

by the labors of Barrande in Bohemia; Hicks in South Wales; Brögger, Linnarsson, and others in Scandinavia; Schmidt in the Baltic provinces of Russia; Billings, Mathew, Walcott, and others in Canada and the United States, as well as various workers in other countries—such a distinctive fauna has been brought to light as serves to characterize a series of deposits at the base of the Palæozoic formations. This assemblage of fossils, Barrande's first or Primordial fauna, is now by common consent more commonly known as Cambrian. The use of the terms Cambrian and Silurian will be more fully referred to in later pages.

**Rocks.**—The rocks of the Cambrian system present considerable uniformity of lithological character over the globe. They consist of gray and reddish grits or graywackes, quartzites and conglomerates, with shales, slates, phyllites or schists, and sometimes thick masses of limestone. Their false-bedding, ripple-marks, and sun-cracks indicate deposit in shallow water and occasional exposure of littoral surfaces to desiccation. Sir A. C. Ramsay suggested that the non-fossiliferous red strata may have been laid down in inland basins, and he speculated upon the probability even of glacial action in Cambrian time in Britain.<sup>2</sup> As might be expected from their high antiquity, and consequent exposure to the terrestrial changes of a long succession of geological periods, Cambrian rocks are usually much disturbed. They have often been thrown into plications, dislocated, placed on end, cleaved, and metamorphosed. In Wales they include toward their base an interesting volcanic group consisting of felsitic and diabase-tuffs, and olivine-diabase in interbedded

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<sup>2</sup> Q. J. Geol. Soc. xxvii. 1871, p. 250; Proc. Roy. Soc. xxiii. 1874, p. 334; Brit. Assoc. 1880, Presidential Address.