

P R E F A C E.

THE Members of the Geological Society, to whom the arrangement of its papers for publication has been deputed, conceive that it may be satisfactory to prefix to the First Volume of the Society's Transactions a short account of the origin and progress of the Institution, and some cursory remarks on the objects which its plan embraces.

The few individuals, who were the founders of the Society, met in consequence of a desire of communicating to each other the result of their observations, and of examining how far the opinions maintained by the writers on Geology were in conformity with the facts presented by nature. They likewise hoped, that a new impulse might, through their exertions, be given to this science; and with this view, shortly after their establishment, they drew up and distributed a series of inquiries, calculated in their opinion to excite a greater degree of attention to this important study, than it had yet received in this country; and to serve as a guide to the geological traveller, by pointing out some of the various objects, which it is his province to examine.

The rapid and unexpected augmentation in number, which the Society has experienced, is the most satisfactory proof of the extended and increasing interest which is felt in geological studies; and the continued support which it has obtained, in the accession of new and highly respectable Members, is the best testimony in favour of its pursuits, and of the principles upon which it is founded.

It is unnecessary to dwell on the advantages, which may be derived from individuals acting in combination for the advancement of particular departments of science. It may indeed be asserted that there is no object of research in which this co-operation is more necessary than in Geology. In this science, less perhaps has been done, and more that is important remains to be ascertained by future inquirers, than in any other branch of natural knowledge; while the variety of attainments, and the degree of leisure requisite for the prosecution of it, can seldom fall to the share of one individual. But as the attention of different Members of the Society has been long occupied in the investigation of several of the particular objects which claim the notice of the Geologist, it was reasonable to hope, that their combined exertions would be productive of more immediate and important additions to the general stock of geological knowledge, than could probably be derived from the unassisted labours of any one observer, whatever might be his zeal or opportunities. Again, the remarks which are made by separate inquirers, however interesting in themselves, are less valuable from being unconnected; and are, moreover, in this state not unfrequently lost to the public: but could such individuals be induced to record

PREFACE.

vii

their observations, and to place these collections of facts in a repository, easily accessible to themselves and to others, the progress of Geology would be materially accelerated. In offering to be contributors to and guardians of so valuable a deposit, the Members of the Society, without any partiality towards their own claims to the notice and encouragement of their countrymen, felt satisfied, that there was a peculiar propriety in making the metropolis of the empire the centre of such an institution, on account of the many mineralogical cabinets that it contains, as well as of the superior opportunities for mutual intercourse, which it presents to persons engaged in geological pursuits; and they have experienced sincere gratification in observing, that even their most sanguine expectations have been greatly exceeded by the early and progressive advancement of the Institution, towards the accomplishment of the objects which it had in view.

By the liberality of different individuals a considerable collection has already been formed, which comprises not only many of the mineral productions of the British islands, but likewise several series of foreign rocks; and arrangements have fortunately been made, by which the Society's cabinet will receive still more important additions. There is therefore reason to think, that it will at no distant period be sufficiently extensive to illustrate the mineral history of this country, and at the same time to afford great facilities to persons desirous of becoming acquainted with the elements of geological science.

The attention of the Society has likewise been directed to the highly useful instruction, which mineralogical maps, plans, and

sections, are calculated to convey. In recording the donations, which have been made to this department of the Society's collection, the Editors of this volume feel no hesitation in expressing, on the part of the Members, a hope that it may continue to increase; both on account of the intrinsic value of such information, as laying the foundation of a general geological map of the British territory, and on account of the material assistance which it may afford to future inquirers. For, they are persuaded, nothing is more consonant to the wishes of the Society, than that every mineralogist, purposing to visit any part of the kingdom, should have free access to all documents which may happen to be in its possession.

The Editors also take occasion, on behalf of the Society, to acknowledge the valuable presents, which have been made to its library.

It would be superfluous to enumerate the many advantages which may be derived from Geology: it is sufficient to observe, that it offers to scientific research a field of inquiry, rich in the beautiful and sublime productions of nature; and that, practically considered, its results admit of direct application to purposes of the highest utility. It may also be remarked, that the means of acquiring such information are peculiarly great throughout every part of the British islands. No country contains, within an equal space, a greater variety of mineral substances; while our long and broken line of coast, and our numerous mines, furnish the most ample opportunities of making geological observations.

In the present imperfect state of this science, it cannot be supposed that the Society should attempt to decide upon the merits

PREFACE.

ix

of the different theories of the earth that have been proposed. In the communications, therefore, which are now submitted to the public, every latitude has been allowed to authors, with regard to their theoretical inferences from the observations which they record; it being understood, according to the rule of Literary and Philosophical Societies in general, that the writers alone are responsible for the facts and opinions, which their papers may contain.

In the selection which the Editors have made from the communications read at the Society's meetings, they have been influenced by a desire of laying before the public new and important information in the different departments of geological research.

The periods, at which the subsequent volumes of the Transactions of the Society may appear, must depend upon the zeal and exertions of the Members at large; and upon the contributions which may be received from individuals, devoted to geological pursuits, and who, though not immediately connected with the Society, may yet feel disposed to promote its objects.

*House of the Geological Society,
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