

Diss. Nr. 4254

Quartärgeologische Untersuchungen in der Linthebene

Abhandlung zur Erlangung der Würde eines
Doktors der Naturwissenschaften
der Eidgenössischen Technischen Hochschule Zürich

vorgelegt von

JEAN-ROLAND KLÄY

dipl. Geologe ETH
geboren am 7. Juli 1937
von Thunstetten, Kt. Bern

Angenommen auf Antrag von

Prof. Dr. R. Trümpy, Referent
Prof. Dr. R. Hantke, Korreferent

SUMMARY

The Pleistocene deposits in the plain of the Linth are of Würm age, except for a layer of ground moraine, which has been found superimposed directly on the molasse. This till could be of Riss age.

The rest of the deposits were deposited during two different periods.

The older Sediments contain lignites. Near Wangen, they indicate at least two advance and retreat cycles of the glacier during their deposition. These oscillations are proved by two layers of outwash and till interposed between the horizons of lignite. A pollen cross section through the lignites on the Buechberg shows the same flora and the same cycles of vegetation as the lignites near Uznach and Kaltbrunn; therefore both should be of the same age.

Most of these older deposits were eroded by an important glacier advance and escaped erosion only in some protected areas. They were partially folded by the advancing ice masses.

The younger and undisturbed deposits lie above an unconformity. They were overridden by a final glacier advance which deposited a thin layer of ground moraine.

The younger deposits do not differ in their composition from the older ones, except in a few localities, where the composition has been influenced by local rivers.

The lack of typical Rhine material shows that the proportion of Rhine-ice in the Linth-Rhine system was less during the deposition of the outwash and till in the plain of the Linth than it was during the Würm maximum stage.

The proportion of reworked molasse material is small.