

## LECTURE SIXTH.

Remote Antiquity of the Old Red Sandstone—Suggestive of the vast Tracts of Time with which the Geologist has to deal—Its great Depth and Extent in Scotland and England—Peculiarity of its Scenery—Reflection on first discovering the Outline of a Fragment of the *Asterolepis* traced on one of its Rocks—Consists of Three Distinct Formations—Their Vegetable Organisms—The Caithness Flagstones: how formed—The Fauna of the Old Red Sandstone—The *Pterichthys* of the Upper or Newest Formation—The *Cephalaspis* of the Lower Formation—The Middle Formation the most abundant in Organic Remains—Destruction of Animal Life in the Formation sudden and violent—The *Asterolepis* and *Cocosteus*—The Silurian the Oldest of the Geologic Systems—That in which Animal and Vegetable Life had their earliest beginnings—The Theologians and Geologists on the Antiquity of the Globe—Extent of the Silurian System in Scotland—The Classic Scenery of the Country situated on it—Comparatively Poor in Animal and Vegetable Organisms—The Unfossiliferous Primary Rocks of Scotland—Its Highland Scenery formed of them—Description of Glencoe—Other Highland Scenery glanced at—Probable Depth of the Primary Stratified Rocks of Scotland—How deposited—Speculations of Philosophers regarding the Processes to which the Earth owes its present Form—The Author's Views on the subject.

I INCIDENTALLY mentioned, when describing the Oolitic productions of our country, that the shrubs and trees of this Secondary period grew, on what is now the east coast of Sutherland, in a soil which rested over rocks of Old Red Sandstone, and was composed mainly, like that of the county of Caithness in the present day, of the broken débris of this ancient system. We detect fragments of the Old Red flagstones still fast jammed among the petrified roots of old Oolitic trees; we find their water-rolled pebbles existing as a breccia, mixed up with the bones of huge Oolitic reptiles and the shells of extinct Oolitic molluscs; we even find some of its rounded masses incrustated over with the *corals* of the Oolite: the masses had existed in that