

side, which are of equally fundamental importance in the calyx.¹ "The six proximal plates surrounding the central piece represent the basals or genitals, and the radial dome plates the radials or oculars. The centre piece may perhaps be compared with the underbasals, or the subanal plate of the Echini." In an earlier statement of these homologies² no "perhaps" was used respecting the nature of the central actinal plate; and I have pointed out that while accepting Wachsmuth's³ comparison to the full extent, as regards the radial and interradial plates in the centre of the dome, I cannot follow him in his recognition of the dorsocentral, nor of its fellow, the orocentral, as homologous with under-basals.⁴ His views, as expressed in the Revision, are essentially those of Lovèn, formerly also held by Agassiz, when allowance is made for the different systems of nomenclature used by him and by them. I have endeavoured to show elsewhere that there cannot be a true homology between a dorsocentral plate which is single from the first, and the five under-basals of a dicyclic Crinoid. These are by no means universally present, as one would expect them to be, did they correspond to the dorsocentral of the Echinozoa, which is such a prominent object in the larva of an Urchin, Starfish, or Ophiurid; while representatives of the under-basals of Crinoids are actually present, together with a dorsocentral plate, in some Starfishes and Ophiurids.⁴ The dorsocentral is developed at the distal end of the right peritoneal tube; and as there is a plate occupying the same position in the Crinoid larva, viz., the future terminal plate at the base of the stem, it is only natural to regard the two as homologous, as pointed out by myself in 1878. I am glad to find that this view has commended itself to Dr. Lütken⁵ and also to Sladen; and I understand from Mr. Wachsmuth that he is now in accordance with me respecting the homologies of the central vault piece, considering it as representing the dorsocentral of Echinoderms generally, and not the under-basals of those Crinoids in which these plates occur. [See Appendix, Note A.] His view of the proximal interradial dome plates of the Actinocrinidæ, however, is entirely different from that here advocated, and will shortly be published *in extenso* by himself; while he has also abandoned his suggestion that the interradial dome plates in the Actinocrinidæ, Platycrinidæ, and Rhodocrinidæ are "the homologues of the oral plates, which are here broken up, and represented by five plates instead of one."⁶ This relieves me from the necessity of discussing it here, as I had otherwise intended to do.

My own idea of the homologies of the calyx and dome plates of Crinoids is expressed in Table VII.

¹ Revision, part ii. pp. 15, 16.

² *Amer. Journ. Sci. and Arts*, vol. xiv. p. 189.

³ *Quart. Journ. Micr. Sci.*, 1878, N. S., vol. xviii. pp. 369-371; 1879, vol. xix. pp. 181, 182; 1882, vol. xxii. pp. 377, 378.

⁴ See Sladen, On the Homologies of the Primary Larval Plates in the Test of Brachiata Echinoderms, *Quart. Journ. Micr. Sci.*, 1884, vol. xxiv., N. S., pp. 32-36; also, The Apical System of Ophiurids, *ibid.*, pp. 3-15.

⁵ *Dyreriget, en Haand- og Lærebog til Brug ved høiere Lærestalter*, Kjøbenhavn, 1882, p. 597.

⁶ Revision, part ii. p. 17.