

After breaking through this thin coating we came to a reddish earthy soil, with bones imbedded, some of them almost on the surface, others a foot or two deep. It is impossible, as yet, to state what depth of soil occurs here, though evidently it is somewhat considerable; fragments of bone occurred rather plentifully throughout, much more so, however, in some parts than others—heaped as it were in favourite haunts. The bones are all in a good state of preservation, seldom, however, in their natural form, and almost in every instance giving unmistakable indications of having been more or less gnawed. There is no evidence whatever to show that the sea has entered the cavern at any time since it was inhabited by the hyænas, nor have we fluvial deposits present, nor as yet have we found any traces of its having been a human habitation, like Kent's Hole and others. No worked implements, flint or bone, turned up during our explorations; possibly, however, further diggings near the entrance, or in the chambers, may reveal traces; but up to the present time we have discovered nothing of that nature.

St. David's, May, 1867.

VII.—ON SOME NEW COPROLITE WORKINGS IN THE FENS.

By J. F. WALKER, B.A., F.G.S., etc.

[Read before the Yorkshire Philosophical Society, May 7th, 1867.]

ON the evening before I left Cambridge last term, I was informed by a man who brings me fossils, that some new coprolite diggings had been opened in the Fens. I was unfortunately unable to visit the workings then, but since my return to Cambridge, I have explored them in company with Mr. Moore, of St. Catherine's College. The workings are situate about a mile from Upware, which lies about twelve miles from Cambridge, and seven from Ely.

Upware is known to geologists as the nearest locality of the Coral-line Oolite to Cambridge. The bed differs from the "Sandy conglomerate bed," in being less ferruginous, and containing more lime, probably derived from the Coralline Oolite. The nodules are mixed with pebbles, which are picked out by women and children; about a third part is waste. Roller washers are used here as at Sandy. The sections exposed by the workings differ considerably; the best I have seen was on the occasion of my last visit to the pits.

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|---|-----------------|
| 7. Surface, black peaty soil, often containing bones of red deer, horse, etc. | about 1ft. 6in. |
| 6. Layer of light-coloured Coprolites | 1 0 |
| 5. Sand (called by the workmen Silt) | 1 6 |
| 4. Vein of dark-coloured Coprolites | 0 9 |
| 3. Silt | 1 6 |
| 2. Vein of dark Coprolites | 1 0 |
| 1. Clay (not pierced) | |

At another working—

Sand	6ft. 6in.
Coprolitic vein	2 0
Conglomerate (hard rock)	0 4
Light-coloured Sand and Clay	

The three layers of nodules noticed in the first section often be-

come blended into one, but the top layer differs in the nodules, being of a much lighter color, and I was informed that they were less valuable.

The hard rock (conglomerate), consisting of nodules and pebbles, cemented together chiefly by carbonate of calcium, varies considerably, sometimes being so firm as to be penetrated with difficulty; at other times the coprolites near the clay are easily worked. The Kimmeridge Clay is not pierced, as there is no occasion for a well, the works being near the river. Among the nodules there are found phosphatic shells, as in the bed near Potton. They consist of fragments of Ammonites, (and some of the nodules are marked by impressions of Ammonites (casts of brachiopoda, conchifera and gasteropoda, also remains of large Belemnites and *Gryphæa dilatata*, composed of carbonate of calcium, occur, derived from the Oxford Clay.

I have obtained the remains of most of the fishes and reptiles found at Sandy.

Sphærodus gigas Ag.

Gyrodus

Asteracanthus ornatus Ag.

Pycnodus gigas ?

Hybodus (Spine and *Sphenonchus*).

Psammodus reticulatus Ag.

Edaphodon.

Of reptiles, the remains of *Pliosaurus*, *Ichthyosaurus*, *Plesiosaurus*, *Dakosaurus*, and a tooth of the *Iguanodon*, have been discovered.

The fossils proper to the bed consist of carbonate of calcium, thus differing from the ferruginous shells of the Sandy conglomerate bed. Sometimes masses of these shells are found cemented together, chiefly in the lower part of the deposit. There are found large sponges, bryozoa, serpulæ, etc.; the commonest shell is *Terebratula sella*, of which numbers can be obtained of the workpeople, but on examining the heaps it does not appear to be so plentiful. I have obtained the following species:—

Belemnites, sp.

Scalaria, sp.

Corithium, sp.

Turbo, sp.

Nerinea, sp.

Trochus, sp.

Opis neocomiensis, d'Orb.

Cardium, sp.

Cyprina, sp.

Trigonia spinosa, Park.

Pecten cottaldianus, d'Orb.

" *Carteronianus*, d'Orb.

Janira neocomiensis, d'Orb.

Plicatula Carteroniana, d'Orb.

" sp.

Ostrea macroptera, Sby.

Ostrea, sp.

Rh. nehonella Gibbsiana, Sby.

" *antidichotoma*, Buv.

" *paucicosta* ? (probably new).

" *depressa*.

" *nuciformis*, Sby.

Terebratrostra neocomiensis, d'Orb.

Terebratella oblonga (small variety).

Terebratula sella, Sby.

" *prælonga*, Sby.

" *depressa*, Lam.*

" *hippopus*, d'Orb.

T. (Waldheimia) tamarindus, Sby.

" *celtica*, Mor.

" *moutoniana*, d'Orb.

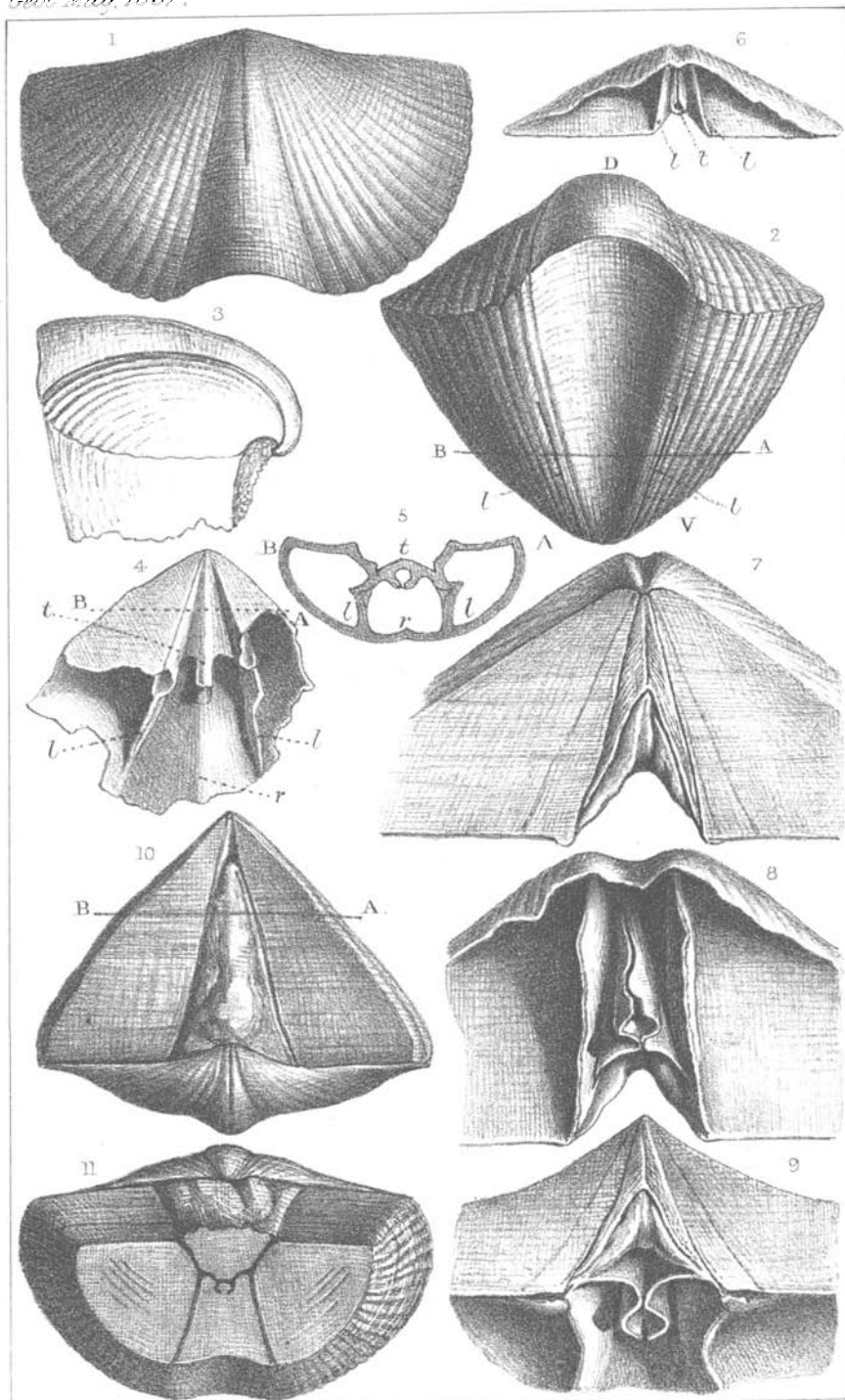
Bryozoa, etc.

Serpulæ.

Spongiæ.

* The largest specimen of *T. depressa* ? I have obtained is 2·8 inches long, 2·5 inches in width, and 1·1 inch in depth.

This bed, and the conglomerate bed near Potton, appear to be of the same age, and probably, also, the Farringdon beds, viz., Lower Greensand, containing large numbers of fossils derived from other formations.



The Davidson del & lith.

M. & N. Hasenart. imp.