

become urgent and imperative. The situation is desperate, and it is no longer merely a matter of urging that the advance of science demands the resumption of normal free communication and contact the moment military exigencies permit: it is rather that unless the physical task of relief and reconstruction is undertaken forthwith, military success may be sterile. Even now the physical task demands all the help and inspiration it can draw from the cultural life and the institutions which enshrine the tradition of European unity and the highest ideals of its intellectual and spiritual life.

It is in fact a moral obligation that rests on scientific workers to press for the re-establishment of contacts with their colleagues in liberated Europe, and to co-operate with them in building up once more the tradition and institutions of learning and research which Germany has sought to extirpate. The task of reconstructing the universities of Europe is immense, and in the physical sphere little may yet be practicable. But already the planning of such reconstruction is an urgent task, and a generous response to the desperate needs of Europe on the part of scientific workers, no less than of other men of learning and culture, might have an immense effect in establishing an atmosphere of understanding and goodwill and in giving new hope. What are required above all are vision and imagination to sense the possibilities, as well as the dangers, and to grasp the significance of the European cultural contacts and institutions which the Committee on Intellectual Co-operation once represented, not merely in providing the leaders required to-morrow, or in establishing the freedom of thought, of utterance and of investigation, but in creating that sense of European community of interest, of confidence, which brings fresh hope, in place of frustration or despair, and without which the sore-pressed peoples of Europe might have no heart to address themselves to that task of reconstruction.

BOTANY IN BRITAIN

British Botanists

By John Gilmour. (Britain in Pictures Series.) Pp. 48+8 plates. (London: Wm. Collins, Sons and Co., Ltd., 1944.) 4s. 6d. net.

THE history of science has for so long been written from the point of view of chemistry and physics, with generous recognition of astronomy and even geology, but with almost complete indifference to biology in any form, that it is encouraging to note the recent development of interest in the records of early botanists and zoologists. A brief and accurate history of British botany, written with the knowledge that the late Dr. Gunther on one side and Dr. Agnes Arber on the other have made available to us, is a very valuable help to such development. Mr. John Gilmour's book is excellent and timely.

To survey a history which covers four such change-ful centuries; to tell the story of so large and so varied a succession of students; to keep a sense of proportion so that the outstanding developments of the science are not lost in a mass of detail; and to present the story with all its human interest and

charm and excitement as a fascinating adventure; this fourfold task Mr. Gilmour has discharged with eminent success. There are inevitably gaps, particularly perhaps in the early stages of the story: the present reviewer would plead for recognition of Thomas Penny, the friend of De l'Obel and De l'Ecluse and chief author of the "Theatrum Insectorum", and of Thomas Willisel, the first professional field-naturalist, employed by Merret and then by the Royal Society, and the discoverer of many of our rarer plants, particularly in the Pennines and Teesdale. But to compress the record into forty-eight pages, many of them half-filled with pictures, is necessarily to cut it down to the barest skeleton. That Mr. Gilmour has nevertheless found room for such delightful descriptions as that of Stephen Hales' Sunday at Teddington and for clear hints as to the relationship between botanical studies and the general ideas and culture of the time is proof of real skill as a writer as well as real knowledge as a historian. We notice only one slip in matter of fact: Bilson, not Bilster, is the name of John Goodyer's employer on p. 13.

The book, like others of the series, is almost lavishly illustrated, and here too Mr. Gilmour has chosen his pictures with discrimination. They cover a very wide range of subjects, are representative of different aspects and moments of the story, and thus are a real contribution to the record.

It is much to be hoped that Mr. Gilmour will carry on with work in this field. There is no satisfactory history of botany, and few subjects supply more abundant and more interesting material. He has evidently got a thorough knowledge of very much of what is generally available, and possesses the three-fold qualification—a thorough knowledge of botany, an understanding of historical method and research, and the power to write vividly and accurately. We hope that the success of this small essay will encourage him to a large-scale work.

C. E. RAVEN.

REJUVENATION OF PLANT GEOGRAPHY

Foundations of Plant Geography

By Prof. Stanley A. Cain. Pp. xiv+556. (New York and London: Harper and Brothers, 1944.) 5 dollars.

IN a recent review of "Historical Plant Geography" by the late Prof. E. V. Wulff¹, reasons were given for thinking that the subject had been revitalized by the recent application to it of methods and information developed and acquired in other scientific fields. It now appears that while these changes were leading Prof. Wulff to write his book in Leningrad, they had, in the United States, caused Dr. S. A. Cain similarly to set about accumulating material for this comprehensive volume on "Foundations of Plant Geography".

Though both works convey the indication of the opening of a wide territory for scientific investigation, they differ considerably in scope and emphasis. Prof. Cain's book is conspicuous for its reference to a very large body of work by the great American phytogeographers, such as Asa Gray, Fernald, Marie Victorin and Gleason, with their very numerous and able followers. One cannot indeed help the reflexion that the North American continent has offered, and still does offer, greater advantages to the plant