

LEVERHULME TRUST

More than a Million

THE Leverhulme Trust spent £1.97 million during 1968–70 on grants to individuals and to charitable institutions. About 65 per cent of the funds available went to educational bodies and £150,000 was distributed in the form of personal studentships and fellowships. And the annual income of the trust, which was set up on the death of the first Lord Leverhulme in 1925, exceeded £1 million for the first time in 1971. The trustees actively encourage projects involving interchange between academics in different countries and about 25 per cent of the total expenditure for the three years was on schemes of this type.

Spending by the trust on what it calls "basic sciences and mathematics" during the three years amounted to £237,000 (Table 1), about 9 per cent more than in 1965–67. Many of the grants went to universities in the form of research fellowships but money was also allocated for the establishment of units within universities. For example, a grant of £31,000 over five years was made to the Institute of Animal Genetics at the University of Edinburgh to help the establishment of an international school of molecular biology; six studentships are to be provided each year for students from Edinburgh to work at the University of Naples and for both lecturers and students from Naples to spend time at Edinburgh. A new unit in social statistics was also set up at the University of Southampton at a cost of £36,000 over four years.

In the applied sciences the chief feature of 1968–70 was the decision of the trustees to make £10,000 a year available for five years to pay for up to five visiting fellowships in industrial biology. The response of individual universities to the proposal was not very encouraging at first but the Science Research Council agreed to administer the scheme because it seemed to fit in with the needs expressed by its own industrial biology working party. Holders of the fellowships—there were two awarded in 1970—spend at least sixteen weeks a year in a university department with the aim of promoting a keener sense of the requirements of industry.

The trust's expenditure on "combined

subjects" has included the setting up of courses and fellowships in music and physics, archaeology and metallurgy, and archaeology and physics. Prominent among the grants for medical and dental projects has been the allocation of £60,000 to the Institute of Ophthalmology, University of London, for a unit to study retinitis pigmentosa—a chronic progressive inflammation of the retina.

Research projects in the environmental sciences that have been funded by the trust include a research unit in urban design at the University of Edinburgh and a unit for a study of the location of industry at the University of East Anglia.

SCIENCE MUSEUM

Games People Play

THE Science Museum last week opened an exhibition on scientific toys designed to appeal to both adults and children. The toys range from an eighteenth-century orrery to a modern Newton's cradle for frustrated executives which sits inside its glass cage clicking patiently back and forth.

Many of the toys work, and demonstrate various scientific principles from the effects of atmospheric pressure to the use of photoelectric cells. An air fountain with its jet adjustable for height and direction spins coloured pingpong balls in one corner, while at its back a water fountain is operated by thermal pressure. Across the far side a magnetized triangle dances above a triangular layout of magnets as their opposing poles repel it and a mechanical yoyo rolls stolidly up and down. Among the older toys is one of the largest toy steam engines ever made—in Germany in 1906—the dynamo which it powers being used to light the bulbs on a toy Christmas tree. The commentaries round the exhibits include background information and claim that toy manufacturers are rarely far behind scientific advance—a toy do-it-yourself X-ray kit for practice on the family was marketed in Italy early this century before the dangers of X-rays were known.

The exhibition, which will run until March, also includes one or two ideas for re-creating the exhibits in the home. The air fountain, it is suggested, could be constructed with pingpong balls and a vacuum cleaner which can be persuaded to blow rather than suck.

HIGHWAY PLANNING

Marsh's Crystal Ball

THE forum on Public Participation in Highway Planning at the Institution of Civil Engineers last week did little more than to illustrate the gap between the planners and those planned for, and the stuttering inability of public meetings to

follow a logical line of thought. Several hundred people filled the Great Hall of the institution to hear questions from the floor answered by four experts in highway planning under the chairmanship of Mr Richard Marsh, Chairman of the Railways Board and ex-Minister of Transport.

The experts were Mr Michael Heseltine, Parliamentary Under-Secretary responsible for motorway and trunk road routes, Mr Frank Layfield, QC, counsel specializing in highway matters, Mr Derrick Beecham, founder of the Homes before Roads campaign, and Mr A. Goldstein, an engineer and member of the Roskill Commission.

Mr Beecham was worried that petrol bombs might be thrown at builders unless politicians listen but the evening's discussion did little more than ignite a few rather damp and well worn squibs.

Any constructive line of argument was defeated by speakers from the floor airing particular grievances or changing the tack of the argument. Complaints were made about inadequate compensation and lack of compensation for people living near motorways. Mr Goldstein warned of the dangers of extensive property blight if detailed plans of all possible routes are published for discussion as some wanted. Mr Beecham and speakers from the floor argued that the public should be consulted before detailed plans are drawn up, and even before the decision is taken over whether the money should be spent on roads at all, rather than on rail.

But do the public want to be involved? Mr Heseltine said that most people are not interested unless a motorway is likely to plough right through their back garden. Mr Heseltine also argued that from the letters he received, the vast majority of people want new roads.

But while there were plenty of suggestions as to when in the planning process there should be consultation, nobody had much to say as to how this should happen, other than Mr Beecham's suggestion of "some sort of a referendum". How a referendum should be held on the plan of future roads for Greater London was not explained.

Mr Marsh, in summing up, said the meeting showed "what we already knew"—that people are worried about what is being done to the environment. There was, he said, no single and simple answer to the complex problem of road planning. Now freed of the shackles of ministerial responsibility, Mr Marsh assured the meeting that ministers are responsive to public pressure and further that if it builds up, "the government of the day will not change their mind because of it, they will beat (the public) to it and change in advance of it". No doubt, across Parliament Square in Marsham Street, Mr Peter Walker, Secretary of State for the Environment, was busy polishing his crystal ball.

Table 1 Expenditure on Science 1968–70

	£ thousand
Basic sciences and mathematics	237.1
Medicine, dentistry and health	272.3
Applied sciences, engineering and architecture	91.1
Environmental sciences	99.6
Combined subjects	8.7
	708.8
(35 per cent of total expenditure)	