altogether misunderstood by Vogt and Yung, who have apparently attempted to work out the anatomy of the type by one method only, that of thin sections, and have almost completely ignored its osteology. Had they devoted a little more attention to the characters of a prepared skeleton of *Comatula* they would have avoided not a few errors which are calculated to give the student an altogether erroneous conception, not only of Crinoid morphology, but of that of Echinoderms in general. The basal plates are among the earliest calcareous structures which appear in the larva of any Echinoderm, and their relation to the great nerve centre of a Crinoid renders them additionally important morphologically. But no student of Messrs. Vogt and Yung would ever learn of their existence at all.

The gradual development of the rosette out of the original basal plates of the Pentacrinoid larva was fully described by Dr. Carpenter,[1] who showed that it is "essentially formed at the expense of the secondary or ventral layer of the original basals, the ends of the curved rays being the sole residue of their primary or dorsal layer." Alternating with these spout-like processes, which are radial in position, are five others of a more triangular form, which occupy a somewhat deeper situation within the radial pentagon. The apex of each of them is attached to a suture between two contiguous radials, just between the two adjacent apertures of their central canals. Each of these canals receives a branch of the primary basal cord proceeding from the central capsule, that lies on the dorsal side of the interradial process of the rosette; and when the rosette is in its natural position in the calyx, an opening for the passage of one of these secondary basal cords is visible between every two of the processes of the rosette. This is well seen in *Antedon eschrichti* (Pl. I. fig. 8*c*). The example of this species which is here represented, has a comparatively simple rosette, which is almost entirely free from any trace of the accessory structures to which I have given the general name of the "basal star," such for instance as is represented in figs. 1–5, *c* on Pl. II. In all these forms, and more especially in *Antedon angusticalyx* and *Antedon inæqualis* (figs. 4*c*, 5*c*), a larger proportion of the embryonic basal has been left unabsorbed than is usually the case in the European and Arctic Comatulæ; but the peripheral margins of each plate remain, and form, by their union with the corresponding parts of the adjacent plates, the structure which I have called the basal bridge. This is united to each radial along the inner margin of its dorsal face, and partially covers in the two secondary basal cords which are converging on its single axial canal. It is well shown in *Actinometra maculata* and *Actinometra stelligera* (Pl. V. figs. 1*c*, 5*d*) and also in the rosette of the latter species disconnected from the radials as seen in fig. 5*e*; and it appears, so far as I am aware, to be of pretty constant occurrence in this genus, though absent or at any rate undistinguishable in some species of *Antedon* (Pl. III. fig. 6*b*).

United with each angle of the pentagon formed by the five basal bridges is one of the

[1] *Phil. Trans.*, 1866, p. 745.