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Titel: Outline of the geological structure of the easternmost Alps.

In this report the author tries to explain the structure of the easternmost Alps by means of some Profils. One of them ist for this purpose elected.

The lowermost tectonical unit comprising mesozoic rocks and ophiolites of penninic type can be seen in the tectonical windows of Rechnitz-Bernstein. Their basement is unknown. This Penninicum is overthrust by two nappes the lower of which consists of Wechsel Crystalline while the upper one is composed of Grobgnais Crystalline, combined with some mesozoic, belonging to the lower austroalpine group. Generally a very big middle austroalpine crystalline builds up the frame of the large Semmering Window. Mesozoic rocks imposing the crystalline are known as Stangalm Mesozoic, Raasbergfolge on the border of the Graz Paleozoic, Tattermann Mesozoic north of Semmering, Rannach Series and others. The Rechnitz overthrust is supposed to be young alpidic whereas the lower austroalpine nappes might have been layed out in the older alpidic age and moved on up to the young alpidic time.

This unit comprising the remnants of mesozoic rocks above mentioned has been overthrust by the lower and upper nappe of the Grauwacken Zone, the lower one being characterised by younger and the upper one by older paleozoic. Behind remaining parts of these units are the Gurktal Nappe and the Graz Paleozoic. All these units once have been parts of an early cretaceous (oldalpidic) nappe system including the Limestone Alps.

Still today we can perceive a sedimentary connection between the Grauwacken Zone and the southernmost respectively highest units of Limestone Alps. But both of them about during oligocene time moved by sliding from the core of austroalpine crystalline into the Molasse t_{rough} during a late phase of Tauern overthrust. This way the Limestone Alps have overthrust and pushed forward flysch and helveticum over molasse. These movements finally came to a standstill in later ottnangien time. Comparing with Western Carpathians we are able for interpreting the lower Grauwacken Nappe as a former basement belonging to one of the lower nappes of the Limestone Alps and the Noric Thrust Plane as an alpidic event.

The attempt to see the Rheno-Danubian Flysch Trough as a wide opening rift valley south of the ultrahelvetic region consequently leads to assuming a second subduction zone situated more northerly beside

the big penninic subduction. Possibly the young lineament established in the Mur-Muerz valley and the southeastern Vienna Basin have a certain connection with the referred to above tectonical structure.

At any rate an important structure is the Raab Line which, striking northeastwards, is situated between the strongly deformed Eastern Alps and the much less deformed Bakony Region. Probably the Raab Line is rather a fault than the continuation of the generic over-thrust in the Western Carpathians.

Events of young geological history are the marine transgression bordering the Eastern Alps as well as the young basins breaking down in miocene time. Some geologists assume the miocene andesitic volcanism of eastern Styria and southern Western Carpathians to be effected by the big alpine subduction.