

**THE ECOLOGICAL SOCIETY
OF AUSTRALIA**

Membership of the Ecological Society of Australia is open to persons with an interest in any aspect of fundamental or applied ecology. The objects of the Society (1962 Constitution) are:—

1. To promote the scientific study of plants and animals in relation to their environment, both as individuals and as members of populations and communities, and to facilitate the exchange of ideas amongst plant and animal ecologists.
2. To promote the application of ecological principles to the development, utilization, and conservation of Australian natural resources.
3. To advise governmental and other agencies in matters where the application of ecological principles may be of assistance.
4. To foster the reservation of natural areas for scientific and recreational purposes and seek to ensure that such areas are soundly managed.
5. To promote publication of the results of research in plant and animal ecology.

The Society holds meetings annually and publishes two journals, the Proceedings and the Bulletin. The Proceedings are published annually and the Bulletin quarterly. The membership subscription is \$10 annually, payable on July 1st, members receive both publications. Non members may purchase back copies of the Proceedings and the Bulletin. Correspondence regarding membership and other matters should be sent to the Honorary Secretary, The Ecological Society of Australia, P.O. Box 1564, Canberra-City, ACT. 2601.

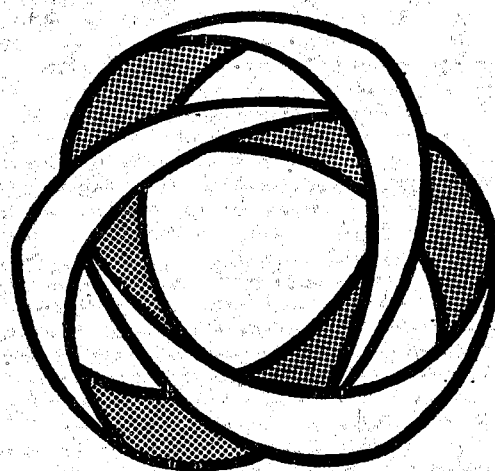
Aug 1972

**THE CITY
AS A
LIFE SYSTEM**

UNIVERSITY OF NEW SOUTH WALES

12th - 13th August

1972



**ECOLOGICAL SOCIETY
OF
AUSTRALIA**

the beginnings of
"environmentalism"
circa 1972

PROGRAMME

Saturday, 12th August, 1972: 9.30 a.m. - 5.00 p.m.

1. INTRODUCTION:

Dr. P. W. Geler, President, E.S.A.

2. NATURAL ENVIRONMENT:

2.1 The Bioclimatic Setting:

Professor E. A. Fitzpatrick and Mr. J. Armstrong, U.N.S.W.

2.2 Structure, Terrain and Soils:

Drs. T. R. Healey and J. Corbett, U.N.S.W.

2.3 Vegetation:

Dr. J. P. Burrell, U.N.S.W.

2.4 The Past and Present Fauna:

Dr. H. F. Recher, Australian Museum.

3. STRUCTURE IN THE CITY SYSTEM:

3.1 Conceptual Models:

Dr. M. T. Daley, Macquarie University.

3.2 Quantitative Models for Urban Systems:

Drs. G. M. Folle and R. F. Warner, and Mr. D. T. Howell, U.N.S.W.

4. FUNCTION IN THE CITY SYSTEM:

4.1 An Analysis of Energy Flow in the Sydney region:

Drs. J. D. Kalma, A. Aston and R. J. Millington, C.S.I.R.O.

4.2 The Role of Meteorology in the Urban Planning of Adelaide:

Professor P. Schwerdtfeger, Flinders University.

4.3 The Acquisition, Consumption and Elimination of Water by the Sydney Urban System:

Dr. F. C. Bell, U.N.S.W.

Sunday, 13th August, 1972: 9.30 a.m. - 5.00 p.m.

4.4 Nutrients and Materials Balance of a City:

Drs. R. J. Millington, J. D. Kalma and A. R. Aston, C.S.I.R.O.

4.5 Manufactures:

Mr. A. D. Winter, Plant Location International.

4.6 Transport and the Urban Environment:

Messrs. N. F. Clark and T. Patton, Melbourne University.

4.7 The Spatial Distribution of Sydney's workforce:

Mr. R. T. M. Whipple, Sydney University.

4.8 Communication in the Urban System:

Mr. D. Wilmoth, Sydney University.

5. CONTROL IN THE CITY SYSTEM:

5.1 Economic Controls:

Dr. J. Paterson, John Paterson Urban Systems Pty. Ltd.

5.2 Legal and Political Controls:

Mr. G. Clarke, Urban Systems Corporation.

6. EVOLUTION IN THE CITY SYSTEM:

6.1 Preliminary Phenomenological Equations of the City System:

Mr. J. M. A. Chappell, A.N.U.

6.2 A Working Model of the City System:

Drs. J. F. Brothie, R. Sharpe and P. Ahern, C.S.I.R.O.

7. GENERAL DISCUSSION:

OBJECTIVES

For most ecologists, ecology is in essence a man-oriented discipline. Yet our understanding of ecology derives from work which has not involved man as a subject species. How relevant are ecological concepts to the facts and to the needs of human communities? By presenting a functional, quantitative analysis of a modern city viewed as a life system, the ESA hopes to stimulate public and professional interest in an ecological appreciation of problems of environmental quality in modern industrial societies.

In today's industrialized societies, most people live, work, play, and die within the confines of urban systems. An ecological appreciation of this fact demands answer to the following questions:

- how does the physical environment influence the location, structure, function, and evolution of the city system?
- what are the major components of the system? How are they linked?
- what are the main inputs and outputs associated with flows of mass/energy through the system? Can the major processes be quantified?
- what are the controls of the system? How do they operate? Can one define an objective function for the urban system? How could such a function be achieved?
- how did the urban system evolve? Where is it going?

VENUE and REGISTRATION

The Symposium will be held in the Central Lecture Theatre Block, University of New South Wales. Members and non-members of the Society may enrol as ordinary participants (\$8) or as Student Members (\$4). Special concessions may be available to school children on application to the Organising Secretary. The registration fee will cover morning and afternoon refreshments, but will not cover luncheon or accommodation.

PUBLICATION

The papers presented at this Symposium will be published as Vol. 7 of the Proceedings of the Ecological Society of Australia. Further enquiries should be sent to the Hon. Treasurer, ESA, P.O. Box 1564, CANBERRA, A.C.T. 2601.

82 people + 20 + 40 kids