

prolonged denudation. These changes seem to have been more especially prevalent in the northern part of the northern hemisphere. At all events, there is evidence of extensive upheaval of land in the northwest of Europe and across the northern tracts of North America and Northern China¹ prior to the deposit of the earliest remaining portions of the Palæozoic formations. These strata, indeed, were derived from the degradation of that northern land, the extent and height of which may be in some measure realized from the enormous piles of sedimentary rock which have been formed out of its waste. To this day, much of the land in the boreal tracts of the northern hemisphere still consists of pre-Cambrian gneiss. We cannot affirm that the primeval northern land was lofty; but, if it was not, it must have been subjected to repeated renewals of elevation, to compensate for the loss of height which it suffered in the denudation that provided material for the deep masses of Palæozoic sedimentary rock.

The earliest connected suite of deposits in the Palæozoic series received the name "Cambrian" from Sedgwick, who with great skill unravelled the stratigraphy of the most ancient sedimentary rocks of North Wales (Cambria). When the peculiar brachiopodous and trilobitic fauna of Murchison's Silurian system was found to descend into these rocks, the term Primordial Zone or Primordial Silurian was applied to them by Barrande in Bohemia. For many years, however, they yielded so few fossils that their place as a distinct section of the geological record was disputed. Eventually

¹ The vast erosion of the pre-Palæozoic land is nowhere more impressively shown than in Northern China, where, as Richthofen has pointed out, the oldest gneisses are surmounted by thousands of feet of sedimentary material (Sinisian formation), in the uppermost parts of which Primordial fossils are found. "China," vol. ii.