

movements and 'pluvial' and interpluvial conditions here can be satisfactorily correlated with similar conditions in East and Central Africa and with glacial and interglacial conditions in palæarctic regions, we must ultimately be led to a better, if not a proper appreciation of the relative time horizons when men practising similar material cultures appeared on the scene in these continental extremes. The issue is of the greatest moment in that men who made Chelles-like tools are believed to have appeared in Southern Africa during early Pleistocene times, and this new undertaking, sponsored entirely by the State and under strict control, therefore represents the greatest step forward prehistory has known for some time.

The sequence of prehistoric material cultures in South Africa is too well known to need recapitulation here. From the Stellenbosch Culture (Chelles + Clacton types to Acheul + Old Levallois types) through the Fauresmith Culture (La Micoque + Combe Capelle + Levallois types) upwards, the story is complete. All we need is the geological and particularly the climatological background.

Ancient river terraces, stratification and its causes, associated fauna, alluvial deposits, etc., will be examined by geologists and archæologists working in the closest harmony over several hundred square miles, and it is confidently anticipated that this work

will lay the foundation for a better, if not a full appreciation of the geological and climatological canvas on which all our pictures of prehistoric man in South Africa must be drawn. This work should undoubtedly lead us to a better appreciation of possible and more far-reaching correlations with climatic fluctuations and earth movements in other parts of the world, and so to the relative dating of the appearance of particular lithicultural horizons in widely separated areas.

The value of the Vaal River was recently brought out by Prof. Van Riet Lowe, director of the Bureau of Archæology, in the article "Implementiferous Gravels of the Vaal River at Riverview Estates" in *NATURE* of July 13, 1935 (pp. 53-56). Similar conditions, Prof. Van Riet Lowe assures us, exist over many hundreds of miles along this amazingly rich valley.

The areas to be attacked immediately are those that will be inundated after the completion of the huge dams at present in course of erection at various sections across these rivers.

Fieldwork is being started immediately, and it is anticipated that it will continue for at least eight months. Two geologists and an archæologist are taking the field at once. The major issue is undoubtedly geological and this side of the problem is therefore being stressed.

Study of Nutrition

INQUIRY BY LEAGUE OF NATIONS EXPERTS

THE Expert Commission on Nutrition appointed by the Health Committee of the League of Nations met on November 25 at the London School of Hygiene and Tropical Medicine. Those present were:

France: Prof. L. Alquier, director of the Institut d'Hygiène Alimentaire, Paris; Prof. L. Lapique, professor of physiology at the Laboratory of Physiology, Sorbonne, Paris.

Scandinavia: Dr. Axel Höjer, Generaldirektor, Medicinalstyrelsen, Vallingatan 2, Stockholm.

United Kingdom: Prof. E. P. Cathcart, professor of physiology, University of Glasgow; Prof. E. Mellanby, secretary of the Medical Research Council, London; Sir John Boyd Orr, director of the Imperial Bureau of Animal Nutrition, Reid Library, Rowett Institute, Aberdeen.

United States: Prof. E. V. McCollum, professor of biochemistry, Johns Hopkins University, Baltimore; Dr. Mary Schwartz Rose, Columbia University, New York; Dr. W. Sebrell, chief of the Department of Nutrition, National Institute of Hygiene, Washington, D.C.

U.S.S.R.: Prof. Sbarsky, director of the Central Nutrition Institute, Moscow.

Two other members of the Commission, namely, Prof. Durig of Vienna, and Prof. Schiotz of Oslo, were unable to attend the meeting.

The Commission elected Prof. Mellanby as chairman and Dr. McCollum as vice-chairman.

A statement was presented on the origin of the

studies of the question made under the auspices of the League of Nations. After a general exchange of views, the Commission decided to draft a statement on scientific principles governing dietaries of certain population groups—namely, women during pregnancy and lactation, infants, school-children, and adolescents up to the age of twenty-one years.

Two sub-committees—one on energy-producing substances, under the chairmanship of Prof. Cathcart (members: Profs. Alquier, Lapique, Sbarsky and Sebrell); and the other on non-energy-producing substances (such as mineral salts, vitamins, etc.), under the chairmanship of Prof. McCollum (members: Profs. Höjer and Mellanby, Sir John Boyd Orr and Dr. Schwartz Rose, with Dr. Harriette Chick of the Lister Institute as secretary)—were entrusted with the task of drawing up detailed recommendations to be submitted to the plenary commission at a later meeting.

In the course of the week, each of these committees drew up its own report, and from them a combined report covering the whole subject was drafted and, after due consideration, adopted unanimously. This report is now being printed at Geneva in English and French, and will be published in the near future. It will undoubtedly arouse great interest among those concerned, both from the scientific and social aspects of nutrition. The report of this Commission of Experts on Nutrition will then be sent on to a mixed committee which includes economists and experts in agriculture as well as representatives of the present Commission. Prof. Mellanby and Prof.

McCollum were appointed representatives on this mixed committee, with Sir John Orr and Dr. Mary Schwartz Rose as substitutes. This mixed committee will meet in February 1936 at Geneva.

The modern knowledge of nutrition being still in the stage of development, the Commission had to consider future progress. It drew up a list, in order of priority, of the problems for future study at various scientific institutes already engaged on similar lines of research, with a view to practical progress.

Educational Topics and Events

CAMBRIDGE.—The Lowndean professorship of astronomy and geometry will become vacant by the retirement of Dr. H. F. Baker on September 30, 1936. A meeting of the electors will be held on January 31, 1936. The General Board has recommended and the Council of the Senate has determined, that at this election preference shall be given to candidates whose work is connected with geometry in the widest modern sense. Candidates for the professorship are requested to communicate with the Vice-Chancellor and to send him, on or before January 14, 1936, ten copies of any statement or testimonial which they desire to submit to the electors.

It is recommended by the Faculty Board of Engineering that J. A. G. Haslam, of Corpus Christi College, be appointed assistant in research in the Sub-Department of Aeronautics with a stipend of £500 a year, made up of £300 from the University grant and £200 from Sir John Siddeley's gift for aeronautical research.

SHEFFIELD.—The title of honorary lecturer in physics has been conferred on Dr. W. H. George, Sorby research fellow.

Mr. H. T. Protheroe has been appointed assistant lecturer in metallurgy (founding).

The Rockefeller Foundation, New York, has made a grant of £200 in aid of research in the Department of Pharmacology.

THE annual report of the Yorkshire West Riding County Council on the county minor scholarships examinations, recently issued, records an important advance in the employment of intelligence tests. For the last three years, while an intelligence test has been taken by all candidates, it has been used only as a means of differentiating the border-line cases. This year it has been taken into account in all cases except those where low marks in English and arithmetic precluded the possibility of awarding a scholarship. One effect has been to give the chance of a scholarship to candidates obtaining a high 'intelligence quotient' whose marks in arithmetic and English would not last year have been high enough to bring them within the range of the border-line. The examiners believe that, as a result of the employment of the test, awards have been made only to those candidates who have the necessary ability and educational background to enable them to profit by a secondary school education. Special attention was directed last year to the widely prevalent fault of reading the questions carelessly and of introducing irrelevant matter into the answers. This fault was much less conspicuous this year.

Science News a Century Ago

The Elephant House at the Zoological Gardens

IN the issue of *The Times* of Christmas Day, 1835, is a note on the Zoological Gardens from a correspondent who says: "The elephant has taken possession of the new house which has been prepared for his reception, and he now enjoys the society of the young female of his order presented by His Majesty. The house is by far the best building in the gardens, and is every way worthy of so great a personage. There is a mode of heating it adopted which we understand is perfectly original and seems likely to supersede all other methods in use in warming churches, chapels, and all buildings having incombustible floors. The simplicity of the plan is as remarkable as it is apparently effective and unexceptional. . . . The fuel used is inconceivably small, and the cheapness, simplicity and safety of this new method of heating cannot fail to engage the attention of all scientific and practical men."

A Christmas Experiment in Magnetism

FARADAY notes in his Diary an experiment, made on the day after Christmas 1835, on "the possibility that some metals, not magnetic at common temperatures, might become so at low temperatures". He must have been occupied at the time with preparations for the Juvenile Lectures, for he gave the Christmas course of 1835-36 on electricity; but the day was a very cold one, for he records the temperature as 25° F.; and neither Christmas festivities nor lecture preparations could induce him to forgo so favourable an opportunity. The apparatus was carried up to the roof of the lecture theatre and there, where the fullest advantage of the low out-of-doors temperature could be taken, the experiment was made.

He had a magnetometer with a delicate astatic needle: "This kind of needle was used as the most delicate test". Some wires of various metals were tied up in little bundles with platinum wire. "Then cooled these bundles in liquid sulphurous acid, in watch glasses containing a little mercury also, and when below the freezing point of the mercury, brought them close to the ends of the astatic needle to ascertain if they had become sensibly magnetic; but could not observe the least indication of such an effect, though I think the temperature must occasionally have been 60° or 70° below Zero of Fahrenheit".

New Classification of Animals

ON December 26, 1835, the *Athenæum* stated: "M. de Humboldt has presented to the French Academy of Sciences, in the name of M. Ehrenberg, correspondent of the Academy in Berlin, a table dividing the animal kingdom into 29 classes. This division is founded on the organisation and generality of a type, lying in the sensitive, vascular, locomotive, nutritive, and propagative systems. Twenty-two of the groups belong to animals without vertebræ, which are divided according to the presence or absence of a heart, Cordata and Vasculosa. In the latter, the vessels do not present anything like pulsation, and the digestive organ is either simple and solitary, as in the Tubulata, or divided and multiform, as in