

**Timo Jussila**

## **SHORE-LEVEL DISPLACEMENT OF THE PREHISTORIC DWELLING SITES IN THE ANCIENT LAKE SAIMAA COMPLEX**

Christian Carpelan and Ari Siiriäinen were the initiators of a research project for studying and specifying from an archaeological point of view the history of the shores of Lake Saimaa, especially in the Late Stone Age and the Early Metal Period. Their research included levelling of the raised beaches in different parts of Lake Saimaa. The present study is a continuation of Carpelan's and Siiriäinen's work.

The aim of the study is to create methods to date the prehistoric dwelling sites in the Lake Saimaa area according to the level on which they are situated. The purpose of the study is to reconstruct synchronous shore levels on different levels between the water level of present Lake Saimaa and the level of the highest shore of the lake complex of Saimaa preceding the opening of Vuoksi in the Comb-Ceramic period.

The raised beaches of Lake Saimaa were levelled at 105 sites during the summer of 1992. The levelling was carried out at prehistoric dwelling sites with pottery, which were situated on a clearly noticeable ancient terrace. Several sites included dwelling sites that date from different periods and are situated at different levels. The base and the top of the terrace were levelled at the site.

The sites form perpendicular lines towards land uplift isobases in different parts of the lake basin, in which case it is possible to compile a distance diagram for these parts of the lake. With the help of ceramics from the levelled sites, the observations on the shores were classified into preliminary hypothetical synchronous groups which were tested with regression analysis. According to the preliminary results it is possible to reconstruct several synchronous shore levels which date from the Neolithic period to the Iron Age. With the help of the <sup>14</sup>C datings from the sites and the earlier absolute datings of Matti Saarnisto's stratigraphical studies<sup>1</sup>, it is possible to construct a time-gradient curve and an absolute dating method for the shoreline-connected hunter-gatherer sites in the Lake Saimaa region. The levelling of the tops and bases of the terraces on which the sites are situated also gives information about the duration of settlement at the sites.

The study serves as a basis for a computer program that is able to suggest a relative and an absolute date for settlements according to their coordinates. The complete study will be published in Helsinki Papers in Archaeology.

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<sup>1</sup> Saaristo, Matti 1970: The Late Weichselian and Flandrian History of the Saimaa Lake Complex. *Commentationes Physico-Mathematicae* vol. 37.