

**Terebra (Subula) maculata**, Linnæus. (Pl. XX, Fig. 7.)

*Buccinum maculatum*, Linnæus: *Systema Naturæ*, 10th ed. (1758), p. 741.

DISTRIBUTION.—Gulf of Suez, Gulf of Akaba, Society Islands, Moluccas, Australia (Issel, Tryon). Coll. Geol. Surv. Egypt: lower coral reef north of Ras Mohamed or Ghazlandi Bay (No. 3,502, Box No. 411).

(To be concluded in our next Number.)

V.—NOTE ON THE HORIZON AND LOCALITY OF SOWERBY'S TYPE-SPECIMEN OF *NAUTILUS TRUNCATUS*.

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**NAUTILUS TRUNCATUS** was described and figured by J. Sowerby in the "Mineral Conchology," vol. ii, p. 49, pl. cxxiii, April, 1816, his description and remarks being as follows:—

"*Spec. char.* Thick, flattened, plain, umbilicate; back flat, mouth elongated, four-angled: siphuncle nearest to the inner margin of the septum.

"*Syn.* Lister, 1048.

"Thickness rather less than half the diameter; the sides are rather conical and even. Mouth above half the diameter of the shell, long, narrowest towards the back, siphuncle oval. Septa very numerous, not recurved towards the umbilicus.

"A fine specimen of this species is figured by Lister, measuring ten inches in the longest diameter; no doubt, when perfect it is sometimes much larger: mine is eight inches, I figure a part of it, as sufficient; the remainder is a broken continuation of it. I have never seen the last chamber. This is composed of a mixture of dark lias limestone and pyrites, found at Keynsham, S.E. of Bristol. It is also said to be found in the blue lias of Bath, etc. Lister does not say where his specimen was found; his figure shows about three whorls, mine did not expose them; possibly when the shell is removed the whorls may be uncovered. Mine has fragments of the shell of considerable thickness about it, indicating that it was smooth when perfect."

Sowerby's type-specimen, of which only a portion was figured, is now in the British Museum collection (register No. 44,117a). In his remarks, Sowerby says he had never seen the last chamber, by which statement he must mean that he had not seen the *whole* of the last chamber, for half of the unfigured portion of the specimen is an internal cast of a portion of the body-chamber, the rest being composed of internal casts of the last four loculi<sup>1</sup> or cameræ. The umbilicus was evidently closed.<sup>2</sup>

In his "Supplemental Index" (p. 251) to vol. ii of Sowerby's "Mineral Conchology," Farey gives for this species the localities "Bath W, and Keynsham."

<sup>1</sup> Usually called 'air-chambers.'

<sup>2</sup> The specimen figured by Lister evidently had an open umbilicus, and, judging by the figure, it was, I believe, from the Calcareous grit, and is referable to J. de C. Sowerby's *Nautilus hexagonus* (Min. Conch., vol. vi, 1826, p. 55, pl. dxxix, fig. 2).

On account of the horizon and locality that Sowerby ascribed to this specimen, the species has been usually regarded as of Lower Liassic age, but the matrix differs entirely from that of the Ammonites from Keynsham that are in the British Museum collection, and Mr. Etheridge, who is well acquainted with the rocks at Keynsham, after examining the specimen, tells me that it is certainly not from that locality. Moreover, if the specimen had been found at Keynsham it seemed to me most probable that there would be examples of the species in the Bristol Museum, but Mr. Bolton, the Curator of that Museum, having at my request looked over all the Liassic Cephalopoda there, tells me that he cannot find an example of *Nautilus truncatus*.

During an examination of some Jurassic Nautili in the British Museum, Mr. S. S. Buckman, some time since, suggested to me that the specimen was not from the Lias, but possibly from "the Fullers' Earth in the neighbourhood of Midford, containing *Rhynchonella* like *varians*." With reference to this suggestion I can only state that there is no record of a *Nautilus* from the Fullers' Earth in H. B. Woodward's Memoir on the Lower Oolitic rocks of England and Wales (Mem. Geol. Survey), and so far as I am aware no example has yet been recorded from that deposit.

Fortunately there are remains of other fossils in the infilling of the body-chamber of the specimen; these include *Rhynchonella*, *Myacites*, *Astarte*, *Isocardia*, *Östrea*, a Gasteropod (probably *Eulima*), and a portion of a fish-tooth which Dr. Smith Woodward has identified as *Strophodus*.

The matrix of the specimen, the mode of preservation, and the associated fossils led me to think that the fossil was of Cornbrash age. I therefore carefully examined the Cornbrash Nautili in the British Museum collection. With one exception these came from a small pit,<sup>1</sup> which was temporarily opened some years ago in the neighbourhood of Bedford, where they occurred with such characteristic Cornbrash fossils as '*Ammonites*' *discus*, *Waldheimia obovata*, *Nucleolites clunicularis*, *Holcotypus depressus*, *Pygurus Michelini*, etc., and on comparison I found them to agree in all respects so perfectly with Sowerby's type-specimen that there cannot be the slightest doubt as to the identity of the species. The largest example of this species in the collection is about  $13\frac{1}{2}$  inches in diameter.

My conclusions, then, with regard to Sowerby's type are (i) that it is not of Liassic age, (ii) that it did not come from Keynsham, and (iii) that it came from the Cornbrash, but from what locality I do not venture to suggest.

Mr. E. T. Newton, of the Geological Survey, and Prof. J. F. Blake, who has quite recently made a special study of the Cornbrash, have examined the fossil, and I am pleased to be allowed to state that both support me in my conclusions as to the age of the specimen.

<sup>1</sup> This pit was known to the writer as the "Midland Railway Pit"; it was on the south-western side of the town, on the small piece of ground on the western side of, and adjoining, the main line of the Midland Railway, and between the Kempston Road and the river. I believe the stone was excavated for building a wall at the northern end of the Amptill Tunnel.