

some traces of it must have remained in those beds of lias at Lyme Regis, which are loaded with Nautili and Ammonites, and have preserved the ink of naked Cephalopods in so perfect a condition. The young *Sepia officinalis*, whilst included within the transparent egg, exhibits its ink-bag distended with ink, provided beforehand for use as soon as it is excluded; and this ink-bag is surrounded by a covering of brilliant nacreous matter, similar to that we find on certain internal membranes of many fishes.*

* I would here add a few words in explanation of the curious fact, that among the innumerable specimens of Belemnites which have so long attracted the attention of naturalists, not one has till now been found entire in all its parts, having the ink within its external chamber; either the fibro-calcareous sheath is found detached from the horny sheath and ink-bag, or the ink-bag is found apart from the Belemnite, and surrounded only by the nacreous horny membrane of its anterior chamber. We know from the condition of the compressed nacreous Ammonites in the Lias-shale at Watchet, that the nacreous lining *only* of these shells is here preserved, whilst the shell itself has perished. This fact seems to explain the absence of the calcareous sheath and shell in almost every specimen of ink-bags at Lyme Regis, which is surrounded with iridescent nacre, like that of the Ammonites of Watchet. The matrix in these cases may have had a capacity for preserving nacreous or horny substances, whilst it allowed the more soluble calcareous matter of shells to be removed, probably dissolved in some acid.

The greater difficulty is to explain the reason, why amidst the millions of Belemnites that are dispersed indiscriminately through almost all strata of the Secondary series, and sometimes form entire pavements in beds of shale connected with the Lias and Inferior oolite, it so rarely happens that either the horny sheath, or the ink-bag, have been preserved. We may, I think, explain