

# **Commission 1.1 Soil Morphology & Micromorphology** *Newsletter*

May 2007, vol. 1, no. 1, p.1-10

## Letter from the Chair

Welcome to the first of many newsletters for Commission 1.1: Soil Morphology and Micromorphology! Many good things have happened since our meeting last summer at the World Congress of Soil Science in Philadelphia.

We have a new web page being maintained by Brad Lee and Phil Owens at Purdue University (<u>http://www.agry.purdue.edu/pedology/iuss/</u>). We are currently planning and organizing the 13<sup>th</sup> International Conference on Soil Micromorphology in Chengdu, China (<u>http://icsm.imde.ac.cn/</u>), which will be held September 11-16, 2008 – I hope to see all of you there!

I am pleased to announce that a meeting on the exciting new technology of X-ray computed tomography (CT) will be held this August 19-22 at the University of Guelph, Guelph, Canada, (contact Dr. Richard J. Heck <u>rheck@uoguelph.ca</u> for more information). Another exciting meeting will be October, 2-5, 2007 in Dnipropetrovsk, Ukraine, on Ecological Micromorpholodgy: A Prospective Way Of Research Of Soil As A Summarized Ecosystem Component. For more information see (<u>http://www.ssj.cv.ua/</u>).

Nominations are being accepted for new IUSS officers for the 2010-2014 term, and preparation for the 2010 World Congress of Soil Science, Brisbane Australia are underway. In fact, we need symposia proposals for the 2010 WCSS as soon as possible (see details below).

I'd also like to remind you of our New Young Micromorphologist's Publication Award -Applications are due to me by April 30, 2008. Please encourage anyone who fits the criteria to apply!

Details on all of these and more are below. Please send any new information to me, Brenda J. Buck (<u>buckb@unlv.nevada.edu</u>) or Rosa Poch (<u>rosa.poch@macs.udl.es</u>).

Sincerely Brenda J. Buck Chair, Commission 1.1 Dept. Geoscience, University of Nevada Las Vegas 4505 Maryland Parkway Las Vegas NV 89154

# Announcements

# Request for Proposals for Symposia at 2010 World Congress of Soil Science, Brisbane, Australia

The 19<sup>th</sup> World Congress of Soil Science to be held in Brisbane Australia in 2010 will have the theme "Soil Solutions for a Changing World". We are all well aware that our world is changing in many ways: global warming, increasing population, large emerging economies, increasing demand for high-protein food, renewable biofuels and so on. Unfortunately, we are aware of change largely because we are continuously confronted with the problems that change is bringing and the many demands that are made on our finite soil resources.

Rather than focus solely on the problems, the 19<sup>th</sup> WCSS will look forward to the ways in which soil science can help to address and solve the problems of our changing world. The issues presented by altered land use, more intensive agriculture, even a changing climate are all ones that we as soil scientists are interested in, and on which we are working to deliver solutions. The 19<sup>th</sup> WCSS will be our opportunity to showcase this exciting work.

As a first step in the process of developing the scientific program for the 19<sup>th</sup> WCSS, we are asking that you consider what symposia your Division / Commission could mount that will help to build the "Soil Solutions for a Changing World" theme. At this stage, we envisage that each Division and Commission will contribute one or two symposia to the Congress.

Please submit, by June 17<sup>th</sup>, your proposed title and one paragraph succinctly describing the scope of your proposed symposium. Submit to Brenda J. Buck (<u>buckb@unlv.nevada.edu</u>), Chair, Commission 1.1.

All submissions will be reviewed by the symposia committee, and a total of 3 proposals will be forwarded to the 19<sup>th</sup> WCSS committee for further review.

### New Award: Young Micromorphologist's Publication Award

Commission 1.1: Soil Morphology & Micromorphology will award the **Young** *Micromorphologist's Publication Award* every 2 years: at each International Working Meeting on Micromorphology, and at each World Congress of Soil Science. The first award will be given at the 13<sup>th</sup> International Meeting on Micromorphology in Chengdu China, Sept. 2008.

The purpose of this award is to encourage and promote the use of soil micromorphology by young scientists. The Award will be given to one or more young scientist who has published research in the preceeding 4 years, that is an outstanding contribution to the principles, methodology, or application of micromorphology. The author must be less than 35 years old at the time of acceptance of the publication, and he/she must be the first author. The paper must be published in an international journal with wide distribution, but not necessarily a scientific journal. The award is not restricted to papers published in the English language only.

The selection of the awardees will be the responsibility of the Kubiena Award Commitee. Applicants should submit the following: (1) a pdf file of the paper(s) to be considered for the award, (2) proof of age for eligibility (ex: photocopy of ID or other document with birth date), and (3) a cover letter explaining why they should be considered for this award. Letters of support from senior micromorphologists, outlining the qualities of the publication(s) are also welcome.

Applications are due April 30, 2008.

Send to:

Dr. Brenda J. Buck Department of Geoscience University of Nevada Las Vegas 4505 Maryland Parkway Las Vegas NV 89154-4010 buckb@unlv.nevada.edu

## **Upcoming Meetings**

13<sup>th</sup> International Conference on Soil Micromorphology, Chengdu China Sept. 11-16, 2008



#### **INVITATION FOR PARTICIPANTS**

On behalf of the Organizing Committee, we invite you to attend the 13th International Conference on Soil Micromorphology (ICSM) in Chengdu, Sichuan, China, September 11-16, 2008. The theme of the 13th ICSM is **"Soil Micromorphology: Micro-investigation on the Earth's Critical Zone"**.

Chengdu is the capital of "Heavenly State," Sichuan Province, located in the west of Sichuan Basin and in the center of Chengdu Plain, with a population of over 11 million. Chengdu was the place where the bronze culture, an indispensable part of ancient Chinese culture. In addition to its profound historical and cultural background featuring historic places of interest such as the Thatched Cottage of Du Fu, Wuhou Memorial Temple and Wenshu Monastery, etc, natural beauty abounds in surrounding areas such as in the Jiuzhaigou Scenic Area and Huang Long Valley. It is good chance to enjoy the most delicious food of Sichuan cuisine and tea culture at a teahouse with traditional opera performances.

An array of scientific tours including the Great Wall, QinTerracotta, Tibet, the Three Gorges and the National Panda Park, will provide unique opportunity to acquaint you with China soils, agricultural system, history, culture and recent social-economic development.

We promise you a scientifically and culturally stimulating 13th ICSM.

Sincerely yours,

Prof. Ahmet Mermut, Chair of Division 1 of the IUSS Prof. Brenda Buck, Chair of Commission 1.1 of the IUSS Prof. Xiubin He, Executive Chair of the 13th ICSM

For more information see: http://icsm.imde.ac.cn/



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE DNIPROPETROVSK NATIONAL UNIVERSITY DEPARTMENT OF GEOBOTANY, SOIL SCIENCE AND ECOLOGY RESEARCH INSTITUTE FOR BIOLOGY LABORATORY OF SOILS MICROMORPHOLOGY

CORDOBA UNIVERSITY (SPAIN), N. T. MASYUK LABORATORY UKRAINIAN NATIONAL ACADEMY OF SCIENCES COUNCIL ON SOIL SCIENCE OF UKRAINE UKRAINIAN ACADEMY OF CUSTOM DNIPROPETROVSK REGIONAL ADMINISTRATION DNIPROPETROVSK REGIONAL COUNCIL DNIPROPETROVSK REGIONAL SOCIETY OF ENVIRONMENT PROTECTION UKRAINIAN SOCIETY OF SOIL SCIENTISTS AND AGROCHEMISTS UKRAINIAN BOTANICAL SOCIETY UKRAINIAN ECOLOGICAL ACADEMY OF SCIENCES A. L. BELGARD INTERNATIONAL BIOSPHERE STATION OF PRISAMARYE

INTERNATIONAL SCIENTIFIC CONFERENCE

#### ECOLOGICAL MICROMORPHOLODGY: A PROSPECTIVE WAY OF RESEARCH OF SOIL AS A SUMMARIZED ECOSYSTEM COMPONENT

# (by the thirty-fifth anniversary of the laboratory of soil micromorphology of DNU)

2-5 October, 2007

Information letter

Dnipropetrovsk 2007

#### Dear colleague,

We are glad to invite you to participate in the International scientific conference

#### "ECOLOGICAL MICROMORPHOLODGY: A PROSPECTIVE WAY OF RESEARCH OF SOIL AS A SUMMARIZED ECOSYSTEM COMPONENT"

#### The conference schedule:

02. 10. 07 – Registration of the participants in the DNU Palace of students

(T.G. Shevchenko park) from 8-00 to 18-00.

03. 10. 07 – Opening ceremony.

Speech of welcome of the rector of Dnipropetrovsk National University, Prof. M. V. Polyakov Plenary and session reports.

04. 10. 07 – Trip to the Belgard's international biospheric station of Prisamarye. Holding a session. Decision making. 05. 10. 07 – Day of departure.

#### The main topics:

Micromorphological diagnostics of soils for the purposes of obtaining clean production, biodiversity protection and conservation of green nets.

Micromorphological diversity of soils in artificial and natural ecosystems.

Substantive, computer and technological methods of micromorphological analysis of pure and polished soil samples.

Micromorpholodgical properties of soils and their connection with the hierarchical levels of the ecosystems composition.

Micromorphological expertise in the custom practice; ecological and technogenic safety of Ukraine.

Anthropogenic and technogenic soils and particularities of their micromorphological structure.

Micromorphology of the forest-improved and forest chernozem soils.

Forest typology and soil micromorphology.

Chairman: Member of Ukrainian National Academy of Science, Prof. A. P. Travleev (Ukraine)

**Co-chairmen:** Prof. S.O. Shoba (Russia); Prof. N.A. Belova (Ukraine); Prof. L.P. Mytzyk (Ukraine); Prof. Jose Manuel Recio Espejo (Spain); Prof. J. G. Rey (India).

#### Program committee:

Dron' N.M., Polyshko O.M., Grodzinskyj D.M., Danylishyn B.M., (Ukraine) Dobrovol'skyj G.V., Karpachevskyj L.O., Balabko P.M., Skvortsova O.B., Bobrov A.O., Zubkova T.O., Stroganova M.M. (Russia), Gu Sijuy (China), Reyntam L. J. (Estonia), Stephan Skyba (Poland), Chertko N.K. (Byelorussia), Kuulyk A.F., Radchenko V.G., Jemyl'janov I.G., Bogovyn A.V., Gluukhov O.Z., Jeretevs'ka L.V., Cord'yuum L.L., Matvyjishina Z.M., Medvedev V.V., Movchan J.I., Parpan V.I., Pakhomov O. J., Uuzbek I. K., Tzarik J.V., Chornobaj J.M., Chernyshenko S.V., Shanda V.I., Shemavnyov V.I., Shelyag-Sosonko J.R., Shmatkov G.G., Juschuk J.D.

> Secretaries in charge: Iykorich V.A. stant researcher Gorban' V.A.

Balalayev O.K. 'akovenko V.M. /an'ko I.A.

#### Conference languages: Ukrainian, Russian, English.

Please, inform the committee about your plans to participate in the conference and send the application form and abstract(s) until May 31, 2007.

#### Address:

E-mails: <u>bmi@dsu.dp.ua</u>, ecologgrunt@yahoo.com

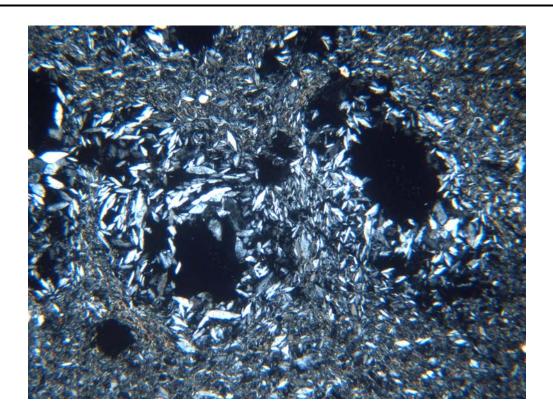
Dept. of Geobotany, Soil Science and Ecology; Faculty of Biology and Ecology, Build. 17, Dnipropetrovsk National University, Naukova st., 13, Dnipropetrovsk, Ukraine, 49050.

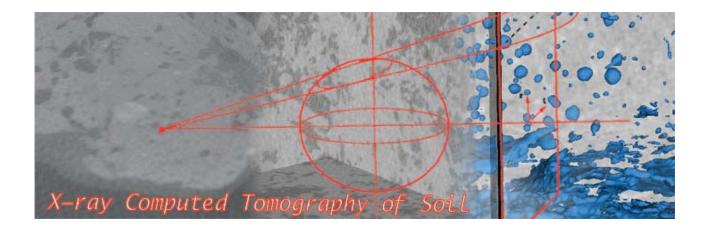
Tel.: +38 (056) 776-83-81, (0562) 46-92-55.

Please, visit following sites to find most recent information abut the conference: http://www.enj.cv.ua/, http://www.ssj.cv.ua/

#### **REQUEST FOR THE PARTICIPATION IN THE CONFERENCE**

ademic degree and status.	mail. riving to the conference ( <i>yes – no).</i> rticipation: plenary session, sections wor
ganization. dress, telephone number.	





# X-ray Computed Tomography of Soil

# University of Guelph, Guelph, Canada, 19-22 August, 2007

There is growing interest in the study of intact soil using X-ray computed tomography (CT). While the early work was focus on soil structure and hydraulic properties, there have also been attempts to apply this technique to other sub-disciplines in soil science.

A meeting, entitled "X-ray Computed Tomography of Soil", will be hosted at the University of Guelph in Guelph, Canada during August 19-22 of 2007. This meeting has received the endorsement of IUSS Commission 1.1, the Micromorphology Committee of the Soil Science Society of America, the Canadian Society of Soil Science, and the Brazilian Society for Soil Science. Interested researchers are asked to indicate their intention to contribute by sending an email to Dr. Richard J. Heck <u>rheck@uoguelph.ca</u>

At this time, we would also like to announce the launch of a virtual discussion forum, entitled 'X-ray CT of Soil', and invite all interested to join <a href="http://gis.lrs.uoguelph.ca/soilct">http://gis.lrs.uoguelph.ca/soilct</a>

### **Reports**

#### Report on the 2nd Intensive Training Course on Soil Micromorphology Barcelona-Lleida, 8-19 Jan 2007

The 2nd Intensive Training Course on Soil Micromorphology took place from the 8th to the 19th Jan 2007. It was organized by the Dept. of Environment and Soil Sciences of the U. of Lleida and the Dept. Of Crystallography, Mineralogy and Ore Deposits of the U. of Barcelona, and with the collaboration of the University of Ghent (Belgium).

It was attended by 23 participants from 15 countries (Argentina, Chile, Denmark, Finland, France, Germany, Hungary, Iran, Ireland, Italy, Nicaragua, Portugal, Russia, Spain and USA), with diverse backgrounds as agronomy, geology, soil science, geomorphology or archaeology.

The lectures covered a broad spectrum of subjects, from basic principles of optical mineralogy to micromorphology of specific soil materials. Practical sessions included demonstrations of soil sampling in the field, visits to labs for preparation of thin sections or demonstrations of submicroscopic techniques.

A weekend excursion, lead by Profs. J Porta, J Boixadera and EA FitzPatrick, was attended by eleven participants. Several soilscapes of Catalonia were visited, from semiarid environments near Lleida to oak mediterranean forests and rice fields of the delta of the Ebro river. The excursion finished with a paella at one of the mediterranean beaches.

The group showed great interest in the course, especially for the chance to ask about their research, work with the different lecturers, and share their experiences with their colleagues. They were enthusiastic and worked till late with the microscopes, either with their own material or with sets of thin sections provided by the course.

In spite of a flu virus that was flowing in the air, the course was a success in the sense that the participants learned the basic tools for the study of soil features and processes at a microscopical scale. Due to the positive experience, a third edition of the course will probably take place in 2009.

We hope that the outcome of this course is twenty-three new micromorphologists in the world!

Rosa M Poch (UdL) Àngels Canals (UB)

Lleida, 2nd February 2007

### **About Us**

IUSS Commission 1.1 Web Page http://www.agry.purdue.edu/pedology/iuss/

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> Rosa M. Poch, Vice Chair rosa.poch@macs.udl.es

Geoff Humphreys, 2<sup>nd</sup> Vice Chair <u>ghumphre@els.mq.edu.au</u>

