removed as 'reparations'. No one knew how to do that. Also the British, who had finished most of their exploiting, insisted that the Americans cease too as a condition for joint governance of their newly created Bizonc. Eventually, over Green's protests ("it will be a national tragedy . . . if we allow the doors to shut before we have added all of the best of Germany's technical knowledge to our own"), FIAT was terminated on 30 June 1947.

Gimbel's story invites two sorts of reckonings. What was the value of the intellectual reparations? Where does the ethical balance lie? Molotov made the first reckoning. At a meeting of the Council of Foreign Ministers early in 1947, he accused the United States of removing assets and information worth ten billion dollars. The Secretary of State, George Marshall, indignantly countered with a sum a thousand times smaller. A few days after the exchange, the United States' government tried to collect estimates from the War, Navy and Commerce departments. No luck. OMGUS urged the various German states under its control to obtain estimates from the affected firms. No luck. The firms feared that further espionage or greater tax liability would follow disclosure. Gimbel has searched archives at home and abroad for the answer. From a few hard numbers and some anecdotal information, he concludes that Molotov was not far wrong.

Gimbel offers no explicit judgment about the right and wrong way of the exploitation. His subtitle, however, as well as his recital of the special favours and profits accorded domestic firms by OTS and the military, suggest where he stands. Certainly, neither the favouritism at home nor the race among the occupying powers abroad to seize German technical information, plant and personnel makes an edifying story. But it is hard to condemn the exploitation in principle. Why should the defeated enemy alone enjoy the fruits of the industrial research stimulated or commissioned by the Nazi war machine? FIAT did not come to an end because Clay occupied a higher ethical ground but because exploitation was proving counter-productive to OMGUS' mission to restore German industry to a level sufficient to supply the needs of the Bizone. In the final reckoning, the \$10 billion was insignificant in comparison with the cost of maintaining a dependent Germany.

Gimbel's detailed report from the archives brings valuable new information; an example of a productive interagency dispute; and, above all, an opportunity to think through again the relations among the victors and the vanquished just after the second, and, we trust, the last world war.

John Heilbron is at the Office for History of Science and Technology, University of California, Berkeley, California 94720, USA.

## **Community spirit**

Geoffrey Fryer

**Freshwater Ecology.** By Michael Jefferies and Derek Mills. *Belhaven:* 1990. *Pp.285. Hbk £27.50, \$49; pbk £12.95, \$15.* 

As the writers of this book on freshwater ecology tell us, its main theme "is to explore the processes that sculpt and develop whole communities and what happens when human activity intervenes." By way of introduction there are elementary accounts of the properties of water, the hydrological cycle and related matters, and chapters on standing and flowing waters and plant life. All this is

with a glance at the future. Coverage of these applied aspects distinguishes this book from most other texts on freshwater ecology. Treatment is, however, rather elementary and the promise of an analysis of what happens to communities when man interferes is fulfilled to only a limited extent. The general effects of the various stresses considered are indeed often depressingly predictable. On the other hand, to work out the details of how a community responds to environmental changes is a complicated business that demands more knowledge of how it was initially organized than is often available. as well as precise understanding of the factors that stress it. Detailed treatment is not accorded here. This is not to say that these sections will not be helpful to undergraduates, senior school pupils and those

ence Photo Libra

## IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Visible pollution — man's interference with natural waters.

straightforward and covers well-trodden ground. It leads up to a consideration of animal communities that are looked at from the standpoints of abiotic influences and biotic interactions; matters that constitute one of the avowed aims of the work. The former includes a welcome, but all too brief, reference to the often neglected influences of historical and geographical factors on the make-up of communities. Making use of up-to-date examples of manipulation experiments as well as of observational investigations, the section on biotic interactions is certainly the most interesting thus far, but it and the preceding section are allocated only 47 pages, including illustrations, in which to cover this enormous and complex topic.

The rest, slightly less than half the text, is concerned with man's interference with natural waters and deals with eutrophication, the current 'hot' topic of acidification, the effects of land use, fish farming, water abstraction and transfer and hydroelectric schemes, and concludes

concerned with conservation and water management who require a broad overview of these matters, who appear to be the most likely readers.

The style is generally clear, but to use 'plankton' and 'benthos' as plural nouns is objectionable. Errors are not rare. For example, 'blanket weed' is Cladophora, not Enteromorpha, which is very different; not all aquatic plants "take nutrients largely from the substrate", Daphnia obtusa is quite the opposite of a large-lake species, the present Lake Victoria does not date from Miocene times but is much younger, nor could the Nile perch have arrived there via the turbines of the Owen Falls Dam as it did not occur in the river below the impoundment. Helpful and attractive, but poorly reproduced, photographs enliven the text. The line drawings tend to be crude.

Geoffrey Fryer is at the institute of Environmental and Biological Sciences, University of Lancaster, Lancaster LA1 4YQ, UK.