

the Rhine Valley. Faujas de Saint-Fond tried to prove, in opposition to Cuvier and Blumenbach, that these were identical with the bones of species still existing in Africa.

The Franconian caves were examined by Esper and Rosenmüller, and the mammalian remains found in them were thoroughly investigated. The remains of Mastodon and Megalonyx, as well as other gigantic mammalia of America, were quite well known to Buffon and several writers in the eighteenth century.

But almost all publications on fossil mammalia had been founded on a very insecure scientific basis, and had not attained to any satisfactory result regarding the affinities of the fossil to the living forms. It was the creative genius of Cuvier¹ that erected Comparative Anatomy into an independent science, and defined principles upon which the investigation of fossil Vertebrates could be carried out with accuracy.

Cuvier's papers on fossil Vertebrates, which originally appeared in the *Annales du Muséum*, were collected in 1812 and compiled into a separate work, the papers being arranged merely in the order of their publication.

Cuvier's *Researches on Fossil Bones* was published as a four-volume work. The first volume contains the famous "Preliminary Discourse," which was really written later than the contents of the other three volumes, although all were published together in 1812. The "Discourse" was frequently altered by the author, and ran through six editions. It will be more fully discussed below. The second volume of the *Researches* begins with some remarks on the sub-divisions of the *Pachydermes* (Cuvier) among *Ungulates*, and on the deposits in which their fossil remains occur. The account of the *Pachydermes* is followed by a series of studies on the comparative osteology of Hyrax, the fossil and recent walruses, hippopotami, tapirs, and elephants, also the extinct genus Mastodon. The text

¹ Leop. Chr. Friedr. Dagobert Georges Cuvier, born on the 24th August 1769 in the town of Mömpelgardt (Montbéliard), which then belonged to Würtemberg, was educated at Stuttgart in the "Karl Schule." In 1788 he became tutor to Count d'Héricy at Fiquainville (Calvados); in 1795, Professor at the Central School in Paris; in 1800, Professor of Natural History at the College of France; in 1802, Professor of Anatomy at the Botanical Garden. Honours were richly showered on him: in 1814 he was made a Councillor of State; in 1819, Chief of a Department in the Home Office with the title of Baron; and in 1831 a Peer of France. He died on the 13th May 1832.