

From a study of the pre-Palæozoic floor in the central part of southern Ontario, A. W. G. Wilson concluded that following the peneplanation of the pre-Cambrian old land a period of dissection ensued. Our knowledge of the relationships of the Palæozoic outliers occurring in the interior of the plateau is not sufficiently complete, however, to determine whether this dissection was common to the whole plateau or not. The outliers on lake Timiskaming and lake St. John lie somewhat below the level of the plateau surface in their vicinity, suggesting that these sediments may occupy pre-Palæozoic valleys; but it is also possible that they have been lowered to their present elevation by faulting, or were deposited originally in broad depressions in the pre-Palæozoic peneplain surface.

Post-Palæozoic Uplift.

Since we know from the absence of folding, both in the Palæozoic sediments which overlap the margin of the plateau and in the flat-lying outliers of rocks occurring in its interior, that no orogenic movements have occurred anywhere in the Laurentian plateau since the early Palæozoic, it follows that whatever regional or local relief the plateau has acquired since that time owes its origin primarily either to uplift of the plateau, as a whole, or to faulting, or warping. The first of these diastrophic agencies has apparently played the most important part in the post-Palæozoic history of the plateau.

The Palæozoic strata occurring to the south of Hudson bay, on the Arctic islands, and on the Mackenzie basin, have all widely extended outcrops indicating that they lie in a horizontal position and, therefore, have not suffered differential uplift. Along the southern border of the plateau, on the other hand, the overlapping Palæozoic sediments dip away from the plateau showing that in this locality the uplift *has* been differential. In some places along the southern margin of the plateau, also, the pre-Palæozoic floor descends so rapidly near the Palæozoic contact that it has been suggested that faulting has occurred as well as differential uplift although the actual fault plane has not been discovered.² It would thus seem probable that the uplift of the Laurentian plateau since the early Palæozoic submergence, while uniform in the northern and central portions, has been accompanied by marginal warping and possibly faulting on its southern border.

There is little geological or physiographic data from which the history of the plateau during the long interval which elapsed between the Palæozoic emergence and the coming of the continental ice sheet can

¹ Trans. Can. Inst., vol. 7, 1901, p. 157.

² Adams, F. D., Geol. Surv., Can., Guide Book No. 31, 1913, p. 19.

Kindle, E. M., and Burling, L. D., Geol. Surv., Can., Mus. Bull. No. 9, 1915.