



Commission 1.1 Soil Morphology & Micromorphology Newsletter
April 2011, vol. 8, p. 1-19

Dear colleague,

Here you have the spring newsletter. The weather is getting warmer and warmer (northern hemisphere), and many courses, meetings, and activities are taking place.

Who said that there is no enough people interested for micromorphology courses? In this newsletter you will find the report on the course in Tübingen 2011, and the announcement of future courses in Medellín 2011 and in London 2011.

Also, there will be meetings, workshops and congresses very shortly: Pisa 2011, Vienna 2011, Lleida 2012, Eurosoil2012 Bari, Moskow-Smolensko 2012. Some of these meetings are very close to each other, which may be an advantage for people coming from overseas.

You will also find new publications, announcements, short research notes and new projects where we need your help.

I send you the "St Georges Rose", which every 23th April, together with a book (=this newsletter) is offered as a present to the loved ones in Catalonia.

I hope all this news will be useful and you will enjoy reading it!

Yours sincerely,

Rosa M Poch
Chair Comm. 1.1. Soil Morphology and Micromorphology - IUSS
Department of Environment and Soil Science, University of Lleida
rosa.poch@macs.udl.cat



PLEASE, VISIT THE COMMISSION 1.1. WEBSITE

... available to share information, send news and pictures, see the latest publications...

<http://loess.umcs.lublin.pl/micro.htm>

Maintained by Przemyslaw Mroczek, Dept. Physical Geography and Paleogeography, Maria Curie-Skłodowska University, Poland

Send any updates/information to Przemyslaw Mroczek <loess@poczta.umcs.lublin.pl>

& Rosa M. Poch rosa.poch@macs.udl.cat

**REPORT ON THE: Intensive Training Course on Soil Micromorphology Tübingen (Germany),
28 March – 8 April 2011**

The course was organized by Dr. Daniela Sauer (Institute of Soil Science, Hohenheim University) and Peter Kühn (Soil Science and Geomorphology Group, University of Tübingen), supported by Prof. Dr. Rosa Poch and em. Prof. Dr. Georges Stoops, who had organized the course in previous years.

The Petrology Group of the Department of Geosciences, University of Tübingen, hosted the course in their well-equipped microscopy room. Thus, 22 PhD students and researchers from 11 different countries (Colombia, Croatia, Germany, Israel, Italy, Netherlands, Poland, Russia, Serbia, Switzerland, United Kingdom) could participate. About half of the time was devoted to microscopical exercises. During the practical exercises participants had the occasion to discuss also their own thin sections with the teaching staff.

During the first week the group were introduced in the techniques of sampling procedures and thin section preparation (Dr. Peter Kühn, Tübingen), mineral identification (Dr. Thomas Wenzel, Tübingen), concepts, and terminology of thin section analysis and description (em. Prof. Dr. Georges Stoops, Ghent).

To 1-day field trips were guided by Prof. Dr. Karl Stahr and Christoph Prade (both Hohenheim) on Saturday, 2 April and Sunday 3 April, taking the group along a transect from the Black Forest (granite and Lower Triassic sandstone) through the SW German Cuesta Landscape (Middle and Upper Triassic, Lower and Middle Jurassic) to the Swabian Alb (Upper Jurassic limestone escarpment). Typical soils on the divers geological units and related landscapes were presented along this transect, including the visit of a karstic cave. These interesting excursions took place under unusually warm and sunny weather conditions for this time of the year.

The second week was devoted to the identification of heavy minerals (Prof. Dr. Birgit Terhorst, Würzburg) and micromorphological characteristics of desert soils with calcareous and gypsic materials (Prof. Dr. Rosa-Maria Poch, Lleida), of materials in archaeological and geoarchaeological context (Prof. Dr. Christopher Miller, Tübingen), of paleosols and volcanic soils (Dr. Sergey Sedov, UNAM Mexico), and of organic surface horizons (Dr. Otto Ehrmann, Creglingen and Dr. Daniela Sauer, Hohenheim).

During the second week Dr. Peter Kühn gave a practical introduction of thin section preparation at the Laboratory of Soil Science and Geoecology (Institute of Geography, University of Tübingen) to small groups of 4-5 students per day.

The farewell barbecue at the Institute of Geography (University of Tübingen) was accompanied again by warm and dry weather. The course ended with a short exam and handing-over of the certificates to the participants.

The high number of candidates interested in the course (less than half of the applicants could be accepted) and especially the fact that many students brought thin sections with them, but missed a basic training, clearly shows that there is further need for such intensive training courses.

We are very much indebted to all teachers and participants for presentations, questions and discussions. We also like to thank the student helpers for catering service during the two weeks, including preparation of the barbecue. The pleasant atmosphere despite of the hard work was a great experience for all participants and the organisers.

Daniela Sauer and Peter Kühn



Group photo (1st week) with Prof. Georges Stoops

Field excursion: looking at a profile on limestone in the Swabian Alb with Prof. Karl Stahr



Working with the microscopes

Pictures by Ryszard Mazurek

MICROMORPHOLOGY COURSE IN MEDELLÍN (COLOMBIA) – August 2011

In the frame of the Pablo Neruda program, of university exchanges between Latin America and Spain, the First Colombian International Training Course in Soil Micromorphology and Complementary Techniques is being organized. It will be held in Medellín from the 8th to the 19th August 2011.

The course, taught in Spanish, is offered by: University National of Colombia (Geosciences School, Sciences Department), Colombian Soil Sciences Society (Antioquia Committee), Soil Sciences Department (Lleida University) and is supported by Commission 1.1. Soil Morphology & Micromorphology (International Union of Soil Sciences). Below you will find more information about the course and contact person (in spanish).

Curso Intensivo de Micromorfología de suelos

Medellín, 8-19 Agosto 2011

Universidad Nacional de Colombia, Sede Medellín - Universitat de Lleida – INTA Castelar (Argentina)

Lugar:

Facultad de Ciencias, Escuela de Geociencias

Calle 59ª N 63 – 20 Bloque 14 (Laboratorio de Suelos) , Medellín, Colombia

Fax : (+574) 4309311; Teléfono: (+ 574) 4309314



Faculty of Sciences – Medellín



Sculptures by Botero - Medellín

Responsable:

Prof. Dr. Juan Carlos Loaiza Usuga jcloaiza@unal.edu.co

Duración

6 credits (60 horas de conferencias)

Conferencistas (lecturers)

Alberto Arias (Universidad Nacional de Colombia – Sede Medellín)

Juan Carlos Loaiza (Universidad Nacional de Colombia – Sede Medellín)

Héctor Morrás, (INTA Castelar– Argentina)

Rosa M Poch (Universitat de Lleida)

Raúl Zapata (Universidad Nacional de Colombia – Sede Medellín)

Temas principales

Introducción a las técnicas de muestreo y preparación de secciones delgadas.

Principios de mineralogía y petrografía, mineralogía óptica.

Sistemática de descripción de láminas de suelos y regolitos

Pedogénesis y mineralogía de suelos.

Mineralogía de Oxisoles, Ultisoles, Andisoles e Histosoles de Alta montaña Andina.

Micromorfología de suelos e identificación de materiales y procesos formadores del suelo.

Micromorfología aplicada a dataciones de paleoambientes

Micromorfometría y procesamiento de imágenes

Aplicaciones agronómicas y en manejo de suelos.

Excursión fin de semana opcional: Visita al altiplano de Santa Rosa de Osos, relación suelos y geomorfología, técnicas de muestreo.



Landscape and colonial architecture in Santa Rosa de Osos

**ARCHAEOLOGICAL SOIL MICROMORPHOLOGY
TRAINING COURSE, LONDON, November 2011**

Richard MacPhail has already set the dates for the next **Archaeological Soil Micromorphology Training Course** that will take place at the Institute of Archaeology, University College London, UK:

Training Week: 7th-11th November 2011

Practice Week: 14th-18th November 2011

For more information, ask Richard:
r.macphail@ucl.ac.uk



PUBLICATIONS

As announced in the last newsletter, the project for a new publication, to be directed towards archaeologists, is going on:

“ATLAS FOR ARCHAEOLOGICAL SOIL AND SEDIMENT MICROMORPHOLOGY”

If anyone has reference collections or unpublished material, especially images, please contact the editors for more information:

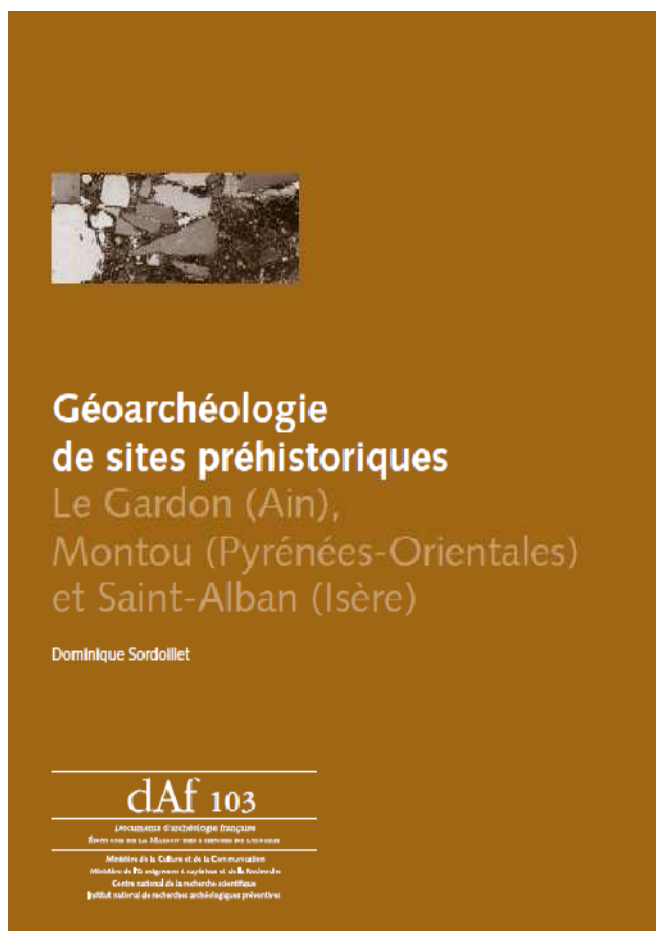
Georges Stoops georges.stoops@ugent.be

Karen Milek k.milek@abdn.ac.uk

Giovanni Boschian boschian@arch.unipi.it

Judit Becze-Dèak judit.becze-deak@ne.ch

NEW BOOK



In this work, Dominique Sordollet accomplishes the difficult task of rendering a previously obscure discipline accessible to everyone. This work originates from her doctoral dissertation thesis, which received unanimous praise for its methodological and scientific rigor. Drawing on elements from the earth sciences, she studied the stratigraphy of three exemplary archaeological sites. The prehistoric sites of Gardon, Montou and Saint-Alban were thus subject to a precise micromorphological analysis, which considers a stratigraphy as a sedimentary record of time. Through a classification of the deposits into two large families based on their formation processes, she distinguishes the occupation facies, created by human activities, from the abandonment facies, which are characteristic of natural sedimentary and post-sedimentary processes. Based on these sedimentological data, replaced in their chronological and cultural contexts, she proposes different occupation scenarios and interpretations of the evolution of human activities, rituals and construction. This short, well illustrated presentation is written with a simple

vocabulary and includes a glossary, all of which make it an effective tool for understanding the methods and objectives of micromorphology in the direct interest of field interpretations and methods.

Documents d'archéologie française n. 103

Paris, 2009

188 pages, 50 figures noir et blanc,

12 planches couleurs hors texte, broché

ISBN : 978-2-7351-1121-3

ISSN : 0769-010X

Prix 36 € jusqu'au 31/12/09 puis 40 €

En vente chez votre libraire

ou sur www.lcdpu.fr

PUBLICATION LIST SENT BY PAUL GOLDBERG

Albert, R. M., Berna, F., and Goldberg, P. in press. Insights on Neanderthal fire use at Kebara Cave (Israel) through high-resolution study of prehistoric combustion features: Evidence from phytoliths and thin sections. *Quaternary International*.

Goldberg, P., Dibble, H., Berna, F., Sandgathe, D., McPherron, S. J. P., and Turq, A. in press. New Evidence on Neanderthal Use of Fire: Examples from Roc de Marsal and Pech de l'Azé IV. *Quaternary International*.

Pustovoytov, K., Deckers, K., and Goldberg, P., 2011. Genesis, age and archaeological significance of a pedosediment in the depression around Tell Mozan, Syria *Journal of Archaeological Science*, 38: 913-924.

Meignen, L., O. Bar-Yosef, M. Stiner, S. Kuhn, P. Goldberg, and S. Weiner. 2010. Apport des analyses minéralogiques (en spectrométrie infrarouge à transformée de Fourier) à la interprétation des structures anthropiques : les concentrations osseuses dans les niveaux moustériens des grottes Kébara et Hayonim (Israël). *PALEO* 2010:93-107.

Karkanas, P. and Goldberg, P., 2010. Site formation processes at Pinnacle Point Cave 13B (Mossel Bay, Western Cape Province, South Africa): resolving stratigraphic and depositional complexities with micromorphology. *Journal of Human Evolution* 59: 256-273.

Matarazzo, T., Berna, F. and Goldberg, P., 2010. Occupation surfaces sealed by the Avellino eruption of Vesuvius at the Early Bronze Age Village of Afragola in Southern Italy: A micromorphological Analysis. *Geoarchaeology* 25 (4), 437-466.

Christopher E. Miller, Nicholas J. Conard, Paul Goldberg & Francesco Berna, 2010. Dumping, sweeping and trampling: experimental micromorphological analysis of anthropogenically modified combustion features. Online journal, P@lethnologie, <http://www.palethnologie.org/revue.php?numero=2&partie=1>

Macphail, R. I., and Goldberg, P., 2010. Archaeological Materials. In: Interpretation of Micromorphological Features of Soils and Regoliths. (G. Stoops, V. Marcelino, and F. Mees, Eds.), pp. 599-622. Elsevier, Amsterdam.

Karkanas, P. and Goldberg, P., 2010. Phosphatic Features. In: Interpretation of Micromorphological Features of Soils and Regoliths. (G. Stoops, V. Marcelino, and F. Mees, Eds.), pp. 521-541. Elsevier, Amsterdam.

Goldberg, P. and Berna, F., 2010. Micromorphology and context. *Quaternary International* 214, 56–62.

Harold L. Dibble, Francesco Berna, Paul Goldberg, Shannon P. McPherron, Susan Mentzer, Laura Niven, Daniel Richter, Dennis Sandgathe, Isabelle Théry-Parisot, and Alan Turq, 2009. "A Preliminary Report on Pech de l'Azé IV, Layer 8 (Middle Paleolithic, France)." *PaleoAnthropology* 2009:182-219

Miller, C.E., & Goldberg, P. 2009. Micromorphology and Paleoenvironments. In M.L. Larson, M. Kornfeld & G.C. Frison (Eds.), 2009. Hell Gap: A Paleoindian Campsite at the Edge of the Rockies (pp. 72-89). Salt Lake: University of Utah Press.

Goldberg, P., Berna, F., & Macphail, R.I. 2009. Comment on "DNA from Pre-Clovis Human Coprolites in Oregon, North America". *Science*, 325(10 JULY 2009), 148b-148c.

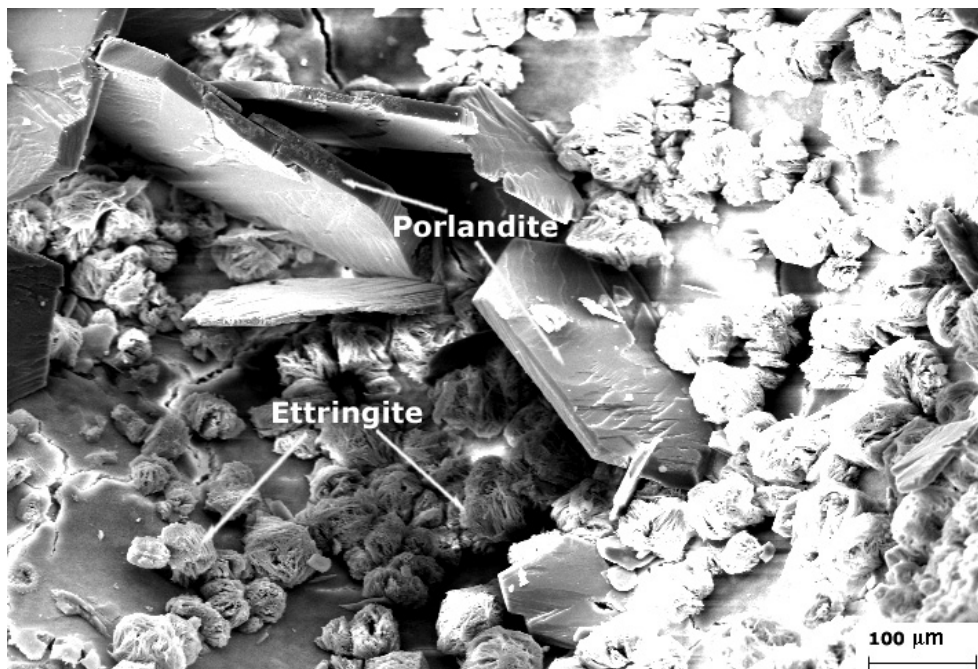
Goldberg, P., Miller, C.E., Schiegl, S., Ligouis, B., Berna, F., Conard, N.J. and Wadley, L. 2009. Bedding, hearths, and site maintenance in the Middle Stone Age of Sibudu Cave, KwaZulu-Natal, South Africa. *Archaeological and Anthropological Sciences*, 1, 95–122.

Berna, F. and Goldberg, P. 2008. Assessing Paleolithic pyrotechnology and associated hominin behavior in Israel. *Israel Journal of Earth Sciences*, 56, 107-121.

Karkanas, P. and Goldberg, P. 2008. Micromorphology of sediments: Deciphering archaeological context. *Israel Journal Earth Sciences*, 56, 63-71.

**Hanifi Binici, Joselito Arocena, Selim Kapur, Orhan Aksogan, and Hasan Kaplan (2009).
Microstructure of red brick dust and ground basaltic pumice blended cement mortars
exposed to magnesium sulphate solutions. *Can. J. Civ. Eng.* 36: 1784–1793 (2009)**

This paper presents a laboratory study on the deterioration of blended cement combinations of plain Portland cement (PPC) with red brick dust (RBD) and ground basaltic pumice (GBP). The compressive strength and the magnesium sulphate resistance of cements have been experimentally determined. The development of the microstructure and the secondary minerals in the plain and blended cements were studied via scanning electron microscope (SEM) analysis. A series of mechanical tests of cement mortars were undertaken on all specimens. A large quantity of sheet-like C-S-H was found in the mortars that have developed by the addition of RBD and GBP. The results indicated that the increase in the additive content caused a significant increase in the sulphate resistance of the mortars. Hence, the studied RBD and GBP can be recommended for use as admixtures in cement production.



CONGRESSES, MEETINGS, WORKSHOPS...

European Geosciences Union General Assembly Vienna, 3-6 April 2011



The session SSS5.5:
Micromorphology, present and past environments
Convener: Martine Gérard
Co-Convener: Luca Trombino

Has been cancelled and moved to Session 6:
http://meetingorganizer.copernicus.org/EGU2011/poster_programme/7797

Poster Programme SSS5.6

Digital soil mapping: novel approaches (including geophysical measurements, micromorphology) to the prediction of key soil properties for modelling physical processes

Convener: Gilles Grandjean

Co-Conveners: Ulrike Werban , Uta Sauer , Jay Jabro , Luca Trombino

International conference

"GEOMORPHIC PROCESSES AND GEOARCHAEOLOGY: From Landscape Archaeology to Archaeotourism"

On behalf of organizers and scientific committee, Dr. Maria Bronnikova and Dr. Andrey Panin, I have the pleasure to announce this International Conference that will be held in Moscow-Smolensk, Russia, on August 27-31, 2012

The conference is intended as a forum linking together a wide range of specialists in Earth sciences taking part in interdisciplinary studies of archaeological sites.

Palaeoenvironment of the sites, their natural resources, palaeo-land-use patterns; risk assessment and protection against environmental damaging processes of different nature (geomorphological, hydrological, pedological) are on the agenda. Pedologists, paleopedologists, soil micromorphologists dealing with geoarchaeological studies are welcome to participate.



Please, find the First Circular attached and constantly updated information on <http://Geoarch2012.narod2.ru>



In the next Eurosoil 2012 a session proposed by Karl Stahr has been accepted, named: "Soil Geneses and Micromorphology"

Convener: Karl Stahr

Co-convener: Rosa M Poch

More information: <http://www.eurosoil2012.eu/>

INTERNATIONAL WORKING MEETING ON SOIL MICROMORPHOLOGY LLEIDA 2012



www.lleida2012.udl.cat

We have already the list of the sessions for the next micromorphology meeting in Lleida 2012:

Session	Conveners
1. Soil genesis and classification	Irina Kovda Curtis Monger Ángel Faz Octavio Artieda
2. Environmental significance of mineral weathering	Martine Gerard Georges Stoops
3. Interpreting soil quality and agro-environment sustainability	Karl Stahr Iñigo Virto
4. Interactions between organisms, organic matter, fabrics and minerals	Joselito Arocena Albert Solé-Benet Rafael Rodríguez Maja Kooistra
5. Soils in extreme environments and under extreme events	Brenda Buck Farhad Khormali Thilo Eickorst M Agnès Courty
6. Ultra-micro technologies, micromorphological methods and image analysis	Marcello Pagliai Fabio Terribile Amy Brock Rosa M Poch
7. Micromorphology of sediments	Elvira Roquero Héctor Morrás Przemyslaw Mroczek
8. Micromorphology for paleopedology and loess-paleosols sequences	Daniela Sauer Sergey Sedov Peter Kühn Xiubin He
9. The paleoenvironmental and cultural relevance of archaeological soils and materials.	Richard MacPhail Luca Trombino M Agnès Courty M Mercè Bergadà
10. Geosciences and Micromorphology	Selim Kapur Alexander Tsaskin
11. Glacigenic sediments	John Menzies Jaap Van der Meer

Remember the dates:

- | | |
|----------------------|-------------------------------|
| - June 2011 | Call for abstracts |
| - July-December 2011 | Reception of abstracts |
| - February 2012 | Acceptance of abstracts |
| - March 2012 | Third circular |
| - October 2011 | Earlybird registration starts |
| - January-March 2012 | Registration |

**WORKSHOP OF THE WORKING GROUP ON ARCHAEOLOGICAL SOIL MICROMORPHOLOGY
PISA, ITALY, 18-22 MAY, 2011**



We are happy to announce that the next Workshop of the Working Group on Archaeological Soil Micromorphology will be held in Pisa from 18th to 22nd May, 2011. This meeting will celebrate the 21st anniversary of the first meeting in London 1990.

Like the previous Pisa 1998 and 2003 editions, the Workshop is organised by the [Department of Archaeological Sciences](#), with the support of the [Department of Earth Sciences](#), where the microscope sessions will be kindly hosted.

This Workshop is open to all interested in Archaeological Soil Micromorphology, with the only limitation that the microscopy room of the Department of Earth Sciences is equipped with 20 microscopes. All participants are invited to bring their own thin sections for discussion and exchange with colleagues.

The microscopy room of the Department of Earth Sciences (Dipartimento di Scienze della Terra) is situated in via Santa Maria, 53, first floor.

PROVISIONAL PROGRAMME

May, 18 – Afternoon: arrival of the participants and registration (the microscope room will be available). Welcome drink.

May, 19, 20, 21 – Microscope sessions and a half day of oral presentations. Posters.

May, 22 – Field trip.

CONFERENCE FEES

We are sorry to have to ask you to contribute to the organisation of the Workshop: 60 Euro (30 for students and unemployed) if paid before 31st March, 2011; later payment: 90 – 50 Euros respectively. We shall communicate you the bank account in the next circular.

The fees include:

Welcome drink;
tea and coffee breaks;
possibly more ...

Remember that **early booking of accommodation is strongly recommended**, because the Workshop will be held during a season of major tourist activity. Hotels and bed & breakfast accommodation in Pisa for this period tends to become fully booked early in the year.

ORAL PRESENTATIONS

Considering that this is a working meeting, the oral presentations will be limited in number and time. To this purpose, we have selected the following relevant topics among which you are strongly encouraged to choose.

- Archaeological soil micromorphology in Africa, South of the Equator;
- Soil micromorphology of cultural transitions and chronology gaps (*neanderthal-sapiens*; Meso-Neolithic, etc.);
- Storage pit infillings;
- Phosphates.

Please, e-mail an abstract of reasonable size, in .doc or .rtf format.

In case a selection is necessary, the rules will be the following:

- 1 – first arrived, best served;
- 2 – relevance and general interest of the topic;
- 3 – presentations dealing with thin sections available during the meeting.

Please, plan a talk of not more than 10 minutes, plus 5 for questions and discussion.

You may be kindly asked to change your oral presentation into a poster.

POSTERS

Any archaeological soil micromorphology topic will be accepted.

Maximum size 70x100 cm, portrait orientation.

FIELD TRIP

A one-day field trip on Tuscany soils, archaeology and landscape is scheduled for Sunday 22nd May.

Possible destinations: Garfagnana Valley (Etruscan settlement, Late Upper Palaeolithic-Mesolithic sites on loess, glacial landforms), Carrara marble quarries.

You will be informed about itinerary, logistics and price in the next circular. A minimum (maximum) number of participants will be required.

If you have received this circular, you are already in our mailing list. If you are not in this list, and would like to receive later circulars and forms, please register your interest in the conference by email to boschian@arch.unipi.it, including your name, postal and email address in your message.

We are looking forward to see you in Pisa; if you need more information, please do not hesitate to contact

Giovanni Boschian

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NEW SOIL SCIENCE JOURNAL



It is my pleasure to announce you the birth of a new soil science journal, the Spanish Journal of Soil Science. The SJSS is an international journal launched by the Spanish Soil Science Society, published every four months with welcomes scientific research in Soil Science from all countries and geographic areas, dealing with the different areas of Soil Science: soil research –

including soil micromorphology-, study, education, and management. It will be an open-access, free-of-charge for authors, peer-reviewed journal that, from the very beginning will comply with all the requirements for indexing and cataloguing of the main citation databases. The SJSS will be mainly in English, but accepts contributions in Spanish and Portuguese. It will be published in the Universia portal (<http://www.universia.es/index.htm>) together with other open-access electronic publications. The portal will be active during this month, and the first issue will appear during this year. You can find the instructions for authors in the web page of the Spanish SSS: <http://www.secs.com.es/normas.htm>. You can send you contributions to Dr Irene Ortiz Bernad <irene.ortizbernad@uah.es>, while the portal is not yet active.

THE SLIDE COLLECTION DATABASE PROJECT

The screenshot shows a web browser window displaying the 'Slide Collection Database Form' page. The browser's address bar shows the URL: <http://www.thin.stir.ac.uk/slide-collection-database-form/>. The page header features the text 'THIN SECTION & MICROMORPHOLOGY at the University of Stirling'. Below the header is a navigation menu with buttons for 'Home', 'Slide Collection Database Form', 'Facilities', 'Consultancy', 'Contact', 'Links', and 'Gallery'. A search box with a 'GO' button is located on the right side of the header. The main content area is divided into three columns. The left column contains 'RELATED SITES' with logos for 'SASSA' and 'SBES-Research'. The middle column is titled 'Slide Collection Database Form' and contains a form with the following fields: 'Name: *', 'E-Mail Address: *', 'Institution or location (if private collection) *', 'City *', 'Country *', and 'Access to collection *'. The right column is titled 'RECENT POSTS'. The browser's taskbar at the bottom shows the system tray with the date '11/04/2011' and time '16:12'.

After the proposal in the last newsletter, we have gone further with this project. Having such information would be very useful for students or researchers in general, who want to look at specific materials by using thin sections which are already available at some place in the world.

George MacLeod (U. Stirling) has built a database with information about collections, contact persons, numbers of thin sections, location, type of soil / material, availability for study,... of information that YOU should provide.

You can access the database and fill the fields here:

<http://www.thin.stir.ac.uk/slide-collection-database-form/>

The more information in this database, the better, for everybody.

For any request / observation, contact: g.w.macleod@stir.ac.uk.

"EUROPEAN HUMUS FORMS REFERENCE BASE": INFORMATION AND REQUEST

Augusto Zanella, one of the authors of the "European humus forms reference base" is informing us about this project:

The "European humus forms reference base" reference base is structured on the morphological characters of a few diagnostic horizons which can be detected on the field by naked eye or with the help of magnifying lens. We think that the micromorphological analysis of the same diagnostic horizons could reveal very interesting functional aspects which remain unidentifiable to the naked eye or with a 5-10 X magnifying hand lens.

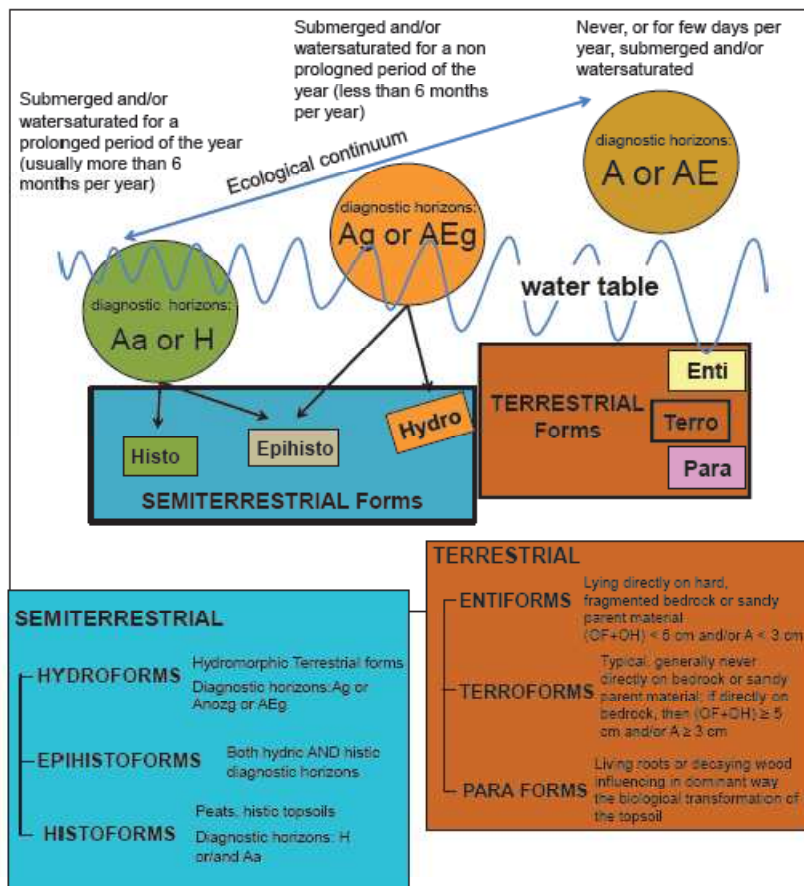


Fig. 1. Semiterrestrial and terrestrial humus forms and their main subdivisions.

Restricting the field of a first collaboration to a few main horizons, it would be very useful to have pictures (100X?) and legends for the following 15 horizons:

TERRESTRIAL FORMS:

- OH of Mor
- OH of Tangel
- OH of Amphi
- OF non zoogenically transformed (Eumor)
- OF zoogenically transformed (of Moder or Amphi)
- A biomacro of Eumull
- A biomeso of Eumesoamphi or Eupachyamphi
- A biomicro of Moder
- Anoz of Moder (massive A and sigle grain A)

SEMITERRESTRIAL FORMS:

- Hf
- Hm
- Hsnoz
- Hszo
- Hsl
- Aa

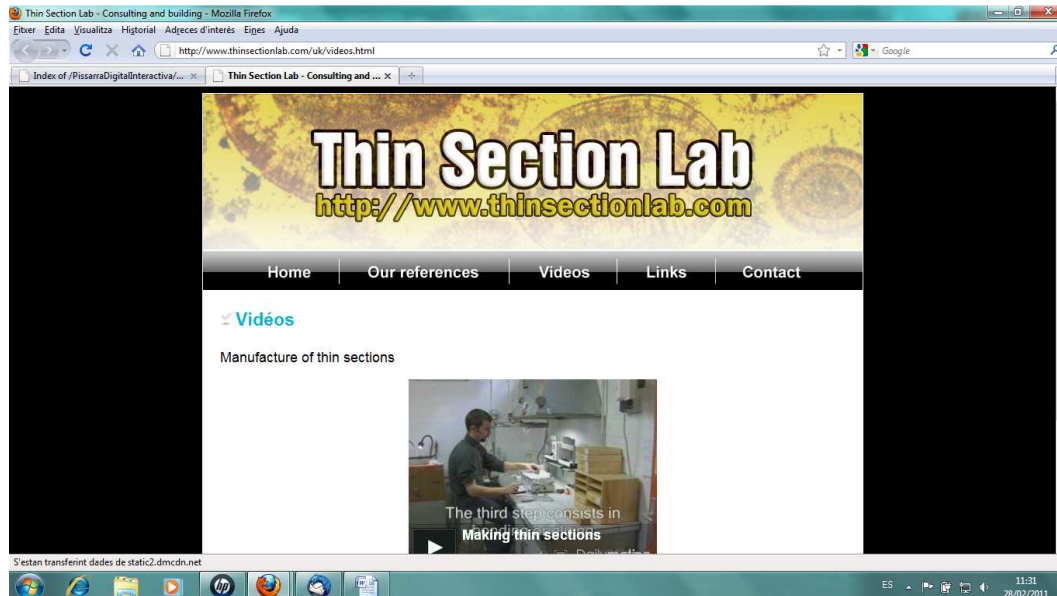
You can find the complete description of each of these horizons in the last version of the document: http://hal.archives-ouvertes.fr/docs/00/56/17/95/PDF/Humus_Forms_ERB_31_01_2011.pdf

Pictures, legends and comments outcoming from this complementary work will be integrated in a new version of the European humus forms reference base (and probably in a Report of the European Joint Research Centre we are preparing for 2012) and their authors too, of course.

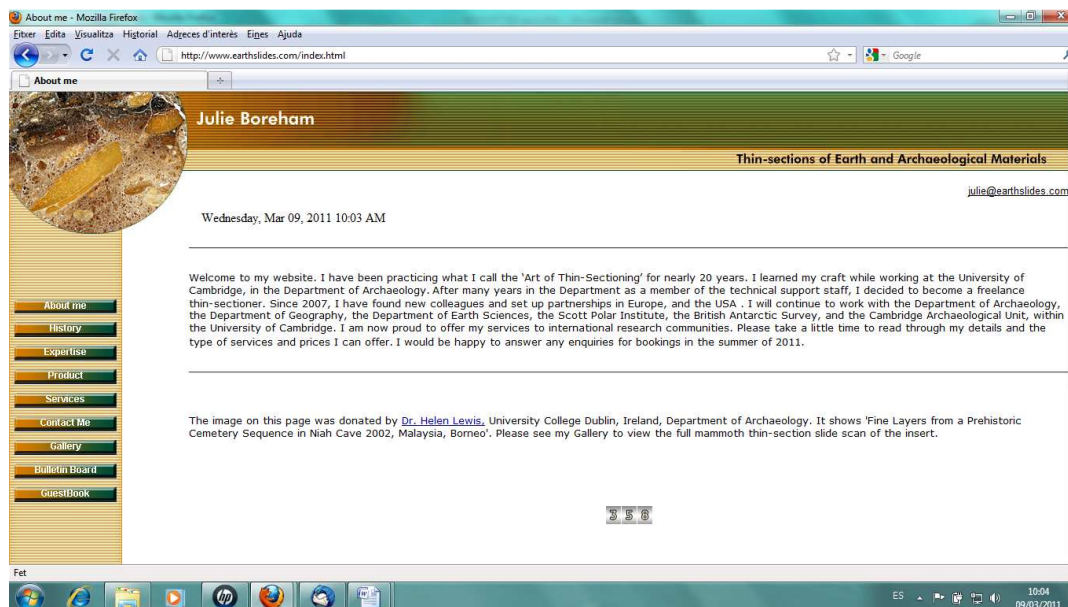
Please send the photos and information to Augusto Zanella: augusto.zanella@unipd.it

ADDRESSES OF WEBSITES DEALING WITH MICROMORPHOLOGY

Cédric Demeurie, a specialist of making rock thin sections, is sending us the following video from his web page, showing the whole procedure: <http://www.thinsectionlab.com/uk/videos.html>



Julie Boreham (see Research Notes below) also sends us the address of her web page J. Boreham. www.earthslides.com



Please send any micromorphology-related url to Przemyslaw Mroczek (loess@poczta.umcs.lublin.pl), who will post it in our web site with links to other sites dealing with micromorphology.

RESEARCH NOTES

Early PPNB (pre-pottery Neolithic B) Burnt Layers in a Thin-section from Tell Qarassa North (Sweida, Southern Syria)

A. Balbo¹, J. Boreham², E. Iriarte¹, A. Arranz³, L. Zapata³, C. Lancelotti¹, M. Madella^{1(a)}, F. Braemer⁴, J.J. Ibáñez¹

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Plate 1 shows a scan of a thin-section that comes from the destruction layers sealing the original inner floor of a sub-rectangular building dating from the mid-ninth millennium cal BC (9320± 50 BP, from AMS dating of charred seed remains). This micromorphology sample was 'horizontally' oriented across the layers representing the collapsed burnt beams of the building structure. The charcoal used for the construction of the roof is currently being identified to species level and traces of wood parasite have been observed. Phytoliths from the thatching of the roof found in other thin sections from the same context are currently under identification.

The geoarchaeological analysis of the roof structure is providing an insight into the palaeoenvironmental conditions surrounding the early settlement of Tell Qarassa, the sourcing of raw materials and the building technologies of the early farmers of the PPNB (Levant) period.

This thin-section, along with others from the site was prepared following the production methodology provided in the 'out of print' edition of 'Thin Section Preparation of Soil and Sediments', by C.P. Murphy, and adapted by Julie Boreham at earthslides.com. The samples were taken in the field with small aluminum monolith tins, or by 'free cutting' from the section and wrapping with clingfilm and tape. They were brought to the laboratory and unwrapped for air drying at 20°C for two weeks, before being impregnated under vacuum with a crystic polyester resin mix (1800 ml resin, 200 ml acetone, and 0.8 ml of MEKP - methyl ethyl ketone peroxide). After six weeks, the samples were hard-cured in an oven at 50°C, then cut into 4-5 mm width slices for thin-sectioning on a G. Brot Multi-grinder machine. In order to preserve the integrity of the charcoal, this slide and most of the others from site were taken off the machine at 28-30µm thickness to allow hand-finishing to the final 25µm thickness before coverslipping.

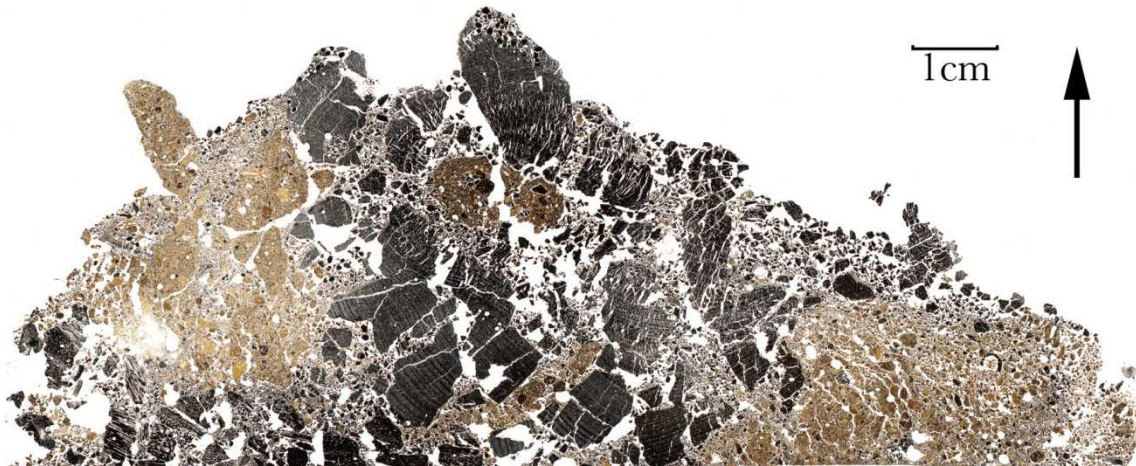


Plate 1 - Burnt Layers in a Thin-section from Tell Qarassa North (Sweida, Southern Syria)

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