

## **INTRODUCTION.**

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THE present age is distinguished by many of the most extraordinary discoveries that were ever unfolded to the human mind; and amongst them the discoveries in Chemistry stand pre-eminent. The most extensively useful part of this science has, however, been long before the Public, and contributed greatly to the improvement of various branches of manufacture; but the benefits of Chemistry have not yet been extended to the soil.

Agriculture in this, as in most other instances, is the last to profit by any thing new. That easy analysis of the soil, which seemed to promise great advantages to the Farmer, by telling him correctly the component parts of the materials he has to work upon, has not been spread through the country, or even yet become an object of attention with many of the best informed Farmers, by whom the advantages of this science must be carried into effect; and while the theory is in the possession of one class of men, and the practice in another, who have little or no connexion, it is greatly to be feared, that the culture of land may long remain without its expected benefits from Chemistry.

In a similar way, also, the benefits resulting from the science of Botany, have been equally limited, and likely to remain so, until those who grow the grasses shall take the trouble to distinguish one from another, or until those who know them scientifically shall condescend to become the cultivators.

Nature furnishes the clue to each of these sciences, and to the most extensive application of their benefits.

She has also given the Farmer other more easy helps, to much of the useful knowledge he requires.

The method of knowing the Substrata from each other by their various substances imbedded, will consequently shew the difference in their soils.—All this is attainable by rules the most correct, and easily learnt, and also the simplest and most extensive that can well be devised; for by the help of organized Fossils alone, a science is established with characters on which all must agree, as to the extent of the Strata in which they are imbedded, those characters are universal; and a knowledge of them opens the most extensive sources of information, without the necessity of deep reading, or the previous acquirement of difficult arts.

The organized Fossils (which might be called the antiquities of Nature,) and their localities also, may be understood by all, even the most illiterate: for they are so fixed in the earth as not to be mistaken or misplaced; and may be as readily referred to in any part of the course of the Stratum which contains them, as in the cabinets of the curious; and, consequently, they furnish the best of all clues to a knowledge of the Soil and Substrata.