investigation they conceive is meant, not only an inquiry into the *mineral* constitution of the different sections of the state, but a developement of all its resources, in so far as these are dependent upon the occurrence within its territory of such substances belonging to the soil, as have already been, or are capable of being applied to useful purposes, in Agriculture, Manufactures, and the Arts; the collection likewise of facts relative to its Hydrology, by which they understand, besides an inquiry into the nature and properties of the *mineral* waters that occur within its limits, an examination of the peculiar circumstances under which the natural flow of its streams is determined, with a view, principally, to establish the amount of its *water power*, and, in a word, every point of information usually embraced under the head of the Physical Geography of a country.

Taking this view of the subject, they proceed to lay down the facts in the order in which they have presented themselves to their observation, adding such remarks concerning them, as may serve to illustrate their importance or the interest connected with them, whether of a general or local character.

Turning our attention, in the first place, to that portion of our state usually designated as the Eastern shore of Maryland, and overlooking all those subjects, in which it abounds, of a merely speculative interest in Geology, the observer cannot fail to be struck with the immense advantages which its *agricultural* interests would derive from a minute investigation of the mineral constitution of its soil, and a careful research into the nature and extent of the resources which it offers within itself for improvement or amendment. If the observation be confined, for the present, to that portion of the Eastern shore which lies south of the river Elk, it is found comprising an extensive and irregular deposite of gravel, sand and clay; supported, perhaps, in its whole extent, by a substratum of clay, enveloping innumerable reliquiæ of many genera of testaceous animals. This substratum, the value of which is to a certain extent known, is commonly denominated, and not improperly so, *beds of shell marl*; its utility for agricultural purposes—according to the species of shells which it encloses, the degree of decomposition of these shells, and the nature of the cement by which they are held together—being in some instances greater than, in most equal to that of the mineral species, described in systematic works as