

Prof. Loewinson-Lessing's field work covered almost the whole of the territory of European and Asiatic Russia. He began his work in Karelia and the Caucasus and then extended his activity to the Crimea, the Ural Mountains and Siberia. His petrographical descriptions of the rocks of these regions were used as models by other petrologists. Field description, petrography and petrochemistry of rocks are well blended in all his works. In the domain of theoretical petrology, he is well known for his chemical classification of igneous rocks and his syntectic-liquational hypothesis of magmatic differentiation. In spite of the stress laid by him on liquation as a factor of differentiation, his views on this subject were rather eclectic.

As a teacher, Prof. Loewinson-Lessing was excellent. It is a matter for wonder that he could, in addition to all his research activities and his official duties, contrive to hold numerous classes for students. His lectures were always inspiring and he never lost his freshness of outlook or his mastery of presentation.

During a half-century of teaching he trained hundreds of geologists and petrologists. He will be affectionately remembered for his kindness and his help and inspiration by all his colleagues and pupils, among whom the present writer is proud to inscribe himself.

S. I. TOMKEIEFF.

WE regret to announce the following deaths :

Prof. Viggo Christiansen, emeritus professor of neurology in the University of Copenhagen, president of the International Congress of Neurology held last August, on November 3, aged seventy-one years.

Dr. J. F. Lewis, past president of the Royal Photographic Society, on November 28, aged seventy-two years.

Sir Ernest Scott, emeritus professor of history in the University of Melbourne, and president in 1939 of the Australian and New Zealand Association for the Advancement of Science, aged seventy-one years.

## NEWS AND VIEWS

### Indian Archæology and Indian Problems

SIR LEONARD WOOLLEY'S Birdwood Memorial Lecture to the Royal Society of Arts, on December 1, was in effect an addendum to his official report to the Government on the organization of archæological studies in India; and it should receive no less careful consideration than the major document when in due course it appears in print. For in the freer atmosphere of the lecture hall, Sir Leonard evidently felt at liberty to allow his trained faculty of scientific imagination to play on the archæological material which had come before him, and to submit the result to his audience in a selection of the problems and possibilities which the study of Indian archæology presents to his mind as calling urgently for investigation—problems no less fascinating in the vistas of the advancement of knowledge they open up than they are evocative of dismay when contemplation turns to the vastness of the field in time and space to be covered. Nor was any short cut offered which might lead by an easy way to the solution of these problems. While Sir Leonard paid due tribute to the work of Lord Curzon in setting up the Archæological Survey of India, and the work which has since been carried out in the triple function of conservation, excavation and publication, he went on to point out with the greatest emphasis that no further advance on sound lines is possible until the essential preliminary groundwork has been completed and a backbone has been built up in a sequence scheme of Indian cultural history. This is the essential task to which effort must first be directed.

It was suggested in NATURE of October 28, p. 721, that the inauguration of a new era in India's history might fittingly be marked by the institution on a

sound and lasting basis of a scheme of research and study on broad lines of the racial and cultural history of India. In such a scheme archæological investigation would inevitably take a foremost place. As Sir Leonard said, "The whole country from north to south is strewn with standing monuments of the greatest interest and the greatest beauty and the utmost historical value." He then pointed out that in his analysis of the cultural elements of the ancient monuments of India, certain factors had emerged, from which he proceeded to draw conclusions significant for the India of to-day. In the architecture of the monuments, he showed, the Mogul strain, working in stone, and the Dravidian, a style derivative from the technique of the worker in wood or even the jeweller, constituted a clash in styles reflecting a political and moral breach between two elements still represented in the population of to-day. Nevertheless, the clash had been resolved in the triumphs of the Taj Mahal, the Delhi fort, and more especially in Fatehpur Sikri, which showed conclusively that the genius of the two peoples "can combine fruitfully and fertilely". Novel views of the relation of north and south, thrown out as suggestions presented on the results of Sir Leonard's inspection of specified sites, offer a field of research which, when once the essential groundwork has been completed, might offer to the Indian peoples a source of unity in pride in their joint cultural achievement in the past.

### School of Oriental and African Studies

NOTWITHSTANDING the transfer of the School of Oriental and African Studies of the University of London to Christ's College, Cambridge, the building of the School's new premises in the University of London area is being pushed forward, and should be

completed, if nothing untoward intervenes, by May next. It was intended that the School should open there for the session 1940-41. In the recently issued annual report for the session 1938-39, the first of Lord Harlech's chairmanship of the Governing Body, it is recorded that, in response to an appeal which he, as Mr. Ormsby-Gore, when Secretary of State for the Colonies, had put forward, the Colonial Office has promised a sum of £4,380 per annum in subvention of the work of the School, while a grant of £2,500 has been made by the University Court for the remainder of the quinquennium for the establishment of five posts—one lectureship in Japanese, one in Turkish, and three in Arabic dialects, while a later grant of £500 for a period of not less than three years was made for a lectureship in Sinhalese. The number of students, though representing a slight decrease, was still more than four hundred. While the numbers from Great Britain and the Empire showed a decrease, there was a considerable addition to those from Germany and the United States.

IN the course of the report, reference is made to the valuable assistance towards African studies given by grants from the Rockefeller Foundation which during the last seven years have amounted in sums allocated to public bodies and to individuals to a total of £18,000. It will be remembered that it was through the assistance of a grant from this source, spread over five years, that the International Institute of African Languages and Cultures was enabled to plan and carry out its valuable scheme of organized African research in the field, of which the benefit is now becoming apparent not only in the monographs in course of publication but also in the projects for further research which directly or indirectly have sprung from that scheme.

#### Dr. Jean Paul Marat

IN a recent paper (*Hippocrate*, 7, 379; 1939) Dr. Henri Candiani protests against the unjust and cruel treatment which Marat has received not only from scientific pamphleteers but also from reputable historians such as Michelet, Taine and Carlyle. While not attempting to refute all the legends and calumnies concerning the "Friend of the People", Dr. Candiani confines himself to the scientific and medical aspects of his hero. So far from being a charlatan or merely a horse-leech, as Carlyle called him, he was a properly qualified medical man of St. Andrews who, during his residence in London, had a good practice in Soho when that district was a fashionable quarter. His "Essay on Man" (1775), more than half of which is devoted to anatomy, is a philosophical and psychological work, in which he has been recognized as the precursor of Cabanis, Broussais and Gall. In his "Essay on Gleans", published the same year, he criticized certain errors of treatment current at the time, including the use of hard and irritating bougies, for which he substituted softer instruments. In 1776 he made an important contribution to ophthalmology in his "Enquiry into a Singular Disease of the Eyes",

in which, as Prof. Truc of Montpellier has shown, he gave a description of astigmatism which preceded the classical account of Thomas Young by more than twenty years. But it was as a pioneer in electrotherapy, on which he wrote in 1782 and 1783, that Marat chiefly deserves mention in the history of medicine. According to Dr. W. G. Turrell of Oxford, his work on this subject was on far more scientific lines than the writings of any of his predecessors or even than the publications of many of his successors. In conclusion, Dr. Candiani describes Marat as a conscientious experimenter, resolutely hostile to absurd theories or hasty generalizations.

#### Food of Game Ducks

VARIOUS causes have contributed to reduce, to a serious extent in some cases, the numbers of game ducks in the United States and Canada, and the interest of the public and the self-interest of the multitude of shooters alike demand that measures should be taken for the encouragement and multiplication of the duck population. The U.S. Department of Agriculture has responded to the demand by the publication of a pamphlet (Washington, D.C.: *Tech. Bull.* No. 634; 1939) of 156 pages and 153 plates, with the aim of spreading dependable information on which programmes for the improvement of breeding and feeding grounds may be based. To minimize waste of funds and loss of effort through the introduction of unsuitable foods, it is essential that the important plant and animal foods of the various species be known and that consideration be given to the range of particular species and environmental and other limiting factors. By making use of data accumulated through many years by the Biological Survey, the authors, A. C. Martin and F. M. Uhler, have presented a thorough-going treatise which from three aspects gives a lead to duck conservation and propagation. The first section presents a census of foods, based upon analyses of nearly 8,000 stomachs or gullets of eighteen species of game ducks, and indicates the regions in the United States where each food is preferred. The second part, by means of photographs and concise descriptions, is designed to facilitate recognition of these foods; and the third part contains practical suggestions on the propagation of the food of waterfowl and the development of feeding grounds.

#### Fauna of the Marquesas Islands

ISOLATED in the central Pacific Ocean, farther from the continents than any others, with one exception, themselves the relics of volcanoes perhaps of Pliocene age, the Marquesas Islands afford a perfect setting for the study of an oceanic island fauna. The study has been carried out with thoroughness by A. M. Adamson, who spent fifteen months collecting on the Islands and has made a survey of the literature bearing on the problem (*Bull. Bernice P. Bishop Museum, Honolulu*, 159, 93; 1939). Marquesan animals are related to those of the island groups lying to the west and south-west, Samoa, Society, Cook, etc., but they show little affinity to the fauna of Hawaii. The