

DISCOVERY OF *BOS PRIMIGENIUS* IN THE LOWER BOULDER-CLAY OF SCOTLAND.

SIR,—Mr. Robert Craig's letter in the last number of the *MAGAZINE* does not require an elaborate reply. Mr. Craig seems to think that the Lower Boulder-clay of Scotland is always "a tough dark blue clay;" and as the deposit overlying the stratified materials, in which the skull of the great ox was found, is "mixed with sand and gravel and altogether freer" than the underlying Till, it cannot, according to him, be true Boulder-clay. Mr. Craig will be surprised when he learns that true Boulder-clay does not always maintain the character of a "dark blue," or even of a "tough" clay,—that, on the contrary, it not unfrequently becomes loose and earthy,—that just such a deposit, as that which he imagines I have made a mistake about, may be seen in hundreds of sections throughout the country, sometimes overlying, sometimes overlain by, and in other places graduating into stiffer Till than itself. And he will no doubt be gratified to hear that the same Boulder-clay (sometimes "tough" and sometimes "free") often shows interstratified masses of clay, sand, and gravel, similar in all respects to those which have yielded the remains of the great ox.

Mr. Robert Craig remarks that both in my sketch-section and in the letterpress description I have overlooked "the fact that the Lower Boulder-clay rises up through this stratified bed (*i.e.* the deposit from which the fossil remains were obtained), throwing it out altogether for more than one hundred yards in the section." Now if Mr. Craig will again refer to the section I gave he will observe that I have shown (Fig. 1) the *Bos*-beds thinning out to south-west, and the underlying and overlying Till coming together. If I had been describing in minute detail the geology of the district, I might have transcribed from my note-book the whole of the section exposed; but for the purpose I had in hand that would have been a work of supererogation. It was only necessary to point out that the strata of clay, sand, and gravel, in which the fossil lay embedded, were actually enclosed in what I believe to be deposits of Lower Boulder-clay age. The former, after disappearing for a short distance, again come on underneath the Till; or, as I stated in my communication, "the Till further up the valley towards Shillford continues to exhibit intercalated beds of clay, sand, and gravel." Again, Mr. Craig misunderstands me when he says that I consider the overlying and underlying deposits as identically the same. I merely remarked that "I noticed *no material difference*" between them, —nothing that could lead me to believe they had different origins.

I have said this much because I am unwilling that any doubt should rest upon the matter. The section is gradually being obliterated. The last time I saw it, it was decidedly in a "bad way;" and when the Railway works are completed the resting-place of the great ox will be as difficult to find as that of the Prophet. Knowing that such must be its fate I made a very careful examination, and from time to time revisited the spot to watch the progress of the cutting, but never saw anything to throw doubt on the conclusion I first arrived at.

Since my first visit to the section, my colleague, Mr. Croll, has examined the deposits, and agrees with me in assigning them to the Lower Boulder-clay. And I learn through him, that Mr. Bennie, of the Glasgow Geological Society (than whom no one is better acquainted with the superficial deposits of the neighbourhood of Glasgow), had seen the section before the appearance of my short "note" in the *MAGAZINE*, and had come to the same conclusion as I did; nor, on a second visit, has he seen any reason to change his opinion.

JAS. GEIKIE.

LOUDOUN HILL INN, DAWEL, KILMARNOCK, 12th October, 1868.

THE PLEISTOCENE FRESHWATER DEPOSIT AT HACKNEY DOWNS.

SIR,—Having had my attention directed to a letter by Mr. G. J. Smith in your last number, which imputes inaccuracy to Mr. A. Tylor and something worse to Mr. Skertchly, I think it my duty to explain the matter.

The locality was pointed out and some shells were given to me by Mr. Skertchly. Those shells I took to Mr. Smith, an old friend of mine, and we appointed a time and went together to visit the spot. This was his first visit to the place; *afterwards* he made other visits in company with Mr. Baily. Mr. Smith is right when he says he does not know Mr. Skertchly, but I have no doubt he can make a pretty shrewd guess as to who he is; for, if his memory has not failed him, he must know that I informed him from what source I obtained them.

ALFRED GRUGEON.

DALSTON, October 16th, 1868.

MISCELLANEOUS.

IMPORTANT DISCOVERY OF REMAINS OF *DIMORPHODON MACRONYX* IN THE LOWER LIAS OF LYME REGIS, DORSETSHIRE.—In the month of March last a remarkable Fossil was forwarded by Henry Marder, Esq., M.R.C.S., to the authorities of the British Museum. It consists of the entire caudal series of vertebræ of a Pterosaurian having a close resemblance to the tail of a *Rhamphorhynchus* from the Lithographic stone of Solenhofen. The entire series of vertebræ, which are long and slender, is 20¼ inches. In August last the Earl of Enniskillen reported to Mr. Waterhouse (the Keeper of the Geological Department) that he had seen, at Mr. James W. Marder's, at Lyme Regis, a very perfect specimen of Pterodactyle. This beautiful fossil (which proved to be an almost entire example of *Dimorphodon macronyx*) has now been secured for the British Museum, and Professor Owen, the Superintendent of the Natural History Departments, is engaged in its description. The point of greatest interest in this new fossil, is the evidence it furnishes that the caudal series, above noticed, really belonged to the *Dimorphodon*, a portion of a tail having the same slender, elongated, hour-glass-shaped centra to the vertebræ, and embedded in similar ossified fibres, having been found associated with this remarkably perfect skeleton of *Dimorphodon*. Professor Owen's paper will be looked forward to with great interest.