

without annular constrictions (Larcarida, Larnacida, Pylonida); these form the subsection Pylolarcida. Two other families (Tholonida and Zonarida) are distinguished by annular constrictions, which divide the regular lentelliptical shell into a number of dome-shaped chambers or cupolas; we call these Thololarcida. A third group, Spirolarcida, comprises the Larcoidea with spiral growth; the two families of Lithelida and Streblemida. Finally, a fourth group, the Sorolarcida, is formed by the Larcoidea with irregular shells, also two families, the Phorticida and Soreumida.

The first family of Larcoidea, the Larcarida, contains the most simple forms, beginning with *Cenolarcus*, a quite simple lentelliptical latticed shell. In *Coccolarcus* we find already two concentric shells, connected by radial beams, an inner medullary and an outer cortical shell. In *Spongolarcus* the lentelliptical shell becomes spongy.

The second family, Larnacida, is very similar to the Larcarida, and seems to diverge only by the different mode of connection between the two concentric lentelliptical shells. But in truth this slight difference is of great morphological importance, as it depends on a quite different and peculiar mode of growth. In the foregoing Larcarida (*Coccolarcus*, &c.), the concentric shells originate in the same manner as in the concentric Prunoidea and Sphæroidea, by radial beams, which arise from the surface of the inner (medullary) shell and become connected by a network to form the outer (cortical) shell. Here, in the Larnacida, a quite similar shell originates in a quite different way, first arrived at in the Pylonida (*Trizonium*). Both concentric shells become here connected by peculiar lattice girdles, which are developed in the perimeter of the three elliptical dimensive planes. Firstly, on both sides of a simple, spherical, or lentelliptical central chamber, arise two lateral wings (on the poles of the transverse axis), and build around the former a transverse girdle. This is crossed by a larger lateral girdle, the minor axis of which is the major of the former, and perpendicular to both girdles is yet developed a third, the sagittal girdle. If the open fissures or "gates" between these three girdles become closed by network, we obtain *Larnacilla*, the probable ancestral form of all Larnacida.

Whilst in *Larnacilla* and *Larnacidium* this typical trizonal lentelliptical shell constitutes by itself alone the whole skeleton, in the other Larnacida it becomes overgrown by outer envelops, and so becomes enclosed in the interior of the central capsule as a "*Larnacilla*-shaped medullary shell." If the enclosing external envelops be simply latticed, we get the subfamily Larnacalpida; if they be spongy, we get the Larnacospongida.

The third family, Pylonida, is the most important of all Larcoidea, as not only the largest and most interesting number of species belong to it, but also many other genera (far the greater part of all Larcoidea) may be derived from it. The peculiar character of the Pylonida is determined by the imperfect fenestration of the lentelliptical shell growing in the three dimensive axes in a quite different manner. Each elliptical dimensive plane becomes circumscribed by an elliptical latticed girdle (or fenestrated