When the continuity can be established, the evidence may sometimes lead to unexpected results. For example, it may be found that a coal-bed, followed for some miles to one side or the other, is continuous with a shale, and both are actually one layer; that a sandstone is one with a limestone a few miles off; that an earthy limestone full of fossils is identical with a layer of white crystalline marble in a neighboring district; or that a fossiliferous shale of one region is the same stratum with the mica schist of another.

Precaution 3. — Note whether the strata overlie one another *conformably* or not, — that is, conformably as regards bedding.

Precaution 4. — Remember that, where one bed overlies another conformably, it does not follow necessarily that these beds belong to *consecutive* periods, as has been above explained.

The criterion mentioned, — order of superposition, — unless connected with others, gives no aid in comparing the rocks of distant or disconnected regions. For this purpose, other means must be employed.

2. *Color, texture, and mineral composition.* — These characteristics may sometimes be used to advantage, but only within limited districts and always with distrust. There were at one time in geology an "old red sandstone" and a "new red sandstone"; and, whenever a red sandstone was found, it was referred at once to one or the other. But it is now well understood that color is of little consequence, even within a small geographical range.

Mineral composition has more value than color, especially when it is not one of the common kinds. But it is usually to be disregarded.

One inference from the mineral constitution of a stratum is safe; that is, that *a stratum is more recent than the rock from which its material was derived.* Hence, an imbedded fragment of some known rock may afford important evidence with regard to the age of the containing stratum. But the presence of such a fragment does not prove that a long time intervened; the imbedding may have happened in the *same period* in which the earlier beds of the formation were made. The beds made and consolidated in modern time are often torn up by the waters and put into new beds in some other place. Coral limestones of recent seas are often conglomerates of the recent coral limestone. Limestone breccia is sometimes formed out of the blocks at the foot of a bluff of limestone from which the blocks had fallen.

3. Although mineral composition is ordinarily unsafe, it has value when two or more conformable strata of constant mineral characters accompany one another. Such evidences may prove identity for hundreds of miles. The association of schist, limestone, and quartzyte from central Vermont to Connecticut and beyond, with only small gradational changes in each of the rocks, serves to identify the Taconic series through its wide distribution.

4. *Fossils.* — The criterion for determining the chronological order of strata dependent on kinds of fossils takes direct hold upon time, and, therefore, is the best; and, moreover, it serves for the correlation of rocks all over the world. *The life of the globe has changed with the progress of time. Each*