

and presented those bleak hills and precipices so characteristic of the Barren Grounds. The gneiss formation was observed to continue without essential change to Obstruction Rapid, between Providence and Point Lakes, where it united with the Fort Enterprise district formerly alluded to.

The preceding geognostical details, and others into the consideration of which we cannot here enter, render it apparent that the general distribution and connexion of the hills and mountain-masses of these northern regions are nearly the same as geologists have observed to characterize similar materials in other portions of the earth. The primitive rocks occur in their usual relations; and gneiss, attended by an extremely scanty vegetation, appears to be the most extensively distributed. Granite was the next in frequency; after which may be placed mica-slate. Clay-slate and protogine were the least abundant. The granite of Cape Barrow was intersected by veins of augite greenstone of the same description as those which occur in the granite districts of Great Britain, and the primitive rocks in general were found to be traversed by veins of felspar, quartz, and granite.

The transition rocks, consisting principally of clay-slate and graywacke, bore a strong resemblance to those in Dumfries-shire,—a fact which did not fail to attract the attention of Dr Richardson, himself a native of that district.

In regard to the secondary formations, the facts observed by Dr Richardson show the existence—First, Of the old red sandstone, or that which lies under coal, and occasionally alternates with transition rocks: Second, Of the coal formation, which was ascertained to occur in certain districts of Mackenzie River, and towards the Rocky Mountains: Third, Of the new red or variegated sandstone, an important formation of considerable extent, which contained, as it is known to do in the Old World, gypsum and beds of salt, or of muriatiferous clay, affording saline materials for the impregnations of the salt springs which issue from it: Fourth, Of the secondary limestone belonging to that vast deposit which lies above the new red sandstone, and beneath chalk, and which occupies extensive tracts in Britain and other parts of Europe: Fifth, Of the secondary trap and porphyry rocks,

† Ibid. p. 534.