

preserved specimen of *Asconema setubalense*, which was dredged "in 374 fathoms on rocky ground off Cape St. Vincent, during Mr. Gwyn Jeffrey's cruise in 1870," is described by Wyville Thomson,<sup>1</sup> and depicted in an excellent woodcut. He calls it "a complete vase of very elegant form, nearly ninety centimetres in diameter at the top, and about sixty in height. The sponge came up folded together, and had much the appearance of a piece of coarse greyish-coloured blanket. Its minute structure is however very beautiful. It consists, like *Holtenia*, of two netted layers, an outer and an inner, formed by the symmetrical interlacing of the four cross branches of five-rayed spicules; and as in *Holtenia* and *Rossella*, the sarcode is full of extremely minute five and six-rayed spicules, which, however, have a thoroughly distinct character of their own, with here and there a very beautiful rosette-like spicule, another singular modification of the sexradiate type characteristic of the group. Between the two netted surfaces the sponge surface is formed of loose curving meshes of loosely aggregated bundles of long single fibres, sparsely mixed with spicules of other forms. This sponge seems to live fixed to a stone. There are no anchoring spicules, and the bottom of the vase, which in our two specimens is a good deal contracted and has a square shape something like an old Irish "mether," has apparently been torn from some attachment."

Carter, in his paper on the Hexactinellida,<sup>2</sup> has noted certain agreements between *Asconema* and *Crateromorpha*. He says—"In *Asconema* the small sexradiate spicules with short-spined arms (of which the vertical one on one side is often deficient) and formed together in groups, recall to mind the same kind of spicules (which form a rectangularly reticular network) on the surface of *Crateromorpha meyeri* and *Rossella velata*. Indeed, so far as this goes, *Asconema* might be considered a sessile vase-like representative on the coast of Portugal of the cup-like head of *Crateromorpha* found about the Philippines only."

Some siliceous elements figured by Kent as skeletal spicules of *Asconema setubalense*,<sup>3</sup> which do not exhibit the hexradiate type, were declared by Carter not to belong to this Hexactinellid but to have been most probably intruded from a *Pachastrella abyssi*.

With regard to the affinities of this form among the Hexactinellida, Marshall<sup>4</sup> conjectures that *Asconema*, which he refers as an aberrant form to his Pleionacidæ, is closely related to *Lanuginella*, Schmidt, that the latter, in fact, is probably a young *Asconema*.

Norman reported<sup>5</sup> that, during the voyage of the "Travailleur," "a little bunch of the strong coarse spicula of the great *Asconema setubalense* was dredged in the Bay of Biscay, in about 600 fathoms."

As a second species belonging to the genus *Asconema*, Kent, Oscar Schmidt described<sup>6</sup> his *Asconema kentii*. This was found in from 300 to 1500 fathoms, in the

<sup>1</sup> The Depths of the Sea, 1873.

<sup>2</sup> Loc. cit., figs. 10, 11.

<sup>3</sup> Ann. and Mag. Nat. Hist., ser. 5, vol. vi. p. 436.

<sup>4</sup> Ann. and Mag. Nat. Hist., ser. 4, vol. xii. pp. 369, 370, 1873.

<sup>5</sup> Zeitschr. f. wiss. Zool., Bd. xxvii. p. 121.

<sup>6</sup> Spongien des Maerbusens von Mexico, p. 65, 1880.