Tersky coast

The Tersky coast is one of the best tourist-loved objects on the Kola Peninsula. Geological (deposits of amethysts and glendonites) and ethnographic (the Umba and Varzuga ancient settlements of the Pomory people) features are interestingly melted in a single whole here.



Geological scheme of the «Mys Korabl'» amethyst deposit.

The geology of the region is fairly simple (Frishman, 2007). The lower structural floor is composed of the Archaean (2.8-2.6 Ga) crystalline schists of different composition, its middle floor – the Proterozoic (2.5-2.4 Ga) amphibolites, the upper floor – the red-colour Riphean (0.65 Ga) sandstones. Samples with ripple marks on the bottom of the Riphean sea are particularly striking. The Tersky block is limited with a system of faults and stretches from the Kuzreka River in the west to the Varzuga river in the east. The amethyst deposit is represented by 7 stockworks jointed to the places of crossing the main near E-W fault and a series of N-E ones.



Geological scheme of the «Fluorite stockwork».

The best accessible is the fluorite stockwork in the western part of the Tersky block with the most intensively occurring fluorite mineralization, which cements the sandstone breccias. Quartz crystallizes after fluorite, often with a time break. The accurate number of generations has not been defined, since they do not meet in one stockwork. Presumably, they are no less than 5. First, in each generation a transparent or smoky quartz forms, then amethyst forms. The third main mineral is barite, which forms after amethyst. Sometimes it testifies to their common growth.



The bottom of Rifean sea.



Amethyst.



Fluorite.



Barite.

In general, the following groups of minerals have been defined so far. In sandstones: quartz, albite, muscovite, magnetite, chromite, apatite, spinel, hornblende, biotite, hematite. In metasomatites: quartz, fluorite, barite, microcline. In hydrothermalites: quartz (several colour varieties), fluorite, barite, microcline, chlorite, chalcosine, pyrite, goethite, hematite. Secondary minerals: malachite.

Mining of amethyst on the "Mys Korabl" Cape was stopped in 1992. Totally, 1500 m² of druses of jewelry sorts and 8000 m² of non-condition material for souvenir production has been mined out here. Gems were used in the domestic market and were sold to jewelry companies of France, Italy, Canada. Experiments on hydratherms growing and decorative processing of amethyst druses have been successfully carried out in laboratories. Nowadays, the deposit is a State Nature Reserve of particular importance.

Another must-seen of the Tersky coast is glendonites, or the so-called «White Sea rogul'kas», which can be collected right on the surface $o\kappa$ in a small depth about the Olenitsa village. They are considered to form under substitution of ikaite by calcite, when the former gets from the river to the sea. However, occasional scientific



Extracting of glendonite near Olenitsa village.

publications testify, that the formation of this mysterious minerals is still subjected to discussion.

Finally, a visitor should not fail to see masterpieces of wooden architecture and museums of the Pomory life and visit performances of folk ensembles in Umba and Varzuga.



Uspenskaya church built in 1674 in Varzuga. Folk ensemble.

References

1. Frishman N.I. Amethyst coast. Murmansk, St.-Petersburg: «Russian collection» Publ., 2007. 96 p.