

between the radial bars, singly or in groups; sometimes their number seems to be not greater than that of the bars, whilst in other cases a circlet or group of axopodia corresponds to each radial bar. Perhaps their fine axial thread consists of acanthin. At all events the axopodia are constant organs (probably sensory, like the "palpocils") and not retractile like the movable myxopodia.

The axial threads in the pseudopodia of the *Acanthometra* were first discovered by R. Hertwig, who accurately described their peculiar structure and arrangement (L. N. 33, pp. 16, 117).

96. *The Myophriscs of the Acanthometra.*—The *Acanthometra* are characterised by a very peculiar differentiation of the exoplasm, namely, by the formation of myophriscs or contractile threads from the sarcodictyum. In most (and perhaps in all) ACANTHARIA of this order each radial bar is surrounded by a circlet of such contractile threads, which was first described as a "ciliary corona" (see note A, below). The number of contractile threads in each circlet usually amounts to from ten to twenty, rarely being more than thirty and less than eight; it often appears to be constant in the individual species (see note B). In the living state the myophriscs are long, thin filaments, the pointed distal end of which is inserted into the radial bar, whilst the thicker proximal end is attached to the surface of the calymma, which is elevated round the base of each rod into the form of a gelatinous cone or skeletal sheath (see note C). Probably the myophriscs lie on the outer surface of the apical portion of this gelatinous cone, and are hence to be regarded as exoplasmic threads differentiated from the sarcodictyum. Sometimes, however (as in *Acanthochiasma*), they fuse into a contractile membrane and form the envelope of a cone, whose interior is occupied by a gelatinous papilla of the calymma. On mechanical irritation the myophriscs contract rapidly and suddenly, like muscle-fibrillæ, becoming at the same time thicker, and hence are very different from pseudopodia. Their distal point of insertion being fixed to the firm acanthin rod, they raise by their contraction the skeletal sheath, to which their bases are attached or in the surface of which they lie. The result of their contraction is therefore a distention and increase in volume of the calymma, with which is no doubt connected an inception of water into the gelatinous mass, and hence a diminution in its specific gravity. Probably the *Acanthometra* contract their myophriscs voluntarily when they wish to rise in the water; when these relax the calymma collapses owing to its elasticity, water is then expelled and the specific gravity increases. From a physiological point of view, then, the myophriscs are to be regarded as a hydrostatic apparatus, morphologically as myophanes or muscular fibrillæ, such as also occur in the intracapsular protoplasm (see §§ 77–80). On more violent irritation and after the death of the *Acanthometra* the myophriscs separate from the radial bars and remain attached to the distal ends of the conical gelatinous sheaths as free "ciliary coronas." At the same time,