



bulletin

International Association for Landscape Ecology

Nominations for the Executive committee

Nominations for the executive Committee of IALE are still open, and should be send (or fax'ed) directly to Gray Merriam before 20th of July. The Executive Committee consist of a president, the past-president, 4 vice-president, as Secretary-General, a Bulletin editor (also Deputy Secretary-General) and a treasurer. It has to be stressed, that none of the members of the Executive committee should be seen as regional representatives, but as members of the daily leadership of the international association.

- To overcome the existing problems of the functionality in the international cooperation within landscape ecology,
- to promote the understanding of the importance of landscape ecology for the society and for the solution of many practical environmental problems at the landscape scale, and
- to support the development of regional activities within landscape ecological research and planning, the members will have to work very hard and be very active.

At the General Assembly in Ottawa it will be discussed in which way the functioning of the Executive Committee can be furthered. Their should anyway be a more strict division of labour within the Executive Committee based on defined tasks and duties within a working programme, that has to be discussed thoroughly.

Jesper Brandt

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IALE CONSTITUTION COMMITTEE HAS
BEEN SET UP

Due to the organizational problems within the existing structure of IALE (see the report of the Secretary-General), a constitution Committee has been set up to prepare new statutes to be recommended to the General Assembly in Ottawa in July. The members are:
K.-F. Schreiber (Germany), R. T. T. Forman (USA), A. Farina (Italy), L. Hansson (Sweden) and D. Saunders (Australia). The Commission will be chaired by K.-F. Schreiber.

A draft revision of the statutes, that has been discussed in the executive committee, will together with the original statutes form a basis for the Committee. In agreement with the chairman of the commission we publish these two documents in this Bulletin in the hope, that it will stimulate the discussions on the statutes and further the interest in the future organizational development of IALE.

Jesper Brandt

The International Association for Landscape Ecology (IALE) exists to promote interdisciplinary scientific research and communication between scientists and planners

IALE EXECUTIVE COMMITTEE

President: H. G. Merriam (Canada)
Vice President: P. Bridgewater (Australia)
Vice President: W. Haber (Fed. Rep. Germany)
Vice President: M. Husain (India)
Vice President: M. Ruzicka (CSSR)
Vice President: I. S. Zonneveld (Netherlands)
Secretary-General: J. Brandt (Denmark)
Deputy Secretary-General: P. Agger (Denmark)
Treasurer: M. J. McDonnell (USA)

The IALE BULLETIN is published 4 times yearly. News Items, articles comments and suggestions are welcomed.

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SHORT REPORT FROM THE SECRETARY-GENERAL

IALE was founded in 1982 to promote communication between scientists and planners and interdisciplinary scientific research.

Mainly due to very different conditions for the establishment of an association in east and west, including fundamental problems of formalizing membership and accomplishing international transfer of membership fees, a very decentralized structure based on the formation of regional organizations was laid down in the statutes.

According to these statutes, the business of IALE shall be handled by

1. The council, consisting of a regional representative for each regional organization, the chairmen of the working groups and the honorary members,
2. The executive Committee, appointed by the council, and
3. The General Assembly, open to all members who have paid their subscription.

So, the whole structure depended very much on the development of the regional organizations.

To initiate the development of regional organizations, contact persons for a wide range of countries or regions were appointed by the initiators of IALE. In some cases organizational frames for interdisciplinary landscape ecological research and planning were available and could be affiliated to IALE, but in most cases the organization had to be build up from the very beginning.

The first Executive Committees of IALE could of course not be elected according to the statutes due to the still missing basic structure. At a business meeting in August 1986 it was planned to establish the Council of IALE during the 3rd

General Assembly in Münster July 1987. It did not succeed. Instead a meeting of the Executive committee and representatives of active regions and active working groups (called a 'preliminary council') was held, discussing the necessary procedure for the appointment of the council. The following procedure was proposed by the Executive Committee and adopted by the meeting:

1. To formalized the Regions by first asking these to inform the secretary-general about their present status of organization, the existence of a regional secretariat, or by-laws, etc.. Based on this information Regions should be either officially admitted by IALE or asked to improve their organization.
2. To ask the formalized regions to appoint a representative as member of the Council.
3. To ask the active Working Groups to appoint chairmen. Chairmen of Working Groups are members of the Council of IALE according to the Statutes.

For several reasons it was, however, not possible to complete this procedure, and instead of that the secretariat in the spring of 1988 proposed to formalize a preliminary council consisting of

- one representative of each organized region (e.g. landscape ecological societies or associations in different countries);
- active contact persons of IALE in countries where a regional organization had not yet been established;
- chairmen of IALE-working groups.

By active contact persons was meant contact persons confirming their function by their response to the executive committee. At the same time a proposal for candidates to a new Executive Committee was set up by the Executive Committee to take over after the 4th General Assembly in Michalovce (Czecho-Slovakia),

and an election procedure based on the preliminary council was carried out. The proposal was - almost unanimously - supported by the preliminary council.

Since the new Executive Committee was established in the autumn 1988, it has concentrated on trying to give life to IALEs decentralized structure through the stimulation of activities within the regional organizations and the working groups. This has only to a minor degree been a success: Some new and very active regional organizations has been set up within the period (e.g. Italy, China, Japan), and some working groups (like the GIS-group, the group on urban ecology, and the group on cultural aspects of landscape ecology) has been active, organizing their own activities. The president and the Secretary-General has visited many regional meetings arranged during the last years. But the efforts to formalize the regions and working groups according to the principles set up in the statutes and at the business meeting in 1987, has failed. Many regional organizations are still only existing in form of contact persons receiving the Bulletin for redistribution. A request in autumn 1990 showed, that very few of the regional organizations/contact persons in fact added regional information before the Bulletin was redistributed. A part of the working groups only exist on paper. For that reason we are still in the position, that no formal council can be elected, and there is no proper base for the election of an Executive Committee. A plan to stimulate the regional activities up to the congress in Ottawa through regional meetings and super-regional activities on practical landscape ecological problems was only carried out sporadically.

These problems can partly be seen as problems of stabilization of a new organization. But more serious problems are hidden behind:

1. IALE will still for many years have to fight for the acknowledgement of landscape ecology within the scientific and especially the nonscientific community. In modern society most people don't think in Landscapes. Even the Brundtland report only deals fragmentarily with the obviously necessary landscape-ecological entrance to problems of sustainable development, one of the only ones being its proposal to concentrate on a sustainable use and management of ecological zones crossing the boundaries - especially within international river basins.

The growing number of textbooks on landscape ecology issued during the previous years (many of them written by IALE-members) have been of great importance. To stimulate the broad interest, and to support the formation of regional activities, IALE will have to broaden its range of activities, not only arranging seminars, but also involving its own publication of scientific literature, literature on landscape ecological planning and information for the broad public (e.g. of the type "landscape ecological contributions to sustainable development"); arranging international courses and involving itself actively in political and planning problems at the landscape scale. These perspectives call for a much stronger organization, which can and will invest much more time in the development of activities, than we have been used to up to now.

2) Not very much effort has been put into the raising of money through membership fee and other sources to keep a professional organization going. According to a decision from 1986 each IALE Region must remit 10% of its financial means to the International Association. The fee is principally decided upon by the regional organization. In practise, the fee of the most regions equivalent 5 US\$ (being also the fee for direct-

members of IALE-International), meaning a transfer of 50 Cents per member. A normal international bank transfer will cost up to 20 US\$, thus eating up the 10%-fee for 40 members, surpassing the number of members in many regions. Thus we have relied on support from the host institutions of the members of the Executive Committee. Roskilde University has paid the printing of the Bulletin, the Dept. for Forest and Nature Conservation of the Danish Ministry of Environment has paid the mail, but within the last years the secretariat assistance has been cut down to almost nothing due to a rapidly increasing work load at Roskilde University. It's difficult to change this situation, because the structure of IALE in fact makes it almost impossible to make a proper budget for the international organization.

Jesper Brandt

Secretary-General

For these reasons the Executive Committee decided to set up a Constitutional Committee to prepare new statutes for IALEt. A draft revision of the statutes, that has been discussed within the Executive Committee proposing a 'flat' structure for IALE, based on direct personal (or institutional) membership of IALE-international has been sent to the Constitution Committee together with the original statutes. The Commission, chaired by K.-F. Schreiber, has been asked to report to the General Assembly in July with their recommendations.

The rapid political changes during the last years in eastern Europe have shaped a new international situation, that in many ways facilitates the cooperation within IALE, and making the transfer of membership fees in convertible currency principally possible. We have to stress, that such a new structure should not be seen as threat against the regional organizations: On the contrary, it shall be seen as a necessary measure to develop a strong base for the development of regional activities in the future.

STATUTES OF THE INTERNATIONAL
ASSOCIATION FOR LANDSCAPE ECOLOGY

EXECUTIVE COMMITTEE-PROPOSAL FOR
NEW STATUTES

A NAME, SEAT AND LANGUAGE OF THE
ASSOCIATION

A unchanged

A1 The name of the association shall be INTERNATIONAL ASSOCIATION FOR LANDSCAPE ECOLOGY (IALE) or its equivalent in other languages.

A2 The seat of the Association is the address of the Secretary-General.

A3 The working language of the Association shall be English. Other languages may be used within different Regions of the Association.

B OBJECTIVES AND ACTIVITIES OF THE
ASSOCIATION

B OBJECTIVES AND ACTIVITIES OF
IALE

B1 In order to advance a balanced interaction between man and his environment the objectives of the Association shall be to

B1 unchanged

a. Further communication between scientists, organizations as well as planners and managers in the field of landscape ecology;
b. Advance (interdisciplinary) research in landscape ecology;
c. Promote the development of knowledge on landscape ecology and its application, and to further interaction between scientists and planners.

B2 In order to accomplish these objectives the activities of the Association shall be to
a. Organize international congresses and meetings for efficient exchange of knowledge and experience on landscape ecology;
b. Publish or by other means (e.g. education) distribute knowledge in the field of landscape ecology, and to undertake appropriate action in order to enhance public concern in landscape ecology;
c. Form commissions and interdisciplinary working groups dealing with special problems of landscape ecology; d. Arrange for joint research projects in order to exchange specialized knowledge and experience;

B2

a) Organize a World Congress of Landscape Ecology normally at intervals of four years, organize international seminars and other meetings for effective exchange of knowledge and use of landscape ecology.
b) Publish or by other means produce or distribute knowledge about Landscape ecology and undertake any appropriate action, including educational instruction, to enhance the utility of landscape ecology.
c) Form interdisciplinary working groups to address specific issues

e. Edit and distribute a Bulletin;
 f. Establish co-operation with other interested organizations which have related field of work and similar objectives.

C MEMBERSHIP

C1 Membership of the IALE is open to all persons and institutions active or interested in the study and application of landscape ecology. Individual as well as collective membership is possible. The following classes of members shall be recognized:

a. Ordinary members - individual scientists, who participate either by separate membership or membership in an affiliated (national) organization;

b. Sustaining members - other organizations providing voluntary support to the Association. Such members do not have voting privileges in the General Assembly;

c. Honorary members. The Association may confer Honorary Membership upon distinguished Landscape Ecologists.

C2 Membership of the Association shall lapse if the member is one year in arrears with his or her sub-scription, payment being due on January 1st of each calendar year.

C3 A member can be expelled by the Council if in its opinion he or she has violated the Statutes or decisions of the Association.

or problems in landscape ecology.

d) Form or facilitate research projects in landscape ecology.

e) unchanged

f) unchanged

C MEMBERSHIP

C1 Membership in IALE is open to all persons or institutions interested in or active in the study or the application of landscape ecology. The following classes of membership are available annually from 1 January each year. Every class of member can qualify as a member in Good Standing.

a) Honorary members. The Association may confer Honorary Membership upon distinguished landscape ecologists. Nominations shall be signed by two members of the Council and shall be presented in writing to all members of the Executive Committee at least three months before the next scheduled General Assembly. Honorary membership will be conferred if a simple majority of the Council approves the nomination.

b) Regular Members. Individuals who have paid the current individual membership fee.

c) Corresponding Members. Individuals who have been granted an exemption from the current individual membership fee. Application for exemption will be considered for members to whom availability of international exchangeable currency is critically restricted. The Secretary-General will receive these applications and, together with the Treasurer will decide to allow or reject all applications. Corresponding Members must reapply for exemption before 1 March each year.

d) Institutional Members. Institutions who have paid the current institutional membership fee. C2 Membership in good standing shall be lost when a member's fees are in arrears for six months from the due date of 1 January each year.

C3 Delete entire clause.

D THE STRUCTURE OF THE ASSOCIATION

D1 The Association shall carry out its work through the following bodies:

- a. The General Assembly
- b. The Executive Committee
- c. The Council
- d. The Regions
- e. The Commissions and Working Groups.

E THE GENERAL ASSEMBLY

E1 The purpose of the General Assembly is to handle the business of the Association. The General Assembly meets during international congresses or in any other way the Council may determine.

E2 The General Assembly is open only to members of the Association who have paid their subscription for the current year.

E3 The General Assembly shall be convened at regular intervals whenever possible, but preferably every four years.

E4 The General Assembly will be presented with the report of the Secretary-General, which should be published in the last issue of the Bulletin prior to the meeting. It will be presented also with the accounts of the Association and with any comments and suggestions on the report and accounts put forward by the Council.

E5 The General Assembly shall select the place for its next meeting.

F THE EXECUTIVE COMMITTEE

F1 The Executive Committee of the Association shall consist of the President, preferably not more than four Vice Presidents, Secretary-General, Deputy Secretary-General and Treasurer.

F2 The President or one of the Vice Presidents shall be resident of the country in which the next meeting of the General Assembly is to be held.

F3 One of the Vice Presidents shall succeed to the Presidency if the

D THE STRUCTURE OF IALE

- D1 a) unchanged
- b) unchanged
- c) unchanged
- d) unchanged
- e) The Working Groups

E THE GENERAL ASSEMBLY

E1 The purpose of the General Assembly is to make decisions affecting the general membership of the Association. The General Assembly normally will meet during a World Congress but also may meet in any other way designated by the Council.

E2 Voting privileges in the General Assembly are restricted to members in good standing

E3 Delete entire clause.

E4 Each meeting of the General Assembly will receive reports from the Secretary-General and from the Treasurer. These reports also shall be published in a timely issue of the Bulletin.

E5 Each General Assembly shall receive invitations from potential hosts for the next World Congress and shall decide the site of the next Congress, shall receive proposals for new IALE activities, and shall ratify new IALE activities, policies, and expenditures when requested by the Executive Committee to do so.

F THE EXECUTIVE COMMITTEE

F1 The Executive Committee shall consist of the President with a four year term or a term extending until the next World Congress and not immediately re-electable; the Past-President with the same term as the President; not more than four Vice-Presidents, intended to provide regional representation, having two year terms, overlapping when possible and open to immediate re-election; the Secretary-General with the same term as the President

President should resign or become unable to serve during his term of office.

F4 The Deputy Secretary-General shall succeed the Secretary-General if the latter resigns or becomes unable to serve.

F5 The task of the Executive Committee is the daily management of the Association in accordance with the general instructions of the Council.

F6 The Executive Committee shall recommend the membership fees to the Council.

F7 The Executive Committee shall be responsible for the expenditure of such funds as shall be allocated by the Council for the running of the Association.

F8 The Executive Committee shall prepare the questions to be dealt with by the Council and shall decide on questions that have to be settled before the next meeting of the General Assembly.

F9 The Secretary-General should call a meeting of the Executive Committee of the Association at least once in every two years, to discuss vital questions; if any difficulties should arise connected with the holding of such a meeting he should consult with the members of the Executive Committee through correspondence.

F10 The Secretary-General should regularly publish information about the activities of the Association in the Bulletin of the IALE.

F11 If the Association is dissolved, the Executive Committee shall decide in what way the funds of the Association shall be used for the furtherance of landscape ecology.

and open to immediate re-election; the Treasurer with the same term as the President and open to immediate re-election; and the Bulletin Editor, who also will serve as the Deputy Secretary-General, with the same term as the President and open to immediate re-election.

F2 Delete entire clause.

F3 The Executive Committee shall be elected by the following procedure:

a) A request for nominations shall be distributed to all members by the Secretary-General directly and/or by printing in the Bulletin in time for receipt at least two months before the next scheduled General Assembly. Any nominations shall be made two members in good standing and shall be consented to by the signature of the nominee. The Secretary-General shall deliver all valid nominations to the Chair of the Nominating Committee at or before the beginning of the next World Congress.

b) The Nominating Committee shall be chaired by the Past President, and failing that by someone designated by the Past President from outside the Executive Committee. The Chair shall appoint four additional members to the Nominating Committee.

c) The Nominating Committee shall make a slate of two eligible and willing candidates for each position, to be filled by the election, from the nominations received with reference to: considerations of the Statutes of the Association, needs of each particular Office, the international and regional nature of IALE, and similar criteria likely to affect the vitality of IALE. d) The Chair of the Nominating Committee shall deliver the slate of candidates for election to three Scrutineers, appointed by the General Assembly and charged with conducting an election by secret ballot to fill all necessary positions on the Executive Committee. The Scrutineers shall distribute the ballots to all IALE members who are warranted to be in good standing at the time of the election by the Secretary-General. The ballots shall be distributed promptly either in the

IALE Bulletin or directly by post or by certain electronic means, and in any case with reasonable allowance of time for return of any ballot. Those nominees receiving a simple majority of the votes for each position will be declared elected.

F4 If the President should resign or become unable to serve before the end of a term, a replacement shall be elected from among the current Vice-Presidents by the Council by an absolute majority within three months of the event.

F5 If the Secretary-General should resign or become unable to serve before the end of a term, the office will be filled until the end of the term by the Deputy Secretary-General who may appoint a new Bulletin Editor by consultation with the President.

F6 The role of the Executive Committee is to manage the activities and responsibilities of IALE, at all times, with reference to the Statutes, actions of the General Assemblies, and advice of the Council, so as to maintain the vitality of IALE and effectively to represent the interests of IALE as necessary.

F7 The Executive Committee shall recommend membership fees in internationally exchangeable currency to the General Assembly, with reference to advice from Council and, with reference to an operating budget for IALE. The Executive Committee shall be responsible for income, expenditures and all financial responsibilities of IALE.

F8 The Executive Committee, through the Secretary-General, shall inform the members about activities of the Executive, the General Assemblies, and the Council, by publication in the Bulletin or by other suitable means.

F9 When IALE ceases to function effectively, the Executive Committee shall end all its affairs and ensure that any remaining resources are used effectively for landscape ecology.

F10 A quorum for the Executive Committee shall be at least five including: the President or a

G THE COUNCIL

G1 The Council of the IALE consists of:

- a. The Executive Committee;
- b. One ordinary member representing each Region (Regions are defined under article H). The name of the representative must be sent to the Secretary-General by the Secretary of the Region at least two months before the General Assembly meets.
- c. The Chairmen of any Commissions or Working Groups functioning within the IALE.
- d. The Honorary Members of the IALE.

G2 The functions of the Council are:

- a. To appoint the President and Vice-Presidents who shall hold office until the conclusion of the next General Assembly;
- b. To appoint the Secretary-General and Deputy Secretary-General and, if necessary, to terminate their appointment;
- c. To appoint the Treasurer and, if necessary, to terminate his appointment.
- d. To select meeting places and dates for the General Assembly and any meetings organized by the Association;
- e. To recommend the admission of new Regions, Commissions or Working Groups or the termination of such bodies to the General Assembly of the Association;
- f. To make recommendations to the Executive Committee for actions on matters of policy;
- g. To approve the report of the Secretary-General and the accounts of the Treasurer;
- h. Fifty per cent of the members of the Council shall constitute a forum for the transaction of business. No business will be conducted in the absence of the President of the Association unless he specifically delegates his authority to another member of the Executive

delegate from within the Committee, the Secretary-General or Deputy Secretary-General, and at least two Vice-Presidents.

G THE COUNCIL

G1 The Council of IALE consists of:

- a) The Executive Committee.
- b) One Representative from each confirmed Region who has been certified in writing by the Region's executive committee, to the Secretary-General as the elected Regional Representative at least two months before the General Assembly meets.

c) The Chairs of all IALE Working Groups.

G2 A quorum for the Council shall be at least half of the Council members including a quorum of the Executive Committee.

G3 The role of the Council is:

- a) To accept or reject new applications from, and to terminate as needed: Regions, and Working Groups.
- b) To make recommendations to the Executive Committee on matters of policy or scientific activity.
- c) To approve or reject major changes in the budget approved by the last General Assembly which are proposed by the Executive Committee before the next General Assembly.

Committee for the occasion.

H THE REGIONS

H1 A Region within IALE may consist of either a group of countries or of one country.

H2 Every Region should have a Regional Secretariat that can handle most financial and administrative matters concerning the Association within the Region.

H3 The task of a Regional Secretariat of the IALE is:

- a. To act as intermediary between the members of the IALE in the Region and the Secretary-General;
- b. To duplicate and mail all IALE correspondence as well as the Bulletin within the Region;
- c. To edit the Regional Section of the Bulletin;
- d. To initiate Regional meetings.

I THE COMMISSIONS AND WORKING GROUPS

I1 The scientific work of the Association shall be carried out through Commissions and Working Groups, which shall foster the study of particular branches of landscape ecology.

I2 Commissions may be established by the General Assembly on the recommendation of the Council. Commissions can be terminated in the same way.

I3 Each Commission shall be controlled by a committee formed of the following officers: Chairman and Secretary.

I4 The committee of each Commission

H THE REGIONS

H1 An IALE Region need not conform to political boundaries .

H2 To be confirmed as an IALE Region, landscape ecologists in the region must form an executive committee for the region, and the landscape ecologists of the region must elect a regional representative. Names and mailing addresses of all the members of the executive officers, and of the regional representative must be sent, together with IALE membership fees for any who are not already members, to the Secretary-General with a request to be confirmed as an IALE Region. The Council will vote to confirm or reject the request without undue delay.

H3 Each IALE Region shall:

- a) Supply a complete mailing list of all Regional members and officers to the Secretary-General and keep this list up to date.
- b) Conduct Regional scientific and business meetings and facilitate communications and acquisition of new knowledge about landscape ecology in other ways.
- c) Provide all possible liaison between the IALE Secretariat and Regional members.

H4 Each IALE Region may collect Regional Fees as needed for regional activities.

I WORKING GROUPS

I1 Working Groups may be established to study and report findings on particular problems or aspects of landscape ecology.

I2 A Working Group may be established either by the Executive Committee to meet a special IALE need or by the Executive Committee pursuant to a recommendation from Council. All members of Working Groups must be IALE members in good standing. It is the duty of Council to terminate any Working Group as soon as possible after a majority of Council has that the IALE need, for which the Working Group was established, has been met sufficiently

shall direct the activities of the Commission at all times. It shall be responsible for the programme of the Commission at international congresses or meetings.

I5 Members interested in specific subjects may, with the permission of the Council, set up Working Groups to advise the committee of the relevant Commissions on any topics they consider should be given special attention either at international congresses or during intervening periods. The Working Groups may also carry on special correspondence and exchange of information within the field of the special subject. Each Working Group elects its own Chairman.

J THE BULLETIN

J1 The Association shall issue a Bulletin at regular intervals giving information about activities of the Association and other matters of general interest. To inform members about matters of regional interest each Region shall add its own Regional Section to the Bulletin.

K VOTING

K1 Voting on proposals shall be done by a show of hands. A secret paper ballot shall be made for all contested elections, or when any member requests this. In these circumstances the voting body shall appoint scrutineers.

K2 Decisions shall be passed by an absolute majority of the votes cast.

L FINANCE OF THE ASSOCIATION

L1 The funds of the Association are:

- a. membership fees
- b. voluntary contributions
- c. other sources of income.

or is not being met sufficiently by that Working Group.

I3 Each Working Group must elect a Chair as soon possible after establishment of the Group. This Chairperson will become a member of the IALE Council and will be responsible for a written report of Group activities to the Secretary-General annually and for oral and written reports to each General Assembly during and immediately following the tenure of the Working Group.

I4 Delete entire clause

I5 Delete entire clause

J THE BULLETIN

J1 The Bulletin Editor shall issue the IALE Bulletin quarterly or at similar regular intervals to communicate about IALE, its Regions, and their activities to all members. Regions may add sections to the Bulletin to communicate about regional activities or they may submit material to the editor for consideration for publication in the general sections of the Bulletin. Working groups may use the Bulletin to communicate about their study topics. Costs of the Bulletin and its distribution will be paid from membership fees.

K VOTING

K1 Voting in contested elections shall be by secret ballots and shall be conducted by three scrutineers approved by the current General Assembly.

K2 Voting shall be decided by an absolute majority of legitimate votes cast unless stated otherwise in these statutes.

L FINANCES

L1 Income to the IALE Treasury shall be from:

- a) membership fees
- b) donations, grants, contracts and any other legal income source

L2 a. Members shall pay their annual fee to their Regional Secretariat or to the Treasurer of the Association if no Region exists.

b. The Regions shall determine the amount of this fee.

c. The Council shall determine the financial support of the different Regions to the International Secretariat, and the individual membership fee of members who not belong to a Region.

L3 The account shall be closed at the end of each calendar year. At each meeting of the General Assembly a review of the Association's finance shall be submitted for approval.

that does not compromise IALE objectives and is approved by the Executive Committee.

L2 Expenditures from the IALE treasury shall be:

a) planned and completed with reference to a budget presented by the Executive Committee to the General Assembly to indicate in general the expected incomes and expenditures for the period until the next expected General Assembly and subject to major revision during that period only with approval by the Council.

b) approved by the Executive Committee if more than US \$ 5000.

c) approved by the Treasurer and the President, or in emergencies the Secretary-General in place of the President, if more than US \$ 1000.

d) approved by the Treasurer or the Secretary-General or the Bulletin Editor or the President if less than US \$ 1000.

e) documented by official signed receipts submitted to the Treasurer in all cases except petty cash.

L3 All financial transactions and the state of the Treasury shall be promptly and regularly recorded by the Treasurer using normal accounting procedures and, annual balance sheets shall be submitted to the Executive Committee and the General Assembly.

L4 The Treasurer and the Secretary-General shall be responsible for minimizing the costs of financial transactions including income.

M OTHER REGULATIONS

M1 The business of the Association may be conducted by post.

M2 The Executive Committee and the Council may set up Sub-Committees for carrying out specific functions, and they may co-opt other members to serve on them.

M3 The President and Secretary-General of the Association may jointly nominate one or more members to represent the Association at meetings of other Societies or Conferences at which topics of interest to the Association are being discussed.

M4 The elected members of the

M OTHER REGULATIONS

M1 The business of IALE may be conducted by mail and by electronic communications.

M2 The Executive Committee may appoint Sub-Committees charged with specific tasks for a limited term and may give them powers to co-opt other members or non-members for particular purposes.

M3 The President and the Secretary-General in consultation may appoint members to represent IALE at Regional meetings or meetings of other Societies or conferences at which IALE interests should be represen-

Executive Committee and of the Council and the committees of Commissions shall serve from the end of one meeting of the General Assembly to the end of its next meeting.

N CHANGE OF THE STATUTES

N1 a. Proposals for changes in the Statutes of the Association can be made by the Council or by members. They must be communicated to the Secretary-General at least one year before the next meeting of the

General Assembly and be published in the Bulletin of the Association. The Secretary-General shall post voting papers to each member six months before the meeting of the General Assembly.

b. Changes to the Statutes may be made by postal ballot or at a meeting of the General Assembly, and require at least a two-thirds majority of the votes cast.

ted but which can not be attended by any members of the Executive Committee.

M4 Delete entire clause

N CHANGES OF THE STATUTES

N1 a) Proposals for changes to the statute can be made by any members in good standing and if approved by the Executive Committee must be published in the Bulletin at least three months before the next General Assembly as a notice of a motion to be proposed to that General Assembly by the Executive Committee. If passed by the General Assembly, the motion becomes effective immediately.

b) Delete entire clause

WORKING GROUPS

WORKING GROUP URBAN ECOLOGY - PAST, ACHIEVEMENTS, FUTURE

by Tadeusz Bartkowski, Poznan, Poland

PAST

The working group was founded at the first international seminar of IALE on "Methodology in landscape research and planning" in Roskilde, October 15-19, 1984. As the first temporary chairman was chosen the author of this report, Tadeusz Bartkowski from the Dept. of Complex Physical Geography of the Institute of Physical Geography, Adam Mickiewicz University in Poznan, Poland.

In the circles of geographers, physical planners, urbanists-architects, a preliminary and preparatory scientific meeting of interested scientists in Poznan was held on October 7-8, 1985, as a bilateral Polish-German scientific conference of the university geographical centres of Poznan and Halle on the theme "Urban geosystems" (T. Bartkowski ed. 1985). A bilingual Polish-German volume of the "preconference materials" (of 246 pages) stressed the point of a town being a material, physical structure that conditions the life of humans, and introduced the notions of a town as a system, an ecosystem, a geosystem. The immediate formal basis for developing these concepts was provided by the acceptance of the notions of urban system and urban ecosystem forwarded by the UNESCO Mab 11 project (consider f.i. Mab reports from meetings in Bad Nauheim 1973, Paris 1975, Amsterdam 1976 and especially Poznan 1977).

Considering ecosystems and geosystems of towns as analogous notions is very well documented by a series of publications that followed the Poznan 1977 meeting: T. Bartkowski and L. Zimowski 1979, T. Bartkowski 1981, T. Bartkowski 1984. T. Bartkowski and L. Zimowski

1984.

The second step in the discussion of the problem was made in 1987 (October 26-28) when an international conference of the IALE working group Urban Ecology was organized in the Institute of Physical Geography of the A. Mickiewicz University in Poznan on the theme "Discussion on the notion of urban ecology". This time, besides the former circles of interested scientists, the conference was attended largely by anthropologists (even psychologists and sociologists), thereby obtaining a new, broader interdisciplinary elucidation, one could say illumination. Before presenting its results in more detail, let us quote its quintessence as formulated in the short report on the Poznan conference published in the Bulletin of the American Society for Human Ecology (1988/89, No. 6). "The discussion was concerned foremost with the notions of human and of urban ecology. It was stated that urban ecology is something more than a biological science. It is a very interdisciplinary science, encompassing fields of research of biological, physico-geographical, social, psychological and anthropological sciences. Its 'differentia specifica' lies in the application of the so called 'ecological paradigm'. This paradigm, although originated primarily in biological concepts (Haeckel, Tansley) has gained a conceptual formulation in L.v. Bertalanffy's 'General systems theory' (1950). The main subject of urban ecology is not only 'man living in a town' but equally well 'the town itself' as a structure, being subsided from 'outside', especially from the suburban zone and as 'constraining' this outside into a spatial polarized system, encompassing in this system as well the suburban zone as the proper urban infrastructure that is called a 'skeleton system' and becomes the subject of interaction and forming thus a special kind of system, an urban system". Finally, in reporting the labours of the Polish urban ecology team in Poznan, we must mention a common team work of physical and

economical geographers (from the Institute of Physical Geography of the A. Mickiewicz University and from the Institute for Spatial Economy of the Economical Academy - both sited in Poznan) on the theme "Geosystem of the city of Poznan - a model and exemplification" performed in the years 1986-89. Its goal was to describe and to delimit a town's geosystem, not only by a quantitative but equally well by a qualitative approach. The model was presented by means of cartographic methods and attempts were made to "seize up" the town as a multistoried, multiphaseous, socio-physical (including natural and technical, artificial components) spatial and time dependent structure. This structure is the already mentioned spatial polarized interaction system, expressed by the formula "skeleton system versus suburban (subskeleton) zone".

Of course, there are in the world many works that fall into the notion of both urban eco- or geosystems and urban ecology (to mention only the works of the Mab 11 project), but it is impossible to report it here, so the author has limited this report to works

immediately connected with the IALE working group.

ACHIEVEMENTS

From the many significant results of the labours of the working group, only those serving the discussion on the notions of the urban eco-geosystem and especially of urban ecology will here be given. First of all, a tentative model of a town's "eco-geosystem". It will be visualized by means of two figures demonstrating one of the subjects of urban ecology: the town as a structure (that services one of the consecutive forms of organization of human society in the course of its evolution). This structure serves to subside it from outside - the town's environment, and interacts with the town's entourage, the towns outside (the principle of the ecological paradigm). So Fig. 1 demonstrates:

- the multistoried vertical structure of an urban eco-geosystem constituted by superposed partially interacting (sub)systems:

the natural-physical (the substratum), the technical and the social

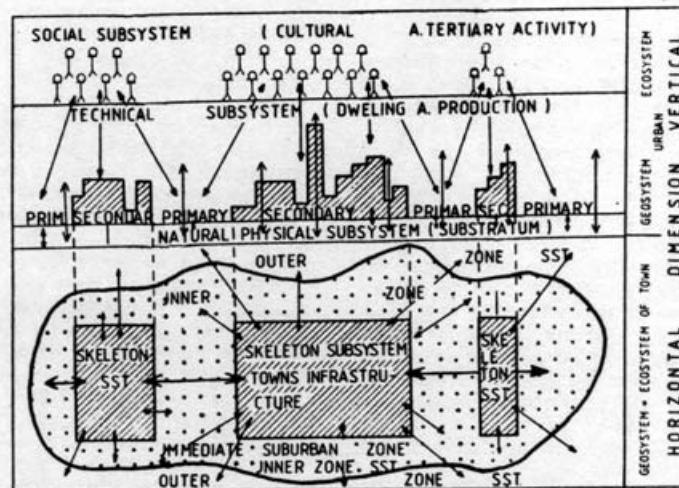


Fig. 1. A simplified model, visualizing the notion of urban eco- and geo-system and of eco-and geo-system of the town. Source: T. Bartkowski 1984.

joined together by vertical flows of matter, energy and information. The denomination of this structure in adjectival form indicates the kind of eco-geosystem as dependent upon the "urban way of life" of the population (adaptation of environment-place and adaptation to it).

- the horizontal structure of this megasystem as dependent upon interactions = flows between the "inside" (centre, where the "skeleton system" = urban infra-structure is) and the "outside", which is no other than the suburban zone, differentiated into the "inner" and the "outer" zones. In this way is formed a "polarized spatial structure" - a section of physical space "constrained" into a whole by interaction. The denomination in the genitive case form indicates the already named spatial relations of the material-technical structure that is right the subjects of interaction, while in the first case the subject of interaction was the population. This above model of an eco-geosystem has served as a model of description and of a tentative quantification of the city of Poznan - analogous proposals are S. Boyden's "Hong-Kong" study (1981) and the report of H. Sukopp (1987) - and is visualized on the second scheme (Fig. 2). An attempt was made to show the consequences of considering the town's geosystem as a polarised spatial structure. As we can see, the skeleton (sub)system, which is the urban technical structure, is visualized as a circle (dissected by the linear symbols of the river Warta that flows through Poznan), while the suburban zone (sub)system is visualized by several concentric lines indicating several extents of different phenomena originated by the centre, by the skeleton they represent in some vague way (as a visualization of the concept of "in"- and "out"puts in a spatial system). They are such at random chosen extents as:

- in the solid phase of the town's geocomplex the subzones "B", "C", "D" that indicate areas of subsidizing the centre with goods or materials and receiving wastes

deposited in the dumping sites (all transported by vehicles on roads or railroads)

- in the fluid phase the extent of the town's depression of the upper ground water table and the linear elements of the water supply and runoff (waterworks and the river as systems of consumption, water supply and as discharge of pollutions).

- in the gaseous phase the area of the points emission of air pollutions and the deviation of emission parameters by prevailing winds. And finally the 1 hour isochrone indicates the extent of migrations of people in day-commuting. As we see, the town's geosystem appears as an at least "three phaseous" and "four dimensional" physical dynamic structure that:

1) does not possess any definite, exact limit, but only a "zone of extinction" of different spatial parameters that visualize the intensity of relation of the suburban zone to the centre in the "in"-and "out"-puts' system.

2) Nevertheless it is a real section of a real physical space and is perceived by its inhabitants in daily experience.

3) When considered in the categories of subsidizing the subject = the skeleton (sub)system, it can be named a geosystem of the town.

4) When considering the distribution of the imported and exported substances, energies and information among the inhabiting population, it can be named an urban geosystem.

Of course we must remark at this point that the spatial relations existing implicitly in each ecosystem (as the abiotic link) allow "urban ecosystem" and "ecosystem of the town" to be conceived as notions analogous to the already discerned urban and town's geosystems. The main second achievement lies in the area of definition of urban ecology, the main object of the Poznan 1987 conference. The adjoined Fig. 3 contains a further contribution to the short definition already quoted (in the S.H.

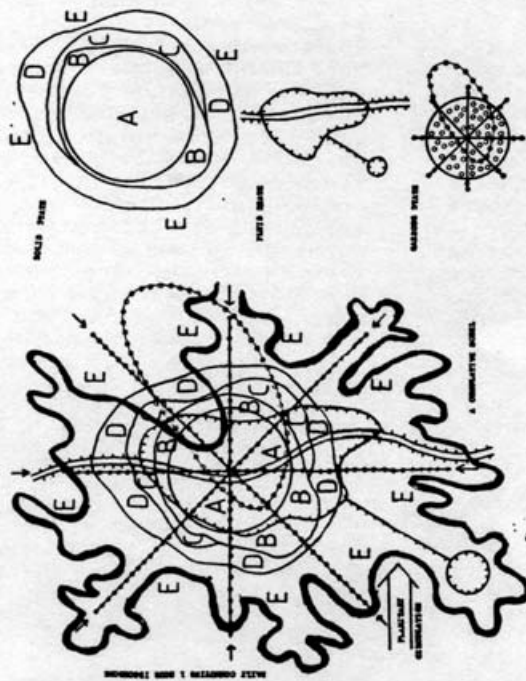


Fig. 2. A descriptive model of a city considered as a geosystem/based on the example of the city of Poznan. Source: T. Bartkowski 1986-1989/ Lines of extent as depicting the situation in the solid state of the geocomplex. A-the Skeleton-/sub/system, A-immediate suburban zone, where occur "im"-and "ex"-ports simultaneously in both directions, of goods, of food, of building materials, C-this same zone but represented only either by "import" from the skeleton or by "export" to the skeleton/also one direction reach/, D- a border zone between the inner and the outer suburban zone: in this zone there are "islands" servicing the skeleton amidst the "outer zone" territory fluid state of the geocomplex surficial - extent of the towns depression of the first ground water table linear - waterworks water supply system and the river as a "conveyor to" of water resources and "conveyer away of pollutions gaseous state of the geocomplex surficial-area of occurrence of numerous points of emission of gases and of dust wind-rose symbol visualizing the import of vehicles gaseous pollutions into the skeleton system and the deviation of pollutions emission parameters by prevailing winds. Irregular black lines = isochrone of 1 hour from the Railway Central Station for mass commuting of people.

Bulletin) and shows the relation of urban ecology to, generally speaking, both the partners of the interaction system "Man (society) vs nature = landscape = environment". The very simplified structure of both partners is indicated by the two circular models in the upper part of the scheme. The model "milieu" visualizes a "holostructure", where a set of elements that became factors obtains its significance by the fact that there exist relations = flows from "elements-factors" to the subject "S" situated in the centre. In this way the central point of this set constitutes a "whole" formed by an interaction system "entourage vs centre". In our specific case the subject "S" is man, a town's inhabitant or a population, a social group. In the same way we can "seize up" such a whole when we place in the centre the town's (infra)structure = a material set of elements = factors or even, in a way, a set of immaterial elements that function as services by means of distribution (both in horizontal and in vertical dimensions) of goods, facilities,

information (for this consider upper part of Fig.1).

The model "environment" visualizes antinomy of "milieu-holostructure", namely a "mereostructure", that is, a set of elements which, though influencing each other (see "factors"), obtain significance as a sum of influences = factors and correspond to the well-known formula (nature surrounding man/population, society). In such a way we can then consider both the landscape that possesses a tripartite structure (comp. T.Bartkowski 1988) and the material object of landscape ecology (a science studying mereostructure).

The lower part of Fig. 3 visualizes very well the situation of urban ecology within the framework of the environmental sciences. Its position lies between human ecology, which in general deals with influences of "milieu", and landscape ecology, which deals with influences affecting physical (informative) flows in urban ecology systems. The key word "ecological paradigm" is placed as a rejoining principle for the concepts of holo- and mereo-structures and concerns

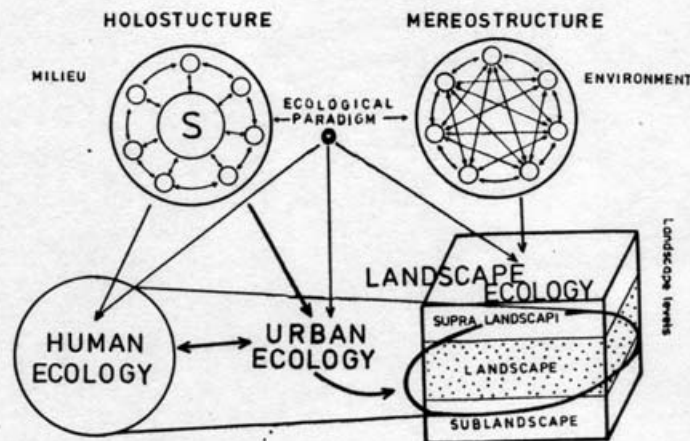


Fig. 3. A model demonstrating the situation of urban ecology within the frames of environmental sciences. Source: T. Bartkowski 1989/.

all "open systems", where occur flows and throughputs of matter, energy and information. We must be reminded at this point that "an/the organism/s is/are basically all "open systems", are always supplied from outside, from life media, and cannot exist without it. Finally, we return to the formal definition of urban ecology as given in the report of the cited Bulletin. We will visualize the situation of urban ecology within the biological sciences considered as a whole. For this goal was used the famous "cake of biology" of E.P. Odum. As we can see, urban ecology is situated within the framework of synecology (but depends upon the findings of autecology - see the arrows! - as an analytical science). urban ecology is essentially synthetical and concerns, as one can see, the urban way of life and is equally a part of human ecology that concerns equally well other "ways of life": "rural" and "natural". As we can see, urban ecology finds its place both in the horizontal division of the biological

cal sciences after life media and in the taxonomic vertical division after life forms. In the Poznan 1987 conference this problem, the place of urban ecology within biology, was one of the main topics of discussion and for this reason, the paper that sums up the results of the conference, was verbalized as "In what way is urban ecology a biological science?". And by arriving at this point of the report we arrived at the problem of future development and future activity of the working group.

FUTURE

At the beginning of this part of the report we must state that while the results of the Poznan 1987 conference seem interesting and promising we must add that they cannot be considered as fully representative of the contemporaneous (late 80-ties) scientific opinion of the world community or even of that of Euro-American scientific minds. It is the very consequence of the poor

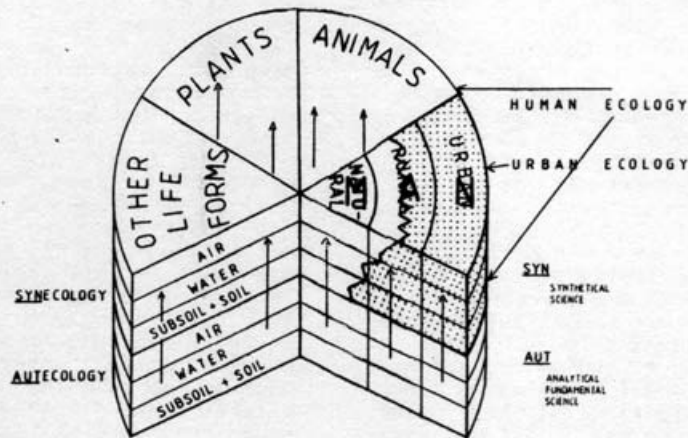


Fig. 4. A model demonstrating the situation of urban ecology within the frames of biological sciences. Source: T. Bartkowski 1989/.

attendance of the Poznan conference (7 foreign and 12 home attendants). The foreign attendants were: 4 from GDR, 2 from Sweden, 1 from Estonia, while cancelled (but represented by the reports) were the following attendances: 1 from Czechoslovakia, 1 from West Berlin, 1 from France. As we see, the Poznan conference presents a European (we could say "Central European") conceptual view of the problem.

Taking also this fact into consideration, the conference participants decided to repeat the conference while ensuring a much broader and numerous attendance, in order to gain an, at least, all-European representation of views. According to this resolution, the conference materials (delivered as "preconference materials" only in very restricted number to the participants only) were prepared for publication. The materials are a bit voluminous and unfortunately the prepared volume has already been awaiting its turn to be printed for 2 1/2 years and, due to the economical crisis in Poland, it is actually impossible to predict the lucky moment of its issue. The materials were thought to serve as a basis of discussion for the future conference. Fortunately the already mentioned paper "In what measure is urban ecology a biological science?" appeared at the end of 1989 (11 pages). It is also available and can be distributed among persons interested in the discussion on a formal basis, as a point of departure. In this situation the "Poznan Team of Urban Ecology" decided to organize after an interval of 2 years the repeated conference somewhere in Central Europe, possible venues being: Poznan, Berlin, Prague, Budapest or even Vienna, in order to obtain a European "illumination" of the problem. Central Europe was chosen because of the favourable geographical location. The theme of the conference is caused by

- the question of the political situation in Europe
- the question of economic conditions of organization and attendance in the times of specta-

cular changes in the economy of the COMECON states

- the fact that the international congress of IALE in Ottawa in July 1991 will surely influence the expected attendance of both American and European potential participants.

For all these reasons the Poznan Urban Ecology Team invites as well the IALE members as other interested scientists, such ones as

- the participants of the UNESCO Mab 11 and 13 Projects
- the members of the Commission for Human Ecology of Interat. Union of Anthropological and Ethnological Sciences

- other interested international societies as INTECOL, IGU for an international scientific conference of the IALE working group Urban Ecology on the theme Upon the notion of urban ecology that will be held in spring 1992 in central Europe The participants are asked to concentrate only on the definition and to abstain from presenting contributions on some narrow topic/with possible exception of the notion of urban system, urban ecosystem, urban geosystem/.

The optimal length of the preconference abstract is 250 words, the language English. As key words are proposed: ecology in general, human ecology, urban ecology, landscape ecology, eco-geosystemology of towns, ecological paradigm, ecological postulate.

Finally the Poznan Team of Urban Ecology is obliged to avow that, for reasons of costs /The Team is actually without any financial means but is "all hopes for the future"/ in order to stage the preparations it awaits a formal notification from the future attendants expressing their interest in the problem and will then send the published paper "In what measure is urban ecology a biological science?" only on behalf of the notification. The mailing address: Poland, Poznan, 61 702, ul, Fredry 10, phone 520 694. Institute of Physical Geography, Adam Mickiewicz University in Poznan, Department of Complex Physical Geography

Prof.ord.dr.hab. Tadeasz Bartkowski

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Appendix

Report upon the conference of the

IALE working group urban ecology in
Poznan, October 26-28 1987

UPON THE NOTION OF URBAN ECOLOGY

The conference was held at the Institute of Physical Geography of the Adam Mickiewicz University in Poznan with participation of 7 foreign and 12 home attendants. The following attendants cancelled their arrival: Czechoslovakia 2, GDR-2, West Berlin-1, France-1 so that finally the conference was attended by the following participants: GDR-4, Sweden-2, Estonia-1, Poland-12/total 19/. Despite this poor attendance the conference was realized in full according to the third circular: sessions with reports, discussion, poster exhibition and 2 excursions. The participants obtained a volume of xero-printed "Materials"/328 pages/before the conference. There were presented the following contributions:

In the session "The notion of urban ecology"

Tadeusz Bartkowski, Poznan, Poland
"What is urban ecology?"

Napoleon Wolanski, Warsaw, Poland
"What is human ecology and what is urban ecology?"

Lech Zimowski, Poznan, Poland "The formula of urban ecology"

Britta Jungen and Miguel Riccio, Göteborg, Sweden
"Urban ecology and the cities of the third world"

In the session "The notion of urban/towns/ecosystem and related problems"

Gerd Gebhardt, Potsdam, GDR
"Evolutionary dynamics of man's extrasomatic metabolic autensity versus intrasomatic biotic evolution"

Napoleon Wolanski, "arsa", Poland
"Urban ecosystem"

Brigitte Grosser and Ingrid Schmidt, Leipzig, GDR
The temperature conditions of town's greenery considered as factors of evaluation of towns ecosystems/as exemplified by the

city of Leipzig/

Kart Kuelvik, Tartu, Estonia
"Problems of town ecology in Estonia"

The excursions, organized during and after the conference, concerned the following themes:

- an "overview"-excursion inside the city of Poznan "Wardening of the city centre in space and time/1000 years of history"

- excursion in the suburban zone of Poznan "Development conflicts of an industrialized urban agglomeration within a rural landscape"

In the last session "Towards a preliminary/a working/definition of the notion of urban ecology" there was presented, as the preliminary step of the discussion, a paper of Tadeusz Bartkowski and Jacek Nowak "Short definitions of urban ecology and of related other notions as found in encyclopedias and in other sources-materials for discussion" that was thought as "introduction to the discussion".

In the discussion took part the following participants: G. Kind, Weimar, GDR; Brigitte Grosser, Leipzig, GDR; Gerd Gebhardt, Potsdam, GDR; Britta Jungen, Göteborg, Sweden; Miguel Riccio, Göteborg, Sweden; Mart Kuelvik, Tartu, Estonia and from Poland, besides the two speakers R. Domanski, Poznan, Lech Zimowski, Poznan, Virginia Kubis, Poznan, A. Mizgajski, Poznan, Daniela Solowiej, Poznan, Napoleon Wolanski, Warsaw.

The first results were presented in the short report given in the Bulletin/op.cit./. The most important second results are presented now with the help of a last scheme/fig. 5/. There are visualized main topics of the discussion as well the presented contributions of the participants/Wolanski, Riccio-Jungen/as of the new names, bringing new arguments and quotations. The scheme visualizes very well two main areas of discussion, placed in the two parts of it:

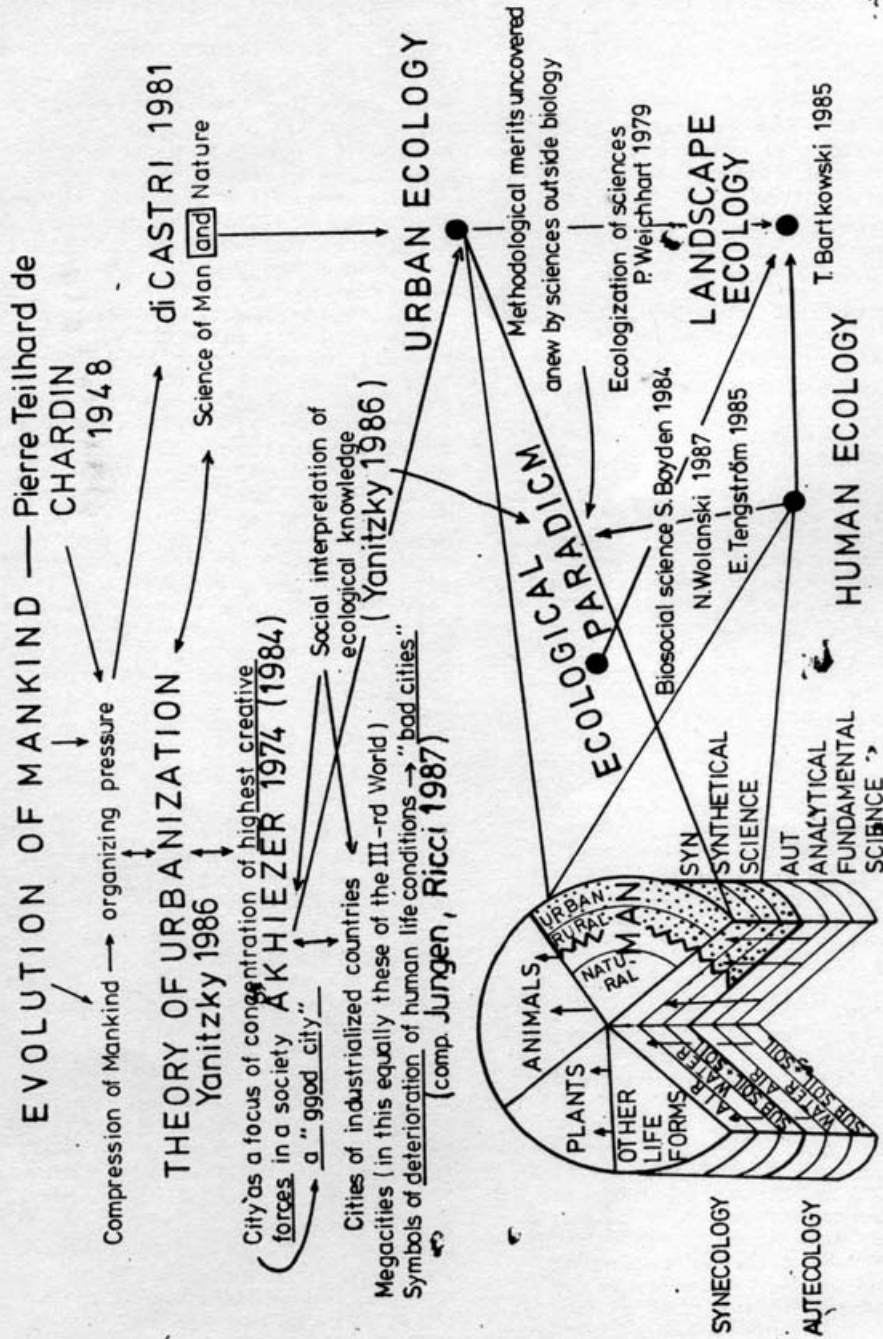


Fig. 5. A scheme demonstrating the main areas of the discussion upon the notion of urban ecology in the last session.

- in the upper part there is discussed the phenomenon of urbanization of the humane in the frames of evolution of mankind

- in the lower part, the situation of urban ecology within the environmental sciences, where are references made to the already-explained problems:

1/ situation of urban and human ecology within the frames of biological sciences/see fig. 4/and

2/ situation of urban ecology within the environmental sciences/see fig. 3/and

3/ the key position of the notion of ecological paradigm with its essential connexion to the problem of ecologization of sciences in general

Let us analyze separately the main areas of the discussion.

In the upper part of the scheme references are made to the very significant theses of P. Teilhard de Chardin/1948/ stressing the point that in the course of evolution of mankind/biosphere versus noosphere/there occurs the so called "compression of mankind" as producing the "organizing pressure" leading to the unification of it and the result of it - the phenomenon of urbanization of human population/consider quotation of Yanitzky/1986/, Akhiezer/1974, 1984/, Jungen-Ricci 1987/that is going together with the development of the notion of ecology as the "science upon man and nature after di Castri 1981.

All these arguments explain the new times career of ecology as well in the sociology/social interpretation of ecological knowledge "of O. Yanitzky 1986/as the phenomenon of "ecologization of sciences (P. Weichart 1979)" that has led to this career/methodological merit-unscovered anew by sciences outside biology"/. In this sense, because of arising of the question of the relations "man-nature" investigated in the frames of the processes of adaptation of man there are observed new interest in the sciences as studying it in the frames of human

ecology/see the biosocial science of S. Boyden 1984/, the contributions of N. Wolanski 1987, E. Tengström 1987/.

When regarding the position of urban ecology in relation to ecology in general the scheme shows that it is close related to the "man concerned" ecology of di Castri/1981/, to the landscape ecology concept of T. Hartkowski/1985/and to human ecology as a science concerning urban way of life. When considering finally this above analyzed lower part of the scheme we will remark the central position of the ecological paradigm. it stresses the point of this general methodological principle being an all-encompassing law or rule/just paradigm/that all "open systems", such ones as "milieu", "environment", "landscape", "cities" etc are systems of subsiding someone or something from outside by means of flows of matter, energy information. This rule or law is the essence of all the discussed environmental science that are involved in the notion of urban ecology.

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Report of a meeting of the Working Group "Landscape Ecology of Agrosystems", during the IALE Conference on Practical Landscape Ecology, Roskilde, 2-4 May 1991.

The meeting was attended by 22 people, including the convenors Hubert Gulinck and Peter Smeets.

A short review of the initiatives of the working group was given. Despite repeated efforts of the convenors, no real action has been undertaken so far. The general strategy has been to develop a network of interested people all over the world and a newsletter, in the hope to trigger responses which could lead to action. This system does not work, so the proposal, worked out in this newsletter is to start with a well identified theme that can be developed during a workshop. The major goals of

agricultural development can be described well on hand of the concepts of productivity, sustainability, stability, equitability and autonomy. These major characteristics should be confronted, through their landscape ecological expressions, with the characteristics of actual agricultural systems. As Gulinck points out in his paper, the differences in agro-ecological relevant processes between highly developed and developing countries are enormous. Our provisional working typology of agro-ecosystems in which both Africa and Europe fit, can be put as follows:

a) off-landscape agriculture: highly controlled, high input/high output systems, which exist in increasing importance in urban/industrial confinements, especially in highly developed countries, and which can therefore be no longer considered as part of rural landscapes.

b) land dependent agriculture: the classical systems, land dependent arable and grazing systems, taking into consideration that off-landscape agriculture in one area is generally highly dependent; of land dependent agriculture elsewhere (c.q. import of feedstuff from Thailand for intensive animal husbandry in Western Europe).

c) cash crop agriculture: as a special case of land dependent mechanised agriculture in tropical areas.

d) subsistence agriculture: as another case of land dependent, but traditional agriculture, including newer variants; often characterised by a "landscape ecological signature" in its spatial design, because of its dependence of the natural environment.

e) marginal agriculture: subject to land abandonment or to policies like extensification, set-aside etc.; this is often taken as opportunity for urban development and nature development (the latter often considered as an application of landscape ecology).

The proposal of this meeting is to devote the attention of the working group essentially to types b and d. Type e is already the topic of many current landscape-ecological studies and should be subject of the working group's attention only in so far as agricultural production is still a major goal. As a preparation for the workshop the newsletter will be reactivated, calling for personal contributions as well as for information about organisms/experts etc.

FIRST ANNOUNCEMENT

PROPOSAL FOR A WORKSHOP:

LANDSCAPE ECOLOGICAL OUTLOOK ON LAND DEPENDENT AGRICULTURAL SYSTEMS

Organised by the Working Group "Landscape Ecology of Agro-Ecosystems" of the International Association of Landscape Ecology
Place: Austria, Slovenia or Hungary
Date: Spring 1992

Introduction

"Landscape Ecology" deals with spatial aspects of ecosystems, generally at a scale level above the single organism, ecotope field, elementary land unit, up to or including the regional level (the "landscape level"). This can be interpreted in many ways, stressing for instance the importance of the location of ecosystems in relation to the physiographic lay-out of the land, the fragmentation, shape and connectivity of land units and their impact on population dynamics, the impact of land surface roughness on soil erosion, the horizontal interactions in a mixed agricultural system such as agro-forestry etc.

Currently, the principles of landscape ecology are often interpreted from the perspective of nature conservation and development. The concept landscape ecology is less well known within the field of agro-ecology and agricultural or farming system research. It is

obvious however, that many theoretical and practical issues related to agricultural development have clearly a landscape ecological signature.

Whether or not landscape ecology is to be considered as a scientific branch of ecology in its own right, whether or not the concept is accepted within the study of production systems, it is worth while to concentrate some effort on the study of the relevance of spatial (horizontal, landscape...) patterns as both a theoretical principle or a practical strategy in agricultural systems and ecosystems.

This proposal is not about something like "landscape ecologism" as opposed to current agriculture. It should be rather about the establishment of a methodological framework against which a contribution could be made to the analysis, evaluation and comparison of different agricultural systems, and their relation to the environment.

This would include mechanised and cash crop as well as traditional subsistence or integrated systems. The effort should include problems related to productivity, stability, sustainability, equitability and autonomy.

Objectives

- a. To review the relevance of landscape ecological principles to current and future problems in agricultural systems.
- b. To define a strategy for fundamental and practical research
- c. To establish professional linkages between experts in agriculture and landscape ecology.

Programme

1. Introductory Lectures (1/2 day)
Two or three key-note speakers will be invited to give a review of landscape ecological principles and about tendencies in the development of agricultural systems and

ecosystems.

2. Work panels (1,5 days)

Parallel sessions will be organised for discussion on the development of agricultural (eco)systems against the background of landscape ecological theory and methodology.

- a. Production systems in a market economy
- b. Subsistence systems in developing countries
- c. Alternative agricultural systems
- d. The abiotic substratum of agriculture (soils etc.)
- e. Biotic conservation and agricultural development

3. Excursion (1/2 day)

The excursion would be considered as a break in the formal part of the workshop, and illustrate the dynamics of agriculture and its environment, near the location of the workshop.

4. Synthesis (1/2 day)

During the excursion, a number of persons will cross-examine the outcomes of the different workpanels and try to formalize some general conclusions and recommendations, which will be presented as a series of illustrated statements. This could include dialectical obstacles as well as recommendations to research institutes or problems of practical implementation of relevant principles .

Hubert Gulinck & Peter Smeets

REPORT OF THE MEETING OF THE IALE-GIS WORKING GROUP

4. MAY 1991 IN ROSKILDE, DENMARK

The meeting was attended by 17 persons, of which many new members of the working group. It was explained that the intention of this working group so far has been to function as a platform to exchange experiences and ideas between persons that work on the same themes and face the same problems when applying or trying to apply GIS to landscape ecology. In order to achieve that, the list of members is distributed and the members are requested to provide some more detailed information on their interest, experience and (actual or future) activities, which then also is distributed in order to stimulate mutual contacts. In addition some (rather provocative) statements have been launched in order to try and get some discussion going.

It was agreed by the participants in the meeting that this way of functioning of the working group is the most realistic and feasible one, but some suggestions were made to improve it.

It was brought up that the use of E-mail would be a very efficient way of communication, but since not all members have access to that facility and it was thought that the content of the message to exchange is more important than the way it is transmitted, this topic was not further pursued.

Another suggestion was to standardize the way in which the members should describe their activity/interest/experience profile for easier comparison. Peter Frederksen and Bernd Münier promised to elaborate this suggestion.

It was remarked that the discussion within the working group should concentrate on the landscape ecological applications of GIS. For technical matters other sources of information and experience are often more close at hand. Although

exchange of information on technical matters between individual members should not be excluded completely, in general there was agreement on this remark. The working group could be a vehicle to assemble a collection of algorithms that are typically suitable for spatial analysis for landscape ecology.

Many programmes are used in a "black box" without knowing what really goes on inside the box. Sometimes that may have influence on the results however, often without people realizing that. Exchange of opinions and experiences on this topic are welcome. It would also be worthwhile to try and get an overview of (inter)national and regional data sets that are of relevance for landscape ecology.

Another topic that is suggested for discussion in the working group is that of the character of specifications of a landscape ecological map that is put into a GIS. It was thought to be useful when the working group, after some round(s) of discussion could come with recommendations for that. Roy Haines-Young promised to submit some further elaboration of this idea to serve as a starting point for the discussion.

All in all the discussion was fruitful and the one hour allocated too short. Many topics could and should have been discussed but had to be left because of the time. Therefore the working group recommends to reserve more time for similar working group meetings at future IALE seminars and congresses, starting with the ones in Canada and Czecho-Slovakia, and the participants in this meeting wants to encourage their fellow working groups members, who will be present there, to have such meetings and to actively participate in the discussion.

Although the face to face relations are thought to be very important, this does not mean that it is the only way. Also the discussion on paper, By E-mail or by other means, will continue and all working groups are encouraged to actively take part in that.

IALE-MEETINGS

European IALE-seminar on Practical Landscape Ecology

As a part of the preparation for the World Congress in Canada, a European Seminar on Practical Landscape Ecology was held in Roskilde, Denmark, 2-4 May 1991.

Plenary sessions were held within the following themes:

Practical Landscape Ecology in Europe

Landscape Ecology in Planning

Landscape Ecology - Theory and Method

A special evening plenary session was given on European Projects within Landscape Ecology, with contributions from the European MAP-programme, the Collaborative programme from the EEC joint research Center in Ispra, Italy, and with information on landscape ecological relevant parts of the planned EEC Environmental research programme, presented by a representative of the EEC-Commission in Bruxelles.

Parallel sessions were given within the following themes:

Rural land-use, Urban and suburban environment, Landscape ecological consequences of industrialization, Cultural aspects of landscapes, Landscape ecological problems in forestry, Less favoured areas, Historical analysis in landscape ecology, GIS in Landscape Ecology, Environmental impact assessment, Landscape ecological method, Remote sensing applications and Vegetation in Landscape Ecology.

Two poster sessions as well as a workshop on Anthropogenic transformation of natural regions of Europe was held, and meetings in the IALE working groups: Landscape Ecology of Agro-Ecosystems (WG2), Ecology of the Rhine Catchment area (WG3), Urban Ecology (WG5) Geographical Information Systems (WG6), and Cultural aspects of

Landscape Ecology (WG9) were arranged.

On a general IALE-information meeting the Secretary-General informed on the organizational problems and the ongoing discussion on a change of the statutes. It was a clear conclusion of this meeting, that the majority of the participants were in favour of a change towards an organization with direct membership of IALE-International.

PROCEEDINGS

Four Volumes of proceedings from the seminar, including programme, list of participants and authors index has been published, and can be ordered at

Geo-RUC, Roskilde University, House 21.1, P.Box 260, DK-4000 Roskilde. Phone +4546757711. Fax: + 45 46 75 74 01, Geo-RUC, House 21.1. Price: Vol I-IV, DKK 160. Individual volumes 50 DKK. (excl. shipping and handling) Special IALE-member reduced price, DKK 100,-, individual volumes DKK 40,- (1 US\$ is about 6 DKK).

An agreement with Geo-RUC has been made concerning the proceedings from the 1 international IALE-seminar in Roskilde 1984. IALE-members will now be offered a special reduced price for all 5 volumes of these proceedings: 85 DKK, excl. shipping and handling.

Jesper Brandt

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- Ottawa, Canada
21-25 July 1991
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Biology, Carleton University, Ottawa, Ontario, Canada
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- Oakland, Ca, USA
29-31 July 1991
Wildlife 2001: Populations
Contact: Dale McCullough or Reg Barrett, Department of
Forestry and Resource Management, 145 Mulford Hall,
University of California, Berkeley, CA 94720, USA
- Uusküla, Estonia
19-25 August 1991
Human impact on environment
Contact: Ph.d. Tiit Koff, Institute of Ecology and Marine
Research, Estonian Academy of Sciences, Paldiski 1,
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70142-453748
- Zürich, Switzerland
28-30 August 1991
Second Symposium on Large Spatial Databases.
Contact: Dr. Hinterberger, Institut für
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Zürich, Switzerland
- Amsterdam,
Netherlands
1-7 Sept. 1991
24th IUBS General Assembly 7 Associated Symposia. the
Contact: IUBS Secretariat, 51 Boulevard de Montmorency,
750 16 Paris, France.
- Lancaster, UK
11-13 Sept. 1991
The Future of Vegetation Science: The Uses of Phytoso-
logy.
Contact: British Ecological Society, Burlington House,
Piccadilly, London W1V 0LQ, UK
- Dudince,
Czechoslovakia
14-19 Oct. 1991
IXth International Symposium on Problems of Landscape
Ecological Research.
Contact: Institute of Landscape Ecology, Slovak Academy
of Sciences, P.O.B. 23/B, 949 01 Nitra, Czechoslovakia
- Delhi, India
6-9 Dec., 1991
Monitoring Geosystems: Perspectives for the 21st
Century, IGU Seminar
Contact: Dr. R.B. Singh, Department of Geography,
University of Delhi, Delhi-110007, India
- Marseille, France
7-11 Sept., 1992
6th European Ecological Congress. Organiser by European
Ecological Federation and Société France d'Ecologie.
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