

Karst sør for Svartisen

The Karst of South Svartisen

Karst features are extensively developed throughout northern Norway upon crystalline limestones and marbles of the Cambro-Silurian North-Norwegian mica-schist series. In this study a description of the karst forms in the area south of the Svartisen Ice-cap is followed by an analysis and discussion of their mode of origin.

It is concluded that the main morphological features of the Karst of South Svartisen were produced sub-glacially during the Pleistocene epoch, and that the present karst forms date from the last major glaciation. It is considered that the caves were formed sub-glacially under pseudo-phreatic conditions (conditions of complete water-filling existing above the water-table), with relatively brief periods of vadose development proglacially, and during inter-glacial periods; and that the surface features of the Karst were formed by direct glacial erosion.

Hypotheses involving pre-glacial or post-glacial cave formation are rejected, though it is considered that cave origin, as opposed to development, may have taken place during Tertiary times. It is concluded that post-glacial morphological development of the areas of karst topography in the South Svartisen region has been limited to the slight modification of essentially glacial features, under proglacial conditions during the final retreat of the ice, and subsequently under periglacial, vadose conditions.