

perative" to the built environment. Essays by Lloyd Timberlake, Alison Ravetz, S. Parvez Munzoor and S. Gulzar Haider help both to articulate the environmental ethics of Islam, and give them practical expression. Haider's model of "habitat and values" traces architectural designs in houses and cities that embody precisely those principles of integrity, purpose and clarity which have for centuries fascinated Western travellers to the Middle East. Embracing metaphors of time and structure, he offers a bold synthesis in sand and stone.

Unavoidably, as Robert Walgate summarized, ethical exhortation can appear exceedingly nebulous when one is confronted by practical issues — from militant Islamic nationalism, to the eager acquisition of Western technology apparently regardless of what would be in the West understood as "public interest". What *can* Islam offer Western science? The jury is still undecided. The ethical debates of Western science during the past two decades have not penetrated Islam. Under the circumstances, what are the implications, ethical or economic, of the "Islamization" of science and technology, as espoused here by Ali Kettani? The faith has different aspects, revealing themselves sometimes as fundamentalism, sometimes as mysticism

and sometimes worldly-wise pragmatism. Which is to form our new view of science in Islam? Presumably, Islamic science must, in a practical sense, "work". We seek operational knowledge. How do we obtain it? Can there really be no sociobiology in Islam? And what of technology — can there be an Islamic bulldozer, and, if so, how would its construction or function differ from Massey-Ferguson's finest? Finally, what are the political dimensions of Islamic science? As Robert Walgate reflected, the cult of the expert gives great power in Islam to the *Ulamā*, just as the cult of expertise is given great power (and accountability) in the West. If one wants gold, can one escape the fate of Midas?

Mr Sardar would not claim these questions have been fully answered. The discussion must go on, East and West, aided by such promising sponsorship. From it arises a challenge for Muslim scholars to find ways of encouraging the translation of beneficent principles into practical action, whether in fashioning the human environment, directing the goals of medical research, or in the conduct of everyday life. As such, the task is clearly not confined to Islam. □

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Biology of paradise

Mark Williamson

Ecology and Biogeography in Sri Lanka.

Edited by C.H. Fernando.

Dr W. Junk: 1984. Pp.505. Dfl. 265, \$110, £67.50.

Biogeography and Ecology of the Seychelles Islands.

Edited by D.R. Stoddart.

Dr W. Junk: 1984. Pp.691. Dfl. 300, \$115, £76.50.

BOTH Sri Lanka and the Seychelles have claims to be paradise on Earth. Both also have much to offer to biogeographers and ecologists, are tropical and are in the Indian Ocean. But while Sri Lanka is a large continental island (65,000 km²) with high mountains (up to 2,500 m), some rain-forest and a long history of cultivation, the Seychelles are minute (a total land area of only some 400 km²), in the middle of the ocean and include low coral islands, "high" limestone islands up to 8 m (of which Aldabra is the best known) and the uniquely isolated high granitic islands, rising to 900 m.

These two volumes, the latest in the *Monographiae Biologicae* series, continue a tradition of discussing interesting islands. Past volumes have covered the Canaries, New Guinea, Newfoundland and the Pityusics (Balearics). However, the intent of the series is not clear to me. The

monographs are advertised as "hydro-biology", and most deal with rivers and lakes, but a case study of an ancient man-made lake in Sri Lanka (there are no natural lakes) comes in the *Developments in Hydrobiology* series from the same publisher.

So what features of island life would one expect to be covered in such a monograph? Something on geology, certainly, and something on climates. Islands have interesting relic and endemic species, so there should be something on their origin and, by now, on the rate of evolution. Since Darwin, biologists have been interested in dispersal to islands, a topic often contrasted nowadays with vicariance biogeography. The number of species, their population sizes, their turnover by immigration and extinction, the representation of this in species-area curves, and by incidence and prevalence curves, are all topics of current interest. Questions of adaptation and life history strategy naturally arise from all this, and indeed islands are generally regarded as useful experiments. But not as yet, it would seem, in the Indian Ocean.

This is not to say that some of these topics are not dealt with, and indeed dealt with quite well, in the Seychelles volume, and some of them are touched upon in the volume on Sri Lanka. But the difficulties seem to be two. The first — and this applies particularly to Sri Lanka — is that taxonomy is still fairly primitive, even in groups like mammals. But the major problem is the complexity of geological history in the Indian Ocean. During the Tertiary it re-

sembled a dodgem stand at a fair — land whizzing in all directions, though with a pattern discernible overall; collisions here, pieces stuck there. As Braithwaite says, "if displacements in the Atlantic had been so elaborate the verification of concepts of sea-floor spreading might have been delayed for years". While the authors in the Seychelles volume do their best to get to grips with the geological background, those in the Sri Lankan volume seem mostly unaware of these phenomena, except for the occasional mention of Gondwanaland.

The volume on Sri Lanka is not so much a monograph, more a scrapbook. Interesting topics crop up, but there is little coherence. The worst chapter is "Freshwater Invertebrates, Some Comments", which comprises just two and a half pages of references to previous works. There is an account of grasslands, but not of rain-forest. There are chapters on the ecology of rice fields, on Monogenea from freshwater fishes, on coastal lagoons, on parasites of the endemic and relic vertebrates, but the only vertebrate group dealt with is mammals. There is emphasis on freshwater habitats and organisms, and also on the human aspects, such as malaria, man-made lakes and land use. It is difficult to steer a course between a superficial account and a tedious catalogue, but this volume too often hits the rocks on both sides.

In contrast, the volume on Seychelles is comprehensive and stimulating, though one weakness is that the information on, say, the areas of different islands is scattered through various chapters. There are accounts of the geology and climate, coral reefs and the marine fauna, vegetation and floristics, land molluscs, terrestrial arthropods, herpetofauna, birds and on man's influence. The high Seychelles are the only small granitic islands in the middle of an ocean, and they have a remarkable fauna and flora to suit. The absence of amphibians comes into the standard definition of an oceanic island, but on the Seychelles there are five species of frogs and seven species of caecilians, burrowing legless forms; the latter at least Gondwanan relics. An introductory historical chapter includes good maps, a table of diversity and endemism, and species-area curves.

It is really rather odd to find two volumes in the same series, appearing at the same time, which differ so much in quality. For while the monograph on Sri Lanka will be of short-lived interest, even to specialists, that on the Seychelles may well be a standard reference work for many years. □

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● Also published by Dr W. Junk in the series *Monographiae Biologicae*, volume 56, is *The Amazon: Limnology and Landscape Ecology of a Mighty Tropical River and its Basin*, edited by Harald Sioli. The series editor is H.J. Dumont and the price is Dfl. 450, \$172, £114.50.