

*On the utility and design of the Science of GEOLOGY, and the best method of acquiring a knowledge of it ; with Geological Sketches of Canada.*

THE study of Geology has of late years attracted the enthusiastic services of the first intellects of the age, by its novelty and usefulness ; and by the grand and curious mechanism of the structure it attempts to explain. We know the Canadas to abound in valuable mineral products ; and also in geological phenomena as interesting and instructive as they are neglected : we are therefore induced to intreat the attention of our readers to the results of such researches in extending national resources ; and in advancing abstract science,—objects, in our estimation, equally honorable.

With this view, we shall briefly point out the importance and design of this branch of Natural History, and the best method of acquiring some knowledge of it ;—concluding with a few sketches of remarkable localities in the Canadas.

It is only in appearance that Geology has been slow in engaging notice ; for the philosophers of antiquity by no means withheld its fair proportion of their usual scholastic dreamings. It was natural, however, that its progress in modern times should be more tardy than that of Chemistry, Mechanics, or Pneumatics, &c. for they are based on the discoveries of the closet or the city, while the materials of the science now under consideration are gathered by the enterprising only, in distant and widely separated countries.

So great is the gratification of successful enquiry, that each department of nature will ever have its train of investigators ; but geology, is not merely a recreation for the inquisitive ; it exercises a prodigious and immediate influence on the civilization and prosperity of a people. It is gradually conferring on the operations of mining, (the true source of manufacturing greatness,) the same enlightened rules that chemistry has furnished to the economical Arts. It is banishing blind empiricism. Every day the ancient denomination of “Gentlemen Adventurers,” assumed by the proprietors of Cornish mines, is becoming less applicable. It has collected, arranged, and examined, a great assemblage of facts, or rather of laws, and successfully applied them to the purposes of life. Certain invaluable substances, as magnetic iron ore, anthracite, coal, salt and gypsum, &c. have been shewn by it to exist in quantity, only in particular depositories—so that it is a vain waste of time and means to seek them elsewhere. The coal field of the north of England, has even been measured ; and with the triumphant conclusion, that it will only be exhausted in 1500 years, at the present enormous rate of consumption. A few years ago, the miners of Derbyshire in England, threw all their white lead ore on the public roads, in ignorance of its nature. Very lately the Americans in building at Sagouina, in lake Huron, were accustomed to fetch their limestone from Detroit, 130 miles distant, when it was plentiful in the bay adjacent. The officers of the Hudson’s Bay Company, stationed at Fort William in lake Superior,