

study the contamination of the environment by heavy metals and another to apply techniques of nuclear science to criminology.

Another cloud on the foundation's horizon is to be seen in the exchange between the sub-committee and Dr McElroy about the abandonment of the traineeship programme for graduate students. Although the foundation's sails may not be trimmed in the academic year beginning in September, Mr Daddario takes the view that decisions like this cast their shadow before them, spoiling plans and damaging morale. Is there not also a danger that stopping traineeships will further concentrate scientific research in a handful of universities? Dr McElroy took the line, on Tuesday this week, that many research investigators would respond by re-writing research applications so as to put more research assistants on the NSF payroll, while state universities would be able to obtain extra money for teaching posts. Even so, he thought, graduate enrolment at private universities might well be reduced by a half when the foundation's cutback came into effect.

According to Dr McElroy, the decision to reduce federal support for graduate students has been taken by the administration as a whole but the President's science adviser, Dr L. DuBridge, has agreed to "go along with it for a year" on the understanding that they may apply for the cut to be restored next year. At the same time, Dr McElroy said, both the foundation and the National Science Board considered that there is now a "good steady state" in PhD production and, in particular, no need to increase the rate of output. Whether this view will be accepted by the sub-committee remains to be seen—some members of the sub-committee are plainly bent on considering whether to add to the foundation's budget some part of the \$9.5 million which will have been saved by cancelling graduate traineeships.

NAS

Environment and People

THE National Academy of Sciences, through its involvement with the International Biological Program, and the Public Affairs Council, which likes to think of itself as the conscience of American industry, put their heads together last week on the problems of the environment. The outcome of the proceedings seems to have been a recognition that there are serious but interesting problems to be tackled. The theme for the conference was provided by Mr Robert Finch, Secretary for Health, Education and Welfare, and the man widely credited with having made California conscious of the dangers of the automobile. He emphasized that for a better environment people should be "prepared to pay pollution taxes—put up with less powerful automobiles, for example", that international standards would at some stage be necessary and that the best guarantee for the environment would be to make sure that married couples had only two children.

GENERAL BIOLOGY

Salk Institute goes Public

THE implications of recent discoveries in biology are to be followed closely by an international organization called the Council for Biology in Human Affairs, set up last week by the Salk Institute. The intention is to carry out a series of specific studies of the public impact of the new biology. The programme, for which \$400,000 a year is already available for each of the next five years, will be the responsibility of six separate commissions under the general coordination of Dr Jacob Bronowski, a resident fellow at the Salk Institute at La Jolla, California.

The new council differs from previous organizations formed to educate the general public in the implications of modern biology first by being provided with money and second by the distinction of the people who have so far agreed to serve on the council and to be chairmen of the commissions which will be responsible for the first group of studies. Dr Jacob Bronowski explained last week that the chairman of the commission on "biology and international affairs" will be Professor Paul Doty of Harvard University and that its first study will probably be an examination of the possible implications of intra-uterine genetic diagnosis.

The intention is that commission chairmen shall remain in office for a limited period and that each of the six commissions should include a lawyer and an educator among its members. A second commission on "biology, ethics and the law", under Professor Abram Chayes of Harvard University, will to begin with be concerned with the ways in which new pharmaceutical products are brought into service.

The remaining commissions are one on "biology, learning and behaviour" (Professor Eugene Galanter of Columbia University); "biology in contemporary culture" (Dr Bronowski); "ecology, environment and population" (Professor Cyrus Levinthal of Columbia University); and "biology, medicine and health care" (chairman not yet chosen).

The members of the council include Dr Daniel Bell (Harvard), Dr Robert W. Holley (Salk Institute), Mr Kiichiro Kitaura (Nomura Securities Company, Tokyo), Dr Antonie T. Knoppers (Merck and Company), Dr Daniel Lehrman (Rutgers), Dr Salvador E. Luria (MIT), Sir Peter Medawar (National Institute for Medical Research, London), Dr Robert K. Merton (Columbia), Professor Jacques Monod (Institut Pasteur, Paris), Dr Herbert Passin (Columbia), Professor David Pines (Illinois), Mr Osgard Ruebhausen (Russell Sage Foundation), Dr Jonas Salk (Salk), Mr Joseph E. Slater (Salk), Dr James D. Watson (Harvard) and Dr O. Meredith Wilson (Stanford).

By all accounts, the formation of the council is the outcome of the preoccupation of Mr Joseph Slater, the president of the Salk Institute, since he took over that job two years ago, with the implications of the contemporary research in biology. He says that he would like the council to be able to respond to the "problems that emerge from the biological revolution" more perceptively than was possible twenty years ago with the growth of nuclear power. Dr Bronowski says that the council will try to "form public opinion by informing it".