of the Silurian deposits. Yet the granite produced after this long interval is often so intimately blended with the ancient gneiss at the point of the junction, that it is impossible to draw any other than an arbitrary line of separation between them; and where this is not the case, tortuous veins of granite pass freely through gneiss, ending sometimes in threads, as if the older rock had offered no resistance to their passage." From this example Sir Charles concludes that it is impossible to conjecture whether certain granites, which send veins into gneiss and other metamorphic rocks, have been so injected while the gneiss was scarcely solidified, or at some time during the Secondary or Tertiary period. As it is, no single mass of granite can be pointed out more ancient than the oldest known fossiliferous deposits; no Lower Cambrian stratum is known to rest immediately on granite; no pebbles of granite are found in the conglomerates of the Lower Cambrian. On the contrary, granite is usually found, as in the case of Dartmoor, in immediate contact with primary formations, with every sign of elevation subsequent to their deposition. Porphyritic pebbles are found in the Coal-measures; porpyhries continue during the Triassic period; since, in some parts of Germany, veins of porphyry are found traversing the New Red Sandstone, or *gres bigarrè* of French geologists. Syenites have especially reacted upon the Silurian deposits and other old sedimentary rocks, up to those of the Lower Carboniferous period.

The term porphyry is usually applied to a rock with a paste or base of compact felspar, in which felspathic crystals of various sizes assume their natural form. The variety of their mineralogical characters, the admirable polish which can be given to them, and which renders them eminently useful for ornamentation, give to the porphyries an artistic and industrial importance, which would be greatly enhanced if the difficulty of working such a hard material did not render the price so high.

The porphyries possess various degrees of hardness and compactness. When a fine dark-red colour—which contrasts well with the white of the felspar—is combined with hardness, a magnificent stone is the result, susceptible of taking a polish, and fit for any kind of ornamental work; for the decoration of buildings, for the construction of vases, columns, &c. The red Egyptian porphyry, called *Rosso antico*, was particularly sought after by the ancients, who made sepulchres, baths, and obelisks of it. The grandest known mass of this kind of porphyry is the Obelisk of Sextus V. at Rome. In the Museum of the Louvre, in Paris, some magnificent basins and statues, made of the same stone, may also be seen.