

the Old Red Sandstone, and that the presence of sun-cracks and rain-pittings in the Longmynd beds is a corroboration of this suggestion.\*

### THE SILURIAN PERIOD.

The next period of the Primary Epoch is the *Silurian*, a system of rocks universal in extent, overspreading the whole earth more or less completely, and covering up the rocks of older age. The term "Silurian" was given by the illustrious Murchison to the epoch which now occupies our attention, because the system of rocks formed by the marine sediments, during the period in question, form large tracts of country in Shropshire and Wales, a region formerly peopled by the *Silures*, a Celtic race who fought gloriously against the Romans, under Caractacus or Caradoc, the British king of those tracts. The reader may find the nomenclature strange, as applied to the vast range of rocks which it represents in all parts of the Old and New World, but it indicates, with sufficient exactness, the particular region in our own country in which the system typically prevails—reasons which led to the term being adopted, even at a time when its vast geographical extent was not suspected.

On this subject, and on the principles which have guided geologists in their classification of rocks, Professor Sedgwick remarks in one of his papers in the *Quarterly Journal of the Geological Society*: "In every country," he says,† "which is not made out by reference to a pre-existing type, our first labour is that of determining the physical groups, and establishing their relations by natural sections. The labour next in order is the determination of the fossils found in the successive physical groups; and, as a matter of fact, the natural groups of fossils are generally found to be nearly co-ordinate with the physical groups—each successive group resulting from certain conditions which have modified the distribution of organic types. In the third place comes the collective arrangement of the groups into systems, or groups of a higher order. The establishment of the Silurian system is an admirable example of this whole process. The groups called Caradoc, Wenlock, Ludlow, &c., were physical groups determined by good natural sections. The successive groups of fossils were determined by the sections; and the sections, as the representatives of physical groups, were hardly at all modified by any

\* "On the Red Rocks of England," by A. C. Ramsay. *Quart. Jour. Geol. Soc.*, vol. xxvii., p. 250.

† *Quart. Jour. Geol. Soc.*, vol. iii., p. 159.