

shell is divided by cross partitions or *septa* at frequent intervals. Like Nautilus, it is a gradually tapering tube. Like Nautilus, there is near the center of each septum, a small perforation from which leads a little tube to the next septum, and thus through all the septa and intervening *chambers*. This tube is the *siphuncle*. Like Nautilus, each septum is simply and plainly concave with the concavity turned toward the larger end of the shell. As in Nautilus, the last chamber is deep, and undoubtedly this was the portion to which the animal was confined. If Nautilus should be uncoiled, it would be precisely an *Orthoceras*.

How the relics of these interesting creatures lie packed in various parts of the Niagara limestone through all its continent-wide extent—often broken, sometimes perfect. There is no consciousness in these ruins now. We can picture them, however, the homes of creatures which could feel and see and hunger and desire, and entertain a purpose. We can think back the wide-tentacled bodies which rested in the outer chamber. We can see them, in thought, spreading their strong arms, glaring with their great glassy eyes, pursuing with hungry ferocity their prey, tearing with their lance-like mandibles, and feeding with the gusto and relish of a true carnivore.

We notice among the dead chambered shells some variations. In form, a few are slightly bent, while most are straight. In some, the traverse section is oval, while generally, it is almost circular. In some, the place of the siphuncle, instead of being central, is a little distance away from the center—but not in the margin. We notice, also, that the septum is sometimes undulate around the margin, instead of plane. Thus nature shows a susceptibility to vary. Her forms are fashioned after fundamental plans, but not all cast in one mould. For some reason which may be inscrutable, she seems always playing off from the main path, with a sense of freedom rather than necessity.

Right here, in the midst of these ancient *Orthoceratites*, are the relics of organisms decidedly divergent. Here are