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Rapport fra Cambridge University Caving Club ekspedisjon til Svartisen, 1958

Report on the Cambridge University Caving Club Expedition to SVARTISEN. Norway 1958

This is a translation of the report published in BSA Cave Science Vol. 4 No. 29, July 1959, pp 206-228. In the five weeks spent there, the general exploring, surveying and photographing of the caves of this region, carried out by the two preceding expeditions in 1956 and 1957, was continued. In 1958, however, instead of combining a study of several caving areas, glaciology and mountaineering, work was limited to one narrow band of limestone, - Pikhaugan. The three main caves are:

Pikhauggrottene system, which lies within a marked rise that separates Øvre Pikhaugvatnet from Nedre Pikhaugvatnet farther south. As shown by the map, those passages explored generally run straight along the strike, and, are superimposed vertically one above the other in successive inter-connected, "series". The most characteristic features of Pikhauggrottene are the tendency towards development of "tube" like passages, and the scalloped surface of the limestone. The present long profile of the Pikhaugan limestone band shows that Pikhauggrottene lie within the highest part, that is above the lakes to the N.E. and S.W. This explains the present inactive state of the system which only takes the immediate drainage from the valley sides. Glacial erosion must have modified this profile to a certain extent, but it is difficult to say exactly in what way, even qualitatively - except that over Pikhauggrottene the surface was lowered sufficiently to intersect the top passages. Pikhauggrottene developed in the following stages:

1-possible early Tertiary small scale phreatic system

2-main development in the glacial period, either by

a-subglacial drainage during glacials or

b-proglacial drainage during retreat and advance stages and possibly Interstadials with conditions of complete filling by fast moving water under hydrostatic pressure.

3-recent minor vadose modification.

Fosshølet-Glomdalsvatnet, which system carries the drainage underground from Nedre Pikhaugvatnet to the Glomdalsvatn shore. The stream draining the south end of the lake continues down valley a short way and then swings round into the limestone band. Here it disappears underground (Fosshølet), dropping about 10 m to form an impressive entrance waterfall, as it does so. The character of Fosshølet is in direct contrast to Pikhauggrottene. Instead of being essentially a deserted dry system, Fosshølet is active and takes a fair sized stream from the lake North East of it. The drainage forms the core of the system which is therefore relatively simple

Storbekkgrotten, which was incompletely explored and only partially surveyed. Its character is different from both Pikhauggrottene and Fosshølet, although certain features are held in common. Two features, however, are particularly striking, the marked vertical development and the remarkable phreatic forms present. Storbekkgrotten consist mainly of a large rift passage running N. 28° E. Tributary to the main passages at various levels are small meander-passages, of cross section shown in fig. 24. They show signs of phreatic development - spongework, half tubes, etc. The spongework, which is also present all over the upper parts of the rift walls is extremely well developed (fig. 24). Large complex pendants protrude up to 50 cm, irregularly though smoothly shaped and unrelated to the banded limestone structure which can be seen in them. They are inactive, and stained brown.