

mission, deals with the relations of teachers' colleges, universities and governments in Australia. Expenditure on teacher training in State Teachers' Colleges in 1959-60 totalled £10.5 million, compared with £54 million on universities in 1958-60 and £103 million in 1961-63, and since 1940 enrolment in teachers' colleges has increased six-fold to more than 14,500 in 1960. A first urgent need is for new, well-equipped buildings for many teachers' colleges, while others need provision of special buildings, library, gymnasium, laboratories, common rooms and greatly increased grants for libraries and equipment. A second need is to lengthen all courses of teacher training to at least three years, or, in Principal Turner's view, four years, but there is no indication of any move in this direction by the State Governments. Only those students should be admitted to teachers' training colleges who have qualified for matriculation at a level that should reasonably ensure success at the university, and a fourth need of the training colleges desiderated by Principal Turner is that staff should be recruited from anywhere in open competition and that the salaries and conditions of work including the granting of sabbatical leave should be the same as for university staff. He believes that the training of all teachers is a proper function of universities and that the training colleges, singly or in some appropriate geographical grouping, should become teachers' colleges of a university. To achieve this in Australia it would be necessary to separate them from the State Departments of Education and grant them autonomy of the type enjoyed by the universities. For this purpose appointment of a special advisory committee of investigation is needed.

Teaching of Genetics by Film

IN February 1961 a filmed introduction to first-year university genetics was released by McGraw-Hill and Co., Ltd. The series consisted of 48 half-hour films, and cost, in total, 4,806 dollars, or separately, 160 dollars. The films were produced to be studied in conjunction with the McGraw-Hill text-book, *Principles of Genetics*, by E. W. Sinnott, L. C. Durn and T. Dobzhansky, and are also supplemented by a study guide and work book by Prof. Irwin H. Herskowitz, who has acted as the 'permanent' lecturer in all the films. Each lecturer is a specialist, and the academic costs of the project have been met by a grant from the Ford Foundation Fund for the Advancement of Education to St. Louis University. Fourteen of the films and eleven of the lectures have now been reviewed by the Research Film Unit of the Institute of Animal Genetics, University of Edinburgh. The reviewers state that, while the project possesses enormous latent possibilities, "in this instance it has failed, mainly due to the producers' total lack of insight into the principles of teaching by film". In only two films was use made of any filmed sequences of living material other than that of the lecturer himself, and all supporting visual aids were of the blackboard diagram type. In no film reviewed was the impact of the animated diagram or the working model used. The producers' approach was simplified to the extreme and consisted of filming the delivery of a normal lecture programme. The films are available from McGraw-Hill Publishing Co., Ltd., 95 Farringdon Street, London, E.C.4.

Industrial Sociology

DURING 1951-53, Unesco carried out an international survey into the university teaching of the

main disciplines in the social sciences. This resulted in the publication of a series of reports dealing with the teaching of sociology, social psychology and cultural anthropology, law, political science, international relations and economics. In December 1954 a general conference of Unesco invited the Secretariat to include surveys on criminology, statistics, demography and the administrative sciences which were all published in 1959-60. This series has now been extended to other fields of the social sciences, and a study on industrial sociology, prepared by J. H. Smith, of the London School of Economics, deals with a specialized area of social sciences which is of comparatively recent origin, but which is growing fast and which has already shown its capacity to explain some of the critical problems arising in industry (*The University Teaching of Social Sciences: Industrial Sociology*. Pp. 126. Paris: Unesco; London: H.M.S.O., 1961. 5.25 N.F.; 7s. 6d.; 1.50 dollars). The author has endeavoured to assess the present state of development in industrial sociology as shown both in present-day teaching and research programmes and in the application of industrial sociology to specialized teaching, notably management training and the liberal education of technologists and teaching in developing countries. The survey examined not only the heavily industrialized countries but also a number of other countries which pay attention to industrial sociology.

The National Museum of Wales

THE fifty-fourth annual report of the National Museum of Wales for 1960-61, referring to the Treasury grant of 90 per cent of the cost of the West Wing, anticipates that building will start in June 1962 (Pp. 85+4 plates. Cardiff: National Museum of Wales, 1961). This will be the first building operation since 1932. Then follows an impressive record of departmental work. In geology, emphasis has been given to the continued re-organization of the reserve and study collections, the compilation of a comprehensive bibliography and index of the geology of Wales and the preparation of exhibits for the Brecknock and Tenby Museums. In botany, the artist has made models of twenty-six flowering plants to replace the previously exhibited dried specimens, and the table of cultivated plants has shown 269 species during the year. In zoology, a new exhibit entitled "Some Modern Reptiles" has been installed and considerable attention has been given to the reserve collections. In archaeology, the modernization of the Roman gallery has continued and a further rescue excavation made at Dinorben hill-fort at Abergole. In industry, new exhibits of a model of a trepanning machine and a water tube boiler have been installed, and the illustration of the historic side of the Welsh tinplate industry has been strengthened. In art, various adjustments have been made in the display of the permanent collection. At St. Fagans, building work has concentrated on the re-erection of the fully thatched Hendre'r-ŵydd uchaf, from Llangynhafal, Denbighshire, and a Caernarvonshire cottage.

Durban Museum and Art Gallery

THE annual report of the Museum and Art Gallery at Durban for 1960-61 refers to the completion of several schemes (Pp. 24. Durban: Durban Museum and Art Gallery, 1961). The Marine Hall, commenced two years ago, includes a display of Natal coastal