

as the type of the genus,—the *Orbitolites complanata* of Lamarck, which, at first known only as a fossil in the Calcaire Grossier of the Paris basin and other parts of France, has been since found to present itself as a living form in such abundance on Australian and Polynesian reefs, that its accumulated disks sometimes constitute no inconsiderable proportion of their material.¹ The disks of this species were the earliest examples of the Orbitoline type that attracted attention; and, as I have already pointed out (pp. 1, 2), many strange ideas were entertained in regard to their character. When Lamarck constituted the genus *Orbitolites* (p. 2), he defined this species as follows:—*Orbitolites tenuis fragilis, utrinque plana et porosa*; his idea having apparently been that the porosity of each of its surfaces differentiated it from *Orbitolites marginalis*, which is also *utrinque plana*, but porous at the margin also. This differentiation is altogether incorrect, being founded on fossil specimens whose outer lamellæ have been worn away, so as to lay open the subjacent chamberlets, which are closed in perfect recent specimens of *Orbitolites complanata*, as in *Orbitolites marginalis*. The first intimation of the present existence of this species seems to have been given by DeFrance (Dict. des Sci. Nat., tom. xxxvi., 1825, pp. 294, 295), who, in describing the well-known fossil type, states that living specimens closely allied to it had been found on the coast of Australia. These were probably the disks collected by MM. Quoy and Gaimard in that locality during the “Voyage de l’Astrolabe,” which they designated by the generic term *Marginopora*; and this designation was adopted by M de Blainville (Man. d’Actinologie, 1834, p. 412), who was the first to publish a description of the recent type, under the name *Marginopora vertebralis*, in immediate sequence to that of the recent *Orbitolites marginalis* already cited (p. 21). As in the previous case, Blainville’s account of it was not only incomplete, but in some respects inapplicable to the ordinary form of the type; so that I should not have felt sure of its identity, if I had not myself examined (in the Paris Museum) the very specimens for which the genus *Marginopora* was created, and which are exactly conformable to one of the varieties of the recent *Orbitolites complanata* which I am about to describe. The closeness of the relationship borne by his *Marginopora vertebralis* to *Orbitolites complanata* was held by Blainville to be further indicated by the conformity of the internal structure of the two disks; each being found, when one of its surfaces is rubbed away, to present a series of concentric canals, separated by annular partitions, and themselves divided into cells. He doubted, however, whether either *Orbitolites* or *Marginopora* should be considered as a true polypary, allied to *Eschara* or *Retepora*; and thought it more likely that the Orbitoline disk is “quelque pièce intérieure.” I have already alluded to the extraordinary error committed by Prof. Ehrenberg, in not only ranking *Orbitolites* among his BRYOZOA, in close proximity to *Lunulites*, but in actually

¹ I was informed by the late Prof. J. Beete Jukes, whose specimens were the first which I had the opportunity of examining, that at certain spots on the Australian coast the great mass of his dredgings consisted of the entire disks and fragments of *Orbitolites complanata*, with fragments of Corallines (chiefly, I believe, the *Corallina palmata* of Ellis).