



SATURDAY, JUNE 15, 1935

No. 3424

Vol. 135

CONTENTS

	PAGE
Avebury—the Nation's Responsibility	973
Vitamin Research. By A. L. Bacharach	975
The Work of Huygens. By H. C. P.	976
British Marine Zoology. By A. K. Totton	977
Short Notices	978
Reclamation of the Pontine Marshes. By Dr. Roberto Almagià	980
To Sir Charles Vernon Boys on his Eightieth Birthday. By R. A. S. P.	984
Obituary:	
Sir George Cory	984
Mr. W. R. Butterfield. By T. S. D.	985
News and Views	985
Letters to the Editor:	
Passage of Helium through Compact Solids.—The Right Hon. Lord Rayleigh, F.R.S.	993
Isotopic Constitution of Platinum and Rhodium.—Prof. A. J. Dempster	993
Absorption of Slow Neutrons.—W. Ehrenberg and HuChienShan	993
Experimental Demonstration of the Allene Asymmetry.—Dr. Peter Maitland and Dr. W. H. Mills, I.R.S.	994
The Straight Chain- and the Many Membered CH₂ Ring-Molecule.—Dr. A. Müller	994
An Ancestral Habit in a Sea-Urchin.—Prof. E. W. MacBride, F.R.S.	995
Mixed Agglutination.—Dr. Harold A. Abramson	995
Mechanism of the Pasteur Effect.—Kendal Dixon and Dr. Eric Holmes	995
Statistical Aspect of the Production of Primary Lesions by Plant Viruses.—J. G. Bald	996
The Dyestuff Industry.—Cecil J. T. Cronshaw	996
Prediction of Earthquakes.—A. B. Broughton Edge, M.B.E.	997
Critical Phenomena in the Oxidation and Self-Inflammation of Hydrocarbons.—A. Egerton, F.R.S., and A. R. Ubbelohde	997
Electronic Energy Bands of Solid Copper, Nickel, Cobalt and Iron.—Dr. F. C. Chalklin	998
The Phenomenon of 'Wings' as a Vibrational Raman Effect: A Correction.—Dr. E. Gross and M. Vuks	998
Distribution of Nuclear Mechanical Moments.—Dr. D. E. Inglis	998
Production of Electron Pairs and the Theory of Stellar Structure.—S. Chandrasekhar and Dr. L. Rosenfeld	999
Formation of Mercury Molecules.—Dr. F. L. Arnot and J. C. Milligan	999
A Simple Method of Heterochromatic Photometry.—Dr. R. A. Houston	1000
Preparation of Colloidal Metals.—A. Morris Thomas and E. B. Wedmore	1001
Influence of an Electric Field on the Thermal Conductivity of a Solid.—Dr. Gerhart Groetzinger	1001
Cryolysis, Diffusion and Size of Particles.—Dr. F. F. Nord and F. E. M. Lange	1001
Products of Hydrolysis of Glycogen—Charles H. Gray	1002
Research Items	1003
The Twin Polygraph and Strobograph. By A. G. Lowndes	1006
International Congress for Scientific Management	1007
Fuel Research in Great Britain	1007
Fauna of Indian Salt Lakes	1008
University and Educational Intelligence	1008
Science News a Century Ago	1009
Societies and Academies	1009
Forthcoming Events	1012
Official Publications Received	1012

Avebury—the Nation's Responsibility

AN interest in the preservation of areas of natural beauty or historic interest, now widely diffused among the public, affords hope of the success of an attempt which is being made to secure the famous site of Avebury and its immediate neighbourhood in Wiltshire from vandalism once and for all, and to promote its further archæological exploration.

Of the importance to the prehistorian of the site at Avebury there can be no question. Even in the unlikely contingency that future excavation should bring no additional monuments to light, Avebury as it stands, with its satellites, constitutes one of the most imposing assemblages of the work of prehistoric man, not in Britain alone, but in the whole of Europe. The circle itself, with its three rings, is the largest known to exist. It covers twenty-nine acres of ground and is surrounded by a rampart and a fosse, now mostly silted up, three quarters of a mile in length. An avenue a mile long leads from one side to the remarkable sanctuary on Overton Hill. This avenue was marked by standing stones, but many are missing or fallen. The missing members are being sought underground by Mr. Alexander Keiller, and as they are found are being replaced. Even this work of exploratory repair has thrown fresh light on the cultural history of the settlement. A similar avenue of like length may have led from the circle in almost exactly the opposite direction. This too may prove a guide to future discovery.

The remains directly linked with the circle by no means exhaust its archæological context. At a distance of a mile to the north-west lies the camp on Windmill Hill, which Mr. Keiller's recent excavations have made a *locus classicus* in the annals of archæology; and at the same distance to the south is Silbury Hill, of which the bare statement that it is the largest artificial circular mound in Europe gives little idea of the impressiveness of its height and mass. Nearby are the East and West Kennet barrows, the largest long barrows in Britain. Both long and round barrows are numerous in the area; and not far away stands Stonehenge.

The mere enumeration of the monuments of the area is a sufficient indication of its pre-eminence in early cultural development, while their size and construction, necessitating the preparation, transport and erection of these great blocks of stone, as well as excavation on a grand scale,

Editorial and Publishing Offices :

MACMILLAN & CO., LTD.

ST. MARTIN'S STREET, LONDON, W.C.2

Telephone Number : WHITEHALL 8831

Telegraphic Address : PHUSIS, LESQUARE, LONDON

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must have involved an organisation of labour and an engineering skill such as could have been possible only at a point of concentration of a relatively large population over a considerable period of time. It requires little exercise of the imagination and no straining of the facts to see in Avebury a great centre of early tribal and religious activity. Lying on the periphery of European prehistoric culture, it is the meeting place and the goal of lines of ethnic and cultural migration, of which the paths across Europe are now emerging as the result of recent archaeological research. Already at Avebury and in the neighbourhood, excavation has established a cultural succession in the neolithic and early bronze ages of the third and second millennia before our era, which eventually may afford a clue to the causes which led to this great efflorescence of cultural development and the reason why it should have taken place precisely at this point.

Mr. Ormsby-Gore's appeal on behalf of Avebury, in *The Times* of May 31, is an exceptional measure to meet a difficult situation. As a Minister of the Crown and the responsible head of the department which has been entrusted by Parliament with the protection of our ancient monuments, he presses urgently for the co-operation of the public in the preservation and further exploration of this centre of ancient civilisation. By his action, the future of Avebury has been raised to the status of a national problem. Normally, the Office of Works does not take action in such matters except on outside representation; nor do its powers to protect ancient monuments under schedule extend, except in certain conditions, to ensuring the preservation and systematic and scientific investigation of the evidence which lies beneath the surface of the ground. Hence in the conflict of private ownership and scientific and historic interests, the latter, even in the face of public protest, may go to the wall. It is with the object of averting this catastrophe at Avebury that Mr. Ormsby-Gore has intervened to urge the need for immediate powers to control the future of the site.

At present, exact and scientifically assured knowledge of Avebury and its surroundings covers only a small part of the field; and an intensive exploration of a considerable area is essential before anything like a comprehensive view of its development will be possible. Mr. Ormsby-Gore, indeed, holds that this investigation is of such

moment that it should take precedence of all other schemes; and he couples Avebury with the Roman Wall as being of international importance. Further, he stresses the danger which threatens the character and archaeological development of the site through the erection of "haphazard bungalows, petrol pumps, or other less desirable forms of our ephemeral twentieth-century 'development'".

The danger is acute. Mr. Ormsby-Gore points out that the Office of Works has effective 'guardianship' only over Silbury, the West Kennet Barrow and the sanctuary on Overton Hill, and although the stones now standing or lying above ground are 'protected' under schedule, the land which everywhere may cover precious evidence of this great neolithic civilisation is in the hands of small landowners, who not unnaturally are desirous of making the most of their opportunities.

What is the remedy? Mr. Ormsby-Gore is anxious that the urgent work of conservation and further exploration should proceed forthwith, and suggests the immediate application of a scheme under the Town and Country Planning Act. For this it would be necessary to secure joint action on the part of the local authorities of Wiltshire, the owners and the Office of Works itself, as well as the support of "the various public bodies interested in the progress of British archaeology". While local bodies in Wiltshire will no doubt be sufficiently public-spirited to lend the weight of their authority, private owners may be less ready to acquiesce if the scheme involves serious interference with their rights to deal with their own property.

Without details it is impossible to say how far this method of procedure is likely to attain adequate preservation of the antiquities in the area and ensure the facilities necessary for future research. Under existing legislation, archaeological exploration would seem to be a necessary precedent condition of effective protection, and this will be both a lengthy and a costly business. If Avebury is of international importance as Mr. Ormsby-Gore maintains—and no archaeologist would be prepared to deny this contention—its possession by Great Britain imposes upon the nation a duty not only of maintaining the area in a condition worthy of its character and history, but also the duty of making accessible its full evidential value in the history of European civilisation—in other words, of assuming the responsibility for its exploration. Avebury and its

surroundings should be made a national possession and a reserve under Act of Parliament, much as is the Yellowstone Park in the United States, and a sum should be set aside annually in the provision for the Office of Works for its archaeological investigation. As the system of farming in

Wiltshire is not such as need interfere with the character of the area as a setting of archaeological remains, rents under Crown holdings would reduce the cost of such a scheme. In such a way, but scarcely otherwise, would this generation carry out to the full its obligation to posterity.

Reviews

Vitamin Research

Methodik der Vitaminforschung. Von Dr. Christian Bomskov. Pp. xvi+301. (Leipzig: Georg Thieme, 1935.) 24 gold marks.

THIS is a book that can be recommended without any hesitation or qualification to all those who are concerned with biological, chemical or physical assay of the vitamins. So thoroughly has the ground been covered, including even those portions of contiguous territory with which too many vitamin assayists seem to be unacquainted, that it can be confidently recommended to all who are engaged in any kind of biological assay whatever. The introductory pages, being concerned with the rearing and maintenance of a healthy animal colony, emphasise, however briefly, matters of fundamental importance to every animal laboratory.

On this question of an animal colony, there is one sentence in the introductory chapter that almost deserves to be printed in letters of gold. The author is discussing the "spontaneous" appearance of diseases in an animal colony and tersely remarks: "Die beste Prophylaxe ist immer noch die Sauberkeit im Tierstall". He gives some interesting tables showing the different stock diets that have been proposed by different investigators, and his tables showing the composition of different constituents will save many workers time in looking up figures and making their own calculations. It is, however, curious that, when stating the average weight of young animals produced on different diets recorded, he makes no distinction between the pure albino rat and the pied or hooded animal, though it is well known to workers in this field that certain strains of the latter may have a growth rate and a final weight 50 per cent greater than those of the former. It would obviously be quite unfair, for example, to condemn diet *A* because it permits in pure albinos less vigorous growth than diet *B* permits in pied albinos.

Before directing attention to certain of the author's views and venturing to criticise some minor points, it is necessary to point out that this

is the only volume available on its subject, and has therefore to be judged on its merits, without odious comparisons. Of the standard books on vitamins we recognise the English survey, published by the Medical Research Council, and the American Chemical Society's monograph by Sherman and Smith, as authoritative and permanent. The former lays naturally rather more emphasis on the clinical aspect than the latter, which is written by and for chemists; between them they give a comprehensive account of known facts and suspicions. The vast monograph by Ethel Browning, marred by a number of inaccuracies, commands respect for its bibliographic completeness, as also does the more limited but also more accurate bibliographical "Survey of Vitamins" published by Wodlinger in 1932. Besides these we have certain specialised books—for example, Barnett Sure's "Vitamins in Health and Disease", Hess's monographs on rickets and scurvy, Blunt and Cowan's "Ultraviolet Light and Vitamin D in Nutrition"—and a number of semi-popular expositions, but nobody has so far gathered together in one place an account of all the varying techniques employed in vitamin research. The excellent series of papers by Jung, in the *Zeitschrift für Vitaminforschung*, only occupies 54 pages, and is confined to methods of assay in food and pharmaceutical products; in Dr. Bomskov's much more comprehensive publication, all methods proposed by workers of standing have been described in detail and made to some extent the subject of critical consideration. One can particularly admire the way Dr. Bomskov has managed to produce by September 1934 (the date of his preface) a book that actually takes cognisance of the recommendations made by the Vitamin Conference in June of that year.

We might, it is true, with advantage have had a rather more detailed discussion of the principles involved in vitamin assay. Had this been done, the curious understatement that "in certain circumstances pure bred animals are to be preferred" could have been made considerably clearer. The change in methodology implied by the introduction of standard preparations into