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Editorial and Publishing Offices:

MACMILLAN & CO. LTD.,
ST. MARTIN'S STREET, LONDON, W.C.2.

Editorial communications should be addressed to the Editor.
Advertisements and business letters to the Publishers.

Telephone Number: GERRARD 8830.
Telegraphic Address: PHUSIS, WESTRAND, LONDON.
No. 3099, VOL. 123]

The National Museums at South Kensington.

WE dealt last week with the position of the Natural History Museum at South Kensington in relation to the Trustees of the British Museum at Bloomsbury, of which it is a branch. There are eventually to be three museums at South Kensington, and it seems to be desirable that these should be under a single authority interested in the advancement of natural knowledge and its utilisation for the good of the nation. The Interim Report of the Royal Commission on National Museums and Galleries leaves open the whole question of the governance of the national collections, both of museums and of public galleries. The internal control of such institutions and their staffs by directors is clearly a desirable arrangement, but their interrelationships, policy, and development are as certainly matters of public concern. The director is responsible to a Minister, where national funds are concerned, but there is usually some body between, either in a governing or in an advisory capacity. The collections include countless gifts and bequests to the nation, and the nation is the trustee for these. Each gift entails annual expenditure, be it book, picture, machine, or animal, and staffs have to be maintained to care for them, and to see that they are available for the study of experts and for the education and intellectual amusements of the public. Catalogues have to be printed, and special exhibitions arranged, and these do not usually pay for themselves. In addition, certain institutions are so clearly connected with industry and commerce, on which the country and empire so closely live, that annual expenditure is requisite for additions and for the study of these.

The Museum of Practical Geology is the central institution concerned with the mineral wealth of Great Britain and with the nature of the land on which we live and build, and off which we have to obtain our water. By its staff it conducts the Geological Survey in the field, and its Museum is open to the public for reference and advice. The practical application of science to engineering, mining, manufacturing of every sort, and to building construction is the charge of the Science Museum, and its exhibits are judiciously designed to help these. The British Museum of Natural History is, on one hand, of great intellectual value, while on the other, it deals with raw animal products both for food and industry. It is a central reference station for economic biologists and is deeply concerned with the insect and other animal pests which

attack plants and animals. It also has its plant department, while the practical institution for plant products is furnished by the Royal Botanic Gardens at Kew.

These institutions have one characteristic in common, namely, that they are connected with one class of mankind whose sole aim is the increase of natural knowledge, and with a second larger class whose business it is to apply that knowledge to the development of the world. In a word, they are scientific, and their directorates and staff belong to a group of men who are accustomed to act together in mixed societies, in particular in the Royal Society, and in universities. The secret of their successful co-operation lies in their common basic training in respect to natural phenomena, this resulting in a peculiarly impersonal mode of examining any problem presented to them. Year by year they become less separable, since most natural phenomena entail knowledge of two or more 'sciences,' and research year by year is shifting to border lines. The relation of these Museums to one another and to the State deserves careful consideration, for it is obvious that they must continue to grow and progress *pari passu* with the evolution of the country and of the Empire. They can no longer be considered as apart from national prosperity, for they are factors directed to assuring that prosperity, and the cost of their upkeep is a trifling premium. Ideally, they must be in contact with the highest minds in their sciences and with the most interested industrialists.

The position of these four foundations is that they report to and are under the financial control of four different Departments of State. The Royal Botanic Gardens, Kew, are included in the parliamentary vote of the Ministry of Agriculture and Fisheries, and there is no 'governing body' other than the Minister. They are not to be regarded as primarily connected with British agriculture and horticulture, for which other institutions specialise, but with the increase of the basal practical knowledge of plant growth. Their staff is largely concerned with economic interests and research that are imperial in character. Indeed, Kew is a central bureau in all such matters for all the dominions. The herbarium is largely built up of the type collections of colonies and is essential for reference in such work. Distinguished and wise directors have succeeded each other for so long that the director is as nearly independent as any Government servant can be. As plant products have to be grown with an understood relationship to their method of treatment or manufacture—

the business of the Science Museum—there is a slight overlapping, but this is not altogether a disadvantage. We think, therefore, that Kew may be left independent of the scheme we have in mind for the Natural History, Science, and Geological Museums.

These three museums are to be topographically connected with each other in the same block at South Kensington, since the Geological Museum is to be removed to a site there in close communication with the other two. At present it is under the Department of Scientific and Industrial Research, which also has control of the National Physical Laboratory, as well as of numerous research boards connected with industry. A committee of the Privy Council, representing many State Departments and all political parties, constitutes this Department under the Lord President, and it is assisted by an Advisory Council, the members of which clearly are principally concerned with its activities in fields other than geology. The detailed supervision of the work is in the hands of a competent committee of the Department. The specimens displayed in this Museum are similar to those shown in the Natural History Museum, but they are arranged differently, as indeed is essential. The palæontological workers are experts of the same order, and clearly the freest possible interchange and the closest relationship between these Museums is likely to be to the advantage of both. The mineralogical collection of the Natural History Museum might be developed to illustrate more clearly the study of rocks, while it is surely the function of the Science Museum to elucidate physical geology.

The Science Museum was a most interesting experiment, which after a chequered existence for half a century, seems to be likely to have a brilliant future in respect both to pure science and to industry. It has a close connexion with the products of art, but clearly its fundamental relationship is in respect to the utilisation of the raw products, with which its neighbours are concerned. The Royal Commission is clearly in agreement, since it has suggested a grant for a conference hall for discussions between industry and science, while it is pointed out that a common lecture theatre is an important need. Here the Museum is under the Minister of Education, whose main interest obviously must be elsewhere and whose appointment must have been largely political. There is an Advisory Council of technical and scientific men, it is true, but the members of such *purely advisory* bodies can scarcely be expected to display

that personal responsibility, the sense of which to a large degree ensures impartiality.

The present seems the favourable moment for the consideration of these national museums as an organic whole. We have in being a Royal Commission, the Interim Report of which shows a rare appreciation of the educational and industrial scope of these institutions, together with a fearless handling of the financial problems related to the guardianship of the public purse. We believe that that essential to all governance, cheerful consent of the governed, would be found to exist were the Commission to propose a scheme which would bring the three scientific museums at South Kensington under one system of control. Thus most easily can uniformity in rate of pay and in promotion in relationship to other scientific posts in the country be obtained. The extraordinarily rapid changes in both science and industry necessitate the governance by experts from all sides in the closest relationship to one another, and they must be led to feel their personal responsibility. Such a result can scarcely be brought about by handing these museums to an overworked Government department, controlled necessarily by experts in one direction. The whole country, not one city, pays for these institutions, and their policy and development must be in the direction of national and imperial interests, the concern of many departments.

Our system demands a relationship to one Minister, and, failing the direct interest of the Prime Minister, which it is too much to expect, the connexion is perhaps closest with the Lord President of the Council, who is selected for his wisdom in affairs and for his wide sympathy with every phase of national development. Under this Minister there would have to be the governing body, with access to him, and with full power to report to him, and in practice to settle the policies of the museums so far as funds allow. It would act through committees for each institution, with perhaps a single annual meeting of the whole body. Only advantage can result from the freest discussion of policy between experts in science and industry—and unquestionably the greater and more practical men of science, as the directors of these museums must be, are happy in the discussion and justification of their views and desires for the advancement of knowledge. The success of such an authority depends on the intelligence and disinterestedness of its members, qualities well displayed by the Royal Commission, which can examine many precedents and will, we trust, make specific recommendations.

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Greenland under Danish Rule.

Greenland. Published by the Commission for the Direction of the Geological and Geographical Investigations in Greenland. Editors: Prof. M. Vahl, Vice-Admiral G. C. Amdrup, Dr. L. Bobé, Prof. Ad. S. Jensen. Vol. I: *The Discovery of Greenland, Exploration and Nature of the Country.* Pp. vii + 575. (London: Oxford University Press; Copenhagen: C. A. Reitzel, 1928.) 40s. net. 3 vols., 100s. net.

HANS EGEDE landed in Greenland in 1721: for three centuries the Norse colonies had been 'lost'; and Egede's landing was therefore the beginning of a new era of Scandinavian overlordship. The missionary himself wrote a description of the country and its native inhabitants, published in Danish in 1741, and translated into English four years later. There have been other general accounts, but the latest and perhaps the best known is Dr. Rink's "Danish Greenland," which appeared in 1877. Early in the following year the Danish Government authorised the formation of a Commission for the Direction of the Geological and Geographical Investigations in Greenland: publications under the title "Meddelelser om Grønland" began in 1879, and there are now no less than seventy volumes of this well-known series. In more recent years, therefore, the position has been that those wishing to obtain first-hand and up-to-date information could only do so by searching through the seventy volumes of the "Meddelelser." The work under review is definitely meant to remove this difficulty. Essentially it is a summary and co-ordination of the fifty years' research contained in the "Meddelelser." It is hoped to complete it in three volumes in 1929: the present deals with the discovery, exploration, and general nature of the country; the second with the past and present population; and the third with the colonisation and history.

Primarily the book is intended for officials and travellers in the country itself. As a work of reference it will be quite indispensable. Apart from this it is exceedingly well written, and abundantly illustrated with photographs and maps; few countries are so fortunate; it is not too much to say that this is a book to be recommended not only to those closely interested in Greenland, but also to those with slighter interests but appreciation of geographical literature well written and well produced. Its nature is general rather than detailed. In this connexion it should be noted that minute details, district by district, were published