solve some of the outstanding problems in Antarctic discovery, is estimated to cost no more than  $\pounds 15,000$ , of which the British Government is giving  $\pounds 10,000$  and the Royal Geographical Society  $\pounds 1,000$ .

## Sir Everard im Thurn Memorial Scholarship

THE council of the Scottish Anthropological Society proposes to create a permanent memorial of the late Sir Everard im Thurn by founding a lectureship in anthropology. Sir Everard im Thurn was the first president of the Edinburgh and Lothians Branch of the Royal Anthropological Institute, an office which he held from 1924 until 1932, and was one of the first to advocate the formation of a Scottish national society for the advancement of anthropological teaching and research. Sir Everard's distinction as an anthropologist has been widely recognised. He was the author of the standard work on the Indians of Guiana, contributed numerous papers on anthropological subjects to scientific journals, and was president of the Royal Anthropological Institute in It is intended that the Sir Everard 1919-21. im Thurn memorial lecture should be delivered annually on the date of the annual general meeting of the Society by an anthropologist of note. For this purpose, it is stated in an appeal issued by the memorial committee, of which Prof. H. J. Rose, president of the Society, is chairman, a capital sum of £500 will be required to meet the annual expenses. Part of this sum has already been provided, but further subscriptions are invited to make up the amount. In the meantime, arrangements have been made for the delivery of the first lecture on May 22, 1934, when Dr. R. R. Marett will lecture on "Sir Everard im Thurn as Anthropologist and as Man". Contributions to the fund should be addressed to the honorary treasurer of the Society, Mr. J. B. Mackay, 30 St. Alban's Road, Edinburgh.

### Work of Geological Surveys

THE presidential address of Sir Thomas Holland at the annual general meeting of the Geological Society on February 16 was mainly devoted to an examination of the organisation of the geological surveys of the British Empire and the United States. He emphasised the fact that the real object of every such survey is the mineral development of the country, scientific results being obtained as by-products and used as a means to attaining the economic object in view. The work of preparing a geological map requires the co-operation of various specialists of at least seven kinds. With a director and his assistant, a curator and a chemist, the minimum number of scientific officers required for a survey like that of India, for example, is found to be about 21. Below this standard an organisation is scientifically inefficient and economically wasteful. The colonies separately might not be able, for financial reasons, to maintain this standard, but the difficulty could be partially met, as in the Federated Malay States, by a federation of officers in geographically related groups. Important functions of a survey are the classification of public lands and the compilation and analysis of mineral statistics. The director should be well acquainted with the trend of mineral development, watching imports for indications that the country might itself produce certain minerals and by-products. He should therefore be the adviser of his Government on questions of mineral policy, whether in purely economic matters or in the development and conservation of minerals that are essential for the production of munitions of war.

# Science and Society

THE third Hobhouse memorial lecture, on the subject, "Rational and Irrational Elements in our Society", was delivered at Bedford College for Women on March 7 by Prof. Karl Mannheim, formerly professor of sociology in the University of Frankforton-Main, and now lecturer in sociology at the London School of Economics and Political Science. The main theme of the lecture was the problem created for contemporary society through the disproportion between the range of man's technical knowledge, and his moral qualities and rational insight into the social mechanism which it is the task of members of society to control. Society must break down unless this grave disproportion be remedied. Owing to the correlation of the growth of certain moral and spiritual elements with certain features in society, the problem is amenable to scientific treatment. The question to be answered is what are the elements in an industrialised society which tend to heighten rationality and at the same time to promote irrationality. Two senses of rationality must be distinguished. Substantial rationality relates to thinking and understanding, to the cogitative elements in general; functional rationality relates to the organisation of activities for the attaining of given ends calculated from the point of view of a given observer. Modern industrialised society has revealed the power to plan and control possessed by those who are emotionally primitive. Our society is faced with the problem of planning the man who has to plan men. Its future depends upon the group within society which has the ability to control, and the energy to subdue the irrational elements.

### Birmingham Museum

THE City of Birmingham Museum and Art Gallery, which celebrates its jubilee this year with a series of special exhibitions, the first of which was opened on February 24, may be said to have had its origin in the presentation of Edward Coleman's painting, "Dead Game", by a body of subscribers in 1864, an Art Gallery formed in a room of the Free Library being opened to the public in August three years later. In 1870, £1,000 was raised towards the formation of a Museum of Industrial and Decorative Art. but the establishment of a natural history museum was not mooted until 1887. The project received little support as Dr. Sans Cox had already established a collection at Queen's College, which was later handed over to the corporation. In 1904, however, the City Council decided to allocate the upper floor of the new Art Gallery building, facing Congreve Street, for a natural history museum.

THE principal gifts that followed were the Blatch collection of Lepidoptera, presented by Sir George Kenrick : a collection of British and foreign bird-skins by Mr. Walter Chamberlain ; the Scott collection of British birds and foreign Lepidoptera, from Mrs. Adrian Hope and Mrs. Farnham; the Bradley collection of Hymenoptera, Diptera, Lepidoptera, etc., from Mr. A. R. Hollinsworth; the herbarium of British plants from Mr. J. E. Bagnall; a large collection of British and foreign plants from the late Sir Benjamin Stone; the Sir George Kenrick Library of entomological works ; the Wilkins' ethnographical works; and numerous miscellaneous collections-a nearly complete collection of British birds (about 1.200 specimens) together with more than 14,000 nests and eggs, and one of the finest series of nestling birds in downy plumage in existence, purchased and presented in 1924 by the Feeney Charitable Trustees, is on exhibition. There is also a collection of British and foreign freshwater and marine shells, formed by the late W. H. Whitlock, and a comprehensive land and freshwater shell collection obtained by the late P. T. Deakin. The scheme for the arrangement of the specimens was drawn up by the late Prof. F. W. Gamble. In addition, weekly nature study exhibits, mainly of a botanical nature, are arranged during the summer months. In 1912, an assistantkeeper for the Natural History Department was appointed.

# Award of the Eugenio Rignano Prize

THE committee of judges for the award of the Eugenio Rignano prize for the best essay on "The Evolution of the Notion of Time" has recently announced its decision in a "Rapport de la Commission du Jury" dated October 1933. The prize, having a value of 10,000 lire, was established in 1930 as a memorial to E. Rignano, director of Scientia, who died in Milan on February 9 of that year. Competing essays were submitted by the end of 1932. No limitations were imposed as to mode of treatment, so that equal scope was afforded to scientific and philosophical aspects of time. A total of 35 essays were submitted, from the following countries: Italy (7), France (6), Germany (6), India (4), Great Britain (2), United States (2), Hungary (2), and one each from Austria, Switzerland, Russia, Luxembourg, South America and Australia. As a preliminary selection of essays of outstanding merit, the committee chose the papers of the following authors: E. Klein, W. Gent, G. Giorgi, H. Mehlberg, K. Sapper, J. Sivadjan, L. von Strauss, G. Windred and S. Zawirski. Of these, Prof. G. Giorgi of the University of Palermo and Prof. S. Zawirski of the University of Poznan were finally selected as ex æquo recipients of the prize.

CONSIDERABLE space is devoted in the "Rapport" to a comparison of the various works submitted, and the widely varying nature of their treatment is remarked upon. The papers of G. Windred and K. Sapper receive extensive discussion in this connexion. Both papers are concerned with the historical development of the subject, but the points of view are 411

respectively scientific and philosophical. The former author confines his attention chiefly to the problem of time as arising in mathematics and physics, tracing the origin and development of the various concepts from the time of Barrow and Newton up to the present day. The treatment of Sapper is essentially philosophical, and mainly concerned with temporal systems such as those developed by Kant and Leibniz, having but few connexions with mathematical or physical theory. These two methods of approach are representative of the widely different points of view of science and philosophy, even upon such a universal concept as that of time.

#### Recent Advances in Inorganic Chemistry

LECTURES, delivered last year before the Institute of Chemistry by Prof. G. T. Morgan, entitled "A Survey of Modern Inorganic Chemistry" have been made available to a wider audience by their publication by the Institute as a pamphlet which extends to more than one hundred pages (London : Institute of Chemistry). The three lectures thus provide chemists with a valuable monograph on the recent advances and tendencies of inorganic chemistry. Prof. Morgan describes, inter alia, the discovery and preparation of 'heavy' hydrogen, which some believe will prove so different from ordinary hydrogen as to be regarded almost as a new element, "in which case the organic chemistry of compounds containing this heavy isotopic hydrogen will become a fascinating but fearful study". Mention is made of the newer fundamental units of atomic structure, and attention is given to the electronic conception of chemical valency. The periodic groups of elements are then considered in turn with reference to the experimental successes of recent years in the discovery of new elements, new types of compounds, and new properties. Co-ordination compounds, in view of their general importance and of an interest which has resulted in many contributions to our knowledge of their behaviour having been made by Prof. Morgan and his pupils, receive due examination. The survey in this pamphlet disposes adequately of the suggestion that inorganic chemistry is anything other than a progressive and rapidly growing section of the science, and it is satisfactory that there are evident signs of a renewed interest in this branch of research among British chemists.

#### North American Earthquakes

TowARDS the end of January, two violent earthquakes occurred in North America. The first on January 28 at 2.9 p.m. (7.9 p.m., G.M.T.) caused great damage in the Mexican port Acapulco and other towns in Guerrero. From the records at eleven stations, the epicentre is placed by the U.S. Coast and Geodetic Survey in lat.  $15^{\circ}$  N., long.  $99^{\circ}$  W. As this point is 140 miles due south of Acapulco, the earthquake must have been of great strength to damage houses in that city. The second occurred on January 30 at 3.16 a.m. (8.16 a.m., G.M.T.). According to the records from seven observatories, the epicentre lay in lat.  $38 \cdot 8^{\circ}$  N., long.  $118 \cdot 6^{\circ}$  W. This