

tended to avoid controversy. The author accepts Sedgwick's term Cambrian for the next rocks in succession, calling the Longmynd and Menebian Lower Cambrian, and leaving us to choose whether we shall call the Lingula Flags and Tremadoc Series Middle or Upper Cambrian. So, in like manner, he seems to leave us to choose as to whether the Ordovician Series of Lapworth shall be called Upper Cambrian or Lower Silurian, or neither. This is no doubt intended to conciliate opposing geological factions; but it tends to obscure the grand general fact that the rocks from the Longmynd to the Lower Tremadoc, inclusive, hold what Barrande has called the *Primordial* fauna, while the rocks from the Arisaig to the top of the Caradoc, hold the *Second Palæozoic* fauna. This is the real distinction. Both the Cambrian and the Ordovician vary greatly in mineral character, even within the limits of England, but they differ in their fossil contents just as the latter does from the proper Silurian above it.

This leads to the remark that the book is almost entirely stratigraphical, and gives little information as to fossils. There are, it is true, lists of names, but nothing more, and in this respect the work forms a remarkable contrast to Murchison's *Siluria* or to Phillip's geology of Oxford. It is in accordance with this neglect of fossils that a little further on we find the term "New Red Sandstone" retained for the Permian and Trias, and the former associated with the Mesozoic. It is no doubt sometimes difficult locally to separate them, but the natural arrangement is undoubtedly to place the Permian in the Upper Palæozoic, and the Trias in the Lower Mesozoic.

As is natural in the Geology of England, a large proportion of the book is devoted to the Mesozoic and older Tertiary, and a very clear and connected account of these beds is given. The Pleistocene and its glacial period come in for somewhat extended consideration, and the various complexities which they present in England, are freely discussed. He appears to admit the following changes:—

1. A period of elevated land and cold immediately after the Pliocene (earliest boulder clay).
2. A period of submergence (shells—sands of Moel Tryphaen, &c).
3. A second period of elevation with glaciers and variable climatal conditions, followed by partial submergence.
4. Modern conditions with early elevation and subsequent slight depression of land.

With the exception of a probably exaggerated value attached to No. 1 of the above table, it is not very remote from the general sequence which we obtain on the wider area of North America.