

VISIT TO THE HUNTERIAN MUSEUM OF THE
ROYAL COLLEGE OF SURGEONS.

APRIL 18TH, 1871.

Director—Professor MORRIS, F.G.S.

The Museum of the Royal College of Surgeons, founded in 1787, by John Hunter, consists of two departments, the Physiological and the Pathological, and the collections forming these are contained in three spacious halls, named the Western, the Middle, and the Eastern Museums. It was to the Physiological Department that this visit was paid, and the attention of Members was chiefly directed to the specimens illustrating the distinguishing characters of those families and classes of the animal kingdom with which it is necessary for the student of palæontology to be familiar.

The Members assembled in the Western Museum, in which are contained the illustrations of invertebrate life. Professor Morris prefaced his descriptive lecture by an account of the origin of the Museum, and paid a high tribute of praise to the far-seeing mind of its great founder, who, although living in an age which knew not the modern science of geology, recognised the teaching of the organic remains which the rocks yield to the searcher for the stony records of the past.

The collections in the Physiological Department have been arranged by Professor Flower, the Conservator, in accordance with the most recent Zoological classification. The examples of the Invertebrata are displayed in ascending order. Commencing with the lowest type of animal existence, the Protozoa, we find beautiful specimens of sponges, and then we pass on to cases containing exquisite examples of the Cœlenterata. The Actinozoa is finely represented by specimens of Rugosa, Zoantharia, Alcyonaria, and Ctenophora. The Rugosa is especially interesting to geologists, since it is an extinct order, the Rugosa being only represented by fossil species, and these nearly exclusively Palæozoic. The most marked peculiarity of the Rugosa is that the species have either four divisions or cell walls, or a multiple of four, while the Zoantharia, found in secondary strata and abundantly represented by living species, have six, or a multiple of six, cell divisions. The other division of the Cœlenterata, the Hydrozoa, is also well repre-

sented, especially the Graptolitidæ, the family which has received so much elucidation from the researches of our two members, Mr. Carruthers and Mr. Hopkinson.

The Molluscoidea, comprising the three classes—Polyzoa or Bryozoa, the Tunicata, and the Brachiopoda—next attract attention by the beauty of the specimens and the effectiveness with which the anatomical structure of the *Lingula* and other genera of the Brachiopoda is displayed.

Amongst the examples of the Lamellibranchiata, the pearl-yielding species attracted great attention. Prof. Morris gave an interesting account of the formation of pearls, and showed that the mollusc can be made to produce pearls at the will of man, by the insertion of a foreign substance into the interior of the shell, when a nacreous incrustation forming a pearl will be speedily produced by a secretion from the animal.

The fairy-like forms of the Pteropoda are well exemplified in this Museum, and specimens of *Clio*, *Hyalea*, and *Cleodora*, preserved in spirits, are conspicuously displayed. It is difficult to believe that the huge whale, the enormous skeleton of one of which monsters of the deep is extended above, can be supported by small and delicate creatures like the *Clio borealis*, yet such is the fact, for Pteropods form the chief food of some whales.

After examining the illustrations of the Gasteropoda, both Branchiogasteropoda and Pulmogasteropoda, the visitors passed on to the cases containing examples of Cephalopoda. The Tetrabranchiata, now only represented by the *Nautilus*, is especially dear to geologists, for to this order does the *Ammonite*, the beloved of young geologists, belong.

To the other order of the Cephalopoda, the Dibranchiata, the *Belemnite* must be assigned, and the beautiful little internal shell, the *Spirula*, as well as the *Argonaut*, or the Paper Nautilus, and the shell-less *Octopus*. Subsequently attention was drawn to the Echinodermata, and the Crustacea, and the carefully disarticulated specimens, illustrating the structure of the hard external covering of these two important classes, were carefully observed.

After thus inspecting the types of the invertebrate classes of the animal kingdom, the party passed into the Middle Museum, where the collection of vertebrate fossils brought together by Hunter are preserved. The Eastern Museum was then visited, and the skeletons of the larger Mammalia, which are here finely

displayed, formed the subject for the concluding remarks of the lecture by Professor Morris, to whom a cordial vote of thanks was tendered by the Members present.

EXCURSION TO BELVEDERE, APRIL 29TH, 1871.

Director—Professor MORRIS, F.G.S.

The object of this excursion was mainly to afford the Members of the Association an opportunity of inspecting the fine collection of Mammalian Remains in the possession of C. J. Spurrell, Esq., F.G.S., of Belvedere.

Professor Morris described this interesting collection in his usual happy manner. Almost all the specimens have been obtained from the Pleistocene fluvial deposits of the immediate neighbourhood of Erith and Crayford. When, therefore, we find in this Museum remains of three species of elephant, three species of rhinoceros, and species of lion, bear, hyena, horse, and ox, we are forcibly reminded of the abundance of the larger animals, both Carnivora and Herbivora, with which the country surrounding London was peopled in pre-historic times. This collection is interesting, moreover, on account of the evidence it affords of great climatic alternations, for it contains species both of warm and of cold climates—the Lion of the Tropics and the *Ovibos moschatus* of the Arctic Zone.

Mammalian remains are not, however, the only records of the past which the deposits of the Thames Valley yield to the searcher for the “medals of creation.” Many species of Mollusca which are now living in England have been found fossil in this locality together with *Corbicula (Cyrena) fluminalis*, which is not now living in the British area, but which is found flourishing at the present time in the waters of the Nile. Additional interest is given to this part of Kent by the existence of numerous caves or excavations in the Chalk. These curious and obscure cavities are locally termed “Grimes’ Graves,” and they have recently afforded considerable interest from certain investigations into their history and the purposes for which they were formed. They are evidently the work of man, and it is thought by some that they were excavated for the purpose of obtaining from the Chalk those flints which were of so much use and value to our pre-historic ancestors.