

geologists, well known to those of the Geological Survey, who mapped the ground, that some of the valleys of Cumberland are of older date than the deposition of the Old Red Sandstone, and standing on the ground it was impossible for me not to *feel* the idea, that Mell Fell and Little Mell Fell look like, and may be, the relics of an old moraine, shed from a glacier of Old Red Sandstone age, that flowed down a valley far older than that of modern Ullswater, and long before the special hollow in which the lake lies was formed. The mountains were much higher than now, for since then they have undergone an immense amount of denudation.

In Scotland fishes are more or less found in all the broader districts occupied by Old Red Sandstone, but it was chiefly in the north, in Caithness, and on both sides of Cromarty and Moray Firths, that Hugh Miller made his wonderful discoveries of fossil fishes of many species. They are found generally in bituminous schists and flags with occasional nodular concretions, and lie in various minor horizons among red and variegated sandstones and conglomerates, which contain the remains of many fish of the genera *Diplopterus*, *Cocosteus*, *Pterichthys*, *Diplacanthus*, *Osteolepis*, *Glyptolæmus*, *Dipterus*, *Holoptychius*, *Cephalaspis*, besides crustacea, such as *Pterygotus*, and the small bivalve *Estheria Murchisonia*. (Fig. 26.)

Most of the genera belong to a sub-order of Ganoid fish called *Crossopterygidae* by Huxley, from the fringe-like arrangement of the fins, a sub-order several species of which are still living in the rivers of Senegal and in the Nile.

I have specially mentioned these circumstances, for the purpose of keeping before the mind of the reader the broad fact that the Old Red Sandstone, as a whole, is