

feet deep, without reaching bed-rock. Those who have seen such wells have observed the deeper structure of the Drift; and they report it much like what we see in the gravel-pit. I will tell you how we shall ascertain the arrangement to the depth of perhaps two hundred feet. Go to the lake-shore, or the sea-shore. Of course it must be a place where the shore is not formed of bed-rocks. Here the whole thickness of the Drift may be cut through, exposing at the bottom the solid foundation on which the Drift reposes. Well, here we find two kinds of Drift. The semi-stratified Drift passes down into a sheet of Drift quite unstratified. It consists of blue clay and a large quantity of imbedded boulders. These are rounded like those at the surface. They are in every respect the same thing—made, apparently, by the same agency; transported in the same company. This is the Boulder Clay or *Till*.

We must state, however, that in some situations the semi-stratified Drift rests directly on the bed-rock. Perhaps in these places the Boulder Clay was washed off before the semi-stratified Drift was laid down. Again, there are many places where the semi-stratified Drift does not rest on the Boulder Clay—perhaps because it was never laid down; but more probably because it has been removed. In such places the stiff, blue clay is exposed over the surface, and the soil is full of boulders. Can you not call to mind such a place?

The sheets of sand and gravel, often obliquely laminated, which we saw in the gravel-pit, were there cut through in a vertical section presented edgewise. You must think of these sheets as extending into the earth a certain distance, but very irregular in extent as well as in form and position. Some of them are flat; some are concave upwards, and some are convex. Now and then one is nearly horizontal, but most are considerably inclined.

Did you ever see a huge mound of rock-rubbish at the foot of a torrent rushing down a steep ravine to the open, level land—a torrent sometimes suddenly swollen to a terrific and maddened volume, which tears stones and trees from their