

and he lost no time in communicating his discoveries to others. M. de Verneuil maintained during forty years a continual scientific intercourse with Sir R. Murchison and Mr. Davidson, for whom he continually expressed the most affectionate feelings and friendship. He was a constant attendant at the Geological Society of France, and rendered that Society the most eminent services. During the last few years of his life his sight was failing him to such an extent that, had he lived a year or two longer, he would, like Lamarck, have been doomed to complete blindness. M. de Verneuil has left a name behind him which will for years be remembered with honour by his numerous geological and palæontological friends.—T.D.

JOHN WICKHAM FLOWER, Esq., F.G.S., of Park Hill, Croydon, descended from a Norfolk family, was born in London on the 11th August, 1807. He was educated at a school in Cambridgeshire, where he was well grounded in classical literature, for which he retained a strong love and continued to cultivate throughout life. His special tastes led him, however, to the study of Archaeology and Natural History; and his first savings were spent in an excursion to Winchester, to examine the antiquities of that place and the tomb of William of Wykeham. His attention was early directed to Geology, and he spared neither personal trouble nor expense in enlarging his collections, which were always made as much in the general interests of science, and of his friends, as for himself. He closely explored the interesting Tertiary cliffs of Hampshire, and was instrumental in discovering the fine and unique jaw of an alligator at Hordwell. He collected also largely from the Brick-earth beds of Grays. Nor did he neglect the opportunity offered him by the residence of a friend at Moreton Bay, Australia, to procure a very fine series of the land, freshwater, and marine mollusca of that district, many of which were new to this country.

But the particular problem which he set himself to work out, on his settling at Croydon some twenty-five years ago, was to ascertain whether the immense pebble-beds of Addington, belonging to the Lower Tertiary series, were not formed of flints derived from the destruction of higher beds of Chalk than any which now remain in the neighbourhood of London. Stratigraphical Geology has shown that the Chalk formation, as it trends towards the Weald, had been largely planed down before the deposition of the Tertiary Strata, and Mr. Flower's palæontological researches seemed quite in accordance with this view, and to point to the former existence of beds older even than any now remaining in the London Basin. In pursuance of this object, he carried on for years an examination of the flint pebbles forming the Addington Hills, and broke up many thousands of them in search of the small fossils they occasionally contain.¹ Unfortunately the results of this long investigation have never been published. It was, however, evident that they were of a nature to confirm the views he had been originally led to form.

Another investigation in which he took an active part was that

¹ He also caused a large number of these flint pebbles to be cut and polished, in order to examine the structure of the organisms they contained.—*EDR. GEOL. MAG.*

relating to the evidence bearing on the Antiquity of Man. It will be remembered, that Mr. Prestwich considering that the testimony of the workmen at the Amiens pits required confirmation, returned a second time, in 1859, to the St. Acheul pits, accompanied by several other geologists, and amongst them Mr. Flower, who, with his usual zeal, set to work himself with pick and spade, and remained for hours at the search, until his perseverance was rewarded by disinterring, with his own hands, an undoubted flint implement almost at the very base of the mammaliferous gravel-beds. His last scientific work was a paper on the theoretical questions connected with these discoveries. In this paper he questioned the conclusions of Mr. Prestwich and other geologists, that the valley-gravels are of fluvial origin, and deposited along old lines of drainage, doubting whether they are due to fluvial action at all, and whether the flint-implement makers were contemporary with the animals with whose remains the flint implements are found. He also suggested modifications in the nomenclature of the Stone periods.

While thus differing from his friends on theoretical questions, these differences were always put forward and expressed in that spirit of conviction and kindness which marked the earnest and amiable spirit of the author, and characterized all his works—even the controversial ones,—never tending to sever, but only to draw closer, the bonds of friendship between the disputants. His charming discourse on the “Study of Natural History” shows the character of the man—his disinterested love of nature—his literary taste, and the importance he attached to the study of the Earth, its Fauna and Flora.

Besides his contributions to Natural Science, we must notice those larger and more elaborate works on theological questions, all of which breathe the same spirit of earnestness, love of truth, varied research, and liberal views. It is not the place in these pages to give an account of his theological works, but the titles of them which are annexed will afford some idea of their scope and tendency.

As an Antiquary Mr. Flower was equally zealous and liberal. His collection of Stone Implements, both of the Palæolithic and Neolithic periods, was second, probably, only to that of Mr. Evans.

We wish space would allow us to dwell at greater length on the works of one who, in the midst of the arduous and engrossing profession of the law, found time to cultivate other branches of human knowledge, and ever showed himself possessed of the true and right spirit of a Naturalist and of an earnest inquirer in the cause of truth.

While engaged last winter in exploring the antiquities and works of art in Italy, he was seized at Rome with the symptoms of a fatal illness, and returned only in time to end his days in April last at his own residence near Croydon, at the age of 65, deeply lamented by the men of science who had the privilege to share his friendship.

The following is a list of his works:—

- On the Pleasure and Advantages to be derived from the Study of Natural History. A Lecture. 1857.
- On a Flint Implement recently discovered at the base of some beds of drift gravel and brick-earth at St. Acheul. *Quart. Journ. Geol. Soc.* 1860.

- On some Flint Implements lately found in the valley of the Little Ouse riv
Ibid. 1867.
- On some recent discoveries of Flint Implements of the drift in Norfolk and Suffo
with observations on the theories accounting for their distribution. *Quar*
Journ. Geol. Soc. 1869.
- Notice of a Kjøkken-Mødding in the Isle of Herm. *Journ. Anthropol. Soc.*
- On the relative ages of the Stone Implement Periods in England. *Journ. Anthro*
Inst. 1872.
- Surrey Etymologies. *Journ. Surrey Archæol. Soc.* 1865.
- Notices of the family of Cobham of Sterborough Castle, Lingfield. *Surrey*
Archæol. Soc.
- A Letter to the Lord High Chancellor with reference to the investment of t
Cash balances belonging to Suitors in the Court of Chancery, and the me
in which Government Securities are purchased and sold on the suito
account. Pamphlet. 1859.
- Adam's Disobedience and its Results in relation to Mankind as shown
Scripture. 1861. 2nd edition, enlarged. 1871.
- On Original Righteousness.
- The Apostolic Pandects. 1863.
- An inquiry respecting the origin of the Parable of the rich man and Lazarus. 18
Forensic Imputations. 1867. J. P.

MISCELLANEOUS.

BONE CAVE IN KIRKCUDBRIGHTSHIRE.—It has long been familiar
geologists that the western and southern coast-line of Scotland
pierced with caves of different levels, indicating former successi
lines along which the sea-waves worked. Unfortunately, owing to tl
want of limestone or very calcareous rocks, these caves, as a rul
present none of that stalagnite deposit which has elsewhere serv
so abundantly to cover over and preserve the remains of the ancie
denizens of our country, with traces of the presence of man himse
The caves usually open directly upon the coast, with free exposu
to the air, so that their floors show nothing but damp boulders ar
pools of water from the drip of the roof. Recently, however, a r
markable exception to these ordinary conditions has been observe
on the wild cliff-line to the south-west of the bay of Kirkcudbrigh
The Silurian greywacke is there traversed with strings and veins
calcite along lines of joint and fracture, and at one point where a
old sea cave occurs, the walls and floor at the cave mouth, ar
for a few yards inwards, have a coating of solid calcareous matte
Beneath this coating in the substance of the breccia which exten
across the cave mouth, as well as throughout the cave earth behin
the breccia, a great quantity of bones, with traces of human o
cupation, have been found. A systematic investigation of the cav
commenced last autumn, is being carried on under the direction
Mr. A. J. Corrie and Mr. W. Bruce-Clarke—the discoverers of tl
osseous layer. At the present time the following among othe
remains have been noted:—Bones of ox, red-deer, goat, horse, pig
pine-marten, rabbit, watervole, and other small rodents, togethe
with numerous remains of birds and a few frog and fish bone
Intermingled with these occur fragments of bronze, bone needle
and other bone implements, to the number of more than twenty; on
piece of worked stone (a fragment of greywacke) has been found
but as yet not a single chip of flint. A full account of the cave wi
be published as soon as the investigations are completed.