

The buds of axial and accessory polyps always arise near the tentacular portion of the axial polyps, not from the œsophageal portion (fig. 4). At a distance slightly less than 1 mm. below the origin of the tentacles, the first buds appear as warty protuberances, including protrusions of the three body-layers, which enclose a minute lacunar space formed from the expansion of an endodermic canal. Close under these, buds occur in which the still closed œsophageal tube is invaginated from the apex of the wart into the endodermic lacuna to form the future gastral cavity of the polyps. On the margin of the invagination the tentacles are being differentiated. The buds below those above described already appear more cylindrical in form, and exhibit in their essential features the different parts of the adult polyps.

Of interest in relation to the development of the whole is a very young colony only 27 mm. in height. Here one can distinguish (fig. 2) an ascending stem beset with spirally disposed polyps. The stem is a simple tubular polyp, which exhibits a row of tentacles at its extremity. The lateral polyps are likewise cylindrical, and some already exhibit small buds below their tentacles. The whole has exactly the structure of the upper end of an adult axial polyp. The lateral polyps are seen in the act of transformation into axial polyps of the second order.

The spicules are distributed through the entire mesoderm of the colony, and are continued from the stem and branches into the polyps, where they are developed on to the very tips of the tentacles.

They consist typically of straight or curved spindles, which are beset with irregularly scattered spinose warts. In the deeper mesodermic layers of the axial polyps these warts frequently develop into jagged processes, and the spicule thickens at one end into an approximately club-like form. The dimensions of the spicules in length and breadth are 0.37 to 0.033; 0.225 to 0.025; 0.3 to 0.032; 0.16 to 0.016; 0.12 to 0.012 mm.

They are generally disposed in longitudinal strands, and form several strata one above the other. In the axial polyps they form a compact layer round about the gastral cavities, and thus represent a sort of axis.

The colour of the colony when dried or preserved in spirit is white. In the living state they possess, according to Dr. C. Keller, a light chocolate colour with a tint of red. The colour is very quickly lost in spirit.

From the above it is evident that *Cælogorgia* has much in common with the subgenus *Carijoa*, to which the genus is doubtless allied. The principal differences are, the more emphasised differentiation between the axial and lateral polyps, the absence of horny substance in the mesoderm, and the non-retractile character of the polyps.

*Habitat.*—Zanzibar (Rousseau).

Nossi Bé in the Mozambique Channel; depth, 10 to 12 metres (Dr. C. Keller).