemy stanovleniia. Tezisy dokladov mezhduranodnoi konferentsii (15-18 oktiabria 1996 g.)*. Moscow, pp. 91-95.

Marsadolov, Leonid S. 1998. *Issledovania na Zapadnom Altae (okolo poselka Kolyvan)* [Investigation of Western Altai (Near Kolyvan Settlement)]. Materialy Saiano-Altajskoi arkhologicheskoj ekspeditsii Gosudarstvennoy Ermitazha. 2nd edition. Sankt-Peterburg.

Marsadolov, Leonid 2002. Astronomicheski aspekt grota Akbaur na Zapadnom Altae [Astronomical Aspect of Akbaur Grotto in Western Altai]. *Astronomia drevnykh obshchestv*. Moscow, pp. 228-234.

Marsadolov, Leonid S. & Gorshkov, Viktor L. 1996. Astronomicheskie raschety dlia sviatilishcha na gore Ocharovatelnoi [Astronomical Calculations for a Holy Site on Mt. Ocherovatelnyi]. *Arkheoastromiia: problemy stanovleniia. Tezisy dokladov mezhdunarodnoi konferentsii (15-18 oktiabria 1996 g.)*. Moscow, pp. 96-98.

Marsadolov, Leonid S. & Samashev, Zeinolla S. 2000. *Izuchenie arkheologicheskikh pamiatnikov Zapadnogo Altaia* [Review of Archaeological Monuments in Western Altai]. Materialy Saiano-Altajskoi arkhologicheskoj ekspeditsii Gosudarstvennoi Ermitazha. 3rd edition. Sankt-Peterburg.

Okladnikov, Aleksei P. 1959. *Shishkinskie pisanitsy* [Paintings in Shishkino]. Irkutsk.

Okladnikov, Aleksei P. & Mazin, Anatoli I. 1976. *Pisanitsy reki Olekmy i Verkhnego Priamuria* [Paintings by the Rivers Olekma and Upper Amur Region]. Novosibirsk.

Samashev, Zeinolla S. 1992. *Naskalnye izobrazhenia Verkhnego Priirtyshia* [Rock Art on the Borders of Upper Irtysh]. Alma-Ata.

Studzitskaia, Svetlana V. 1997. Tema kosmicheskoi okhoty i obraz fantasticheskogo zveria v izobrazitelnykh pamiatnikakh okunevskoi kultury [The Topic of the Cosmic Hunt and Depiction of Fantastic Animals in Artistic Monuments of Okun Culture]. *Okunevski sbornik. Kultura. Iskusstvo. Antropologiiia*. Sankt Peterburg, pp. 251-262.

Vadetskaia, Elga B. & Leontev, Nikolai V. & Maksimenkov, Gleb A. 1980. *Pamiatniki okunevskoi kultury* [Monuments of Okun Culture]. Leningrad.