

a view of illustrating certain points that have relation to the object of the present Treatise.

I select these, first, because they afford proofs of mechanical contrivances, more obviously adapted to a definite purpose, than can be found in shells of simpler character. Secondly, because the use of many of their parts can be explained, by reference to the economy and organization of the existing animals, most nearly allied to the extinct fossil genera and species with which we are concerned. And, thirdly, because many of these chambered shells can be shewn, not merely to have performed the office of ordinary shells, as a defence for the body of their inhabitants; but also to have been hydraulic instruments of nice operation, and delicate adjustment, constructed to act in subordination to those universal and unchanging Laws, which appear to have ever regulated the movement of fluids.

The history of Chambered shells illustrates also some of those phenomena of fossil conchology, which relate to the limitation of species to particular geological Formations;\* and affords striking proofs of the curious fact, that many

\* Thus, the *Nautilus multicarinatus* is limited to strata of the Transition formation; the *N. bidorsatus* to the Muschelkalk; *N. obesus*, and *N. lineatus*, to the Oolite Formation; *N. elegans*, and *N. undulatus*, to the Chalk. The divisions of the Tertiary formations have also species of Nautili peculiar to themselves.