

has been made that the change of the earlier Mediterranean fauna into that of the Sarmatian stage points to a gradual diminution of the salinity of the waters of the Vienna basin, as has happened with the existing Black Sea. The terrestrial flora is characterized by some plants that survived from the earlier or Mediterranean stage; but palms are entirely absent, and the American element in the flora is no longer surpassed by the preponderance of Asiatic types.

Mediterranean or Marine Stage.—A group of strata varying greatly from place to place in petrographical characters, with corresponding differences in fossil contents. Among the more important types of rock the following may be named:

Leithakalk, a limestone often entirely composed of organisms, and especially of reef-building corals, also bryozoa, foraminifera, echini (large clypeasters, etc.), large oysters (*Pecten latissimus* is specially characteristic), bones of mammals, and sharks' teeth. The Leithakalk passes frequently into sandy and marly beds, and into massive conglomeratic deposits (Leithakalk-schotter or conglomerate).

Tegel of Baden—fine blue clay, richly charged with shells, especially gasteropods (*Pleurotoma*, *Cancellaria*, *Fusus*, etc.) and foraminifera.

Marl of Gainfahren, Grinzing, Nussdorf, etc.—more calcareous than the Baden Tegel.

Sand of Potzleinsdorf—a fine loose sand with *Tellina*, *Psammobia*, and many other lamellibranchs.

Sandstone of Sievering with many lamellibranchs, especially pectens and oysters.

These various strata are believed to represent different conditions of deposit in the area of the Vienna basin during the time of the Mediterranean stage. With them are grouped certain fresh-water beds (brown-coals, etc.), found along the margin of the basin, which are supposed to mark some of the terrestrial accumulations of the period.

The characteristically marine fauna of this stage is abundant and varied. It presents as a whole a more tropical character than that of the Sarmatian stage above. Of its molluscan genera (of which more than 1000 species have been described) some of the more characteristic are: *Conus*, *Oliva*, *Cypræa*, *Voluta*, *Mitra*, *Cassis*, *Strombus*, *Triton*, *Murex*, *Pleuro-*