

in the region of Rainy Lake and Lake of the Woods, northwest of Lake Superior. If this conclusion be true, the sea did not advance as far as the Lake of the Woods, this district perhaps being above the ocean, and one of the sources of detritus throughout Lower Huronian time.

The extent of the Lower Huronian deposits is also uncertain. If the series of the districts above placed in the Lower Huronian, are correctly correlated, Lower Huronian basins occurred in various places over a great triangular area extending from Black River Falls in Wisconsin, to northeastern Minnesota, and thence east to the north shore of Lake Huron. Doubtless Lower Huronian rocks also occur in the great northern region of Canada, and they may have had a much wider original extent than this, but no data are now available to locate such a possible extension.

Of the original thickness of the Lower Huronian deposits we are also ignorant. The present thickness has not been determined south of Lake Superior, but according to Logan, on the north shore of Lake Huron, including the interstratified volcanics, the thickness is five thousand feet.

At the end of Lower Huronian time, the Lake Superior region was raised above the sea, folded, and subjected to erosion. The orographic movements of this time were very severe, closely crumpling in places the rocks of the Lower Huronian, and inducing in them in many places a schistose structure. In other localities, away from the axes of great disturbance, the Lower Huronian rocks were but gently tilted, as is shown by the small discordance in places between them and the succeeding series. In certain localities the areas of great disturbance are but a short distance from those of comparative quiet. The denudation was deep enough to wholly remove the entire series over wide areas, and to cut to unknown depths into the Basement Complex itself. As has been stated, the Lower Huronian has an estimated thickness of about one mile on the north shore of Lake Huron, and in different localities varies from this thickness to entire absence, depending mainly upon the differing denudation. This variabil-