

- Sub-div. 4. About 40 feet of ferruginous clays for which Thirria could not find an English equivalent. (These were Tertiary deposits, erroneously included by Thirria with the Jurassic formation.)
- Sub-div. 3. Over 200 feet of rock corresponding with the Kimmeridge Clay and Portland Stone, but exhibiting in the upper horizons a lithological and palæontological development different from the English.
- Sub-div. 2. About 350 feet of rock corresponding with the Kellaways Rock, Oxford Clay, and Coralrag in England.
- Sub-div. 1. About 270 feet of rock including five well-marked horizons palæontologically comparable with the Inferior Oolite, Fullers' Earth, Great Oolite, Forest Marble, and Cornbrash of the English series.

The memoir by Thirria was one of the best of the older publications on Jurassic deposits, although it gave no information regarding the tectonic structure of the area examined. It was soon over-shadowed by the greatness of Thurmann's tectonic and orographical studies in the western part of the Swiss Jura mountains. The original ideas formulated by the geologist of Porrentruy regarding the processes of mountain-making have already been mentioned (p. 302). In two memoirs, published 1832 and 1836, Thurmann gave an admirable exposition of the stratigraphy of the Bernese Jura. Voltz in Strasburg rendered willing assistance in identifying the fossils and determining the parallelism of the rocks with foreign equivalents.

Thurmann distinguished the following sub-divisions in the Terrain Jurassique :—

C. *Upper Jurassic or Portland Group.*

- 15. Portland Limestone with *Exogyra virgula*, etc.
- 14. Kimmeridge Marl of Le Banné, very fossiliferous (*Exogyra virgula*, *Pteroceras Oceani*, *Mytilus Jurensis*, etc.).