



Bulletin

International Association for Landscape Ecology

HOW I BECAME A LANDSCAPE ECOLOGIST

by Isaak Zonneveld

The Second World War was still on when I was ready to enter a university. But instead of study there were other, "illegal", things to do, for which it was necessary for me to disappear from open society. Then, during the winter of 1943/44, when I happened to live for some time alone, very close to nature, on a little boat in the tidal forests, I received from my parents on the occasion of my 19th birthday (via the secret courier) a new book on a new science: Vegetation Science (Melzer & Westhoff). My brother sent me two old books he did not need any more: Escher, about general geology and Baasbeeking on Geobiology. In those dark December days, guided by the peaceful rhythm of the tides, the knowledge of these books entered my brain as "the glad tidings of a sinner". From that time I knew I would become more than just a biologist. I wanted to understand the nature of "LAND". Moreover, my companions in those war years, who were in every day life, farmers, fisherman, hunters and other countryman of all ranks and professions, had opened my eyes and interest to all aspects of land use. In addition there was my sincere interest in conservation that I had cherished since I was a school boy. So I entered, directly after the war, the Agricultural University to study tropical forestry. There I met Professor C. H. Edelman the soil scientist who introduced "Regional Soil Science" a landscape-oriented discipline that went beyond the traditional soil profile pits and which would eventually dominate for the next decades, the soil survey and land evaluation activities of FAO. I also met there Victor Westhoff, now the Nestor of Dutch vegetation science, author of the book that opened my eyes in that war winter. From Edelman I learned that the "correlative complex" of land properties (equivalent to a mosaic of "soil bodies") can tell as much about the quality of land for the farmer as can a farmer. But it can also tell about the natural history of an area. So I became acquainted with a scientific concept about land and landscape, although neither Edelman nor Westhoff used, or even knew, the term landscape ecology. Edelman employed me in his newly created institute (Stichting voor Bodemkartering, now part of the Winant Staringh Centre, Wageningen) and

allowed me to combine soil survey with vegetation study to test the possibility of extending the integration of soil science and geomorphology with vegetation science. In continuing my studies in this way I discovered the competition between the three sciences dealing with the main landscape aspects: geomorphology, soil science and phyto-

REVISION OF IALE STATUTES

- Call for vote

During the past several months, the IALE Executive Committee has devoted considerable time to revising the governing statutes of IALE since

- The election process has been inefficient.
- Matters that require a vote of the Assembly must be delayed, often for years.
- The duties of officers are not adequately specified.
- There are numerous inconsistencies.

Attached to this Bulletin you will find a copy of the proposed new Statutes with a parallel presentation of the existing Statutes from 1995. The proposed Statutes have been reviewed and approved by both the IALE Executive Committee and the IALE Council (which includes representatives of the Regional Chapters and the Working Groups).

In order to have the General Assembly function smoothly at the 1999 World Congress, we would like to adopt the proposed new Statutes before the Congress. Approval of these Statutes will therefore require a suspension of the existing governing statutes. Accordingly, all members are asked to vote on two propositions:

1. Approval of suspending the existing IALE statutes
2. Approval of the new Statutes

Your vote must be **received** by the Secretary-General not later than **1 March 1999**.

sociology. The representatives of these disciplines claimed that their own science would supply the best information for land evaluation, necessary for the optimization of land use and therefore deserving the major share of the scarce governmental funds available.

As the single vegetation scientist among a dozen soil scientists, I had to prove that vegetation science was of value in evaluating land. Several of my colleagues even opposed any incorporation of vegetation science within our still very small institute. To be convincing in my role, in sometimes highly emotional discussions, two things appeared to me to be imperative. Firstly, I had to show by results the value of vegetation science. And secondly, besides being a vegetation scientist I had to become as good a soil scientist as my colleagues. Only then could I counter their arguments against vegetation science.

And so it happened, the birth of the renowned "circle" (see e.g. fig 1.4. on page 9 of my book "Land Ecology", 1995). It resulted from an attempt to integrate the model of soil forming factors of Jenny, the landform factors of Tricard, and the vegetation forming factors from various vegetation schools.

Then, in 1963, at one of the famous Tüxen symposia at Stolzenau (Pflanzensoziologie und Landschaftsoecologie. Proceedings, 7th. Int Symposium. IAVS, Stolzenau 1963. Junk. Den Haag) I learned that what I was doing, using the pattern of vegetation and soil as a start to a study of the ecology of land, I was, as a consequence, integrating the viewpoints of soil-, landform- and vegetation science to explain and evaluate the vertical and horizontal variety of land. But this already had a name: "*Landschaftsökologie*". I listened "with red ears" to Carl Troll, who told the conference that he, as a converted biologist to geography, through the use of aerial photo interpretation had seen the light and so merged the ideas of von Humboldt and Tansley. I had experienced exactly the same after a short course during the very early days of ITC and would be overwhelmed by practice soon after it, because then I became submerged, for several years, in the vast space of West-Africa, the

opposite to overfragmented Europe. Far from academic rivalry and small talk I was challenged to map, with my three colleagues and some locally recruited and trained assistants, in a few years the vegetation and soil of a hundred thousand square kilometers at scales that would allow the evaluation of land for agriculture (including irrigation) and pastoralism. The approach in such an area (three times the size of the whole of my home country) had to be clearly different to what I was used to at home. Size and time constraints obliged us to optimize the use of photography and also to combine in the office as well as in the field, the activities of vegetation and soils survey. Such a study in the stereo-imagery of aerial photography, in "dialectic" relationship to field observation, forces us to think in "landscape ecological" terms.¹⁾

Two further symposia played a role in making me a landscape ecologist. Both were sponsored by UNESCO, and deal with what then was called "integrated survey": - the UNESCO Conference on Principles and Methods of Integrated Aerial Surveys of Natural Resources for Potential Development. (Toulouse 1964) when I was still unaware of this in Africa, and the First International Seminar on Integrated Surveys of the Natural Environment. (ITC/ UNESCO Centre on Integrated Surveys, Delft, April 1966), for which I was invited to give a paper.

These conferences have to do with an other challenge that forced me to widen my view on the landscape. ITC²⁾ through my former colleague Anton Vink, who had also attended the Toulouse conference, asked me to join and start courses on what was called "Integrated survey of a natural environment", focused especially on the developing world. Besides the earth sciences, soil, vegetation, landform and water, the interface with economics and human sociology had also to be dealt with.

The Dutch mother of IALE, the WLO, which last year celebrated its 25th birthday, of which my brother (a geologist, geomorphologist) was the first President, played an important role also in my education as a landscape ecologist. There I learned that landscape ecology could,

continues p.4

The IALE Bulletin is distributed six times a year to the members of the IALE. The IALE - International Association for Landscape Ecology - was founded in 1982 to promote communication between scientists, planners and interdisciplinary scientific research. IALE Executive Committee: President, John A. Wiens (USA), Fax: +1 970 491 0649, e-mail: jaws@lamar.colostate.edu; Past President, Henri Decamps (France); Vice-Presidents. Joan Iverson Nassauer (USA). Paul F.M. Opdam (The Netherlands), Almo Farina (Italy), Xiao Duning (China); Secretary General, Michael Moss. Faculty of Env. Science, Blackwood Hall, Trent Lane, University of Guelph, Ontario N1G 2W1, Canada, Tel :+1 519 824 4120, Fax: +1 519 763 4686, e-mail: mike@envsci.uoguelph.ca; Deputy Secretary General and Bulletin Editor, Jesper Brandt, Dept. of Geography and International Development Studies, Roskilde University, P.O. Box 260, DK-4000 Roskilde, Denmark, Tel: +45 46 74 24 63, Fax: +45 46 74 30 32, e-mail: brandt@ruc.dk; Treasurer. Rob Jongman, WAU, Dept. of Physical Planning & Rural Development, Gen. Foulkesweg 13. NL-6703 Wageningen. The Netherlands, Tel: +31 317 483 713, Fax: +31 317 482 166, e-mail: robjongman@plano.rpv.wau.nl.

Deadline Bulletin volume 17 no 1 is December 10, 1998

Upcoming meetings

1999 OPEN MEETING OF THE HUMAN DIMENSIONS OF GLOBAL ENVIRONMENTAL CHANGE RESEARCH COMMUNITY

June 24-26, 1999
Shonan Village, 1560-39, Kami-yamaguchi, Hayama, Kanagawa 240-0115, Japan

An increasing number of researchers are interested in the human causes and impacts of global environmental change, as well as recognizing that local and regional scales are critical for their studies. Following two successful international meetings held at Duke University in 1995 and at IIASA in 1997, the 1999 Open Meeting aims to promote exchanges of information on current research and teaching and to encourage networking and community building in this emerging field. The meeting, hosted by the Institute for Global Environmental Strategies (IGES, Japan), will be held in Shonan Village, an international conference center in a scenic setting southwest of Tokyo.

Plenary talks and commentaries on the following topics are planned: Conflict and the Environment - the interaction between conflict prevention and resolution and environmental issues; Lifestyles, Attitudes and Behavior - their role in driving global environmental change and the potential role of alternative development paths; Decision-making Processes in Response to Global Environmental Change - in particular the linkages between the international, national and local scales and the obstacles to the transfer of policy instruments and norms from one region to another; Land Use and Land Cover Change - the social dimensions of changing land use, human settlements and land cover patterns; Valuation of Ecosystem Services - current thinking on the values that can be attributed to services such as climate regulation, water supply and recreation; Demographic Change and the Environment - the relationships between population growth and other demographic factors, for example migration, and environmental change. In addition to plenary talks, there will be a large number of sessions devoted to the presentation of research results. The International Scientific Planning Committee welcomes the submission of abstracts for individual papers as well as proposals for entire sessions. Selection of the proposals/abstracts will be based on quality and the need to create a coherent, balanced meeting agenda. The Committee encourages the participation of researchers from a broad range of disciplines, including researchers from developing countries and countries with economies in transition, as well as young researchers from all over the world. For these latter categories of researchers, the aim is to provide financial support for some participants whose abstracts are selected for the meeting.

For further information on the meeting, including instructions for the submission of abstracts, please consult the IGES Web Site (<http://www.iges.or.jp/>), or send e-mail to hdgec@iges.or.jp, or mail/fax your inquiry to Mr. Yasushi Itoh, IGES at Shonan Village Center. (Fax: +81 468 55 3709). The deadline for submission of abstracts is November 1, 1998.

HEDGEROW CONSERVATION Policy, protection and evaluation

July 21st, 1999,
Nene - University College Northampton

This one-day meeting is planned to bring together researchers, advisors, land managers and policy developers interested in the Hedgerow Regulations currently under review by Parliament. Hedgerows are a characteristic feature of the British countryside whose primary function is as a barrier for stock. However, hedgerows also demarcate land boundaries and in certain contexts form important features of historical and/or archaeological interest. Hedgerows also contain an important reservoir of wildlife in farmed landscapes and provide networks which facilitate movement of organisms. The aim of this meeting is to review the current state of hedgerows in Britain at a critical time in the formulation of new legislation for their protection. Accordingly, the meeting will focus on the following:

- Long-term changes in hedgerow length/structure/management
- Evaluating hedgerows and hedgerow landscapes
- Ecological aspects of species-rich hedgerows

There will be invited speakers dealing with key aspects of these topic areas and contributions are invited for oral and poster presentations. All suitable contributions will be published in a special volume in the standard IALE (UK) format.

For more information and call for papers, please contact
Convenor: Dr Duncan McCollin
Nene - University College, Northampton, Park Campus,
Northampton, NN2 7AL
Tel. 01604 735500
E-mail: duncan.mccollin@nene.ac.uk
Please return all proposals by Friday November 6, 1998.

Diary

1999

April 22-23

IALE-France: "Functional role of edges and ecotones" will be held in Besançon (France). Specific workshops will be organized including one on "tools and methods for landscape mapping". Informations: Patrick Giraudoux, Laboratoire de Biologie et Ecophysiologie, Place Leclerc, 25030 Besançon cedex (France), fax:+33 (0)381 665 698, Patrick. Giraudoux@univ-fcomte.fr

June 24-26

The human dimensions of global environmental change research community. Shonan Village, Kanagawa 240-0115, Japan. Contact the IGES Web Site (<http://www.iges.or.jp/>), e-mail: hdgec@iges.or.jp, Fax: +81 468 55 3709 to Mr. Yasushi Itoh, IGES, Shonan Village Center

July 21

Hedgerow Conservation - policy, Protection and Evaluation, Nene University College, Northampton. Contact Convenor Dr. Duncan McCollin, Nene - University College, Northampton, Park Campus, Northampton, NN2 7 AL. Tel.: 01604 735500, e-mail: duncan.mccollin@nene.ac.uk

July 29-August 3

1999 IALE World Congress, Snowmass Village, Colorado. Contact IALE President John A. Wiens, Fax: +1 970 491 0649, e-mail: jaws@lamar.colostate.edu
NB! Look at the web site for the IALE Congress: <http://lamar.colostate.edu/-iale/Congress.htm>

August 25-27

Ecology and Management of Ungulates: Intergrating across spatial scales, British Columbia. Contact Dr. Evelyn

Merrill, College of Natural Resources, University of Wisconsin, Stevens Point, WI 54481; 715/346-4112; e-mail: emerrill@uwsp.edu. For further details on abstract submission visit our website (<http://wildlife1.uwsp.edu/ungul99>)

September 7-8

Heterogeneity in Landscape Ecology: Pattern and Scale-Long Ashton Research Station, Bristol, UK. Contact Dr. Martin Maudsley or Dr. Jon Marshall, IACR - Long Ashton Research Station, Department of Agricultural Sciences, University of Bristol, Long Ashton, Bristol, BS41 9AF. Tel.: 01275 392181, Fax: 01275 394007, E-mail: martin.maudsley@bbsrc.ac.uk or jon.marshall@bbsrc.ac.uk

September 20-22

Field Margins and Buffer Zones Conference, University of Leicester, Oadby, Leicester. Contact Mrs. Carol Millman, AAB Office, c/o HRI Wellesbourne, Warwick CV35 9EF, UK. Tel.: +44 (0)1789 470382, ext. 191, Fax: +44 (0)1789 470234, E-mail: carol.aab@hri.ac.uk
For further details visit our website (<http://www.hri.ac.uk/aab/>)

October 5 - 10

Landscape System Analysis in Environmental Management. Poland - IALE: a conference is to be held in surroundings of Warsaw, Poland. Contact Conference Secretary Jerzy Lechnio M.Sc. Faculty of Geography and Regional Studies, University of Warsaw, 00-927, Warsaw, Krakowskie Przedmiescie 30, (IALE Conference), Tel.: (48 22) 620 03 81 ext. 631, 633, (48 22) 826 98 71, Fax: (48 22) 826 19 65, E-mail: jlechnio@wgsr.uw.edu.pl

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with pattern as an entry, be even wider than the focus I had come across so far in my surveyors' career. Particularly discussions about the complex field of chorological relations and basic theory contributed to a gradually ripening of our paradigm and made us ready for contact with other related groups such as the people round Ruzicka in Bratislava, and Veldhoven (1981), where IALE was conceived.

Over the years I discovered how true Zev Navez's term *transdisciplinary science* is. Being a landscape ecologist can never be a replacement of being specialized in one of the many basic disciplines. The aim is to understand the whole in, and through, its heterogeneity. That cannot be done by mixing and merging of many sciences, but by applying them individually, with an open eye for links with, and contributions from, other sciences; and prefer-

ably also in an integrative cooperation with representatives of these disciplines. An understanding of this comes especially from practical applications. So that besides being a purely scientific activity such activities will remain the main source of development of our science.

The IALE Mission Statement covers what I have experienced and may inspire the coming generation of landscape ecologists originating from any basic discipline.

¹⁾ This also illustrates the danger of fully replacing stereophotointerpretation, and its intuitive aspects, by automated satellite image analysis. This will lead to less valuable results from surveys being undertaken, but it especially leads to the drying up of a very important source for landscape ecological thinking in general.

²⁾ ITC = International Institute for Aerospace Survey and Earth Science. Enschede and Delft, The Netherlands.

**ANNUAL MEMBERSHIP FEES 1999 FOR INDIVIDUAL PAYMENT
AND SUBSCRIPTION TO LANDSCAPE ECOLOGY**

For 1999 the IALE dues will be as in 1998. Members in USA, UK, Denmark, Norway and Italy pay the dues through their regions. Members in the USA also pay for landscape Ecology through their region. Payment of dues is obliged to remain a member. Exceptions are only possible in special cases after written request to the treasurer. Only members who paid for 1999 can participate in the Snowmass conference on basis of the membership Congress fee.

I will pay my dues for:

- \$20 as a regular member
- \$85 as a regular member and subscriber to Landscape Ecology
- \$65 for subscription to Landscape Ecology as a regular member of a region with collective dues payment (NON-USA: UK, Denmark, Norway, Italy)
- \$10 as a student member
- \$60 as a student member and subscriber to Landscape Ecology
- \$50 for subscription to Landscape Ecology as a student member of a region with collective dues payment (NON-USA: UK, Denmark, Norway, Italy)

I will pay my membership through

- Mastercard/Eurocard
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- American Express
- Diners

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Signature

Dutch members will receive a payment request to pay directly to the IALE Postbank account. Members in many other European countries can do that as well, but have to pay in NLG and add NLG 7,50 for banking costs

The treasurer requests you preferably not to pay by individual cheques, because the banking costs are then relatively high. If this is the only way you can pay, you have to increase the dues with US\$10 for banking costs, or the cheque will be returned.

Send this form to the treasurer. Also those who want to subscribe as a new member or want to indicate changes also can send this form to the treasurer:

IALE treasurer, Dr Rob Jongman
WAU, Dept of Env Sciences, Land Use Planning Group
Gen Foulkesweg 13
6703 BJ Wageningen, The Netherlands
Fax +31 (0)317 482166

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