THE LANDSCAPE WHEN MAN ARRIVED

The ancient bedrock of the Rovaniemi area consists of the deeply eroded roots of a primeval mountain chain. The town and the area to the south of it lie on the Southern Lapland schist belt, while areas to the north represent the Central Lapland granite zone. Both were formed upon the collision of two continental plates and the resulting emergence of a mountain chain 2300–1800 million years ago. Today only the root section remains, having once been covered by rock to a depth of several kilometres.

The Ice Age deposits of Finnish Lapland have been examined more thoroughly than those of any other region in the world, and yet we still do not know for certain the point in time at which the land first became covered by the continental ice sheet. It may have been half a million years ago or just under a million years. The glaciers in the Rovaniemi region first flowed from WNW to ESE, then SW-NE and NW-SE, and finally from west to east. The current Rovaniemi area must have emerged from beneath the ice sheet some 9000 years ago at the latest, and human life spread to it soon afterwards.

Immediately after the retreat of the ice sheet, grasses, sedges, crowberries, willows, birches and aspens spread to the area. Pine became the dominant tree species about 8200–8100 years ago, and alder also appeared at about the same time. Spruce did not enter the area until about 3500 years ago, some 5000 years after the arrival of the first human beings. Mires began to form immediately after the Ice Age, and currently make up as much as one third of the total land area of Rovaniemi.

As land uplift progressed, the River Kemijoki extended its course south-westwards, and rapids emerged at the steepest points. Those of Pirttikoski were formed about 7400–7200 years ago.

Even before pine reached Lapland the climate must have been at least as warm as it is today, and it has varied ever since, from warm periods resembling the conditions in Southern Finland today to cold ones known to have caused the vegetation zones to retreat and to have led to years of severe famine.

The Baltic Sea was a freshwater basin in the period after the Ice Age, a stage known to us nowadays as the Ancylus Lake. The uppermost shoreline of this body of water manifests itself in the countryside in the form of water-denuded rocks, beach ridges and deposits of stones lying around 213 m above sea lev-

Seals first appeared on the coast when the Ancylus Lake gave way to the brackish Litorina Sea around 5500 B.C., and they formed the main source of food for the local population in early spring for the next 4000 years.

The islands in the River Ounasjoki were flooded every spring and therefore grew a good crop of hay in the summer, which gave rise to a flourishing dairy farming village at Rovaniemi by the 15th century at the latest.

el in the Rovaniemi area. Some 7000 years ago the water level in the Ancylus Lake dropped to that of the ocean outside the Baltic basin and the water became saline. This marked the beginning of the phase known as the Litorina Sea, the highest shoreline of which reached some 90 m above present-day sea level in the Rovaniemi area.

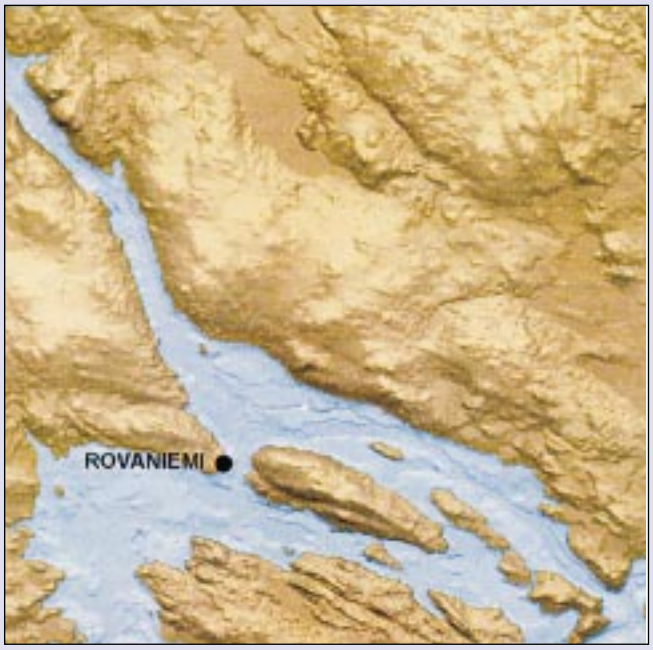
The River Kemijoki came into being some 9500 years ago, when the edge of the continental ice sheet allowed the water that had previously flowed eastwards from the Salla Ice Lake to discharge into the Ancylus Lake. The river then continued to gain in length as eustatic land uplift gradually shifted its estuary towards the south-west. These progressive movements led to the creation of the falls at Pirttikoski some 7400–7200 years ago, those of Vanttauskoski 6800–6400 years ago, Valajaskoski 6200 years ago, Petäjäskoski 4600–4000 years ago and Ossauskoski 3100–2700 years ago. It thus took 4000 years for the present sequence of rapids to form on the stretch of the River Kemijoki which passes through the Rovaniemi area.

Ancient Lake Kolpene builds up behind Valajaskoski

The area currently occupied by the centre of Rovaniemi, located around 85–90 m a.s.l., emerged from the Litorina Sea some 7000–6500 years ago, at which time there was already human settlement on the river banks in the area. When the sea level was about 80 m above that prevailing at present, the mouth of a bay of the sea that lay between the hill of Pahtajavaara and the stony till heath opposite it narrowed to the extent that the saline water was replaced by fresh water. The part above the resulting strait turned into a lake some four kilometres wide lying immediately to the north of Pahtajavaara and covering an area of 200 km. The River Ounasjoki flowed into this lake at Sinettä and the River Kemijoki below Vanttauskoski.

There were already human settlements on the banks of the lake, deriving their existence from fishing and seal hunting. As the sea retreated, the seal hunting sites used in winter were moved closer to the present coast, first to below Valajaskoski, then to Muurola and in time to Tervola. The inhabitants tended to move back upstream for the summer, however, to catch freshwater fish and to hunt game.

Since the hardness of the Quaternary deposits prevented any enlargement of the channel at Valajaskoski the water became dammed at this point and the lake level remained fairly constant for several millennia, at 76–77 m a.s.l. for a long time during the Combed Ware Period (3500–2800 B.C.), falling later to below 74 m during the Asbestos Ceramics Period (2800–1300 B.C.)



Once released from the weight of the ice, the land began to rise rapidly. When the water level in the Ancylus Lake dropped to that of the surrounding oceans about 7000 years ago, a long bay of the Litorina Sea extended through a narrow strait at Valajaskoski to reach the present-day town of Rovaniemi, where it branched to the north and east.

Extensive remains of settlements have been found on the shores of this ancient lake, especially at Kolpene, leading archaeologists to refer to the lake as the "Ancient Lake Kolpene". There were human settlements on its shores at least from 4000 B.C. until around 1000 B.C.

By approximately 3000 years ago the head of Valajaskoski had been eroded so much that Ounaskoski emerged below the mouth of the River Ounasjoki. The flow of water in the Kuolasuvanto area also gradually reached such dimensions that the lake turned into a stretch of river. The water level at the head of Valajaskoski was 69 m a.s.l. in summer time prior to the construction of the hydroelectric power station, and the river bed was only a fraction of its current size. Construction of the dam brought the watertable back to the level which had prevailed in the Combed Ware Period, ca. 3000 B.C.