

the first having an *economic*, the second an *educational* object in view. These are so intimately associated with one another, however, that it is impossible to draw a sharp line between them. The investigations must often be the same, or can be carried on contemporaneously, so that the necessary data can be made available for both purposes with little additional expenditure of time or money. Moreover, the survey which pursues one of these lines to the exclusion of the other fails in producing the best and most permanent results for the public interests, and many instances might be cited where such surveys have lost touch with the people by ignoring on the one hand the "practical," and on the other the "scientific" questions involved. It is a mistaken notion that purely scientific investigations must of necessity be impractical. Science is simply the systematic and orderly arrangement of knowledge, and without a scientific foundation practical results of lasting value cannot be obtained. At the same time, the presentation of scientific information without pointing out its practical bearing is of little immediate benefit to the people at large, and can hardly be regarded as appropriate for a state survey report, unless intended ultimately to serve some utilitarian purpose.

The fact must be borne in mind that much preliminary and fundamental work has to be done, the utility of which is not at once apparent to the uninitiated. The publication of such material, rendered necessary as a basis for future investigation, is often liable to misinterpretation, but yet may be of far more lasting value to the state than some superficial statement that is intended to meet a supposed practical need.

Some of the more important lines of work proposed by the State Survey are the following:

#### THE PREPARATION OF TOPOGRAPHIC MAPS.

The accurate location of geological formations has come to be regarded as a practical necessity for their complete interpretation, and the construction of topographic maps is now a recognized function of all geological surveys. No state in the Union so early recognized the value of topographic work as the state of Maryland, when in 1833