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## EMERGENT EVOLUTION AND HYBRIDISM

By Dr. ROBERT K. NABOURS

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THE essential supposition of emergence, or emergent evolution, appears to be that the product derived from the synthesis of any number of elements is often quantitatively and qualitatively supervenient over their mere sum, or resultant, and thus it becomes something chiefly novel, the important features of which may even be extraordinarily dissimilar from those of the elements and subgroups that entered into its composition. The laws relating to and governing the whole are therefore comparably as restricted and peculiar to it as the laws relating to and controlling the respective components are exclusive and limited to them, and those of the one may not be even adumbrative of the others.

It has been long recognized that familiarity with the attributes of elements does not confer the ability to prognosticate the qualities of the wholes resulting from their syntheses. The behavior of neither hydrogen nor oxygen gives the slightest suggestion of

the properties of water. The possibilities of gunpowder may not be deduced by an examination of the properties of either charcoal, sulphur or saltpeter, or of a combination of any two of them. Carbon, hydrogen and oxygen, each examined with respect to its qualities, or any two together, afford no connotation of the characteristics of ethyl alcohol, if these elements be combined in the one way, or of the ether they make when there is another arrangement of them.

The behavior of molecules may not be ascertained through a knowledge of merely the properties of their separate constitutive atoms; the molecular compounds do not present attributes which by simple additions result in the properties of cells; many of the properties of individual animals and plants are vastly different from the sums of the properties of the respective cells of which they are composed, and the qualities and appurtenances of plant, animal and

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