

millennium B.C. to man's earliest occupation of the site, a period of not less than three millennia, possibly more.

Parallels of Habits and Beliefs

THE Frazer Lecture was delivered at the University of Oxford on May 10 by Prof. H. J. Rose, of the University of St. Andrews. The title of the lecture was "Concerning Parallels", and Prof. Rose discussed the legitimacy of the sort of parallels to classical religious phenomena which Frazer uses, leading up to a discussion of polygenetic versus distributionist views in anthropology. His general argument was that the use of parallels between the habits and beliefs of one people and another, while particularly conspicuous in the works of Frazer, is nothing new, being prominent in works published so early as the eighteenth century. It has generally involved recognition of the principle laid down by Bergier (1760) that "partout les hommes se ressemblent". Frequently there has gone with it a shallow conception of human evolution, tacitly assuming that the resemblance between different peoples at approximately the same stage of culture is so close as to amount to identity, and also that the stages of culture can be dated by merely placing first in time those which appear simplest and most brutish. This being the result of false reasoning and the neglect of elementary philosophic principles, has led to unsound results. In consequence, the attempts of the so-called historical school, of which Graebner, Pinard de la Boullaye and W. Schmidt are outstanding representatives, to establish objective criteria of dating and a strictly scientific method of handling the facts must be welcomed, whether the results they have so far achieved are acceptable or not. The criteria are, however, open to serious objection. Examples can easily be found of usages from peoples, wholly unconnected ethnologically, illustrating each other in a most welcome fashion, the common humanity of the minds of both being more important than any specific difference. The most fruitful activity of an anthropologist is rather psychological than historical or geographical, although these aspects should not be neglected; and to misunderstand the motive of an action may result in failure to place it even in its right historical context.

Royal Cornwall Polytechnic Society

THE hundredth annual report of the Royal Cornwall Polytechnic Society is of unusual interest. It contains among other matter accounts of the hundredth annual meeting held at Falmouth on February 21, 1933, and of the centenary summer meeting held on July 18-21. At the opening session of the latter the president, Viscount Clifden, occupied the chair and a series of addresses of congratulation was presented on behalf of the Royal Society, Royal Institution and other bodies. During the four days there were excursions and visits to works, and five addresses were delivered by well-known men of science. Sir Richard Gregory's address dealt with "Science Applied to Industry"; Sir John Cadman spoke on "Science, One and All", making special

reference to the operations in the oil-fields of Persia and Iraq; Sir Napier Shaw on "Unofficial Meteorology"; Dr. G. C. Simpson on "Modern Methods of Weather Forecasting"; and Prof. S. J. Truscott on "Problems of Mining at Great Depths". These addresses are printed in full in the report, and that by Sir Napier Shaw is accompanied by an interesting series of photographs.

FREQUENT references were made at the meeting to some of the pioneers in Cornish industry, and one of the visits was to the Safety Fuse Works of Messrs. Bickford-Smith and Co. Ltd., Tuckingmill. The invention of the safety fuse was due to William Bickford, who had been struck by the frequency of accidents in mines and the number of men in Cornwall totally or partially blinded through them. Appended to the report is an account of the work of the Falmouth Observatory, which has actively co-operated with the Meteorological Office since 1868. This was referred to in the address of congratulation from the Meteorological Committee signed by Sir Philip Sassoon, Under-Secretary of State for Air. Recently the old observatory tower, where the observations were made from 1868 until 1885, has had a commemoration tablet fixed to it.

Photography of Sound

"SOME Photographic Aspects of Sound Recording" was the subject of the Sir Henry Trueman Wood Memorial Lecture, which was given by Dr. C. E. Kenneth Mees, of the Eastman Kodak Company, at the Royal Society of Arts on May 16. Dr. Mees stated that the introduction of sound recording has influenced every section of the motion picture industry, from the nature of the original material selected for the presentation to the architectural design of the motion picture theatre itself. Two methods of sound recording are in general use, leading in one case to records in which the density of the photographic deposit varies, and, in the other, to records in which the area occupied by the photographic deposit varies. Reproduction depends on three qualities, loudness, frequency of pitch and wave form quality or timbre. The intensity range is limited primarily by the ground noise, which is chiefly due to physical defects in the films, such as scratches and dirt, although even in a perfectly clean film there is a very small amount of ground noise due to the granular structure of the silver deposit. By the use of special apparatus it is now possible to reduce ground noise considerably. The reproduction of high frequencies is dependent upon the resolving power of the photographic film. Special experimental apparatus has been designed to analyse the wave form and quality of the reproduction. "Improvements in the reproduction of sound by photographic means," Dr. Mees concluded, "will depend, in the future as in the past, on intensive scientific research in relation to sound, electricity, and photography."

Historical Physical Apparatus

SIR HENRY LYONS, formerly director of the Science Museum, delivered his presidential address to the

Institute of Physics on May 15, taking as his subject "Physics and Science Museums". Sir Henry referred in particular to the work which the Board of the Institute has done through a special committee in locating pieces of physical apparatus of special historical importance, and ensuring so far as possible that they should be preserved from deterioration or possible loss. This committee was appointed in 1925, and since then it has brought to light many objects which were little known to physicists generally and of which the historical importance was not always appreciated at its full value. It was not until the middle of the eighteenth century that the first institution was established for the preservation of scientific instruments and technical apparatus; this was the museum of the Conservatoire des Arts et Metiers in Paris, which was founded in 1794 to include all kinds of machinery, models, tools, instruments, etc. Little can now remain of the instruments and apparatus in use in earlier times, not only because in those times there was no institution where they could be deposited, but also because for the most part their historical importance was seldom realised. Then probably more than now, an instrument once acquired was treasured for there were few of them, but it passed in time to a later generation which neither appreciated it nor understood its importance. The same influence operates to-day and there is much difficulty in securing for posterity the more important examples of apparatus which has played a part in the advance of science. The address will be published in due course and copies will be obtainable from the Institute of Physics, 1, Lowther Gardens, Exhibition Road, London, S.W.7 (1s. 1d. including postage).

A New Nature Reserve in New Zealand

THE property of Brooklands, New Plymouth, New Zealand, was handed over by the trustees of the late Mr. Newton King to the Borough of New Plymouth as a public reserve and officially opened by His Excellency the Governor-General, Lord Bledisloe, on March 10. It adjoins the beautiful Pukekara Park, and forms a natural extension of it. Together they comprise an area of more than 100 acres, forming a park second to none in the Dominion either in size or natural beauty. In addition to the actual property of Brooklands, the Trustees presented five acres of native bush nearby, and, to give access to it and make the whole one large reserve, Mr. T. C. List and Mr. C. A. Wilkinson gave an area of seven and a half acres. In his speech, Lord Bledisloe, after paying tribute to the late Mr. King, pointed out some of the many natural advantages which the Dominion possesses, and said that it is unique in the number, variety and grandeur of its many beauty spots within a relatively small area and in its incomparable native bush; he prophesied that eventually New Zealand will find its tourist traffic the main source of its wealth. While admiring the fine specimens of introduced trees, Lord Bledisloe gave a word of warning against the mixing of exotic trees with the native vegetation. All those who have the preservation of the native vegetation of the Empire at heart

will feel grateful for the interest which Lord Bledisloe has in their efforts, and for the help he is giving them.

Safety in X-ray work

IN a paper to the Institution of Electrical Engineers read on February 22, by Mr. L. G. H. Sarsfield, safety measures for workers with X-ray plant were discussed. He discussed the risks of fatal injury and the advantages and disadvantages of using signal lights. The concluding portion of the paper dealt with the use of high voltage flexible cable and described some new types of cable which are coming into use. Stress was laid on the need for definite instructions so as to avoid electrical dangers. He suggested that the Institution should co-operate with the British Institute of Radiology in framing rules. In the discussion, Dr. V. E. Pullin said that at Woolwich they had to legislate for uninstructed use, and so had to make the equipment absolutely safe. Dr. G. W. C. Kaye, speaking as secretary of the International Protection Committee which will meet at Zurich next July, pointed out that international recommendations were framed as the result of the British Protection Committee's work, and these recommendations play a very important part in the design of equipment all over the world. The League of Nations has issued a very comprehensive publication on the subject. The British recommendations are now being revised and he hopes that the use of rubber floor mats and insulating shoes will have more consideration. Dr. B. J. Leggett said that too much talk of the need of protection made patients nervous. In some cases, too much protection will prevent results being obtained. In reply, Mr. Sarsfield said that there is a real need for earthing the conductor at intervals along its length.

Rothamsted Experimental Station

THE appeal for funds to purchase the Rothamsted fields has now secured in cash or good promises the £10,000 necessary to claim the munificent donations of £15,000 by Mr. Robert McDougall and £5,000 by the Sir Halley Stewart Trust (see NATURE, 133, 442, March 24, 1934). The success of the purchase scheme is therefore assured, and the appeal is being kept open only a few days longer in order to enable the Committee to obtain the further amount needed to meet the agreed addition to the purchase price consequent on the ascertainment of the tithe charges, timber evaluation and other items. Several organisations still have to make their final decisions, but it is confidently expected that the whole amount including these additional payments will be secured within the next few days, so that the Rothamsted Committee can enter into possession free of all financial obligation and free therefore to devote the whole of its resources to the important agricultural investigations in hand.

Annual Meeting of the British Medical Association

THE one hundred and second annual meeting of the British Medical Association will be held in Bournemouth during the week commencing July 23