

The local development called the *Stonesfield Slate* consists of beds of laminated shelly and oolitic limestone and sandy flags, with much false bedding, and containing ferns, *Cyclopteris*, *Glossopteris*, *Pecopteris*, &c.; Cycads, *Bucklandia squamosa*, *Zamias*, *Palæozamia* of various species, and Coniferæ. Elytra of beetles and wings of insects (*Libellula Westwoodii*, &c.); bones of *Plesiosaurus*, *Crocodile*, &c.; also *Ostrea*, *Terebratula*, *Rhynchonella*, *Lima*, *Pecten*, *Trigonia*, *Patella*, *Nerinea*, *Belemnites*, *Ammonites*, &c., are all found in these thin shallow water deposits. The reptiles include *Ichthyosaurus advena*, *Plesiosaurus erraticus*, and crocodiles of the genus *Teleosaurus*, allied to the Gavial of the Ganges (*T. brevidens* and *T. subulidens*), together with a great carnivorous lizard, *Megalosaurus Bucklandi*, that walked on the neighbouring land, and was probably about 30 feet in length. A flying reptile, *Ramphorhynchus Bucklandi*, allied to the Pterodactyle, is found in this subformation, which has long been especially celebrated as containing the remains of mammals, viz. the lower jawbones of species of small insectivorous marsupials, *Amphitherium Broderipii*, *A. Prevostii*, *Phascolotherium Bucklandi*, and *Stereognathus Ooliticus*.

I call the Stonesfield Slate a local development because it is by no means of universal occurrence at the base of the Great Oolite, and is chiefly known in those parts of Gloucestershire that lie eastward of Cheltenham on the broad Oolitic plateau, and in Oxfordshire at and near the town of Stonesfield, where it perhaps attains its greatest thickness. There it is largely manufactured into what are called slates, but in reality are small slabs, the coarse fissile character of which has no relation to what is known as slaty cleavage. From these areas