

To the east is a rugged plain sloping gently westward. On this many small lake-basins are seen and the streams winding through it are peculiar in that they have not of themselves worn down valleys but are found winding in various ways seeking the lowest level, passing through lake expansions which are merely hollows filled to the level of the lowest outlet. This area is a part of the original continent formed after the molten mass of the earth had cooled sufficiently to have formed upon it a crust.

A study of this area shows that the original crust suffered many changes—that successive sinkings into the still molten matter beneath, modified much of it or probably remelted all of the original surface. The earliest littoral deposits are associated with eruptive greenstones, and wherever remnants of these are found they are nearly always surrounded by rocks which appear to have been at a later date in a plastic condition and to have enfolded the early sedimentaries. These remnants are of great economic value inasmuch as they have been specially enriched by veins carrying the precious and other metals and minerals. A long lapse of time enabled the surface to become firmer before additional deposits were placed upon it, but the surface suffered great denudation and a large part of it was removed to form the earlier stratified sea deposits. The uneven nature of its present surface is due in a great measure to the varying hardness or brittleness of the constituent rocks.

The country beneath this rough slope and the edge of the plateau to the west of the valley is underlain by limestones placed nearly horizontal and covered by coatings of clay, the nature of which is dependent on the conditions of deposition.

The plateau to the west through which may be seen many deep river channels is composed of a series of soft, dark coloured, easily eroded shales or hardened clays with occasional overlying deposits of sand and clays of a lighter colour containing a few seams of lignite which were deposited in shallow, probably brackish water.

These various deposits indicate a certain part of the history of the continent to be briefly as follows :—

A subsidence of the original continent brought the sea into the central part of the present land area, so that its waters covered perhaps all of Manitoba. The advance was slow and represents a