

11. If soils so formed were allowed to remain where they were first produced, we should find very little difference between those soils and the rocks from which they were formed, except so far as regards their being in a more broken condition. But the study of geology shows that great changes have taken place on the surface of the globe, and that when soils have thus been formed from rocks, they have frequently been washed away and mixed with soils produced from other rocks. Soils of this character are often found in our valleys, and are distinguished as **alluvial soils**. In many cases these mixed soils have been again formed into rocks, and after long periods of time, these rocks have again become converted into soil. Animal and vegetable life have also exerted very great influences upon the character of many of these reconstructed rocks. Thus our soils differ very much in character and composition, according to the varying character of the rocks from which they may have been produced, and also according as they may have been more or less intermixed with other soils.

12. There are some soils which are not produced by these means, such as **Peaty Soils**. These consist of vegetable matter which has grown and decayed, generally in the place where these soils are found. Their mode of production is peculiar. They are generally found in places from which the water cannot easily pass away. Here aquatic vegetation and mosses establish themselves, and as they require a liberal supply of water for their growth, they flourish luxuriantly. Growth after growth takes place, decaying matter accumulates, which encourages further growth, so that ultimately the rising bed of peat is held only in check by the supply of water. When they have grown up as high as the water allows them to grow, tougher and more woody plants establish themselves; these give the harder and firmer surface which is found upon our peat bogs and mosses.