

## OLD WORLD

TEACHERS

### James on Training

AS widely expected, Lord James's committee on teacher education and training has put forward the suggestion that those who now attend colleges of education and education departments of polytechnics should take a preliminary two year course leading to a diploma in higher education (*Teacher Education and Training*, HMSO, 1972; £0.85). They would then start another two year course of an essentially vocational nature which would culminate in the award of the degree of BA (Education).

The basis of the committee's recommendations is that the education and training of all teachers should be regarded as a process of three stages—which the committee calls cycles. The first would be the personal higher education of the student, and the higher education diploma would be one of several awards, including university or CNAAs degrees and some other specialist qualifications, that would be recognized as evidence of fitness to enter the second cycle—two years of professional preparation for a teaching career. The third cycle would involve refresher courses—at least twelve weeks in seven years—for teachers in mid-career.

The course followed during the first year of the second cycle would in many ways be similar to that now offered to graduates by university departments of education, comprising theoretical studies of education and practical teaching for a continuous period of at least four weeks. Half-way through the second cycle, successful students would be dubbed "licensed teachers" and would then take up their first salaried posts. The remainder of the second cycle would be the same as the existing probationary year during which the student teaches in a school. The James committee recommends that the probationary year should become an integral part of the training process and should involve the new teacher's attendance (for at least one day a week) at a centre where he would follow a course planned by his school and the centre. At the end of this time the licensed teacher would then become a "registered teacher" and be awarded a new professional degree, BA (Education).

In spite of the importance which the committee clearly attaches to the first two cycles of teacher training and education, it is the recommendations made in connexion with the third cycle—the in-service training of teachers—that pave the way for the remainder of the report. In-service training, says the committee, should be available to all schoolteachers and full-time staff in

colleges of further education to the extent of at least one school term in every seven years of service (reducing as soon as practicable to five years). Such training would not only serve to keep teachers abreast of new books, materials and equipment, but also of the results of educational research. The introduction of modern mathematics, and the development of science and French in primary schools, are also cited as situations demanding a coherent approach to the continuing training of teachers.

In order to service both third cycle training and the training of teachers when they are licensed teachers, the committee proposes the setting up of professional centres which would include the present colleges and departments of education and, possibly, some others based on existing teachers' centres. Every school and further education college would also appoint a professional tutor with responsibilities for the coordination of all second and third cycle training.

The committee recommends that the system should be administered by about fifteen Regional Councils for Colleges and Departments of Education, which would represent all educational interests including teachers themselves and local education authorities—within their regions. At a national level, there would be a National Council for Teacher Education and Training which would devise guidelines for the regional bodies, as well as watching over all professional teaching qualifications.

The report envisages a degree of MA (Education) for a few holders of BA (Education) degrees that would be obtained by studying for a further year at the end of the second cycle or later. It also advocates the increasing adoption of the BEd degree as an in-service qualification rather than one to be obtained at the outset of a teaching career.

ENVIRONMENT

### A Watch on the World

THE establishment of a permanent global monitoring system and of a United Nations agency to coordinate monitoring and help to define international environmental policy are the chief recommendations in a report published last week by the Scientific Committee on Problems of the Environment (SCOPE), a committee of the International Council of Scientific Unions.

SCOPE's report, entitled *Global Environmental Monitoring*, is made at the request of the UN Conference on the Human Environment, due to meet in Stockholm in June this year provided the diplomatic squabbles which threaten the conference are cleared up.

SCOPE concludes that the basic en-

vironmental problems "result from adverse side-effects of advancing technologies and from the increasing rate of exploitation and unwise use of natural resources". While the committee feels that our present understanding of the large-scale processes in the biosphere is inadequate, it concludes that a "global environmental monitoring system is desirable, timely and feasible".

The report makes eighteen recommendations, the substance of which is that a global environmental monitoring system should be created by international cooperation based on national efforts. To ensure this, at least ten baseline stations should be established at a distance of 100 kilometres from the nearest large centre of population. A basic programme of research is outlined for these, to include assessments of atmospheric turbidity and carbon dioxide, studies of solar radiation and standard meteorological data, and assessments of the degree of pollution in all media by mercury, lead, cadmium, DDT and polychlorinated biphenyls.

A further 100 regional stations should be established. These should be fairly remote from large amounts of contamination, but will give a guide to environmental quality in settled regions of the world. SCOPE hopes that every country will be invited to provide these centres, the larger countries providing up to ten such stations. Their basic monitoring programmes should cover the same field as the baseline stations. Finally, SCOPE recommends the establishment of about thirty stations in areas of high contamination to investigate the link between high levels of contamination and their effect on human health and biological systems.

The monitoring programmes for the stations should be flexible, so that other potentially harmful substances and phenomena can be studied.

### Astronomy

THE Royal Astronomical Society's Gold Medals have been awarded to Professor Fritz Zwicky and Dr H. I. S. Thirlaway. Professor Zwicky's award is for "his many distinguished contributions to an understanding of the constituents of the Galaxy and the universe". Dr Thirlaway's award is for "his distinguished work in geophysics and for advancing seismological knowledge relating to earthquakes and explosions". Professor Paul Leddox is awarded the Eddington Medal of the society for his "theoretical studies of stellar stability and the properties of variable stars".