

fine crystals of felspar, united by a cement of the same mineral in the compact state; there was also some hyaline quartz throughout the mass, but whether in regular crystals or not we could not determine. This porphyry is not stratified; it very readily decomposes and crumbles into dust, forming a fine gravel of a brick-red colour, affording good beaches for the landing of boats. This rock evinces a disposition to break in vertical and probably columnar fragments, which are, however, soon destroyed by the easy decomposition of the mass. Beyond the place where we saw the porphyry, the amygdaloid recurred under the same appearance, except that its colour was of a bluish cast. It contains a considerable quantity of carbonate of lime, presenting a fine lamellar structure; the carbonate of lime lines fissures in which it has sometimes formed small but distinct crystals. At the evening encampment of the 17th, there were no rocks in place; the beach was strewn with numerous water-worn boulders, among which we observed many fragments of an impure green carbonate of copper, which could not have proceeded from a great distance, as its softness would have soon caused it to break.

"On the morning of the 22d we resumed our journey with a high south-easterly wind. We observed, as we advanced, that the country being all sienitic, presented a wilder and more barren appearance than where the trap rocks prevailed; it did not rise to such a height, the shores probably seldom exceeding two hundred feet; but good harbours became more scarce, owing, doubtless, to the greater resistance which the sienite offers than the trap rocks, to the destructive action of the waves. The rocks are likewise less ragged; they are steep and rounded at their surface. The divisions which they present are very irregular; we question much whether the rock be stratified, though in some places it assumes that appearance, especially when seen from a distance; for, on approaching, the divisions are found to be irregular, at least in all places where we had an opportunity of studying them closely. From a distance, we had been almost induced to consider the rock, at that place, as divided by vertical fissures, but on drawing closer, the features were found to be different. At a distance inland, the mountains appear higher, and it is by no means improbable, that they equal, if they do not exceed, in elevation, the height of the coast west of the Peak. The mass which constitutes these rocks, we have called a sienite, though it differs materially from the common sienite by the presence of quartz, which in some places forms at least one-third of the mass; perhaps the term of amphibolic granite would be more correct; we think a new name ought to be introduced into science, to designate a rock which constitutes such extensive formations. We have applied the term sienite instead of greenstone, which we believe Dr. Bigsby generally uses, because the proportion of felspar has appeared to us to predominate over that of amphibole. It bears to granite the same analogy that the *protogine* of Jurine does; for in it, the mica is replaced by amphibole, while in the *protogine* its place is supplied by talc. In some spots the *protogine* is also found, as well as a more compound rock, formed of quartz, felspar, amphibole, and talc; but these cannot be said to constitute important features; they are, at best, formations subordinate to the general sienitic mass. The colour of the rock is influenced by that of the felspar which is in great excess, and is of a flesh colour; the amphibole is green. The quartz sometimes penetrates the rock in the manner of veins, but this accident

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