When we view the various depoſitions from the earlieſt diſcoverable period to the neweſt, we find in them ſuch differences, as ſhew that the contents of the water of the globe muſt have changed by degrees, and that all its depoſitions form beautiful and connected ſeries. The oldeſt rocks, which are pure chemical precipitates, are compoſed principally of ſiliceous, argillaceous and magneſian earths. The rocks, as Granite, Gneiſs, and Micaſlate, contain metals that are of cotemporaneous formation with them, and that ſcarcely occur in newer periods; theſe are Tin, Molybdena, and Tungſten.

This ſtate of the water of the globe, however, alters gradually and remarkably, as we approach the newer periods, by the appearance of Limeſtone in quantity, Coal, and Salt, and the diſappearance of old and the appearance of new metals. Beſides this general ſucceſſion, (which will afterwards be particularly conſidered), diſcoverable in the productions of different periods, we have inſtances of the repetition of certain products at conſiderable intervals, and in formations of different æras and kind. In a ſeries of this kind, all the members have general characters of agreement, and the individual members bear characters expreſſive, not only of the period of their formation, but alſo of the circumſtances under which they were formed. Such a ſeries, as we have already mentioned, is denominated a *Principal Formation Suite*, or *Series*

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