

charged; and hence the calcareous nodules in which we find their remains enclosed. The form of the nodule almost invariably agrees with that of the ichthyolite within; it is a coffin in the ancient Egyptian style. Was the ichthyolite twisted half round in the contorted attitude of violent death? the nodule has also its twist. Did it retain its natural posture? the nodule presents the corresponding spindle form. Was it broken up, and the outline destroyed? the nodule is flattened and shapeless. In almost every instance the form of the organism seems to have regulated that of the stone. We may trace, in many of these concretionary masses, the operations of three distinct principles, all of which must have been in activity at one and the same time. They are wrapped concentrically each round its organism: they split readily in the line of the enclosing stratum, and are marked by its alternating rectilinear bars of lighter and darker color; and they are radiated from the centre to the circumference. Their concentric condition shows the chemical influences of the decaying animal matter; their fissile character and parallel layers of color indicate the general deposition which was taking place at the time; and their radiated structure testifies to that law of crystalline attraction, through which, by a wonderful masonry, the invisible but well-cut atoms build up their cubes, their rhombs, their hexagons, and their pyramids, and are at once the architects and the materials of the structure which they rear.

Another and very different chemical effect of organic matter may be remarked in the darker colored arenaceous deposits of the formation, and occasionally in the stratified clays and nodules of the ichthyolite bed. In a print-work, the whole web is frequently thrown into the vat and dyed of one color; but there afterwards comes a discharging process.