

Now some of these resulting compounds were soluble, and remained dissolved in the sea-water. Such were the chlorides and sulphates, and the carbonates of potash and soda. Thus the water of the primitive ocean became charged with sulphate of soda, which is Glauber's salt; sulphate of lime, which is gypsum; sulphate of magnesia, which is Epsom salts; also with chloride of sodium, which is common salt; and the other chlorides, which are the bitter impurities in the sea.

But others of the resulting compounds were but little soluble, and were therefore *precipitated to the bottom*; what were they? Carbonate of lime and carbonate of magnesia. The first is *limestone*, and the second is generally mixed with the first, forming *dolomite*. That is, a layer of calcareous material was spread over the sea-bottom. It was a chemical precipitate, not a sediment in the geological sense. Two other constituents were added to the material spread over the bottom. I stated above that the primitive crust contained silica and alumina; what became of these when the original partners had to sunder connections? Potash, soda, lime, magnesia we have traced to their destinations; but silica and alumina are left outstanding. Now, probably, these concluded to form a partnership for themselves; and so silicate of alumina resulted. This being insoluble, must have fallen to the bottom. It may have mingled, in some places, with the calcareous precipitates and it may in other places have been bedded by itself. In the latter case, beds of *argillite* would result. With the silica and alumina some potash may in other cases, have combined; and thus would be formed a mineral known as *potash feldspar*, or common feldspar. If soda or lime, instead of potash, united with the silica and alumina, the result was simply another species of feldspar. The feldspars are very abundant in the oldest rocks.

But perhaps, again, some of the outstanding silica and alumina concluded not to combine together. Then the alumina would simply remain free alumina, to mix with any of the other compounds produced, or form by itself a bed of pure