several contractile vesicles situated at the periphery of the body adjacent to the nucleus. In Arcella, the greatest number of contractile vesicles occur, and are ordinarily seen, as the animals are viewed from above or below, along the border of the sarcode mass.

Food swallowed by the Lobosa and other Rhizopods, and indeed by most of the Protozoa, appears in the endosarc, commonly in spherical balls, mingled with the other constituents. These balls, or rather the spaces occupied by them, have been called vacuoles, and are usually regarded as of temporary character. Ehrenberg supposed them to be actual stomachs, and hence the name of Polygastrica (Gr. *polus*, many; *gaster*, stomach), which he applied to all the Protozoa, including other forms now generally regarded as pertaining to the vegetal kingdom.

Dr. Wallich considers the so-called vacuoles, or food-vesicles, not in the light of mere spaces, but as temporary vesicles of ectosarc, due to inversion of portions of the exterior ectosarc at the time of the inception of the food, or to the contact of water with portions of the endosarc. The food-balls commonly appear with some degree of uniformity in size, and they vary in color and constitution according to the nature of the food and the changes it undergoes during digestion in the endosarc. The solid food in the balls often appears surrounded with a more translucent area than the contiguous endosarc, due to water swallowed with the food Frequently, however, the solid food appears without the translucent area, and in direct contact with the endosarc, in which cases liquid originally ingested with the food and altered in some way has probably been drained off into the contiguous endosarc.

Among the food constituents of the endosarc there frequently occur solid bodies of different forms and extremely different sizes, with or without surrounding liquid, such as diatoms, desmids, fragments of vegetal tissues, and even other Rhizopods included in their shells.

Associated in like manner with the ordinary food-balls, there are frequently to be noticed drops of liquid, clear and colorless, or colored, mingled with the other materials of the endosarc. These particular liquid drops, water-vacuoles or vesicles containing liquid, are due to water swallowed in drops, or imbibed and accumulated in drops, or they are the result of more consistent food liquefied in the process of digestion.

The food appears to be swallowed by the Lobosa, not by a mere