

Alpine chain rose as an island that stretched from the Engadine eastward into Austria. North of this old insular tract the Triassic strata are on the whole somewhat sandy, the accumulation of limestone there having been frequently interrupted by inroads of sand or silt. On the south side the deposition of limestone and dolomite went on more continuously, though interfered with occasionally by submarine volcanic eruptions. Some of the dolomite masses may have been coral-reefs; Mojsisovics even believes that in the conglomeratic portions he can detect traces of the breaker-action by which the reefs were ground down, while the thin marls were deposited in lagoons, or in the inner channels between the reefs and the land. But it is specially deserving of notice that corals were not the only agents in the accumulation of reef-like masses in this region. Alike in the dolomites and the massive limestones calcareous sea-algæ occur so abundantly as to show that they grew up into wide reefs, which, judging from what is known of the distribution of such organisms at present, show that the Triassic sea in these tracts did not exceed 200 fathoms in depth. Though organisms of higher grade are often associated with these reef-building plants, they occur most frequently in the thin-bedded marls and shales at definite horizons in the series of strata.

Having regard to the lithology and palæontology of the Alpine Trias, Mojsisovics proposed some years ago to regard the system in the eastern Alps as pointing to the existence of two great marine "provinces." The larger of these lay over the sites of North and South Tyrol, Lombardy, and Carinthia, and stretched far to the east. To this area the able Austrian investigator gave the name of the "Mediterranean province." To the other, which occupied a limited tract on the northeast slopes of the Austrian Alps, extending from the Salzkammergut into Hungary, he gave the designation of "Juvavian province" (from the old Roman name of Salzburg). Though the Triassic deposits of these two regions were geologically contemporaneous, they inclose remarkably different assemblages of organic remains, insomuch that the palæontological zones which can be determined in the one have not been found to hold good in the other. In no respect is this independence more strongly shown than in the great contrast presented by the Ammonites of the two areas. The Juvavian province has yielded a Triassic cephalopodous fauna far outrivalling in variety and interest that of any other tract. It was for a long time believed that the cephal-