

Effects of
erosion.

number of much smaller areas occur, some of which do not exceed a few rods or even feet in extent. It seems evident that the whole or the greater part of the granite mass has been at one time covered with these rocks, which have since been irregularly removed by erosion; and it is worth noticing in this connection that the belts of crystalline Cambro-Silurian rocks already described form generally a higher and more broken country than that of the adjacent granite, and often rise abruptly from the latter.

Enclosed
masses.

Contact-veins.

The granites
intrusive.

The granites in question are usually of coarse texture, containing quartz, felspar and mica in nearly equal proportions, with the felspar, which is commonly orthoclase, often in crystals of large size (sometimes three inches by two) which project conspicuously upon weathered surfaces. The colour is usually grey, but sometimes nearly white, or on the other hand, as on the St. John River near the Pokioik, of a rich red, making a rock well adapted for architectural and ornamental purposes. A more noticeable peculiarity, however, is the extent to which the rock is filled with what are evidently imbedded fragments of other rock, sometimes of a dark-green colour and containing much hornblende, but more frequently having the character of a grey or purplish-grey micaceous sandstone or mica schist. So abundant indeed are these enclosed masses in some places as to give to the rock, at a short distance, the appearance of a coarse conglomerate. Their origin is beyond question, not only from their evident identity with the schistose and micaceous rocks which border and in part cover the granitic area, (retaining the colour, texture and foliation of the latter even at great distances from the nearest resembling beds), but again from what is seen at many points along their lines of contact. Among the best places wherein the latter may be observed may be mentioned the mouth of the Sheogomoc River and the hills about the head of North Lake. At each of these localities, but especially at the former, not only is the granite seen extending in the form of veins, in all directions into the overlying rocks, but within the granite itself occur large numbers of what are evidently detached masses of the latter in cubical and other blocks. In looking at these exposures one can hardly resist the impression that the granite has been in some way injected into an overlying and partially shattered schistose rock, and that the alteration of the latter has been the effect of such intrusion. That such appearances are capable of other explanation is of course admitted, but that the granite enclosing the masses referred to is not of the nature of simple veins and possibly of much later origin than the penetrated rock, is indicated by its entire identity with the main mass of the granite, while the true segregated veins with which both are intersected are readily recognizable by their much coarser charac-

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