

however, stiff, and not flexible like that of *Culeolus murrayi*. The thickness varies considerably, being much greater on the longitudinal ridges than in the hollows between. Its external surface is perfectly smooth, except where it is raised up to form the pointed papillæ above described.

The test is quite opaque on account of its thickness; here and there, in the thinner parts, it has a hyaline translucent appearance. Over the whole surface minute, opaque, light brown dots are thickly scattered, and are especially numerous at the anterior end and round the base of the peduncle. A microscopical examination of thin sections shows that these dots are comparatively large chambers in the test in connection with the blood-vessels which will be described shortly. The inner surface of the test is smooth and glistening—as usual the mantle adheres to it.

In its minute structure this test corresponds closely to that of *Culeolus murrayi*. The chief difference lies in the disposition of the blood-vessels. In the present species they are greatly developed, the test being much more vascular than in the last species. In all the sections vessels were numerous, though most of them were of small size. They branch and anastomose, ramifying through all parts of the test, and ending frequently near the external surface in small rounded knobs. The finer vessels are peculiar on account of the great distances to which they extend, and their frequently zig-zag and cork-screw-like course (Pl. X. fig. 4). Here and there, in the deeper parts of the test, one comes across sections of the large trunks from which the smaller vessels arise, but these are rare. Large cavities or reservoirs are also met with, both in the deeper parts of the test, and, as in the last species, just under the external surface; but they are very rare. These cavities are usually filled with masses of reddish-brown blood-corpuscles (Pl. X. fig. 4, *b.c.*), and thus appear externally as the light brown dots mentioned above.

In the creases on the outside of the test there may be seen numbers of small delicate finger-like processes projecting beyond the surface, and in many cases these may be traced down for a short distance through the test (Pl. X. fig. 4, *t. p.*), and observed opening into one of the many fine vessels ramifying in the superficial layer. The finger-like processes are hollow, and extremely thin-walled; blood-corpuscles may be noticed here and there in their interior, and there can be no doubt that they correspond to the papillæ covering the external surface of the test in *Culeolus murrayi*. In the present case, besides being much fewer in number, they are far smaller, and their bases are not expanded to form large cavities as in the other species. In the other details of its minute structure, this test exactly resembles that of *Culeolus murrayi*.

*The Mantle* in this species is rather thin in relation to the size of the body. As in the last species, it adheres slightly to the inner surface of the test, but is easily detached.

The muscle bands are strong but distant. Most of them run transversely. A few, however, are longitudinal, and cross the first at right angles, so as to form a wide