but warns that "failure of the department in this respect would, in my opinion, amount to culpable irresponsibility".

The problems of the other institutes are somewhat different. As with the observatory, the Animal Behaviour Unit has not yet had a copy of the report to examine, but its initial reaction is one of relief that the inspector has recommended screening barriers to cut down noise from the motorway, which the unit claimed could seriously hamper work on animal calls. The inspector also recommends that the barrier "should be in position before construction work starts".

The University Farm suffers from the motorway in that a number of its experimental plots are involved. The farm serves as a research station for the Department of Applied Biology, and drainage and crop rotation experiments will be affected.

The crop experiments involved are all long term studies running for many years. One will be seriously truncated, one of the three portions of the experiment being completely obliterated with a second losing a small corner. A second experiment is in quadruplicate and one of the four blocks will be affected, but the inspector concludes "that loss is too small to render the results valueless". Professor James Beament, Head of the Department of Applied Biology agrees with this so far as it goes, but points out that having a motorway running along the side of the plot will change the atmospheric conditions. The drainage experiment will also be affected as the motorway runs along the lines of the drains. The Department of the Environment has undertaken to provide drainage to match that already in existence, and providing this is done-and it is not that simple a task---the effect of the by-pass should be minimal.

At the National Institute for Agricultural Botany, ten acres of land will be lost to the northern by-pass, but Dr Peter Wellington, the institute's director, says that there was so much advance warning that the road might be built that the institute has bought some land well away from the by-pass, and with the Department of the Environment's cooperation the effects should be minimal. The Plant Breeding Institute has greater problems, as the western by-pass cuts through its land, isolating five fields at the Harston end of the institute.

### glaxo awards Maddoxian Success

THE eighth annual Glaxo Award for science writing in British national journals and newspapers has been made to Mr John Maddox, former editor of *Nature* and now chairman of *Maddox Editorial*. This year, three other awards



Mr John Maddox

have been made, each, like the national award, worth £500: for radio and television work, to Mr Alec Nisbett (BBC); for a journalist working in the regions, to Mr Geoffrey Lean (Yorkshire Post); and for work published in a technical or house magazine, to Mr Colin Tudge (New Scientist).

The awards are in the form of travelling fellowships; in making the presentation on behalf of Glaxo Mr J. G. N. Drewitt, one of the directors, cited in particular the breadth of Mr Maddox's writing, on topics ranging from the environmental issue to special relativity, during the calendar year 1972. Mr Maddox submitted the following for consideration: his book *The Doomsday Syndrome*, an article in *Daedalus* (Fall 1972), an article in *Nature* (236, 267) and *Nature* leaders (235, 63; 236, 417; and 239, 242).

#### INDIAN ASTRONOMY

# Forming a Central Voice

At their fourth attempt, Indian astronomers have founded a national astronomical society. The Astronomy Society of India, as it has dubbed itself, came into being late last year and has now acquired 150 members throughout India.

The society, a private one financed entirely from its members subscriptions, is to hold its first general and scientific meeting at the Centre of Advanced Study in Astronomy at Osmania University, Hyderabad in January next year. The teaching of astronomy in India will also be discussed.

The new society is the result of the enthusiasm of Professor K. D. Abhyankar, now the society's secretary, who in 1971 sent a questionnaire to Indian astronomers proposing the formation of ASI. The response was enthusiastic. Indian astronomers have maintained for some years that a central forum was needed, but previous attempts to form an astronomical society have foundered. The most recent was the Indian Astronomical Association formed in 1958, but this failed to achieve wide support.

The new society has already produced its first bulletin and has plans to publish a scientific journal, but according to Professor Abhyankar "considering the financial aspect we feel that it could be some time before this goal materializes". The society is attempting to recruit institutes as members to boost finances, and various government departments and agencies are being asked for support.

Having no official status, the ASI will not directly advise government, but "the society is bound to discuss in its meetings astronomical matters of national interest, and resolutions, if any, passed by the society will be forwarded to the government", according to Professor Abhyankar. The society also plans to examine the development of science in India, but "it is too early to say in which direction pressure may be applied".

### ASTRONOMY

## **Educating the British**

THE Junior Astronomical Society "junior" in terms of astronomical experience, rather than age—has just celebrated its twentieth anniversary with a meeting at the Royal Institution last week. Amidst the appropriate celebrations, which included a talk by Professor Dennis Sciama on the Origin of the Universe, a film about Apollo 17 and suitably festive refreshments, Professor Jack Meadows was allotted a few minutes to discuss astronomy education.

Fresh from the first meeting of the Royal Astronomical Society's Education Committee, Meadows was well placed to focus the attention of the JAS on this topic; over the next twenty years members of the JAS can certainly expect to play a part in relevant educational developments, even if the Society itself is unlikely to be formally involved with any moves by the Department of Education and Science.

Meadows sees the problem of astronomy education in Britain as one of breaking into the circle whereby little or no astronomy is taught in schools because there are few qualified teachers, and there are few qualified teachers because the subject is not taught. At university level, astronomy is reasonably well established as a vocational course; but there is a growing body of opinion that astronomy can provide a valuable ancillary course throughout the educational system, providing an insight into how physics and mathematics work in reality. One hopeful approach to breaking the vicious circle mentioned by Meadows lies in providing astronomy courses as part of in-service "refresher" training of teachers—but the DES will not at present finance such courses, he says.