

with intense compression or tension, and is usually most pronounced where, as shown by plication, puckering, shear-structure, and the crushing down of the component minerals, the rocks have been subjected to the greatest mechanical movement.

5. The dynamical strain has been generally, perhaps always, accompanied with more or less chemical reaction, not, as a rule, involving the introduction of new chemical constituents, but consisting chiefly in a recombination of those already present in the rocks, with the consequent development of new crystalline minerals.

6. This chemical and mineralogical rearrangement has probably been superinduced under the influence of moderate heat, and in presence of water, and is comparable with what, on a feeble scale, can be achieved in the laboratory.

7. The alteration of rocks in an area of regional metamorphism is often strikingly unequal in degree even over limited areas, being apt to attain sporadically a maximum intensity, particularly in tracts of greatest shearing or plication, while in other areas the original clastic or crystalline characters may be easily discernible.

8. The nature of the alteration has depended first, and chiefly, on the original character and structure of the rocks affected by it; and secondly, on the nature and intensity of the metamorphic activities. Of some rocks (sandstone, carbonaceous shale, coal), the original condition may be recognizable when that of their associated strata has entirely disappeared.

9. The foliation in a tract of regional metamorphism has been developed along divisional planes which guided the crystallization or rearrangement of the minerals. In some cases, these planes coincide with those of original deposit.