

### III. MESOZOIC TIME.

Mesozoic or mediæval time in the earth's history comprises a single era only. It is the era of the *Secondary* formations of early geological science, and that of the *Reign of Reptiles* of Agassiz.

It is remarkable as the era of the culmination and incipient decline of three great types in the Animal Kingdom, the *Amphibian*, *Reptilian*, and *Molluscan*, and of one in the Vegetable Kingdom, the *Cycadean*. It is also remarkable as the era of the *first Mammals*, of the *first Birds*, of the *first* of the *Common* or *Osseous Fishes*, and of the *first Palms* and *first Angiosperms*.

#### SUBDIVISIONS.

3. CRETACEOUS PERIOD, W. H. Fitton, *Ann. Phil.*, 2d. Ser., viii., 382, 1824.  
The Chalk Period, or the period of the Chalk formation.
2. JURASSIC PERIOD, A. Brongniart, *Tabl. des Terrains*, 221, 1829, the name referring to the Jura limestone and other related beds of the Jura Mountains between France and Switzerland.
1. TRIASSIC PERIOD, F. v. Alberti, *Beitrag Mon. d. bunten Sandsteins, Muschelkalks u. Keupers*, Stuttgart, 1834, — the name, from the Latin, referring to a threefold division of the formation in Swabia, Franconia, and Lorraine. Variegated sandstone. Buntersandstein, this German name used for part of the strata by Werner. Poikilitic group (Pœcilitic), Conybeare and Buckland (from the Greek, ποικίλος, *variegated*), *Buckland's Bridgewater Treatise*, ii., 38, 1836. New Red Sandstone group or formation, Lyell, *El. of Geol.*, 1833, 1842 — Mercian of T. McK. Hughes = Triassic + Jurassic.

The Triassic and Jurassic rocks in some regions make together a continuous series, not easily separated, and the formation is then often called the *Jura-Trias*.

The generally accepted subdivisions of the three periods are the following:—

3. CRETACEOUS: (1) Lower; (2) Upper.
2. JURASSIC: (1) Lower, or *Liassic* (from the Lias, of England); (2) Middle, or *Oölytic* (from the oölitic character of some of the limestones in England); (3) Upper, or *Portlandian* (from the Portland beds in England).
1. TRIASSIC: (1) Lower Trias, or *Vosgian* (from the Vosges Mountains); (2) Middle Trias, or *Franconian* (from Franconia in Germany); (3) Upper Trias, or *Keuperian* (from the name Keuper in Germany); (4) *Rhætic* (from the Rhætian or Tyrolese Alps).