

The occurrence of the bones of quadrupeds in the clefts or fissures of rocks, intermixed with fragments of the rock, and cemented with them into a kind of breccia, is very common in many of the calcareous rocks adjoining the Mediterranean sea. The osseous breccia of Gibraltar is well known: the calcareous matter which has been infiltrated into the fissures, and forms the cement, has generally a reddish colour, and contains so much phosphoric acid, from the decomposition of animal matter, as to become luminous in the dark when scraped. The bones in the fissures surrounding the Mediterranean, belong chiefly to herbivorous quadrupeds; but they are sometimes intermixed with marine shells, indicating a great change in the level of the rocks subsequent to the filling of the fissures.

Osseous breccia, similar to that in Europe, has been recently discovered by Major Mitchel, in the rocks bordering Wellington Valley, in New Holland. The breccia contains bones and fragments of rock, with the same red calcareous cement as the osseous breccia of Gibraltar, &c.

According to the examination of Cuvier and Mr. Pentland, some of the bones belong to different species of the kangaroo, and animals of the same genera that exist in New Holland; but others belong to species hitherto unknown to naturalists. Among these bones there are the remains of a species of elephant: a fact extremely interesting, as it proves that, in the ancient condition of the globe, this part of its surface supported animals more analogous to those of Asia and Africa, than any which existed upon it when first discovered by Europeans. In the report to the Geological Society of France, 1831, it is observed—"Thus we have in New Holland, a deposition of osseous breccia and caverns, similar to those of Europe. *Were these depositions cotemporary?* This is not very probable; at different epochs the analogy has consisted in the mode of formation; many different catastrophes may have destroyed the great animals of the Ohia, of the Irrawadi, of the north and central parts of Europe, and of Australia, and buried their bones in fissures and caverns, or in beds of clay and gravel. But whatever was the epoch of the deposition in New Holland, the organization of animal life was then, in a great part, the same as at present; since we find in the osseous breccia, the types of that class of animals that are still peculiar to the country, but always accompanied by bones of genera, (the mastodon and elephant,) which are altogether unknown there."

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The depositions of calcareous earth pendant from the roofs of caverns, called *stalactites*, and those upon the floors of caverns, called *stalagmites*, are formed by the evaporation of water, holding calcareous earth in solution. A drop of water, in evaporating, deposits a pellicle of limestone, which is increased by succeeding depositions,