

their habits, having feet for walking instead of flat, oar-like extremities for swimming.

These forms all disappeared with the dawn of a new era. Their bones lie buried in the geological cemeteries of Europe. It is almost incredible that information so exact can be drawn from the few scattered fragments which have been brought to light; but such is the unity and persistence of plan which runs through the different classes of the animal kingdom, that a single tooth, whether of a living or extinct species, will often suffice to enable the expert to disclose all the zoölogical relationships of the animal to which it belonged, to delineate its form, and size, and habits of life; as the architect from a single capital rescued from a ruined edifice can declare not only the general style of the entire architecture, but can reproduce the size and proportions of the temple whose spirit and method it embodies. Not less sublime than the work of the astronomer, who sits in his observatory, and, by the use of a few figures, determines the existence and position in space of some far-off, unknown orb, is that of the paleontologist—the astronomer of time-worlds—who, from the tooth of a reptile, or the bony scale of a fish found thirty feet deep in the solid rock, declares the existence, ages ago, of an animal form which human eyes never beheld—a form that passed totally out of being uncounted centuries before the first intelligent creature was placed upon our planet—and by laws as unerring and uniform as those of the mathematics, proceeds to give us the length and breadth of the extinct form; to tell us whether it lived upon dry land, in marshes, or in the sea; whether a breather of air or water, and whether subsisting upon vegetable or animal food. It is this unity of the laws of animal life and organization running through the whole chain of existence, whether past or present, whether extinct or recent, that constitutes the