

for the first time placed the Amphibians and Reptiles in two separate groups of equal value in the classificatory system. In the eighteenth century, fossil Amphibians had been found in the Tertiary marls of Oeningen. In the year 1828, G. Jaeger described the teeth and part of the skull of a gigantic Salamander. These remains, found in the Triassic Alaun shales of Gaildorf, were the first discoveries of Amphibians in Mesozoic epochs, and later discoveries of Amphibian remains were made in the Bunter Sandstone of Sulzbach, and the Keuper strata near Bayreuth (1836).

In the year 1841, Owen published two memoirs on teeth showing a labyrinthic structure, and on several skeletal remains found in the Keuper of Warwickshire; Owen united these remains under the name of Labyrinthodon, and ascribed them to gigantic Batrachians. H. von Meyer and Plieninger, in a *Monograph on the fossil Labyrinthodonts of Wurtemberg* (1844), added much valuable information regarding the structure of the skull, the dental arrangement, and the skeleton of this animal. After a careful comparison of the Labyrinthodonts with reptiles, Amphibians, and fishes, Meyer formed the opinion that, in spite of many points of resemblance with Amphibians, the Labyrinthodonts belonged to the Reptiles. This view was retained by Meyer even after his detailed investigation of the Triassic Saurians (1847).

Burmeister published (1848-50) special memoirs on the Labyrinthodonts from the Bunter Sandstone series at Bernberg and the Carboniferous rocks at Saarbrücken, and expressed his opinion that the Labyrinthodonts represented mixed types of Reptiles and Amphibia. Ten years later, Meyer described the same forms in a monograph which is one of the best works on Palæozoic Vertebrata. The osteology of the Carboniferous genus *Archegosaurus* was fully and accurately depicted, and an excellent exposition was given of the incompletely ossified vertebræ and the several pieces constituting them. Larvæ with persistent gills were described, but nevertheless Meyer still relegated the Labyrinthodonts to the Reptilia.

Some new forms were discovered in the Carboniferous formation of Nova Scotia and Ohio, as well as in the Permian rocks of Silesia, and Owen, on the basis of his examination of these, erected (1861) two orders—the *Ganocephali*, comprising Palæozoic forms with incompletely ossified vertebræ, persistent