

seldom without shells. The peat is very generally confined to a single layer, and shells are seldom found above it. Supposing that all the varieties which I have witnessed in different places existed together, the section would be nearly in the following general terms: —

- *1. Clay, generally of a blue colour and fine texture.
- *2. Peat, with various roots and plants, and, in large deposits, containing abundance of trees; nuts, horns of deer, bones of oxen, &c.
- 3. Clay of different colours, with freshwater limnææ.
- 4. Peat, as above.
- *5. Clay, with freshwater cyclades, &c., and blue phosphate of iron.
- 6. Shaly curled bituminous clay.
- 7. Sandy coarse laminated clay, filling hollows in the diluvial formation.

Of these the most constant beds appear to be Nos. 1, 2. and 5.; and in general these constitute the whole deposit. The peat varies from 5 feet in thickness to less than so many inches. In a few instances, the lower clay, No. 5, contains no shells: the species which so occur are not always the same: Cyclades and small Paludinæ are the most plentiful: Anodons occur at Skipsea and Owthorn, but I did not find them elsewhere. Skeletons, and detached horns of the Irish elk (*Cervus euryceros*), red deer, and fallow deer, occur in it at several points." (*Geol. of Yorkshire*, vol. i.)

A deposit of similar origin in Berwickshire, full of limnæana and planorbes, envelops horns of the red deer and bones of the beaver. At Silverdale, near Burton in Kendal, and at other points round the bay of Morecambe, deposits from fresh water, probably of equal antiquity, occur at such levels that the tide might easily flow over them. They are usually covered by peat at the surface, and composed of shell marls in considerable quantity, the shells belonging to *Limnæa*, *Planorbis*, *Cyclas*, *Pisidium*, &c., and apparently identical with existing species. Occasionally the bones of the great Irish elk occur in these marls (a fine pair is