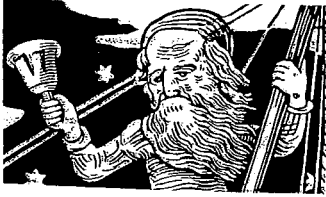


# LOESS LETTER

ISSN 0110 7658

OCTOBER 1992

28



Loess Letter is the twice-a-year newsletter of the INQUA Loess Commission. We have moved the LL office a short distance; for all LL matters communicate with:

Ian Smalley, Centre for Loess Research,  
Civil Engineering Department,  
Loughborough University of Technology  
Loughborough, LE11, 3TU, Leics. UK  
Fax 0509 610 231

For matters relating to the Loess Commission communicate with the President:

Prof. Dr. An Zhi-Sheng  
Xian Laboratory for Loess and Quaternary Geology  
P O Box 17, Xian 710061, China  
Fax 86 29 752 566

LL28 is a short issue, mostly news. The major aim is to publicise four meetings - all with Loess Commission connections. We also manage to squeeze in a bit of information on a couple of recent publications, two papers from the Chinese Journal of Geochemistry and a quick look (following on from LL27) at another Catena supplement. LL29 is due to be a special issue for the 3rd International Geomorphology Conference at Hamilton, Ontario in August 1993. Three new LL maps have been published, two of New Zealand phenomena, for the NZ 1994 meeting, and we are looking ahead to the Berlin 1995 INQUA meeting and discussion on loess distribution in Europe (the Grahmann Symposium).

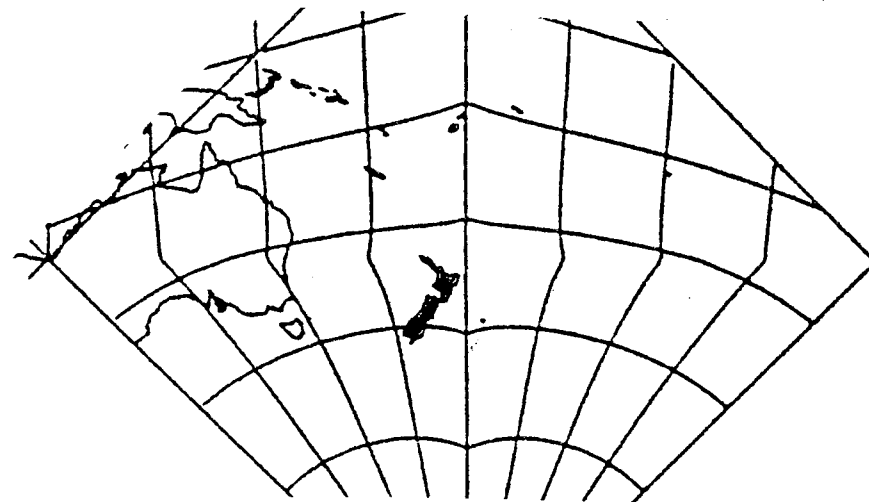
1994. This will be an important year for the Loess Commission; plan your activities carefully. Early in the year there will be two major loess conferences, held at opposite ends of the Earth, one in each hemisphere. The 'Loess in the Quaternary Record' meeting will be held at Royal Holloway, University of London, early in January (5-7). This is planned to be a major meeting - perhaps the first conference totally devoted to loess ever held in the UK (see advert. on p.4). Several INQUA Commissions will participate. A bit later, February 7-12, is the Tephrochronology, Loess and Paleopedology meeting at Hamilton, New Zealand; also a joint meeting of several INQUA Commissions (see p.3). Please try to attend one (or both) of these meetings. They provide excellent opportunities to discuss loess matters before the major INQUA conference in Berlin in 1995. Contact Ed. Derbyshire or David Lowe for details of these meetings.

1993. Two meetings to highlight this year: there will be a Loess Commission session at the 3rd International Geomorphology Conference, to be held at Hamilton, Ontario in August (23-29) 1993. For details of the whole conference contact: 3rd International Geomorphology Conference, Geography Department, McMaster University, Hamilton, Ontario, Canada L8S 4K1. Fax (416) 546 0463.

For details of the Loess Commission session, contact: Professor E. Derbyshire, Geography Department, Royal Holloway College, Egham, Surrey TW20 OEX, UK.

The other meeting to note in 1993 is the 'Arid Soils Conference' to be held at City University London, 6-8 July. This is an ISSMFE meeting, with invited participation by various Loess Commission members. The emphasis is on engineering properties and problems, and the whole range of arid soils should be covered. Details from: Professor P.G. Fookes, 11A Edgar Road, Winchester SO23 9SJ, or Professor J. Atkinson, Civil Engineering Department, City University, Northampton Square, London EC1, UK.

LL29. We hope that LL29 will be a special issue for the Hamilton Geomorphology Conference. We should issue the Inter Congress Plan for the Loess Commission. We should also by then have settled on the final composition of the 'Lin Tung Sheng Festschrift', our most ambitious publishing venture to date. This is absolutely the last minute if you want to have your contribution considered.



**International Inter-INQUA Field Conference and Workshop on  
TEPHROCHRONOLOGY, LOESS, & PALEOPEDOLOGY**

*Hamilton, New Zealand, February 1994*

An international inter-INQUA specialist meeting of Commissions 4 (Loess), 5 (Tephrochronology), and 6 (Paleopedology) is to be held at the University of Waikato, Hamilton, New Zealand, from 7-12 February 1994. Sessions on recent advances in each of these fields are anticipated but integrated studies are especially encouraged. Field trips will target all three disciplines and include a 2-day intra-conference trip and a 5 day post-conference trip (13-17 February). Tephra beds (basaltic, andesitic, and rhyolitic), loess deposits, and buried paleosols, ranging in age from c. 2.3 Ma to only one hundred years or so old, will be examined in the Waikato-Central Volcanic Plateau (Taupo Volcanic Zone)-Wanganui/Manawatu-Wairarapa area of the North Island. Review sessions and reports of appropriate working groups are also planned and it is anticipated that papers will be published collectively in *Quaternary International*, the official journal of the International Union for Quaternary Research.

The meeting represent an excellent opportunity to bring together, in an international forum, much of the interesting and innovative work being done by Quaternary scientists in recent years. The conference is likely to be limited to 60-80 participants and it is hoped that many key workers in tephrochronology, loess studies, and paleopedology will attend. Research students will also be encouraged to participate.

Interested? Please write or fax the Convenor, Dr David Lowe, at the address below for further information or to indicate your intention to possibly take part.

Dr D. J. Lowe  
Convenor  
*Inter-INQUA Field Conference & Workshop on Tephrochronology, Loess, & Paleopedology*  
Department of Earth Sciences  
University of Waikato  
Private Bag 3105  
Hamilton  
NEW ZEALAND

Fax: +64 7 856-0115 Ph: +64 7 856-2889

# Greenhouse-Impact

## on Cold-Climates Ecosystems and Landscapes

Selected papers of the European Conference on Landscape Ecological Impact of Climatic Change. Lunteren, The Netherlands, December 3-7, 1989

Greenhouse impact on cold-climate ecosystems and landscapes / M. Boer & E. Koster (ed.). - Cremlingen-Destedt:

Catena-Verl., 1992

(Catena-Supplement ; 22)

ISBN 3-923381-31-X

NE: Boer, Matthias [Hrsg.]; Catena / Supplement

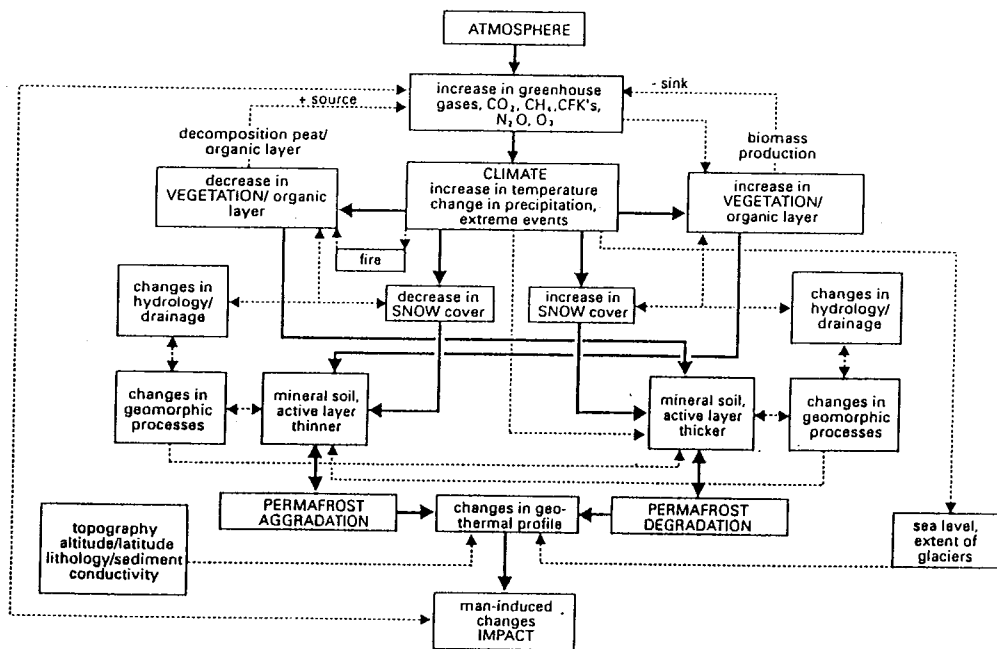


Fig. 2: Schematic representation of the interrelations in the atmosphere - "buffer" layer - permafrost system.

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# REE Geochemistry of Loess in Xinjiang, China

YU SHUHA (余崇华) AND WEN QIZHONG (文启忠)

(Guangzhou Branch, Institute of Geochemistry, Academia Sinica, Wushan, Guangzhou, 510640)

### Abstract

The total rare-earth element values ( $\Sigma$ REE) of loess in the Xinjiang region vary over a range of 128-200 ppm, with an average of 153 ppm. The average REE content of loess lies between the earth's crust (155 ppm) and sedimentary rocks (151 ppm). The Xinjiang loess, with the REE distribution patterns characterized by negative slopes, is rich in the Ce-family elements, and has a distribution pattern characteristic of sedimentary rocks. The North Xinjiang loess is relatively depleted in Tb, but rich in Yb and Lu. The South Xinjiang loess is relatively rich in light rare-earth elements. This is full proof that the Xinjiang loess comes partly from weathered materials (clay rock, sandstone) in the region studied. The REE distribution patterns in the Xinjiang loess are similar to those in the precipitated dust and aeolian sand, indicating the same material source. The REE distribution patterns in the Xinjiang loess are also similar to those in loess from the middle Yellow River Valley, China and Taskent, the former USSR. This implies that loesses of the three locations (Xinjiang, the middle Yellow River Valley and Taskent) come from a common material source. But the REE patterns in the Xinjiang loess are different from those in wall rocks (volcanic rock, K-bearing volcanic rock). Generally, LREE/HREE, Eu/Eu\* and Ce/Ce\* ratios reflect the features of parent materials of loess, indicating that the parent rocks were probably in the early stage of alkaline weathering and the weathered materials existed in an oxidation environment with basic mediums under arid-climatic conditions before transport. As a result, the migration ability of the REE is weak.

# A Comparison of the Geochemical Features of Some Loess Sections in New Zealand and China

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DENNIS N. EDEN

(DSIR Land Resources, Palmerston North, New Zealand)

AND JOHN L. HUNT

(DSIR Land Resources, Lower Hut, New Zealand)

### Abstract

A comparison of the geochemical features of loesses of New Zealand and China indicates that the distributions of the elements and their variations reflect the fluctuations of climate which can be compared with the oxygen isotope stages and glacial periods.

New Zealand loess is different in source from Chinese loess. Therefore, some differences are also noticed in their chemical compositions. Loess accumulation in New Zealand is later than that in China. Because of more rainfall in New Zealand and different distributions of loess the elements in loess have suffered stronger leaching than in China.



# CURRENT RESEARCH IN THE PLEISTOCENE

ISSN 8755-898X

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A Peopling of the Americas Publication  
Center for the Study of the First Americans

*LOESS IN THE QUATERNARY  
RECORD  
international conference  
London, England, January  
1994*

A CONFERENCE JOINTLY ORGANISED BY  
THE INTERNATIONAL UNION FOR QUATERNARY RESEARCH AND  
THE QUATERNARY RESEARCH ASSOCIATION

This conference is designed to provide a forum for the evaluation of loess and related silts as recorders of environments and environmental change during Quaternary time. As such, it will be of interest to members of several INQUA Commissions (e.g. Loess, Palaeopedology, Glacial Deposits, Stratigraphy, etc.) some of which are expected to play an active role in formulating the details of the final programme.

Contributions are invited under six broad headings as follows:

- Particle Origins and Transport
- Loess Sedimentology
- Weathering, Soils and Palaeosols in Loess
- Loess Stratigraphy
- Dating of Loess
- Geomechanical behaviour of Loess

Invited speakers will deliver keynote lectures in each section.

The conference will run for four days and will be held at Royal Holloway College (University of London) at Egham in the southeast of England. Over 30 papers (20+5 minutes) will be scheduled, and there will be ample poster space. It is planned to publish the collection of papers, following normal refereeing procedures.

The First Circular will be issued in the Autumn of 1992. These may be obtained after 1 November by writing to the conference secretary (whose address is shown below) and to whom offers of papers (initially by title only) should also be sent.

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