

brought to light the extraordinary specimens before you, and showed how such delicate remains could be developed. The teeth for the most part belong to fishes allied to the shark; a family which in the ancient, as in the modern seas, appears to have been confined by no geographical limits. Professor Agassiz, by whose genius and perseverance this department of palæontology has been so successfully elucidated, has proposed a classification of fishes, founded upon the peculiar structure of the scales—an arrangement of great utility to the geologist, since the mutilated state in which ichthyolites so frequently occur, render futile the attempt to place them in the existing orders and genera.\*

The teeth of sharks, particularly those of the genus *lamna* (Tab. 58, figs. 2, 4), are very common in the chalk, and occur occasionally in the flint; they possess a high polish, are in an excellent state of preservation, and are always single, arising from the cartilaginous nature of the jaws of the original. These examples of the recent shark show the number and variety of the teeth in an individual; by the decomposition of the jaw the teeth would be separated and drifted by the water, and therefore, in a fossil state, seldom exhibit any traces of their original position. It may, however, happen, that jaws with teeth will hereafter be discovered, for vertebræ, fin-bones, and even the shagreen skin of sharks, are preserved in some specimens in my collection. The

\* See Appendix I.; and Dr. Buckland's Essay, p. 268.