

try, or rather of chemistry in England—for the Browns are the only Englishmen in it—should be read by the younger generation of to-day. Two photographs show us the now unfamiliar features of Griess and of O'Sullivan.

Finally, Prof. Armstrong gives us his views on the best methods for promoting biological inquiry and on the research scheme of the Institute of Brewing. Much of what he says about this is of wider application, and bears on scientific research in general. His

views, expressed with great conviction, should be especially considered at the present time, when all kinds of new research schemes are being started. Some of us cannot always agree with Prof. Armstrong, but we must all recognise that, if provocative, he is stimulating; if a fighter, he is sincere. And he is also picturesque; he does not bore us. Hence this memorial lecture derives a personal interest from the author no less than from his subject, and thereby its value has been increased.

The Ancient and Modern Inhabitants of Malta.

AT a meeting of the Royal Anthropological Institute held on June 28, Mr. L. H. Dudley Buxton read a paper on "The Ancient and Modern Inhabitants of Malta." The paper was a summary of the results of a small anthropological expedition from Oxford which visited Malta in the winter of 1920-21. The expedition was made possible by the generosity of Sir Alfred Mond and by a grant from the Mary Ewart Trust. The work in the island was offered every facility by the Governor, Field-Marshal Lord Plumer, and his staff, and Prof. Zammit, the Rector of the University, put his unrivalled knowledge of all things Maltese at the service of the expedition.

The history of Malta is bound up with its geographical position, lying as it does on a buttress of the old land bridge between Africa and Sicily. The cave of Ghar Dalam, which is being explored by Mr. Despott, may throw considerable light on man's early history in the island. At present, however, the earliest large collection of human remains belongs to the Neolithic, or more probably *Æneolithic*, age of the great Maltese megalith builders. Although this culture is, to a certain extent, unique, it offers possible comparison with the *allées couvertes* of Western Europe. The site of Bahria, which has not yet been properly excavated, may provide a link between the Neolithic and the Bronze ages, remains of which have been discovered actually on top of the Neolithic remains at Hal Tarxien. The following periods, the so-called Phœnician or Punic, show a close connection with North Africa—a connection which was not broken until the Roman occupation. At the division of the Empire in A.D. 395 Malta was allotted to Byzantium, to which it belonged ethnologically. It was held successively by the Arabs and by the various occupants of the throne of Sicily until handed over by Charles

Quint to the Knights of St. John of Jerusalem in 1530. The Knights held it until 1798, when they were dispossessed by Napoleon. It was occupied by the British in 1800, and formally annexed in 1814.

The megalith builders appear to belong to what is generally known as the Mediterranean race. They show close affinities to the inhabitants of North Africa and Sicily. Probably at the close of the Bronze age—but the exact line is as yet uncertain—a crucial change came over the population and a new type of folk appeared, the contour of whose cranial vault suggests Armenoid characters. In spite of the constant infusion probably of North African blood in Punic times and of Italian during later periods, this type has survived in the islands of Malta and Gozo until to-day.

A study of the modern people shows several remarkable facts: first, that though there are significant differences between the Maltese and the inhabitants of Gozo, there is practically no difference between the inhabitants of the urban and rural districts taken as a whole. The inhabitants of Valetta and the suburbs, contrary to expectation, do not show more variation than the country districts. Two villages, Zurrico and Siggewi, each taken singly, showed as great, if different, variations from the urban districts as did the men of Gozo from those of Malta, but here again the people of tiny and, to a large extent, endogamous villages were only slightly less variable than those of a cosmopolitan port.

It may be said then that, generally speaking, and subject to certain reservations, the Maltese present a well-marked racial type—unlike their nearest neighbours except in Neolithic times, and much more alien to the Cretans and the inhabitants of the "Islands of the Sea."

The Rothamsted Experimental Station.

VISIT OF COUNTY AGRICULTURAL COMMITTEES.

ON Friday, July 15, representatives of the county agricultural committees and directors and principals of the agricultural colleges visited the Rothamsted Experimental Station at the invitation of Lord Bledisloe, chairman of the Lawes Agricultural Trust Committee, and Dr. E. J. Russell, director of the station. They were met by Sir David Prain, Prof. H. E. Armstrong, of the committee of management, and Messrs. T. H. Riches, Leonard Sutton, and other members of the Council of the Society for Extending the Rothamsted Experiments. No more representative party has visited Rothamsted since the great jubilee celebrations of 1893, after fifty years of work had been accomplished. The visitors inspected the plots and the laboratories, and saw practically the whole of the work which is being carried out.

The Rothamsted Experimental Station has expanded considerably during and after the war, and it now has

a permanent scientific staff of twenty-six members, in addition to skilled assistants for records, library, and office, and an outdoor staff for the farm and experimental plots. The scope of the work has expanded, and now includes the soil and the growing plant in health and disease. In the main the work falls into two great divisions, carried out respectively in the laboratories and in the fields, with the pot-culture house serving as a close link between them.

In welcoming the visitors Lord Bledisloe stated that this gathering was typical of many which it was hoped to arrange in future years, and its purpose was to make the work of Rothamsted known to those most intimately associated with the development of British agriculture. The most hopeful method of helping the farmer was to furnish him with knowledge about the crops and soils with which he has to deal, and to carry out tests which he could not possibly do for himself. Lord Bledisloe referred

particularly to some of the recent Rothamsted experiments, showing that the addition of chalk to the soil caused so marked a disintegration that the drawbar pull on the tractor was reduced from 1500 lb. to 1300 lb. for the three-furrow plough, thereby reducing the consumption of fuel and the wear-and-tear.

Sir Daniel Hall described the relationships between research stations and the college and farm institutes on the one hand, and the county advisers on the other. He impressed upon his hearers the fact that much of the work of an experimental station could have no immediate practical application, and yet it was absolutely essential for the development of agricultural science and for further advances in agricultural practice. He described the great changes that had taken place in the past fifteen years in the attitude of Government departments towards research work, and to the broader and more enlightened outlook on the part of the general public.

Dr. Russell described the work of the station, and emphasised the fact that its purpose is first to obtain trustworthy information about the soils and growing plants, and then to put this information into such a form that teachers and experts can use it. Among recent developments to which Dr. Russell referred are the statistical department, where elaborate and extensive Rothamsted data are examined by modern statistical methods, and the work on cultivation which is now being carried out by the physical department and the farm.

University and Educational Intelligence.

DURHAM.—The following honorary degrees were conferred upon members of the British Medical Association on July 21:—*Doctor of Civil Laws*: Sir William MacEwen, Sir Thomas Oliver, and Sir Humphry D. Rolleston. *Doctor of Hygiene*: Dr. T. E. Hill and Dr. J. W. Smith. *Doctor of Science*: Sir Arthur Keith. *Doctor of Literature*: Sir Dawson Williams, editor of the *British Medical Journal*. *M.A.*: Dr. Alfred Cox, medical secretary of the British Medical Association.

LONDON.—Mr. M. T. M. Ormsby has been appointed as from August 1, 1921, to the Chadwick chair of municipal engineering tenable at University College. Mr. Ormsby was appointed assistant to Prof. Osbert Chadwick at the college in 1898, and since 1914 has been University reader in surveying.

Dr. F. S. Langmead has been appointed as from August 31, 1921, to the University chair of medicine tenable at St. Mary's Hospital Medical School. Dr. Langmead has held a number of posts at St. Mary's Hospital since 1902, also at the Hospital for Sick Children and at the Seamen's Hospital, Greenwich.

The Rogers Prize of 100l. for 1921 has been awarded to Mr. Lambert Rogers for an essay entitled "The Surgical Treatment of Hyperthyroidism."

The following doctorates have been conferred:—*D.Sc. in Physics*: Mr. Lewis Simons, an internal student, of King's College, for a thesis entitled "Contributions to the Study of Energy Transformations when X-radiation is absorbed by, or emitted from, a Substance." *D.Sc. (Engineering)*: Mr. K. C. Chakko, an internal student, of University College, for a thesis entitled "Stresses in Chain Links." *D.Sc. in Botany*: Mr. Birbal Sahni, an external student, for a thesis entitled "The Structures and Affinities of *Acomophyle Pancheri*, Pilger." *D.Sc. in Chemistry*: Mr. W. C. Reynolds, an external student, for a thesis entitled "On Interfacial Tension." *D.Sc. in Geology*: Mr. L. F. Spath, an external student,

NO. 2700, VOL. 107]

for a thesis entitled "On Cretaceous Cephalopoda from Zululand," and other papers; and Mr. L. D. Stamp, an external student, for two theses entitled "On the Beds at the Base of the Ypresian (London Clay) in the Anglo-Franco-Belgian Basin," and "On Cycles of Sedimentation in the Eocene Strata of the Anglo-Franco-Belgian Basin."

THE Trustees of the Beit Fellowships for Scientific Research, which were founded and endowed in 1913 by Sir Otto Beit in order to promote the advancement of science by means of research, have recently elected to fellowships Messrs. H. L. Riley and W. A. P. Challenor. Mr. Riley was educated at the Keighley Trade and Grammar School, 1910-17, and has been a student at the Imperial College of Science and Technology from 1919 to date. Mr. Challenor was educated at Whitchurch Grammar School, 1911-17, and has been a student at the Birmingham University from 1917 to date. Both will carry out research at the Imperial College of Science and Technology at South Kensington.

IT was announced in NATURE of July 7, p. 604, that Mr. H. H. Wills had presented the University of Bristol with the sum of 200,000l. for the provision of a new physics laboratory. Further particulars have now been received. Two gifts totalling 200,000l. were received, and the Council of the University has now approved plans and signed a contract for the erection of a building. It is estimated that the work will absorb the whole of the original gifts, together with the interest on the fund, amounting to 21,000l., which has since accrued. The Council has further decided to associate the name of Mr. Henry Wills permanently and for all time with the department by naming the building "The Henry Herbert Wills Physical Laboratory." In this Bristol is following the precedent of other universities in associating the name of the donor with a laboratory erected by him for a particular subject. The building, which is Early Renaissance in style, will be a four-floor structure in the shape of the letter "L," to be erected on the north-east side of the Royal Fort Estate. The architects have been most successful in securing both architectural beauty and all the facilities of light and other special requirements demanded by a science department. When it is erected Bristol will possess the best building for teaching and research work in physics in the world. The total amount contributed to the University of Bristol by various members of the Wills family now exceeds 900,000l.

SIR MICHAEL SADLER, Vice-Chancellor of the University of Leeds, in the course of an address after opening the new buildings of the Community of the Resurrection at Mirfield on July 16, said that modern civilisation was one of the colossal facts in the world's history. It had been achieved by the courage and labour of Western men during four centuries. Its essence was power. Its phases had been the power of the individual pioneer, the power of the State, the power of the sea, the power of the machine, the power of coal, and the power of high explosives. Through this stupendous outburst of power Providence had permitted a great change in the lives of men and in the outlook of their minds. It had quickened invention; it had flowered in great literature; it had multiplied opportunity; it had created wealth beyond even the dreams of avarice. Of the six most brilliant epochs in human history modern Western civilisation had been one. But now in its heart and conscience there is foreboding. Power, which is the essence of modern civilisation, threatens to destroy it. Three men so typical as Viscount Grey, Mr. H. G. Wells, and the Dean of St. Paul's