

quoted and in the first paragraph of the second one are inaccurate, to say the least of it. Messrs. Vogt and Yung do not name the authors who have used the term "chambered organ" in this "very improper" sense; but it is certainly neither Dr. Carpenter, Ludwig, Greeff, Teuscher, Marshall, Jickeli, Perrier, nor myself; and I know of no other original writer on Crinoid morphology who has used the expression "chambered organ" at all. The space represented in the figures to which the Swiss authors refer<sup>1</sup> is the radial portion of the body-cavity within the calyx, which is clearly distinguished from the chambers within the central capsule in all the figures given by Ludwig, Greeff, and myself; and not one of us has ever regarded this space as a part of the chambered organ, nor, so far as I know, has any other writer on the subject. But from the mode of reference employed by the Swiss authors it would appear that Dr. Carpenter had made a great mistake, which had escaped notice for twenty years until it was rectified by Messrs. Vogt and Yung; whereas in reality they are themselves in error, because they give a meaning to his name which neither he nor any one else ever intended it to bear. The term "(five-) chambered organ" as employed by him and by every one of his successors until now refers exclusively to the cavities within the central capsule, which lie on the dorsal side of the rosette and radial pentagon. But Messrs. Vogt and Yung erroneously interpret it as denoting the entire system of cavities within the centro-dorsal plate and the ring of radials that rests upon it; and this is certainly not a definite organ, but a part of the general cœlom, as stated by the Swiss authors. These facts, however, were perfectly well known both to Dr. Carpenter and to his successors, and I am entirely at a loss to know who the authors can be who have used the term "chambered organ" in the "eminently improper" sense described by Vogt and Yung. The Swiss authors seem to have entirely ignored or misunderstood the writings of their predecessors, and have attributed to them a mistake which never was made. But instead of rectifying this supposed mistake they have converted it into a real one, and have perpetuated it both in their text and in the explanations of their figures. Thus in fig. 276 the cavities *within* the central capsule on the *dorsal* side of the rosette, and the portion of the body-cavity which is on the *ventral* side of this structure and is enclosed by one of its radial processes, are marked alike "c, c, cavités dépendantes de la cavité générale et constituant dans leur ensemble, l'organe dit cloisonné." No one but Vogt and Yung has used the term "chambered organ" in this sense; and as they rightly speak of it as "eminently improper," one cannot but regret that it should have been employed in a textbook of comparative anatomy for the use of students.

But Messrs. Vogt and Yung go even further than this. The space on the dorsal side of the central capsule which is marked *f'* in fig. 267 and *c* in fig. 276, and is described as one of the cavities of the chambered organ, is nothing but a rent in the organic basis of the floor of the centro-dorsal piece. These rents often appear in the skeletal tissues when very thin sections are cut, and I have been familiar with them for years. But I

<sup>1</sup> *Op. cit.*, *f*, fig. 264; *c*, fig. 276.