

contrast, be considered of secondary importance, while the factors which determine the character of the material as to kind (source) and as to condition (processes of erosion and transportation) may be regarded as factors of a third order. It is easily seen that factors of a fourth or even higher order are in constant operation in the actual formation of sedimentary deposits, and that the complete consideration of the history of an area involves the consideration of diverse and complex factors: and although the final result of the operation of these factors is apparent, the share to be assigned to each is often indeterminate.

Considering now the two primary factors, *Rate of Depression* of the Land and *Rate of Supply* of detritus, we find that the former may be *uniform*, while the latter is either *uniform* or *variable*, or the rate of depression may be *variable*, while the rate of supply of detritus is either *uniform* or *variable*. In each of the four possible relations one of three results must obtain, according to the inter-relations existing between the two factors. The ocean over the area of deposition may be *gradually deepening*, may retain a *constant depth*, or it may be becoming *gradually shallower*. In the first case, for convenience in discussion, the rate of depression will be said to be *greater than the rate of supply of detritus*, in the second *to equal it*, and in the third *to be less than it*. The first six of this series of twelve possible relationships which may thus exist between these two factors may be tabulated thus:—

1. The uniform Rate of Depression may be greater than the Rate of Supply of Detritus which is uniform.
2. The uniform Rate of Depression may be greater than the Rate of Supply of Detritus which is variable.
3. The uniform Rate of Depression may be equal to the Rate of Supply of Detritus which is uniform.
4. The uniform Rate of Depression may be equal to the Rate of Supply of Detritus which is variable.
5. The uniform Rate of Depression may be less than the Rate of Supply of Detritus which is uniform.