

unfossiliferous dolomites (Schlern dolomite in South Tyrol, "Erzfuhrende Dolomit" of Carinthia) of the "reef-type" of Mojsisovics. Out of the large series of fossils the following may be mentioned here—*Trachyceras* aon, species of *Arcestes*, *Lobites Orthoceras*, *Nautilus*, *Bactrites*, *Gervillia angusta*, *Koninckina Leonardi*, *Rhynchonella semiplecta*, *Encrinus cassianus*, *Pentacrinus propinquus*, *Cidaris dorsata*. (2) The Raibl beds mark the close of the separation of the two provinces, for they range from the one into the other. They consist of dark bituminous marly strata, with lenticular beds and thick reef-like masses of limestone, and frequently with gypsum and rauchwacke. Their fauna, distinguished by the large number of littoral lamellibranchs, includes *Trigonia Kefersteini*, *Cardita Gumbeli*, *Corbula Rosthorni*, *Halobi rugosa*, *Gervillia bipartita*, *Megalodus carinthiacus*, *Chemnitzia eximia*, *Nautilus Wulfeni*, *Trachyceras anoides*. The Lunz sandstones, which belong to this horizon, have yielded numerous land-plants, comprising many species of *Pterophyllum* and forms of *Equisetites*, *Calamites*, *Neuropteris*, *Alethopteris*, etc. (3) The beds comprising the zone of *Avicula exilis* and *Turbo solitarius* show a return of the dolomitic condition of earlier parts of the system. These conditions had already set in during the deposition of the Raibl beds, but they reached their full development during the accumulation of the next group, when masses of dolomite ranging up to nearly 4000 feet in thickness were laid down. This group of rocks, though placed by Mojsisovics in the Carinthian stage, is by other authors considered to be Rhætic. In North Tyrol it is known as the Main Dolomite (*Hauptdolomit*), in the *Salzkammergut* as the lower part of the *Dachstein* limestone, which forms an important feature in the scenery of the district. These rocks everywhere present a great contrast to the strata below them in their poverty of organic remains: Some of their most prominent fossils are casts of *Megalodus* (*M. Gumbeli*, *M. complanatus*, *M. Mojsvári*, etc.), and remains of calcareous algæ (*Gyroporella*). The bituminous Seefeld beds of the North Tyrol have yielded many fishes (*Semionotus*, *Lepidotus*, *Pholidophorus*) and remains of plants.

Until recently, according to Mojsisovics, the order of superposition of the rocks in the Hallstadt area was misinterpreted. He now believes that the Hallstadt marble does not form a continuous mass overlying the Zlambach beds, but that the latter, instead of underlying the Hallstadt