

The food of *Amaba villosa* and other Rhizopods appears always to be swallowed together with some water, which subsequently is commonly observed as a clear area surrounding the food within the endosarc. Soft food, vegetal and animal, assumes the form of spherical balls; but more consistent food, such as diatoms, retains the original form according to its degree of resistance. The distinctive character of soft articles of food rapidly disappears after being swallowed. The different food materials undergo chemical changes as a result of digestion in the endosarc, and colors become changed in a striking manner. The bright-green chlorophyll of algæ becomes brown or yellow and shriveled within the colorless cells, and the endochrome of diatoms becomes browner in hue and shriveled into two narrow strings within each shell.

Some ooze gathered in the month of September from a mill-pond, in which grows a profusion of the magnificent Nelumbo, *Nelumbium luteum*, near Woodstown, New Jersey, contained many large specimens of *Amaba proteus*, like the one represented in fig. 7, pl. I. This individual occupied a space of about one fourth of a line in length by one sixth of a line wide in front, where three large finger-like pseudopods diverged. The nucleus, if present, escaped my notice. The contractile vesicle usually occupied a position at the posterior extremity. The endosarc contained numerous large, round or oval, yellowish, granular balls, supposed to consist of food, but not visibly included in water-drops. Many of these were darkly outlined, and appeared to have an oil-like consistence. With them were also mingled many clear colorless globules, granules, and crystals. When the specimen was first noticed, it contained, just in advance of the position of the contractile vesicle, a Brachionus, which finally assumed the appearance of an ordinary food-ball, resembling the abundance of yellowish balls with which it was associated.

In movement, the main trunk and larger pseudopods of the same *Amœba* assumed more or less the appearance of being longitudinally folded. The endosarc axially flowed as if in the interior of thick-walled canals, of which the walls appeared to be composed of finer granular matter with scattered imbedded crystals. In the flow, all the contents did not move with the same rapidity, and usually the smaller particles were swept quickly by the larger ones. Other matters, including some of the largest elements, appeared to stick to the inner surface of the extemporaneous tubes, but