

upon the sea-floor to form the Leda clay, as we know it. The blue-grey colour of the Leda clay is due to the fact that the iron present is in the ferrous state of oxidation, attributed by Sir J. W. Dawson to reduction by organic material on the sea-floor. Occasional red layers, usually a few inches thick and not often more than $1\frac{1}{2}$ feet thick, are present in the clay. Here the iron is in the ferric state of oxidation and this is explained by the absence of such organic reducing matter on the sea-floor.¹

The Leda clay often contains layers of grey sand which serve to accentuate the stratification. Sometimes the layers of sand are only one grain thick. In the upper part of the Leda clay these layers of sand become numerous, and are there often rich in organic remains, the most conspicuous of which are shells of lamellibranchs. These are the layers which have furnished to Sir J. W. Dawson the greater part of the Leda clay fauna. A section, now no longer exposed, at Logan's farm (on the site of the present Lafontaine park), may be reproduced here, and may be regarded as a standard section illustrating the development of the shell-rich sandy layers of the upper part of the Leda clay.

- 1 foot 9 inches, soil and sand.
- $\frac{1}{2}$ inch, tough reddish clay.
- 8 inches, grey sand, a few specimens of *Saxicava rugosa*, *Mytilus edulis*, *Tellina greenlandica*, and *Mya arenaria*, the valves generally united.
- 1 foot 1 inch, tough reddish clay, a few shells of *Astarte laurentiana* and *Leda glucialis*.
- 8 inches, grey sand, containing detached valves of *S. rugosa*, *M. truncata*, and *T. greenlandica*: also *Trichotropis borealis*, and *Balanus crenatus*, the shells in three thin layers.
- 1 foot 3 inches, sand and clay, with a few shells, principally of *Saxicava* in detached valves.
- 3 inches, band of sandy clay, full of *Natica clausa*, *Trichotropis borealis*, *Fusus tornatus*, *Buccinum glaciale*, *Astarte laurentiana*, *Balanus crenatus*, etc., sponges and Fora-

¹Canadian Ice Age, p. 54.