From this important horizon it is possible to work backward and to show that underlying these basement parts of the Cambrian system a remarkable group of igneous rocks comes to the surface. The investigations of Mr. Allport and Dr. Callaway have shown that these rocks include both lavas and fragmental ejections varying from coarse breccias to fine tuffs. The lavas are generally felsitic in character, showing true rhyolitic structures, but there occur also bands of diabase which may possibly be sills. There is thus clear evidence of a copious ejection of volcanic materials in this part of England before the oldest Cambrian formations were laid down.[41]

Though the evidence is not perhaps conclusive, it seems to point to an unconformability between the base of the Cambrian system and this volcanic group, which would thus probably be of pre-Cambrian date. The relation of the volcanic masses to the great thickness of ancient sedimentary strata constituting the Longmynd ridge has not yet been satisfactorily determined, though there are indications that the volcanic group lies at the bottom. Dr. Callaway has proposed the name *Uriconian* for that group, and *Longmyndian* for the thick series of sedimentary strata lying to the westward. Those names may be provisionally accepted. The Longmyndian rocks have generally been assigned to the Cambrian system, and they may possibly still be shown to belong to that part of the geological record. The Uriconian volcanic group, however, is probably pre-Cambrian.

In other parts of England and Wales isolated areas have been described as containing pre-Cambrian rocks. Of these the district of St. David's in Pembrokeshire has attracted the largest share of attention, chiefly through the labors of Dr. Henry Hicks, who in that small area has endeavored to establish the existence of three distinct pre-Cambrian formations. At the base, under the name of "Dimetian," he places what he considers to be granitoid and gneissic rocks with bands of impure limestone or dolomite, schists and dolerite. Above these he distinguishes as "Arvonian" a group composed essentially of rhyolitic felstones, breccias, and tuffs, marking volcanic eruptions of an acid type, while at the top he describes, by the designation "Pebidian," a

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[41] S. Allport, Quart. Journ. Geol. Soc. xxxiii. 1877, p. 449. C. Callaway, op. cit. xxxiii. p. 652, xxxiv. 1878. p. 754. xxxv. 1879, p. 643, xxxviii. 1882, p. 119, xlii. 1886, p. 481, xlvii. 1891, p. 109; Geol. Mag. 1881, p. 348; 1884, p. 362; 1885, p. 260. J. F. Blake, Quart. Journ. Geol. Soc. xlvi. 1890, p. 386.