

Sandstone, with conglomerates and red clay; 2, the Vogesen Sandstone; 3, the Bunter Sandstone (*grès bigarré*). The Vogesen Sandstone was regarded by Elie de Beaumont as an equivalent of the Zechstein or Red Underlyer series, and he thought the uprise of the Vogesen had taken place after its deposition. The Bunter Sandstone was described as sometimes succeeding it unconformably, sometimes dissociated from it by faults. On the other hand, the Bunter Sandstone was said to pass gradually upward into Muschelkalk and the latter into Keuper deposits (*marnes irisées*).

In the year 1834 Alberti published his classic *Monograph of the Bunter Sandstone, Muschelkalk, and Keuper, and their union as a formation*. Alberti suggested that the name of *Trias* be given to this formation, on the basis of the well-marked character of the three sub-divisions. Starting from his own observations in South-Western Germany, Alberti drew a comparison between the deposits of the same age in other parts of Europe. Each of these three main divisions of the Trias was again sub-divided into a series of groups or horizons of rock, which are all carefully established upon stratigraphical, lithological, and palæontological data.

Alberti's sub-division of the Trias has remained the standard of research in Germany, although one or two slight modifications have been made. In other countries the name was also accepted, and the development of the Trias in Germany was regarded as the leading type in Europe of the sedimentary succession which had accumulated during that period in the large inland seas and lakes intermittently in open communication with the sea. The Muschelkalk, which represented the longest period of marine conditions in the German area, was found however to be entirely absent in certain areas.

William Smith had early pointed out the absence of the Muschelkalk in Great Britain. Later researches by Conybeare and Phillips, by Strickland (1833-37), by Murchison and Buckland (1839), showed that in Great Britain the Bunter beds are largely of estuarine origin, composed of sandstones, pebble-beds, and conglomerates, while the Keuper beds are also in places conglomeratic, or are red and white sandstones, and pass upward into the characteristic red and green marls containing local beds of gypsum and thick layers of rock-salt.

A summary of the Triassic Succession was given by Quenstedt in his *Flötz Series of Wurtemberg* (1843). Quenstedt