

## ORDINARY MEETING.

JUNE 6TH, 1879.

Prof. J. MORRIS, M.A., F.G.S., Vice-President, in the Chair.

The Donations to the Library since the previous meeting were announced, and the donors received the thanks of the Association.

The Following were elected Members of the Association :—

Thomas Cole, Esq., Assoc. Inst. C.E.; A. Jesseman, Esq.; and Richard D. Poppleton, Esq.

The following Paper was read :—

ON THE AGE OF THE PRINCIPAL MOUNTAIN CHAINS OF THE  
GLOBE.

BY J. LOGAN LOBLEY, F.G.S., F.R.G.S.

---

## EXCURSION TO SEVENOAKS AND TONBRIDGE.

SATURDAY, JUNE 14TH, 1879.

(Third of the Weald Series.)

*Director*—J. LOGAN LOBLEY, Esq., F.G.S.

(*Report by* WILLIAM FAWCETT, Esq., B.Sc.)

Members left the train at Dunton Green for the purpose of inspecting the excavations in the extensive Brick-yards of Mr. W. J. Hooker, who courteously gave every facility for the observation of the sections and the collection of fossils. These excavations afford a good display of the Gault seen on the 24th May at Chipstead; it extends E. and W. for many miles along the base of the escarpment of the North Downs, forming the beautiful Vale of Westerham. Both the Gault, and the Pleistocene Brick-earths which cover the Gault in places along the valley, afford here materials for bricks and tiles.

After crossing the alluvium of the Darent Valley, and the stream

itself, the Folkestone Beds of the Lower Greensand were found exposed in a field near Riverhead, through which village the party then proceeded to the Tub's Hill (Sevenoaks) Station. Between the station and the tunnel there is a fine section, about 90ft. high, showing the Hythe Beds of the Lower Greensand, and yielding abundance of *Gryphæa sinuata*. The Association were afforded every facility for examining this section by the courtesy of Mr. Shaw, the Manager of the South-Eastern Railway. Mr. F. Drew\* gives the following description of the beds on the coast of Kent :— "The Hythe Beds are interstratifications in about equal proportions of limestone and sand. The former is close in texture, has a grayish blue colour, and contains fine grains of quartz ; the latter is for the most part drab-coloured, impure, rather clayey, and somewhat calcareous ; the stone goes by the name of 'rag,' while the intermediate sandy beds are called 'hassock.'" At Sevenoaks the distinction is not so great ; the hassock is harder, is in a larger proportion than the rag, and both are used for building. The Sandgate Beds, intermediate between the Folkestone and Hythe Beds, are here wanting, whereas at Folkestone all three are developed. A good example of a "fault," and a remarkable anticlinal dip of the beds, were noted near the entrance to the tunnel. The Folkestone Beds cover the Hythe Beds, and form the high ground on which the town of Sevenoaks stands. The junction was seen by the party as they ascended from the railway cutting and made their way to Sevenoaks. A brief visit was paid to Knole Park, in which the beautiful country formed by the Lower Greensand of Kent is well exemplified.

After dinner at the Royal Oak Hotel, the party proceeded along the road to River Hill on the escarpment of the Lower Greensand, commanding a fine view over the second of the great east and west valleys. At the bottom of the hill is the Atherfield Clay, then the broad expanse of Weald Clay, with the Medway meandering through it. The road through Hildenborough was taken, and after a brisk walk across the Weald Clay vale, rich with hop gardens and orchards, Tonbridge was reached, standing on a superficial deposit of Alluvium of the Medway.

The party returned to London from Tonbridge Junction.

\* Quoted in Topley's "Weald," p. 116.