

inæqualis, and *Antedon breviradia* (Pl. I. fig. 8c; Pl. II. figs. 3c, 5c; Pl. III. figs. 4c, 5b), and also in those of *Actinometra maculata*, *Actinometra lineata*, and *Actinometra stelligera* (Pl. V. figs. 1c, 2c, 2e, 5d, 5e). Owing to its homologies with the basals of other Crinoids, and through these forms with the corresponding plates in other Echinoderms (*e.g.*, the genitals of Echini), it is a very important structure, apart altogether from its intimate relation to the great nerve centre lodged within the centro-dorsal plate and to the axial cords proceeding from it.

One would have thought therefore that some account would have been given of it in Vogt and Yung's work upon practical comparative anatomy in which *Antedon rosacea*, the form studied by Dr. Carpenter, is taken as a type of all Crinoids. It is dismissed, however, in less than half a dozen lines, and not a word is said of its morphological relations. In fact the word "basals" does not once occur in the chapter on Crinoidea in the treatise by Messrs. Vogt and Yung, who pay no attention to the comparative anatomy of anything but the soft parts as revealed by thin microscopic sections. Unfortunately, however, this too exclusive reliance upon one method of investigation has led them into a serious but at the same time a somewhat ludicrous error. In the figure given by Messrs. Vogt and Yung¹ "pour montrer la disposition du système nerveux central et des organes dorsal et cloisonné" the chambered organ (as originally described) is covered by a structure marked *o*. No explanation of this letter is given, but I learn from Professor Carl Vogt that the missing explanation should be—*o*, tissu conjonctif areolaire entourant l'organe dorsal et les cavités *c* de l'organe cloisonné.

Now this structure which is marked *o* in Vogt and Yung's fig. 276 is in reality nothing more or less than a part of the rosette of modified basals, which in the natural position of the animal roofs in the internal cavity of the centro-dorsal that contains the chambered organ, as is well shown in Pl. V. figs. 2c, 2e, and 5e. The relations of this structure to the soft parts beneath it are entirely ignored by Messrs. Vogt and Yung, though they were described at length by myself in 1879² and again in 1881. In the latter year I published two sectional views³ showing the position of the rosette with respect to the chambered organ, and another similar figure and description were given later on by Marshall.⁴ But these have been altogether ignored by Messrs. Vogt and Yung, who have also neglected to work out the point for themselves; and the consequence is that a structure which, though small and insignificant in Comatulæ, is nevertheless homologous with the five genital plates of Echini, is figured in a textbook of comparative anatomy as "areolar connective tissue." In the same figure, too, a portion of the centro-dorsal piece, which is in immediate contact with the central capsule, is lettered "*e*, mésentère."

There are many other points in the relations of the Crinoid skeleton which are

¹ *Op. cit.*, p. 550, fig. 276.

² *Trans. Linn. Soc. Lond. (Zool.)*, 1879, ser. 2, p. 78.

³ *The Minute Anatomy of the Brachiote Echinoderms, Quart. Journ. Micr. Sci.*, 1881, vol. xxi., N.S., p. 186, pl. xii. figs. 14, 15.

⁴ *Loc. cit.*, pp. 508, 511, pl. xxv. fig. 1. See also Ludwig, *loc. cit.*, Taf. xix. fig. 74.