

QED Recording Services, which has recorded many conferences, made a complete recording of the opening address, plenary lectures and symposia of the Genetics Congress on 104 audio tapes, and I brought home a sample for review. This set of tapes contains the only available record of the text of the plenary and symposium lectures, and should be of interest to many geneticists who did not get to the Congress and to some of those who did. A cheap little portable player and simple headphones, such as adorn the heads of many walking teenagers, gave me excellent sound, so I can recommend the recording quality. Each tape is double-sided with 45 minutes per side.

The tapes I have listened to are (1) Max Perutz on 'Should genes be screened?', (2) French Anderson on 'Gene therapy', (9 & 10) N. Barton, A. Orr, W. Rice & D. Futuyama on 'Speciation mechanisms', (20) Barry Hall on 'Selection-induced mutations', (29) Richard Lewontin on 'Population genetics, old and new', (38) Elliot Meyerowitz on 'Understanding flower development', (93) Alec Jeffreys on 'Genetic fingerprinting' – the Fisher Memorial Lecture in the Public Awareness series, and (95) M. Swaminathan on 'Feeding the world in the 21st Century' in the Public Awareness series (the numbers in brackets are the QED tape numbers). These are a random sample picked up in a hurry from the QED desk, but all were well worth hearing.

Ideally, major scientific libraries should have a complete set of these tapes, but there is no likelihood of that, since most libraries cannot afford many of the books and even journals one needs to consult. A number of the tapes would be of value for school biology students and many would interest University students. QED can supply a list of speakers, titles and tape numbers, but a better idea of the lecture contents can be obtained from the book of Congress Abstracts, which would have to be borrowed from someone who attended the congress.

The 1988 Genetics Congress in Toronto gave birth to a very handsome Proceedings volume, containing 490 large format pages with the complete texts of the Plenary and Symposium lectures, including figures, some in colour, and references, and even summaries of the talks given at each workshop. This volume, published as a single number of the journal GENOMICS, was available very cheaply, doubtless as a result of considerable sponsorship, such as we cannot obtain in the UK. It is a misfortune that we have nothing of this kind from the Birmingham congress.

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Mechanisms of Molecular Evolution. Edited by N. TAKAHATA and A. G. CLARK. Japan Scientific Societies Press, Tokyo and Sinauer Associates, Inc., Sunderland, Mass. 1993. 250 pages. Price not available. ISBN 4 7622 6718 X/0 87893 825 7.

Inference on evolution from molecular genetic data is a major field in modern biology, and deductions can be drawn at the level of individual molecules and at the level of populations. This volume deals with the latter, and the editors, Drs Takahata and Clark, have thereby given the book a subtitle to define the topic, 'Introduction to molecular paleopopulation biology'. It comprises 13 papers from a symposium held in Japan in late 1991.

The volume provides a nice review of recent work in the area. Some papers consider general theoretical principles and methods of data analysis (Takahata, Hudson, Tajima, Golding). Reflecting the maturity of the subject, others deal with more specialized topics, several on selection and interactive systems which have previously been mainly the domain of population genetics theory rather than of molecular approaches: self-incompatibility alleles (Clark), co-evolution of *Plasmodium falciparum* (the malarial parasite) and the immune responsiveness of the host (Hughes), the HLA system of man (Satta), and the t-haplotype of the mouse (Morita). A group of papers deal with the evolution and population genetics of *Drosophila* (Aquadro, Takano, Wu, Matsuura) and *E. coli* (Whittam).

It is not possible to give any comprehensive review of the whole, so I shall mention parts I particularly noted. For example, in much of theoretical population genetics, constancy of population size is assumed, and it was nice to see a review of the consequences of big changes. Not surprisingly, these are substantial since it takes the dynamics of a population a long time to reach steady state. The coalescent is now becoming widely used, both because it provides a route to analysis of some difficult problems and a nice insight into the evolutionary process, and examples of its use are given. Direct experimentation is now leading to an understanding of how Haldane's rule on the unfitness of the heterogametic sex in species crosses actually works in specific cases.

There is plenty in the volume worthy of detailed reading, and it is well produced.

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