

REVIEWS & NOTICES

Earth Law Journal: Journal of International and Comparative Environmental Law, Edited by NICHOLAS A. ROBINSON. A. W. Sijthoff, Leyden, The Netherlands: Vol. 1, No. 1, pp. 1–84, February 1975; Vol. 1, No. 2, pp. 85–182, May 1975, 24.5 × 16.2 × 0.5 and 0.6 cm, respectively; Dfl. 82 / \$35.75: single issue Dfl. 22 / \$9.50; Quarterly.

Environmental Policy and Law, Edited by MARTIN A. MATTES (Editor-in-Chief WOLFGANG E. BURHENNE). Elsevier Sequoia, Lausanne, Switzerland: Vol. 1, No. 1, pp. 1–48, June 1975; 27.1 × 20.0 × 0.3 cm, Sfr. 90 (or US \$36.00, DM. 85.00, £15.25); Quarterly.

The appearance of two journals devoted to legal issues provides a welcome sign of heightened awareness of the need for laws and institutions in the quest for international environmental protection. Such recognition is long overdue. For despite laudable steps, such as the inclusion of important legal principles in the United Nations' 1972 Stockholm Declaration, nations and international organizations have simply not placed real emphasis on international legal measures.

The two new journals in some ways overlap; in others they follow differing perspectives and seek different audiences.

The *Earth Law Journal*, under American editorship, is sponsored by the Friends of the Earth, the International Union for Conservation of Nature and Natural Resources, and the Institute of Environmental Law. The journal follows basically the form and scholarly style of the major British and American law reviews which have brought such important benefits to growth and change in domestic and international laws in the past century. Basically in English, the journal includes some articles in other languages and also provides helpful multilingual summaries at the end of each article.

Combining interests in comparative and international law, the *Earth Law Journal* has in its first two issues included articles and notes about environmental protection in several nations and international forums. Yet it presents only an initial *aperçu* into the vast and diverse area of comparative environmental legislation and needed international coordination. Its thinness in scope is doubtless the result of cost-limitations and difficulties in editorial communication around the globe.*

Concerned with the same—and even some broader—issues, *Environmental Policy and Law* embraces somewhat different goals and assumes a contrasting style. Eschewing classical scholarly objectives, this Journal seeks in the editors' words 'to report and analyse developments which

should be of international interest—to inform those active in the environmental field in one country of the theories and practices being developed in other countries or at the international level'.

In form and style somewhere between a journal and a magazine, *Environmental Policy and Law's* first issue provides an informative and pleasing new encounter for law-journal readers. The journal contains good, relevant pictures and even some provocative cartoons. Its sponsor, the International Council of Environmental Law, has thus started a meritorious service toward its goal to develop the interchange of information on legal, administrative, and policy, aspects of environmental conservation.

The sponsors and editors of both journals deserve high commendation for their pioneering moves to fill glaring gaps in official, academic, and citizen, reactions to law-policy needs in environmental protection. Even if each journal were to expand massively its coverage and size, there would still exist much to be done to expose and analyze contemporary legal needs for care of the Earth.

Yet, a problem of overlap and coordination remains. Environmentalists—even the lawyers among them—are supposed to be ecological stewards, reducing waste and promoting the conservation of important things in this planet's shrinking resources. The factors involved include paper, printing, skilled manpower, communications, and money. When we consider (1) the large number of scientific environmental publications which can and sometimes do touch on law-policy issues, (2) the great range of normal law journals, and (3) the steady increase in local or regional publications such as the *Ecology Law Quarterly* and similar publications in New Mexico and New England, one wonders whether there could not be some fusion of these admirable efforts.

At the very least this reviewer believes that conscious measures towards coordination and reduction of overlap should be undertaken by responsible publishers and editors. Leadership from the United Nations Environment Programme would be desirable and welcome.

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Ecumenopolis, The Inevitable City of the Future, by C. A. DOXIADIS & J. G. PAPAIOANNOU. Athens Center of Ekistics, 24 Stratiotikou Syndesmou Street, Athens 136, Greece: xxviii + 469 pp., 153 figs incl. numerous maps, 23.5 × 15.6 × 2.5 cm, thick paper covers, [no price indicated], 1974.

In this, his last published book, Constantinos A. Doxiadis assembled the results of his life's effort to define the processes which govern the development of human settlements and so presents the vision of *Ecumenopolis*, the daily life-system which may embrace practically all mankind globally as early as the year 2100, and, more conceivably, no later than 2200. This is a herculean task by the founder of 'ekistics'—a term which Doxiadis himself coined in 1942 for the study of human settlements and especially of their evolutionary and dynamic processes. He was a master-planner who was probably more widely known than any other for his design of cities to serve Man in numerous parts of the globe, and who, like Diogenes, considered himself not an Athenian or a Greek but a 'citizen of the world'.*

* To our deep regret it has been necessary to put this material into the past tense as Dr Doxiadis died early in July of this year—see our notice on page 264 of the present issue, although as recently as the Spring of this year he wrote us that he had two more books on the way.—Ed.

Writing for the informed layman, Doxiadis traces the growth of settlements from early Man to the present, emphasizing the dynamic nature of their current phase in which, thanks to technology in general and especially to transportation, they have moved from the era of the static city into that of 'dynapolis', being now continuously and often increasingly dynamic.

September 27th in the year 1825 marks the transition from perhaps 10,000 years of man-made permanent settlements to a period of unprecedented 'cellular' growth. Since that day when the first passengers descended from a steam-driven vehicle on a railway line running between Stockton and Darlington in the north of England, Man has increasingly found himself not so much in cities of pedestrians as in urban systems in which the dimensions of the settlement area were defined by the daily movements of its inhabitants. One of Doxiadis's outstanding contributions as a planner lay in his early analysis of the movement of people in relation to both space and time, which led to recognition that the standard units by which 'cities' are measured are inadequate tools for study and especially for their planning. The 'Standard Metropolitan Statistical Area' excludes the urban population which daily moves into the city. While the City of London's fully resident population in 1961 was only 4,767, that of the area under the London County Council was 3,000,248, with several more millions living in the continuously built-up area lying around.

Well-drawn diagrams in this book help the reader to visualize the process by which inhabited built-up areas within a ten-minutes walking radius become an urban system based on pedestrian and mechanical 'kinetic fields'. With a change in scale, the 'real city' is shown to be neither the built-up area nor the area under a common administration, but that of the urban dweller—including commuters and urban farmers who are participants in the daily life of the system. The nature and spatial distribution of demographic growth in these systems of daily movement is richly illustrated on the basis of early studies undertaken in the Northern Ohio Urban System. On a larger scale, Doxiadis describes the transition from 'daily urban-systems' (which he categorizes at Ekistic Unit 11) to 'interwoven daily urban systems'. Then comes the all-too-familiar megalopolis (Ekistic Unit 12), in which increasing transportation facilities and speeds have expanded the outer perimeter to produce such phenomena as Boston–New York–Washington and Tokyo–Osaka.

Closely linked to the dynamic concept of cities is the realization that population densities in urban settlements (defined, as above, in terms of daily movements) have been falling all over the world. The increase in population in settlements resulting from people's births, deaths, and movement, is more than matched by the expansion of the geographic area of the settlement.

As 'settlements are biological organisms which take in energy and raw materials and, overcoming internal resistances, transform them into useful products, generating unwanted by-products and wastes in the process', Doxiadis rejects any mere looking for partial answers or treating isolated symptoms. The proper study of Man is Man himself, and settlement systems must, therefore, be designed to create a harmonious balance between all elements that make up the system of Man's life—that make him happy, safe, and creative. 'Ekistics' thus takes its place alongside other holistic approaches to city planning, be they organic, biological, or natural (in the sense that Nature has evolved the most efficient ways to integrate diverse processes). It is thus a natural forerunner of 'comprehensive' planning and systems-analysis.

An important section of the book is devoted to a display of the tools of extrapolation and an explanation of the models employed. No less significant is the identification of major assumptions which underly projections into the near and far future: the majority of humanity will continue to live in such a world during the coming centuries, supposing that no devastating catastrophe affecting the majority of humanity occurs during the next two centuries; and 'we have a profound faith in the adaptive capabilities and creative ingenuity of anthropos' (mankind). Clearly excluded in such a picture are major disasters such as nuclear war, new and devastating diseases, etc., which lie outside the planners' contemplation.

A number of minor, yet significant, assumptions are made in sections leading up to the question of the capacity of the container—ultimately, the planet as a whole—to support anthropos at various predicted population-levels. Historically, Man has expanded the capacity of the planet to support his increasing numbers. Doxiadis calculates that some 10,000 years ago the technology level at the end of the tool-making revolution and the beginning of the agricultural era permitted a maximum global population of 25 millions, which subsequently increased by steps to some 500 millions at the outset of the industrial age. Now some four thousand millions, Doxiadis expected it to continue to expand with new technology to an ultimate capacity at the time of 'Ecumenopolis' of more than 20 (perhaps even 50) thousand millions. This concept that habitable space is being increased by human action and will increase even more, and that the area already occupied will become more habitable, is the basis for the conclusion that the capacity of the planet to support Man will increase substantially in the next century. (For a contrary view, see 'Human Population and Environmental Problems', by Paul R. Ehrlich, published in the first issue of *Environmental Conservation*, Spring 1974.) *

Doxiadis acknowledges that many of his long-term assumptions and projections are optimistic (such as, 'for the foreseeable future, the production of food will not impose limits on population growth') but nevertheless expects pressing problems to emerge in the near future (such as the possibility of large-scale famine over major areas during the next 10 to 20 years); indeed he is repeatedly pessimistic about the period between now and the turn of the century, but not thereafter.

Since 1961, when Doxiadis began describing Ecumenopolis, much of the global approach reflected in this book has given way to regional distinction as better data and understanding forced awareness of contemporary dissimilarities at the global scale. For example, urbanization is seen here as a global process resulting largely from rural-to-urban migration. However Kingsley Davis, in 'The Urbanization of the Human Population' (*Scientific American*, September 1965), among others, calls attention to the differences between settlements in industrialized and developing countries in precisely this context: thus whereas post-industrial movement of labour into cities was a significant factor in the growth of European and other industrialized cities, in today's developing world it is the urban breeding boom, not migration, which accounts for the increase of urban numbers far in excess of local capacities to provide basic health and other services.

The concept of continued dynamic growth rests on the use of mechanical forms of energy for transportation. But is the future 'what it used to be', or have rising energy costs and shortages widened the gap between the ability of different

* Also the Guest Editorial by Ehrlich & Holdren on pp. 241–2 of the present issue.—Ed.

groups of people within the city to obtain transportation, cruelly worsening the plight of the great majority of inhabitants in developing-world cities for whom suburbia has never been within reach? It will be of more than passing interest to see whether urban area continues in all parts of the world to expand faster than population. Surely, one of the needs brought out in this book is to develop comparable definitions of the geographic and demographic dimensions employed in calculating population densities—so that useful comparisons can be made over time and between different localities.

The vision of Ecumenopolis, resting on small-scale communities linked at the global dimension, calls for planned expansion of Man's use of land rather than wasteful urban sprawl. Few have had such opportunities in planning new cities in the developing world as Doxiadis, and with this valuable experience he and his colleague, J. G. Papaioannou 'have opened an analytical door on the remote future of human settlements'. Arnold Toynbee (*Cities of Destiny*, p. 275) once compared Doxiadis to a 'benevolent technician who has fitted a telescopic sight to a racing motorist's car. The technician hopes that the speeder will make use of this safety device now that he has been equipped with it. If he neglects it, he is likely, before long, to wreck his car and break his own neck.'

This book arms the reader with a clear view of the contemporary scene, a disturbing look at sign-posts and choices down the road, and a vision of the distant goal. A number of turning points are indicated which deserve attention. It is a book of hope, and of courage: 'It is simply cowardice to avoid the obligation to predict because of a fear that something unpredictable might happen'.

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Environmental Education, Edited by JAMES A. SWAN & WILLIAM B. STAPP. Halsted Press Division of John Wiley & Sons, New York, London, Sydney, Toronto: 349 pp., numerous figures and tables, 23.4 × 15.8 × 2.5 cm, £8.00, 1974.

Sixteen authors (including the two Editors), all of whom have considerable experience in the educational field in the United States, have joined hands in presenting in this book their own individual experiences and thoughts on various pedagogic approaches to certain aspects of Man's environment.

The book consists of 15 chapters, the first four of which are written by the Editors with the objective of defining the aims of environmental education in its proper historical setting, and of presenting an instructional programmed approach that is destined to help the learner to understand and appreciate the importance of relating ecological, economic, social, technological, and political, information in solving present or future environmental problems. In the other 11 chapters the reader is exposed to various pedagogic approaches and practical examples of how environmental education can be improved within the current educational-political philosophy, and how it can be evaluated—with an exposure of weaknesses and suggestions for new directions of work.

In perusing the contents of this book, one may feel that there is little articulation between the various chapters. However, one will not fail to note a common theme permeating the whole book—namely, a serious concern for the environment and an urgent appeal to design sound instructional programmes, for both children and adults,

aiming at the conservation of a viable environment. As mentioned by the Editors, the main purpose of the book is to expose educationists to a number of 'new' ideas, and to environmental education strategies that have been evolving since the United States' Earth Day. That these eye-opening items involve already an extensive literature can be noted from the often substantial lists of references—most of which were written and published in the 'seventies—given at the end of all but two of the chapters. The references are, however, almost exclusively American except in the case of the chapter on 'Improvised Play Areas'—which is both a pity and bears its message.

This book will certainly benefit all those engaged in any aspect of environmental education, as they will find in it a rich digest of the experience and thoughts of 16 often eminent educationists and behavioural scientists. The reader will also appreciate the short *curriculum vitae* of each author that is given at the beginning of each chapter. Environmentalists will particularly appreciate this book for its promotional impact in arousing the interest of the reader in this vital subject of environmental education on which, in the last analysis, will depend the outcome of the soul-searching question of whether Man can attain harmony with himself, his fellow men, and his environment—or else fail, and face the deluge!

M.A.F.

The Future of Technological Civilization, by VICTOR FERKISS. George Braziller, 1 Park Avenue, New York, N.Y. 10016: 369 pp., 24 × 17 × 3.5 cm, US\$ 12.50, 1974.

At a recent conference in Rome, a leading Italian environmentalist summed up his experiences by declaring that 'ecology is politics'*. Few who have lived through the social conflict arising from an effort to protect the environment from the impact of a major industrial project would deny the force of this simple statement. Yet we know that the existing political philosophies, whether of liberalism or socialism, capitalism or communism, are at best irrelevant to the issue of the protection of the natural environment, or at worst they actually encourage its rape.

If 'ecology is politics', then what is the politics of ecology? It is precisely this question which Victor Ferkiss, Professor of Government at Georgetown University, Washington, D.C., sets out to answer in his latest book, with the misleading title quoted above. Professor Ferkiss gives a damning exposition of the inherent inability of the existing political philosophies to deal with the ecological crisis which inevitably arises from our present technological civilization. The solution which he proposes is 'Ecological Humanism'—a political philosophy which places at its centre the development of human well-being through Man's interaction with his environment.

In his description of the short-comings of existing political systems, Ferkiss is impressive, to the extent that his proposed guide for the future of 'Homo Ecologicus' is perhaps an anticlimax. However, he marks this area of political ecology clearly and then proceeds to enrich our understanding of it. This is a book which is a *must* for all who care about the future of Man and of Nature, and particularly for those who want to help ensure that there is indeed a future for both.

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* He ought to have said 'human ecology...' but even then would have made real ecologists squirm: that, however, is no derogation of the pungent remarks of our distinguished reviewer.—Ed.