minerals as the rocks they rest upon. For instance, granite is very commonly the foundation rock; but immediately upon this repose thick beds of gneissoid rocks. Now gneiss, like granite, is composed of quartz, feldspar, and mica, and differs only in this—that the constituents have been broken up, assorted by water, and redeposited in regular layers. As we have different varieties of granitoid rocks, so we have corresponding varieties of gneissoid rocks, differing from the former only in being stratified. So general and so well recognized is this phenomenon, that Sir Roderick I. Murchison, an eminent geological authority, designates these lower strata beds of "fundamental gneiss." This occurrence of gneiss, every where reposing upon granite, is a most interesting and instructive fact, and confirms all that I have said of the denudation of the primitive islands, and the universality of the primitive sea.

But, though gneiss is generally the foundation stratum, we find abundance of other rocks either reposing upon the gneiss, or interstratified with it in the lower portions of the sedimentary series. Undoubtedly some of these have resulted from the impalpable powder to which long-continued attrition reduced some portions of the primitive granite, transported to the remotest and quietest portions of the ocean, and there allowed to subside. But we know also that others of the oldest strata associated with the gneisses have been the results of chemical agencies. This is one of the revelations of modern chemical geology, which no name has more adorned than that of Dr. T. Sterry Hunt, of the Geological Commission of the Dominion of Canada. According to Hunt and Logan, the *limestones* of this early period could have had no other than a chemical origin. Common limestone is composed, as every one knows, of carbonic acid and lime. Heat, as the manufacturer of lime