18. *The Principal Groups of Geometrical Ground-Forms.*—The great variety of the geometrical ground-forms which are actually realised in the variously shaped bodies of the Radiolaria, renders it desirable to classify these in as small a number as possible of principal groups and a larger number of subdivisions. As extensive principal groups four at least must be distinguished; the *Centrostigma* or Sphærotypic, the *Centraxonia* or Grammotypic, the *Centroplana* or Zygotypic, and the *Acentrica* or Atypic. The natural centre of the body, about which all its parts are regularly arranged, is in the first group a point (stigma), in the second a straight line (principal axis), in the third a plane (sagittal plane), in the fourth a centre is of course wanting.

19. *The Centrostigma or Sphærotypic Ground-Forms.*—The first group of geometrical ground-forms, here distinguished as sphærotypic or the centrostigma, is undoubtedly the most important among the Radiolaria, inasmuch as if these be considered monophyletic, it must be the original one from which all the other ground-forms have been derived. The common character of all these sphærotypic ground-forms is that their natural centre is a point (stigma); thus there is no single principal axis (or protaxon) such as is characteristic of the two following groups. The sphærotypic ground-forms are subdivided into two important smaller groups, the *spheres* (Homaxonia) and the *endospherical polyhedra* (Polyaxonia). The spherical ground-forms, fully developed in the central capsule and calymma of *Actissa* and the Sphæroidea as well as in many ACANTHARIA, present no different axes; all possible axes passing through the centre of the body are equal (Homaxonia). In the endospherical polyhedra, on the contrary, numerous axes (three at least) may be distinguished, which are precisely equal to each other and different from all the remaining axes (Polyaxonia). If the extremities of these axes, or the poles, which are all equidistant from the common centre, be united by straight lines, a polyhedral figure is produced whose angles all lie in the surface of the sphere. According as the poles of the axes are at equal, subequal, or at different distances from each other, we may divide the endospherical polyhedra into regular, subregular and irregular. (See Gener. Morphol., Bd. i. pp. 404–416.)

20. *The Centraxonia or Grammotypic Ground-Forms.*—The second principal group of organic ground-forms, here called grammotypic or centraxonia, is characterised by the fact that a straight line (gramma) or a single principal axis (protaxon) forms the natural centre of the body. This important and extensive group is divided into two subgroups, those with one axis (Monaxonia) and those with crossed axes (Stauraxonia); in the latter different secondary transverse or cross-axes may be distinguished, but not in the former. In the Monaxonia, therefore, every transverse section of the body perpendicular to the principal axis is a circle, in the Stauraxonia, on the contrary, a polygon. The Monaxonia are further subdivided into two groups, in one of which the two poles of the principal axis