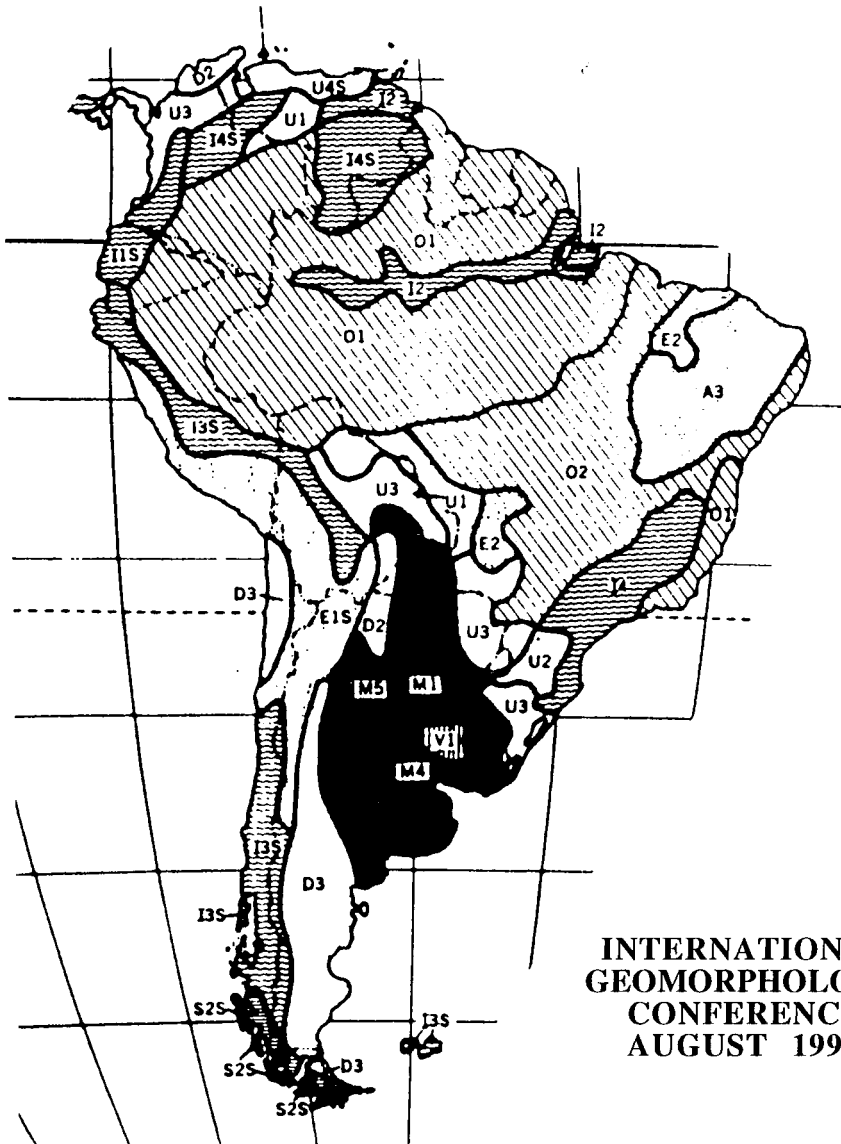


LOESS LETTER 29

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LL

Loess Letter 29 April 1993

LL sends greetings to delegates at the 1st International Symposium on the Engineering Characteristics of Arid Soils (London, England 6-9 July) and at the 3rd International Geomorphology Conference (Hamilton, Ontario 25-29 August). We will publish extracts from both of these meetings in LL30, late in 1993. The INQUA Loess Commission, via LL, sends best wishes to all geomorphologists and arid soil engineers, and hopes for two successful conferences.

The INQUA Loess Commission is Commission No.4 of the International Union for Quaternary Research. Its brief is to promote the study of loess and to facilitate communication among scholars and students of the loess. LL is its newsletter, published twice a year, nominally in April and October, but often to coincide with some major event, or an important piece of news. LL28 announced the major INQUA/QRA meeting on wind-blown sediments to be held at Royal Holloway, University of London on 3-5 January 1994. LL29 announces the new IGCP 349 on desert margins and supports the arid soils and geomorphology conferences.

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IGCP 349: Desert Margins and Palaeo monsoons of the Old World since 135,000 BP. A new International Geological Correlation Programme project. This new project has 3 leaders (contact for information) Profs An and Derbyshire (address above) and Assoc. Prof. A K Singh, Earth Sciences Division. Physical Research Laboratory,

Navrangpura, Ahmedabad, India. Fax: +91-272-460502. The first Workshop and Training Course will be held in Cairo, Egypt, 5-17 September 1993. The main goals of the project are to gain quantitative understanding of the fluctuations in desert margins during past climatic epochs.

IGCP 349 will contribute to the PAGES (Past Global Changes) core project of IGBP, and will interact with the newly-announced INQUA-PAGES programme on palaeomonsoons to be led by Prof Dr Stefan Kropelin, Free University of Berlin, Germany. The first conference, to be held in Mombassa, Kenya, in December 1993, will concentrate on monsoon influences on the climates of Africa and the adjacent islands and seas. Emphasis will be on the terminal Pleistocene and Holocene.

OP23: Loess and the Argentine Pampa. Materials from the INQUA Loess Commission meeting at Mar del Plata (Argentina) - now published and available from Leicester University. We publish the contents and some extracts from this important publication. This is occasional paper 23 of the Geography Department of Leicester University; buy a copy from Mrs Barbara Hughes, send £5/\$10. It is timely that some attention be directed towards the loess deposits of South America; OP23 is definitely a step in the right direction.

Our front cover is the Soil Taxonomy map of South America: 01 Oxisols (and 02), A3 Ustalfs, M Mollisols (M1 Aquolls, M4 Udolls, M5 Ustolls). The back cover is the Soil Taxonomy map of Africa; in the D1 Section to the far North east the first IGCP349 workshop will take place.

To order OP23: send £5/\$10 to Mrs Barbara Hughes, Geography Department, Leicester University, Leicester LE1 7RH, UK. OP19 Stuntz and Free Bibliography and OP17 North American Loess Bibliography are still available (£5/\$10). Make cheques payable to 'University of Leicester'.

INQUA Loess Commission: Aims and Objectives in brief.

The Loess commission was originally a study group with its attention focused firmly on European loess stratigraphy. In the last 25 years its scope has broadened, and although many topics in loess stratigraphy are being investigated, there has been a considerable trend towards practical problems, problems of loess soil engineering and land-use. Loess is of course a classic arid soil of wide spread occurrence and some remarkable and dangerous properties: The Teton Dam collapse and the Sale Shan landslide are definitely related.

The current focus for the Loess Commission is on environmental change. The Loess provides environmental data for the last 2.5 million years, and will assist in predictions of future climates. Another set of problems concern subsidence, large landslides and soil erosion, these are currently important in several parts of the world. The Loess Commission is participating in the activities of IGCP 349 and is actually encouraging research on desert fringe loess deposits.

The great growth of interest in loess in the last few years can be attributed to several factors: the realisation that the loess does provide a remarkably good picture of Quaternary events; the full scale arrival of Chinese investigators on the international scene; the appreciation of loess soils as an important natural resource, and the development of new techniques, such as TL dating, which are particularly well suited to loess.

The research aims are set and discussed at the INQUA congresses every four years. We are currently in the period 1991-1995, from the Beijing 1991 conference to the Berlin 1995 conference.

1992

**INTERNATIONAL GEOLOGICAL
CORRELATION PROGRAMME**

349 - Desert Margins and Palaeomonsoons
of the Old World since 135000 B.P.

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FIRST WORKSHOP; CAIRO, EGYPT 5-15 SEPTEMBER 1993

SPECIAL NOTE

Intended participants are asked to send the following to
Professor Mahmoud M Ashour (address below).

1. **ABSTRACT** (one A4 page) of their intended paper (please state whether oral or poster), to arrive in Cairo **BEFORE THE END OF JULY**.
2. **PHOTOCOPY OF "VITAL" PAGES OF YOUR PASSPORT, AS SOON AS POSSIBLE.**

PROFESSOR MAHMOUD M ASHOUR,
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CAIRO, EGYPT.

In the event that you need to fax Professor Ashour, please use
the above address and fax number 010-20-2-273-7778.



Edward Derbyshire
Co-Leader and Treasurer
IGCP 349

14.06.93.

LL

Compiled and edited by

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Occasional Paper for the Department of Geography,

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No. 23

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LOESS DEPOSITS AND PALAEOOLS OF THE ARGENTINE PAMPA

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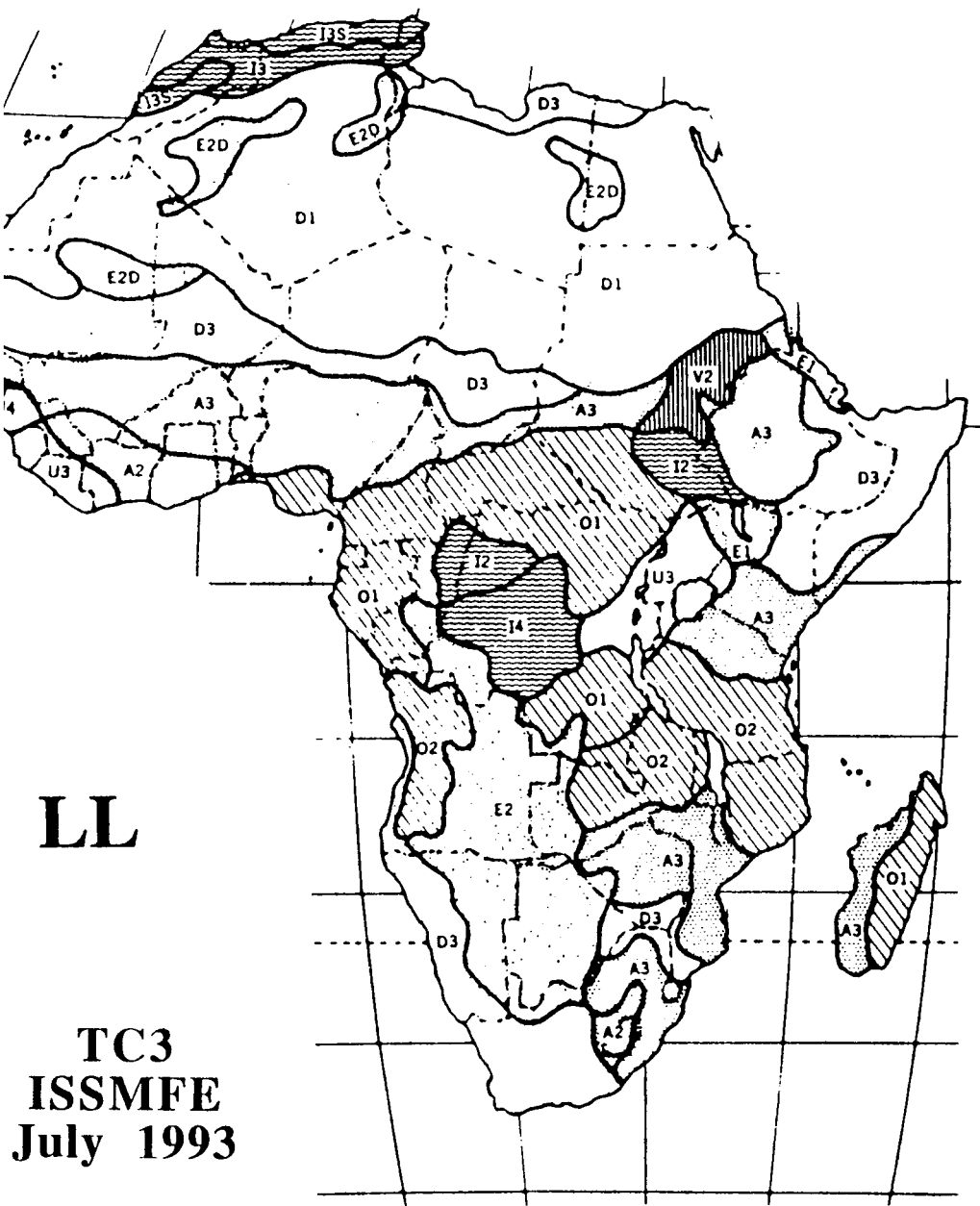
Introduction

The largest loessic plain in the southern hemisphere, the Argentine Pampa, is an ideal site for studying palaeosols - buried soils as far as we know them today - not only because they are abundant, but also because the stratigraphic sequence where they occur spans the whole Cenozoic and even the upper Pliocene.

With a thickness which exceeds 40m, the loessic deposits (first recognized as such by Heusser and Claraz, 1866) are made up of superposed layers or mantles of varying thickness, usually one or two metres. Discontinuities separate the various layers, which as early as the twenties (Frenguelli, 1921, 1925) were recognized as primary and secondary or reworked loess ("limos"). Modern research, which has stressed the importance of rainwash and after flow for the formation of macrolaminated deposits confirms Frenguelli's pioneer observations. This author offered a list of physical characters for the recognition of primary and secondary loess. As secondary loess deposits vastly predominate over primary ones, most of the palaeosols described occur in reworked "limos".

Previous work

It is only in the last 20 years that geologists and then pedologists have become interested palaeosols. Palaeosols were first suspected in the Mar del Plata-Miramar coastal cliffs (Kraglievich, 1952; Teruggi et al. 1958), but confirmed identifications on the basis of micromorphological and quantitative data were made only in the seventies. Teruggi and Andreis (1971a, 1971b) recognized palaeosol levels in Mesozoic and Cenozoic sequences and Teruggi (1971) drew the attention of the geological profession to the importance and characteristics of the palaeosols. In 1973, Teruggi et al. made the first detailed study on a textural, mineralogical, structural and chemical basis of three superposed Quaternary palaeosols in Sierra Bachicha, some 60km west of Mar del Plata.



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