

servative qualities of the shales and stratified clays of the Lower Old Red Sandstone are not much inferior to those of lime itself; while, in the Upper Old Red, we have merely beds of consolidated sand, and these, in most instances, rendered less conservative of organic remains than even the common sand of our shores, by a mixture of the red oxide of iron. The older fossils, therefore, like the mummies of Egypt, can be described well nigh as minutely as the existences of the present creation; the newer, like the comparatively modern remains of our churchyards, exist, except in a few rare cases, as mere fragments, and demand powers such as those of a Cuvier or an Agassiz to restore them to their original combinations. But cases, though few and rare, do occur in which, through some favorable accident connected with the death or sepulture of some individual existence of the period, its remains have been preserved almost entire; and one such specimen serves to throw light on whole heaps of the broken remains of its contemporaries. The single elephant, preserved in an iceberg beside the Arctic Ocean, illustrated the peculiarities of the numerous extinct family to which it belonged, whose bones and huge tusks whiten the wastes of Siberia. The human body found in an Irish bog, with the ancient sandals of the country still attached to its feet by thongs, and clothed in a garment of coarse hair, gave evidence that bore generally on the degree of civilization attained by the inhabitants of an entire district in a remote age. In all such instances, the character and appearance of the individual bear on those of the tribe. In attempting to describe the organisms of the Lower Old Red Sandstone, where the fossils lie as thickly in some localities as herrings on our coasts in the fishing season, I felt as if I had whole tribes before me. In describing the fossils of the