

Beneath the chalk are green sands, the lower layers of which have some organic remains. Still deeper are ferruginous sands. In many countries, both these are strongly marked with sand-stone layers, in which are also found lignites, amber, and relics of animals.

Under this, is the vast mass of strata composing the chain of Jura and the mountains which form its continuation into Swabia and Franconia; the main ridge of the Appenines, and a vast many beds in France and England. It consists of calcareous slates rich in fish and crustaceous animals; extensive beds of oolites, or of a granular limestone: marl, gray limestone, having pyrites characterised by the presence of ammonites; oysters with bent valves, termed gryphææ; and of reptiles more and more singular in construction and character.

Extensive layers of sand and sandstone, often bearing vegetable impressions, support all these beds of Jura, and are themselves supported by a layer of limestone, which is so replete with numerous shells and zoophytes, that Werner has called it by the too common name of *shelly lime-stone*, and which other sandstone strata, of the sort called variegated sandstone, separate from a limestone still more ancient, not less incorrectly called *alpine limestone*; because it composes the high Alps of the Tyrol, but which in fact is found in our eastern provinces, and throughout the whole south of Germany.

It is in this limestone, termed shelly, that the vast masses of gypsum and rich layers of salt are deposited; and beneath it are thin layers of coppery slates, very rich in fish, and amongst which are also found fresh-water reptiles. The coppery slate is supported by a red sandstone of the period when