IUSS Commission 1.6

PALEOPEDOLOGY

Newsletter No. 23, 2011

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Stuttgart / Mexico City / Moscow, January 2012

Dear paleopedologists and friends,

A very active year 2011 with a number of bigger and smaller events is behind us, the main paleopedological highlight of the year was the successful joint conference of the Commissions Paleopedology and Soil Geography (see A2.). We are happy to see that so many members of our Commission are willing to work for the Commission, organizing diverse events in order to enable regular scientific exchange and stimulating new research through these meetings and workshops. Hence, we are also looking forward to a variety of events in the coming years.

This newsletter intends to report on the main activities in 2011 and to inform you about relevant events to come. Please understand that, from the information that was sent to us for the newsletter, we included only international activities that really have a paleopedological focus, and we did not include the names of sponsors of conferences.

In the mean time we have also continued working on getting back into INQUA as an official group. We are optimistic that we can inform you about a positive development in the coming months; the final decision about the establishment of new groups in INQUA is expected in March.

We now wish all of you a happy, peaceful, healthy and successful 2012, and we hope to see many of you at our upcoming meetings!

Sincerely,

Daniela Sauer, Sergey Sedov and Alexander Makeev **Commission officers**

A. CONFERENCES INCLUDING PALEOPEDOLOGICAL ACTIVITIES IN 2011

A1. Sessions at the INQUA Congress, Bern/Switzerland, 20-27 July

Members of the Paleopedology Commission organized two sessions at the INQUA Congress in Bern. One was a full-day paleopedological session, comprising three oral blocks and a poster session. It included two excellent invited talks and a number of interesting presentations of research from almost all over the world. The other session was an interdisciplinary session that aimed to bring together scientists working on paleo-reconstructions for the same time (MIS 5 to present) based on different archives (paleo-lakes, speleothems, paleosols, sediments). As mentioned earlier, it is one of the major wishes of the commission chairs and several active Commission members to enhance contacts and collaboration between paleopedologists and other researchers working on different archives, because we feel that there is still significant potential in improving paleo-environmental reconstructions by closer interdisciplinary collaboration. Therefore, we were happy to see that a number of colleagues were attracted by this idea so that two interesting oral blocks and a poster session could be held.

Paleopedological session

Indicators of climatic changes in saprolite, paleosols, polygenetic soils, and soil sediments (Conveners: Daniela Sauer, Mohammed Rafi G. Sayyed and Birgit Terhorst)

Oral Presentations	
Monday 25 July, 08.30 -	- 10.10
Presenter	Title
Fabio Scarciglia (invited)	Macro/micromorphological features and some other climatic proxies in paleosols and polygenetic soils
Sajid Hundekari	Textural control on the weathering of basic igneous rocks: A micromorphological approach.
Stefano Carnicelli	A Late Quaternary History of Coastal Plain Development Recorded in Palaeosols and Sedimentary Successions
Elizabeth Solleiro Rebolledo	Paleoenvironments of Late Pleistocene-Holocene in Sonora desert, NE Mexico based on the paleopedological proxies: study case in La Playa archaeological site
Neli Jordanova	Magnetic properties of soils from Livingston Island (South Schetlands, Antarctica) as indicators of weathering and pedogenesis
Monday 25 July, 10.50 -	- 12.30
Presenter	Title
Alexander O. Makeev (<i>invited</i>)	Paleopedology: new meaning for geosciences
Arnoud Boom	Molecular characterisation of dryland soil organic matter: implications for preservation in Quaternary sedimentary archives
Maria Dergacheva	Humic acids of paleosols and sediments as marker of Pleistocene - Holocene climate change
Stephen Wagner	Quaternary soils and soil sediments of the Balearic Islands as indicators of climatic changes
Cihat Alçiçek Mehmet	Abrupt transition from wet Pliocene into dry Pleistocene proved by faunal and isotopic composition of the palustrine carbonates and pedogenic calcretes in the Çal-Karahallı basin of SW Anatolia
Boris Brasseur	Pedo-sedimentary dynamics of Sangiran dome hominid bearing layers (L/M Pleistocene, Java central, Indonesia): a paleopedological approach of 'Pithecanthropus' (Javanese <i>Homo erectus</i>) environments
Monday 25 July, 15.50 -	- 17.30

Presenter	Title
Holger Kels	Stepping through the palaeolandscape: A transect from the Carpathian foothills to the lowland of the Romanian Banat
Haibin Wang	Assessing geochemical indicators of weathering and sorting in last interglacial palaeosols in the Chinese Loess Plateau and its implications for palaeoclimatic reconstruction
Qingzhen Hao	The record of changing hematite and goethite accumulation over the last 22 Ma on the Chinese Loess Plateau, from magnetic measurements and Diffuse Reflectance Spectroscopy

Mohammed Rafi Sayyed	Mineral Magnetic studies on lateritic profiles developed over the western continental margin of Deccan Basaltic Province, India
Gabriella Barta	Secondary carbonates and stable isotope studies of the Süttö loess-paleosoil sequence in Hungary
Junyi Ge	Magnetostratigraphy of the Xihe loess-soil sequence and implication for late Neogene uplift of the West Qinling Mountains

Poster Presentations

Monday 25 July, 14.45 -	15.50
Presenter	Title
Sorcha Diskin	Depositional palaeo-environments of the Boteti Delta, Makgadikgadi Pans (Botswana Kalahari)
Ju Yong Kim	Cyclic Paleosoils of Last Glacial Period(MIS 2-4) in the Geoarcheological Matrix of the Paleolithic Sites, Korea
Fabio Scarciglia	Middle Pleistocene paleoenvironmental changes recorded in a pedostratigraphic succession of Sessano (Molise, Italy): a multidisciplinary approach
Zhaoyu Zhu	Tracking for climate and parent rocks from rare earth elements in topsoils along the eastern part of China
Yuki Matsuoka	The effect of Mugineic acid secreted by rice plant Hinohikari on soil
Marco Firpo	Loess distribution on the northern flank of Ligurian Alps (NW-Italy): topographic influences and paleoenviromental implications.
Diana Jordanova	Application of multivariate statistical methods for assessment of feasibility of predicting the particle-size distribution from magnetic properties of different soil types from Bulgaria
Stephen Wagner	Reddening as climatic indicator? Investigations on Quaternary soils and soil sediments of the Balearic Islands
Sophie Baker	Geochemical and mineralogical investigation of a recently exposed saprolite profile in the Chilean Coastal Range
Michael Zech	Reconstructing Quaternary vegetation history in the Carpathian Basin, SE Europe, using n- alkane biomarkers as molecular fossils: problems and possible solutions, potential and limitations
Masashi Takada	Stable oxygen isotope of opal phytoliths from Japanese <i>Sasa</i> and <i>Phyllostachys</i> : Basic information toward the paleoenvironmental reconstruction
Lidia Danko	Aeolian records of abrupt environmental changes in southern Siberia during Middle-Late Holocene based on the research in the Lake Baikal Region
Tobias Sprafke	The loess/paleosol sequence Paudorf – An archive of Quaternary environmental changes in the loess area of Lower Austria
Xiaoyong Wang	Rock magnetic investigation of loess deposits in Luonan Basin (central China) and its paleoclimatic implications - A case study

Interdisciplinary session

Reconstructing environmental impacts of climate changes from MIS 5 to present, based on terrestrial and lacustrine archives

(Conveners: Stefano Carnicelli and Valérie Andrieu-Ponel)

<i>Oral Presentations</i> Friday 22 July, 10.50 - 12.30			
Presenter	Title		
Daniela Sauer (invited)	The potential of combining of lacustrine, palaeopedological and other palaeo- environmental archives – general idea and examples from the Late Pleistocene in the Mediterranean		
Daniela Moser	Soil charcoal analysis at Cecita Lake (Sila Massif, Southern Italy) for understanding environmental changes: climate or human impact?		
Nicole Limondin- Lozouet	New MIS 5e continental record from Northern France: the multidisciplinary study of Caours calcareous tufa (Somme basin)		
Claire Gallant	Examining the potential of loess in Southern Spain as an indicator of geomorphic response to climatic shifts: MIS5e to Holocene		
Lucy Farr	Recent geoarchaeological investigations in the al-Marj basin: providing a late Quaternary record of past palaeoenvironmental change in Cyrenaica, Libya		

Friday 22 July, 15.50 - 17.30

Presenter	Title
Yoav Avni (invited)	The concept of Natural Desertification – the Global approach
Sangheon Yi	Pollen-inferred Holocene environmental reconstruction in South Korea: vegetation change and human impact
Darren Jeffers	Glacial to glacial palaeoclimate and vegetation dynamics of the southern Beqaa valley, Lebanon
Carole Bégeot	Lateglacial and early Holocene environmental history of the southern Vosges mountains, North-East France

Poster Presentations Friday 22 July, 14.30 - 15.50

Presenter	Title
Yan Mu	Climate effect of dust aerosol in southern Chinese Loess Plateau since the last glacial period
Sangheon Yi	Holocene vegetation and environmental changes in small inter-valley of the Paju area, South Korean
Janneke I Jmker	Geochemical and sedimentological analyses of dune fields on the NE Tibetan Plateau and their environmental implications
Georg Stauch	Sediment cascades on the north-eastern Tibetan Plateau – an example from the Donggi Cona catchment
Fabio Scarciglia	Pedological and anthracological study of Holocene soils for paleoenvironmental reconstructions: a comparison between two archaeological sites in Calabria, southern Italy
Julie Dabowski	Multiproxy record of environmental and climatic variations during the Eemian from the Northern France calcareous tufa of Caours: combining petrography, malacology and geochemistry
Jeroen Schokker	Palaeoclimatic significance of an Early to Middle-Weichselian lacustrofluvial sedimentary record in the North-Western Netherlands
Hanane Redda	Sedimentology and geochemistry of lacustrine terraces of three Middle Atlas lakes: Holocene paleoclimatic reconstruction in Morocco.
Stefan Winkler	A new method of obtaining high-resolution paleoclimate records from speleothem fluid inclusions
Amos Frumkin	Late Quaternary palaeoclimate of the southern Levant from stromatolites and speleothems of the Dead Sea region
Yoav Avni	Is the transition from aggradation to incision during the last glacial-interglacial shift in the two hemispheres synchronous? The Southern Levant and the South Australia case studies
William Sallun Filho	Paleoclimatic records of quaternary tufa in the Serra do André Lopes karst, southeastern Brazil
Sallun A. Ernandes Martins	Holocene changes inferred from the geochemistry of paleolagoon sediments in southern Brazil
Alison Blyth	Reconstructing terrestrial palaeotemperatures using microbial lipids preserved in stalagmites
Alison Blyth	Palaeoenvironmental change in Australasia during the last 50 ka: a novel multi-proxy stalagmite analysis
Natalie Ludgate	The use of lipid biomarkers from cave sediments as palaeoenvironmental indicators in South-East Asia
Shyhrete Shala	Early Holocene glacial-lake evolution in northern Finland - a multi-proxy approach.
Olga Margalef	Climatic trends for the last 70 ky BP in the SE Pacific: the Rano Aroi and Rano Raraku records from Easter Island
Hikaru Takahara	Vegetation reconstruction in MIS5e and MIS5d based on plant remains from the Mizukiri Peat layer, Fukui, western Japan. Part 2: Local vegetation changes from plant macrofossils
Ryoma Hayashi	Vegetation reconstruction in MIS5e and MIS5d based on plant remains from the Mizukiri Peat layer, Fukui, western Japan. Part 1: Chronology and regional vegetation from pollen data
Isabelle Couchoud	Multi-proxy study of Holocene speleothems from high altitude caves in the French Alps: preliminary insights on climate and landscape variations
Andrzej Tatur	Late Pleistocene and Holocene environmental changes from lake sediments in Larsemann Hills, East Antarctica
Emma Gatti	Drough and flood in Holocenic Western India: a study on phytolith and paleosequences of the Mahi river, Gujarat.
Ian J Orland	Seasonal resolution of Eastern Mediterranean climate change since 34 ka from a Soreq Cave speleothem
Mona Court- Picon	Reconstruction of environmental and climatic changes during the Late Glacial at Moerbeke (Flemish Valley, Belgium) using multiproxy lake sediment analyses
Irina Panyushkina	High-resolution terrestrial MIS3 environment from trees encapsulated in landslide deposits of Oregon, USA

A2. Conference "Landscapes & Soils through Time", Hohenheim Castle, Stuttgart/Germany, 28 July – 1 August

https://ppsg2011.uni-hohenheim.de/

The conference was a joint activity of the Commissions Paleopedology and Soil Geography. It was organized by Daniela Sauer together with Reinhold Jahn (Chair of Soil Geography Commission) and Karl Stahr (Chair of IUSS Division 1) in the Castle of Hohenheim at Hohenheim University, Stuttgart (Germany). It started with a welcome barbecue in the evening of Thursday, July 28 - accompanied by heavy rain and thunder, which however did not lessen the good temper of the conference participants sheltered under the big balcony of the Castle of Hohenheim. The next two days brought a stimulating program of diverse oral and poster sessions (see below). In the end of the two days, a jury, composed of Hema Achyuthan, Seppe Deckers and Irina Kovda, had the difficult task to select among a number of brilliant talks the three best young scientists' talks:

Björn Buggle, **Martina Gocke** and **Michael Zech & Roland Zech** (alphabetical order) received the three Young Scientists Awards for the best oral presentations.

A second jury, composed of Maria Bronnikova, Michal Jankowski and Michael Zech, had to make the same difficult decision between many excellent posters:

The three PhD students **Jochen Berger**, **Tobias Sprafke** and **Rosa E. Tovar** (alphabetical order) received the three Young Scientists Awards for the best posters.

The six prices were sponsored by the company UGT Müncheberg, Germany.

Session 1: The Mediterranean during the Quaternary (Convener: Daniela Sauer)			
Stephen Wagner, Armin Skowronek,	Micromorphogenesis of Quaternary soils and soil sediments on the Balearic		
Norbert Günster	Islands		
Hirsch, F. and Raab, T.	Soil formation on Late Quaternary sediments in the Central Pyrenees (Spain)		
Edoardo A.C. Costantini, Pierluigi	The Quaternary events determine the soil functional characters of Terroir		
Bucelli, Simone Priori			
Bernhard Lucke, Helga Kemnitz,	Isovolumetric replacement in Terrae Rossae of Jordan		
Rupert Bäumler	-		
Session 2: Holocene soil developmen	t in temperate climates and the role of relief (Convener: Reinhold Jahn)		
Alexander Alexandrovskiy	Deep soil processes at ancient kurgans in humid landscapes		
	of the Northern Caucasus		
<u>Lidia V. Danko</u>	Paleosols of the western Lake Baikal coast: Holocene environmental change		
	records		
Michał Jankowski	The evidence of lateral podzolization in sandy soils of Northern Poland		
Jürgen Kühn, Joachim Ingwersen,	Silica content in soil water and silica export from a sandstone catchment in		
Thilo Streck	the Black Forest, Southwest Germany		
Session 3: Soils and paleosols in low	latitude regions (Convener: Edoardo Costantini)		
Elizabeth Solleiro-Rebolledo,	Soil genesis in karstic environments of Yucatan: the use of mineralogical and		
Hector Cabadas	geochemical indicators		
Victor Peña, Lorenzo Vázquez-	Rates of pedogenic processes on volcanic tephras of late Pleistocene to		
Selem, Christina Siebe	Holocene age in Central Mexico		
JT. Cornelis, M. Dumon,	The genesis of an Ethiopian Vertic Planosol elucidated by the study of silicon		
A.R. Tolossa, B. Delvaux,	dynamics in the topsoil		
J. Deckers, E. Van Ranst			
Karl Stahr, Aidara C. A. Lamine	Soils and minerals of a terrace landscape in the Sine – Saloum Basin		
Fall, Sabine Fiedler, Mehdi Zarei	(Senegal)		
Session 4: Soil and paleosol studies in archaeological contexts (Convener: Elizabeth Solleiro Rebolledo)			
Serafín Sánchez Pérez; Elizabeth	The "Blacks" paleosoils of Teotihuacan period as indicators of paleoclimatic		
Solleiro Rebolledo; Sergey Sedov;	conditions and anthropogenic disturbances		
Emily McClung de Tapia			
Sergey Sedov	Late Pleistocene paleosols and ecological setting of modern humans		
	dispersal: cases from European Russia and Mexico		
Alexander Alexandrovskiy, Elena	Urbosediments formation in old Cities of European Russia		
Alexandrovskaya, Andrey Dolgikh			
Alexandra Golyeva, Maja Andrič	Palaeoecological reconstruction of wetlands and Eneolithic site from		
	Ljubjansko barje (Slovenia) based on biomorphic and pollen analysis		
Business meeting Paleopedology Con	Business meeting Paleopedology Commission		

Oral sessions on Friday, July 29

Two one-day field trips followed. The first to the Swabian Alb, where diverse polygenetic soils were shown, characterized by Tertiary weathering in warm-humid climate and later influence by loess deposition and periglacial processes. We also visited the Steinheim impact crater and a well-preserved cliff of the Tertiary sea in the Jurassic limestone. On the way back we stopped at the Roman rampart "Limes".

The second field trip led to the Black Forest. It included a Triassic Gleysol preserved in the Lower Triassic "Buntsandstein" geological unit and the 35 m high loess-paleosol section of Riegel reaching back beyond the Jaramillo Event 0.99-1.07 My, and a catena of recent soils demonstrating typical lateral element flows (iron depletion on the upper slope and iron enrichment on the lower slope) in the landscape of the Black Forest mountains.

Oral	sessions	on	Saturday,	July 30
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Session 5: Molecular methods in paleopedology (Convener: Karl Stahr)			
Martina Gocke, Yakov Kuzyakov, Guido L.B. Wiesenberg	Rhizoliths in loess: Quantification of postsedimentary incorporation of root derived carbon using lipid molecular proxies		
<u>Guido L.B. Wiesenberg</u> , Stefanie Birkner, André Nestler, Alexander Krauss, Frank Wiesenberg, Ulrich Hambach	Source apportionment of anthropogenic and wild fires in paleosols using molecular proxies		
<u>M. Zech</u> , B. Buggle, K. Leiber, S. Markovic, B. Glaser, U. Hambach, B. Huwe, T. Stevens, P. Sümegi, G. Wiesenberg, and L. Zöller, L.	Reconstructing Quaternary vegetation and climate history from loess-paleosol sequences using <i>n</i> -alkane biomarkers and their D/H ratio as molecular fossils – potential and limitations, problems and possible solutions –		
<u>Roland Zech</u> , Yongsong Huang, Michael Zech, Rafael Tarozo, Wolfgang Zech	A 240 ka permafrost loess paleosol sequence reveals an important role for terrestrial carbon sequestration during ice ages		
Session 6: Isotopic and microscopic r	nethods in paleopedology (Convener: Christina Siebe)		
<u>Konstantin Pustovoytov</u> , Daniela Sauer, Sergey Sedov, Elizabeth Solleiro-Rebolledo, Karl Stahr	Late Quaternary pedogenic carbonates in Mexico and their potential as a paleoenvironmental archive		
<u>Irina Kovda,</u> Evgeny Morgun, and Natalia Golubeva	Stable isotopic composition of carbonates in modern and paleosoils, south of the European part of Russia		
<u>Natalia Kovaleva</u> , Ivan Kovalev	Mountain soils of Eurasia as a palaeoclimatic archive of Late Pleistocene and Holocene		
Hema Achyuthan	Calcretes and ferricretes in the Thar desert Rajasthan: indicators of Quaternary climate and hydrography change		
Session 7: Pleistocene paleosol record	ds from central Europe to China (Convener: Sergey Sedov)		
Vancampenhout, K., Langohr, R., Slaets, J., Buurman, P., Swennen, R. and Deckers, J.	High-resolution record of soil formation during the Eemian and Early Weichselian in the Belgian loess belt (Rocourt Pedosequence at Veldwezelt- Hezerwater)		
<u>Björn Buggle</u> , Ulrich Hambach,	The SE-Central European lowlands during the past 700.000 years		
Martin Kehl, Slobodan Markovic and Bruno Glaser	 Climate and landscape history preserved in loess paleosol sequences and revealed by paleopedological-geochemical multiproxy records 		
<u>Xue-Feng Hu</u> , Fang-Ping Cai, Yan Du, Jiang-Wei Feng	Soil profiles with Yellow-brown Earth overlying Red Clay along the Yangtze River in southeastern China: Does it record a great paleoclimatic change during the Last Interglacial – Last Glacial cycle?		
Session 8: Pleistocene-Holocene pedogenesis in Russia (Convener: Alexander Makeev)			
Svetlana Sycheva	Permafrost and Paleosoils of a periglacial area of the Russian plain in Late Pleistocene		
<u>Maria Bronnikova</u> , Andrey Panin, Ol'ga Uspenskaya, Irina Turova	Late Pleistocene – Holocene environmental changes in extra-continental sub- arid permafrost-affected landscapes of the Southern Siberia		
Elena Cherepanova	Ecological features of the formation of soils of the steppe zone of the Altai Territory in the example of soils villages Volodarka		
Business meeting Soil Geography Commission Conference Dinner in the Cellar of the Castle			

Poster session 1: Friday July 29, 2011 (Convener: Roland Zech)

M Lourdes González-Arqueros Lorenzo	Geomorphological manning and terrain analysis of the Teotihuacan Valley, central
<u>M. Lourdes Conzalez-Arqueros</u> , Lorenzo Vázquez Selem, LE, Gama Castro	Maxico. Integrating stratigraphy and soil arosion history.
Frily McClung de Terrie	Mexico. Integrating stratigraphy and son croston history
Emily McClung de Tapia	
<u>Rosa E. Tovar</u> , Sergey Sedov	The late Pleistocene environments in the south of Puebla: paleosols, fossils and other
	biological proxies from alluvial sequences
Rosa E. Tovar, Sergey Sedov	Disharmonious evidences in fauna and paleosols during Last Glaciation in México
Roberta M. Bueno, Francisco S. B.	Paleosols of Urucuia Group, Brazil
Ladeira	
Roberta M. Bueno, Francisco S. B.	Environmental Indicators in the Paleosols of Marília Formation - Ouintana, Brazil
Ladeira	
Fernanda Aparecida Leonardi, Francisco	Laterite bauxite profiles in the Poços de Caldas Plateau (Brazil) and its relations with
Sérgio Bernardes Ladeira, Marcilene dos	geomorphological units
Santos	
Fernanda Aparecida Leonardi, Francisco	Geochemistry of the laterite iron profiles of the Quadrilátero Ferrífero/MG, Brazil and
Sérgio Bernardes Ladeira	its relation with old surfaces
Jochen Berger, Jörn Breuer, Karl Stahr,	Bohnerz as lateritic palaeo-weathering residue: Geochemical differentiation and
Sabine Fiedler	possible parent materials
Martina Gocke, Konstantin Pustovoytov,	Rhizosphere processes and temperature affect recrystallization rates of pedogenic
Yakov Kuzyakov	carbonates: Relevance for paleoenvironmental studies
Xue-Feng Hu, Sheng-Qiong Fang, Xiao-	Spatial variation of grain size and heavy metal contents in intertidal wetland soils of
Jiang Gao, Shi-Yuan Xu	the Yangtze Estuary, China
Sabine Fiedler, Reinhold Jahn	Lateral element and matter redistribution in hydric landscapes in the Black
	Forest (Germany)
Seungwoo Lee, Jaekyung Byun, Jinhyeon	Soil organic carbon (SOC) stocks in forested areas, South Korea
Cheong	

Poster session 2: Saturday July 30, 2011 (Convener: Alexandra Golyeva)

<u>Tobias Sprafke</u> , Birgit Terhorst, Robert Peticzka, Franz Ottner, Christine Thiel	The loess/paleosol sequence Paudorf – An archive of Quaternary environmental changes in the loess area of Lower Austria
<u>Michał Jankowski</u> , Renata Bednarek, Józef Bednarczyk, Aleksander Kośko	Soils and sediments at the Gąski archaeological site - the Kuiavia region, Poland
Erhard Schulz, Vasile Muntean and Stelian Nistor	Carpathian Heritage. Mining deposits and early stages of soil formation
<u>E. Schulz</u> , H. Biester, A.Bogenrieder, E. Eckmeier, O. Ehrmann, R. Gerlach, M. Hall, C. Hartkopf-Fröder, L. Herrmann, B. Kury, M. Rösch, W. Schier	How long will it take? Regeneration of vegetation and soil after clearing, burning and cultivation. The Forchtenberg-Experiment
Yuriy Dmytruk	Upper Pleistocene and Holocene soils evolution in Forest-Steppe, Western Ukraine
Tatiana Khomutova, <u>Natalia Kashirskaya</u> , Tatiana Demkina, Vitaly Demkin	Microbial indication of climatic changes in paleosoils of archeological monuments in the steppe zone of Russia
Maxim Yeltsov, Alexander Borisov, Tatiana Khomutova, Tatiana Demkina, <u>Natalia Kashirskaya</u> , Vitaly Demkin	Paleosoils and climate changes in steppes of Eastern Europe in ancient times and middle ages (IV mil. BC – XIV c.)
<u>Tatiana Pampura</u> , Vitaly Demkin, Anne Probst	Environmental reconstructions using Pb isotopes in buried soils
Olga Khokhlova, Sergey Sedov	Polygenesis of the Early-Middle Pleistocene paleosols of Armenia: micromorphological evidences
Nazanin Khakipour, Abdolreza Akhgar, Azadeh bapiri, Atena Alipour and Abbas Ahmadi miarkolaie	Identification and Isolation of Mollisols in Savadkooh region, Iran
<u>Saber Esmaeil zadeh</u> , Nazanin Khakipour, Vilma Bayramzadeh, Aboalfazl Moeini, Atena Alipour and Abbas Ahmadi	The effect of climatic changes and changing in land use on the existing soils in two aquiferous districts of Zirab and Delavarrood, Iran
Marcella Catoni, Gloria Falsone, Eleonora Bonifacio	Pedogenic carbonate quantification and surface proprieties evaluation in a soil from the Valle Versa Chaotic Complex (NW Italy)
Sebastian Vogel, Michael Märker	Characterization of post-burial soil developments of the Roman paleosol near Pompeii (Italy) after the AD 79 eruption of Somma-Vesuvius
R. Al-Sharif, <u>D. Sauer</u> , S. Wagner, H. Brückner, F. Scarciglia, A. Hilgers, S. Heibili, T. Scholten, K. Stahr	Pleistocene soil development in Calabria and Basilicata, southern Italy
Khanchoul K., Boukhrissa Z., Majour H.	Statistical modelling of suspended sediment transport in the Cherf drainage basin, Algeria
Stephen Wagner, Armin Skowronek, Eileen Eckmeier, Norbert Günster	Reddening as climatic indicator? Investigations on Quaternary soils and soil sediments of the Balearic Islands

Impressions of the Conference "Landscapes & Soils through Time"



In the lecture room



Poster session





Conference dinner in the castle's cellar (Daniela, Roland & Michael in traditional Bavarian dresses)



Presentation of Young Scientists Awards



Post-conference field trip



Group photo on the castle's balcony in front of the lecture room. Thanks to Irina Kovda for photo no. 4 and Andrey Dolgikh for all other photos!

B. WORKSHOPS, TRAINING COURSES, SUMMER SCHOOLS IN 2011

B1. 4th Intensive Training Course on Soil Micromorphology, Tübingen/Germany, 28 March – 8 April 2011

The course was organized by Daniela Sauer and Peter Kühn. It was mainly a Commission 1.1 activity, but of course soil genetic and paleopedological topics played an important role in the course that was attended by many PhD students and young scientists working on paleopedological and geoarchaeological research questions. Financial support from the German Soil Science Society and ERASMUS and private accommodation of several lecturers at the organizers' homes enabled us to offer the course to the participants – mainly PhD students and young scientists – at much lower costs than in previous years. The Petrology Group of the University of Tübingen, hosted the course in their well-equipped microscopy room. Thus, 22 PhD students and researchers from 11 countries (Colombia, Croatia, Germany, Israel, Italy, Netherlands, Poland, Russia, Serbia, Switzerland, United Kingdom) could participate. During many practical exercises participants could discuss also their own thin sections with the lecturers.



Georges Stoops giving a lecture.

The first week included an introduction to sampling techniques and thin section preparation (Peter Kühn, Tübingen), mineral identification (Thomas Wenzel, Tübingen), concepts, and terminology of thin section analysis and description (Georges Stoops, Ghent, Belgium).

Two one-day field trips were guided by Karl Stahr and Christoph Prade (both Hohenheim University) 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 diverse 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 (Birgit Terhorst, Würzburg) and micromorphological characteristics of desert soils with calcareous and gypsic materials (Rosa-Maria Poch, Lleida, Spain), of materials in archaeological and geoarchaeological context (Christopher Miller, Tübingen), of paleosols and volcanic soils (Sergey Sedov, UNAM Mexico), and of organic surface horizons (Otto Ehrmann, Creglingen and Daniela Sauer, Hohenheim). During the second week Peter Kühn also gave a practical introduction of thin section preparation in the Soil Science and Geoecology Laboratory of the 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 applicants for the course (less than half of them could be accepted) and especially the fact that many students brought their own thin sections, looking for help in interpreting them, clearly shows that there is further need for such intensive training courses.

B2. 3rd Geochronology Summer School, Bergün/Switzerland, 4–9 September 2011

The successful geochronology summer school was held for the third time. It was organized by Markus Egli (University of Zürich), Dagmar Brandova (University of Zürich), Paolo Cherubini (WSL: Swiss Federal Institute for Forest, Snow and Landscape Research), Holger Gärtner (WSL), Susan Ivy-Ochs (University of Zürich / ETH), Klaus Felix Kaiser (University of Zürich, WSL). Topics included numerical dating methods (radiocarbon, exposure dating with cosmogenic nuclides, OSL, etc.), dendrochronology, ice-core chronologies as well as relative dating methods (soil weathering, Schmidt-hammer technique, etc.), reconstruction of environmental parameters (dendroecology, stable isotopes, etc.), climate and landscape history (forest fires, charcoal identification and dating), reconstructing geomorphic processes (avalanches, debris flows, rock fall, etc.). The summer school will be offered again on 2–7 September 2012 (see D).

B3. Round Table on Upper Paleolithic environmental research of Kostiënki and Borshchevo, Russian Plain, Tübingen/Germany, 4-11 November 2011

Kostiënki and Borshchevo, a group of Upper Paleolithic sites near Voronezh, Russia presents one of the earliest evidences of modern humans in Eastern Europe. During the last decades it became an object of different approaches used in Pleistocene archaeological contexts.

The seminar on geoarchaeology of Kostiënki and Borshchevo was organized by Dr. Dana Pietsch and held at the Geographical Institute, University of Tübingen in the framework of an 'Initiation of bilateral cooperation' project (DFG PI 452/4-1). The event brought together archaeologists and earth scientists interested in developing paleo-ecological reconstructions placed in a reliable timeframe and linked to cultural development. Major importance was given to the paleopedological research in Kostiënki and Borshchevo.

The seminar included one afternoon of public lectures given by invited participants. Andrey Sinitsyn and Sergey Lisitsyn (RAS St. Petersburg) spoke about the current state of archaeological investigations in Kostiënki and Borshchevo, Anastasia Markova (RAS Moscow) talked about paleo-ecological implications of mammal paleontology. A series of paleopedological presentations followed. Sergey Sedov (UNAM) discussed general trends of paleopedogenesis along the colluvial sequence of Kostiënki 14, Peter Kühn (University of Tübingen) focused on MIS2 paleosols, whereas Dana Pietsch with enthusiasm presented the paleopedological aspects of krotovina research. A very informative excursion to the world famous Paleolithic sites of Swabian Alb was perfectly guided by Christopher Miller (University of Tübingen).

Other important parts of the round table event included discussion meetings of the participants and specialists of the University of Tübingen and a visit of the archaeological and paleontological collections.

The round table was an example of a very successful small-scale event aimed on developing a specific research topic involving international participation and expertise. In particular it showed that there is growing interest in paleopedology as a tool for local paleo-ecological reconstructions in the frame of Paleolithic archaeological projects.



Excursion to Paleolithic sites of the Swabian Alb.

C. UPCOMING CONFERENCES INCL. PALEOPEDOLOGICAL ACTIVITIES

C1. Round Table "Geology, paleo-surfaces and landscape evolution", Mar del Plata/Argentina, 16-20 April 2012

http://www.congresodesuelos.org.ar/site/

A Round Table "Geology, paleo-surfaces and landscape evolution. Their importance for genesis, cartography and use of soils" will be organized in the frame of the XIX Latin American Congress of Soil Science (XIX Congreso Latinoamericano de la Ciencia del Suelo) in Mar del Plata, Argentina. Ancient deep soil and weathering mantles developed under humid tropical climate on the paleo-landsurfaces of Gondwana are announced as the main topic of this event.

C2. EGU (European Geosciences Union) General Assembly Vienna/Austria, 22–27 April 2012

http://meetings.copernicus.org/egu2012/

The EGU division SSS (Soil System Sciences) has scheduled a special programme group on paleosols for the EGU meeting:

SSS10 – Soil as a record of the past

Four sessions have been proposed for this programme group:

SSS10.1: Past Soil Erosion and Sustainability

Convener: T. Vanwalleghem, Co-Convener: M. Dotterweich

SSS10.2: Natural archives of human impacts and palaeoenvironmental and palaeoclimatic changes

Convener: C Zaccone, Co-Conveners: L. Bragazza, C. Barbante

SSS10.3: Stable Carbon on Earth: nature, occurrence, role on soil archives Convener: M.-A. Courty, Co-Conveners: R. Paradelo, P. Barre

SSS10.4: Geochronology of paleosols

Convener: Dr. J.M. van mourik, Co-Conveners: J Wallinga, S.J. Kluiving

In addition, several sessions related to paleopedological research have been proposed in other programme groups:

Session SSS1.8: Soils and Climate Change. A past to present perspective

Convener: M. Kutilek

Dr. M. Kutilek has informed us also about his recent paper: "Soils and climate change", published in Soil & Tillage Research 117 (2011) 1–7. If you are interested but do not have access to this journal you may contact him for a pdf: <u>miroslav.kutilek@volny.cz</u>

SSS1.9: Evolution of soil properties in space and time. From prediction to validation. Convener: P. Pereira, Co-Conveners: J. P. Nunes, K. Schwärzel, S. Carrick

SSS2.1: Nanosized iron oxides in soils: agronomic, environmental and palaeoenvironmental significance

Convener: J. Torrent, Co-Conveners: S. Kraemer, Gomez

C3. Goldschmidt Congress Montreal/Canada, 24-29 June 2012

http://www.goldschmidt2012.org

We would like to point particularly to the following session:

Session 7d: Records of climate change from terrestrial archives: paleosols and loess *Convenors: Mohammed Rafi G. Sayyed (India), Martine Gerard (France)*

The driving forces of evolution of Earth's climate, from cold snowball Earth to warm greenhouse state, can be revealed and quantified by paleoclimate studies. Nowadays fragile global environmental conditions demand urgent improving of the understanding of paleoclimates to better predict climate change. The physical, chemical and biological composition of ancient soils or more polygenetic buried soils hold great potential as proxies for regional paleo-climate and paleoatmospheric circulation patterns as well as paleo-atmospheric pCO₂ variations for intervals of Earth's history characterized by extreme and abrupt environmental perturbations. More understanding of the mechanisms that influence biogeochemical data preservation in the proxies is needed to avoid biases of interpretation. Once these issues are addressed, the geochemistry of paleosols can provide both qualitative and semi-quantitative information about the changing redox state of the atmosphere since the Precambrian times. Paleosol-loess sequences also have a great potential for the evolution of climate throughout Earth's history as they have preserved detailed climatic records of stepwise terrestrial climate change. We invite contributions that investigate various biogeochemical proxies of the evolution of the climate system from Precambrian to Holocene as well as on extreme events (e.g. LIPs related to catastrophic global climate impacts and mass extinctions events).

C4. Eurosoil Congress Bari/Italy, 2-6 July 2012

www.eurosoil2012.eu

The following two paleopedological activities are scheduled for the Eurosoil Congress:

- Business Meeting of the Commission on Paleopedology
- Symposium S1.1.: Soils and sediments as natural archives

Conveners: Daniela Sauer, Claudio Zaccone, Alexander O. Makeev, Sylvie Quideau Co-Conveners: Fabio Scarciglia, Carlo Barbante, Luca Bragazza

Paleosols and polygenetic soils together with lake and peat deposits, speleothems, and ice-cores represent natural archives of past changes in the atmosphere, biosphere, hydrosphere, and anthropogenic inputs on different temporal and spatial scales. Anthropogenic activities have more recently created a new kind of archive: Technosols, i. e. young soils developing in technogenic parent materials. The session will be devoted to pedological and multi-proxy studies of these different archives. The Session will comprise two oral blocks of six talks each and a poster session.

C5. International Micromorphology Meeting Lleida/Spain, 8-14 July 2012 http://www.lleida2012.udl.cat/

The diverse program of the meeting will include several sessions related to paleopedology:

Session 8: Micromorphology for paleopedology and loess-paleosols sequences

Convener: Daniela Sauer, Co-Conveners: Sergey Sedov, Peter Kühn, Xiubin He The existing sets of pedogenic features in palaeosols and pedosediments allow for a

The existing sets of pedogenic features in palaeosols and pedosediments allow for reconstructing the processes involed in the formation of relic and buried soils and can thus be used as environmental indicators based on the process-oriented paradigm: factors -- processes -- features. In a pedostratigraphic context, those features in their relation to the environmental setting play a key role for paleoenvironmental reconstruction. This session focuses on established and new micromorphological methods and particularly on combination of methods applied to the analysis and interpretation of palaeosols and pedosediments, including loess-paleosol sequences. These palaeo-environmental proxies may possibly be correlated with other palaeo-climatic and palaeo-environmental archives to better understand the climatic, ecological and environmental changes, particularly during the Pleistocene and Holocene.

Session 9: Site-formation processes in archaeology and cultural landscapes

Convener: Richard MacPhail, Co-Conveners: Luca Trombino, M Agnès Courty, M Mercè Bergadà The use of soil micromorphology in archaeology has developed exponentially over the last decades both in numbers of workers and sites studied. Much of this is due to funding opportunities related to commercial archaeology (mitigation projects) carried out within research contexts. Importantly, these may often parallel crucial academic investigations of non-threatened sites and fundamental research. This session, therefore, will include both examples of our developing research database and how aspects of this research are applied to the very many diverse sites that require investigation. Subjects to be covered are the employment of soils and sediments to interpret past land use and human impact, and the analysis of archaeological materials and features. Our chief aim is to demonstrate how all these can be integrated for the accurate interpretation of palaeoenvironmental and cultural contexts.

Session 10: Archaeometry and geoarchaeology

Convener: Selim Kapur, Co-Convener: Alexander Tsatskin

Soils are increasingly understood as associated with other Earth's materials and functions. Our session encourages researchers from various backgrounds to present their cases in which micromorphological visualization serves for better understanding the dynamics of the Earth's processes. Linkage between micromorphology and geosciences is our new joint endeavor, and we welcome the topics of diverse coverage from weathering of rocks through the creation of biologically affected microstructures through the compatible conservation of historic objects and buildings, as e.g. being currently developed in the Mediterranean world of classical monumental and vernacular architecture.

C6. International Conference "Geomorphic Processes and Geoarchaeology. From Landscape Archaeology to Archaeotourism" Moscow-Smolensk/ Russia, 20-24 August 2012

http://Geoarch2012.narod2.ru

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. Palaeo-environment 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.

Conference venue: Smolensk University for Humanities (SHU) <u>www.shu.ru</u>.

Official language: English.

<u>Local organizers:</u> Smolensk University for Humanities (SHU) <u>www.shu.ru</u> Russian Association of Geomorphologists <u>www.geomorphology.ru/</u> <u>Scientific program:</u> State Historical Museum, Moscow (SHM) <u>www.shm.ru/en/</u> Faculty of History, Moscow State Lomonosov University (MSU) <u>www.msu.ru/en/</u>, <u>www.hist.msu.ru/English/</u> Faculty of Geography, Moscow State Lomonosov University (MSU) <u>www.msu.ru/en/</u>, <u>www.eng.geogr.msu.ru/</u> Institute of Geography, Russian Academy of Sciences, Moscow (IG RAS) <u>www.igras.ru</u> Institute of Ethnology and Anthropology, Russian Academy of Sciences, Moscow (IEA RAS) <u>www.iea.ras.ru</u> State Hermitage Museum, Sankt-Petersburg <u>www.hermitagemuseum.org</u>

Conference Topics:

- 1. Geoarchaeological studies in Eurasia
- 2. Human dimensions of Quaternary palaeoenvironments recorded in different palaeo-archives.
- 3. Local palaeoenvironment, natural resources and palaeo-land-use patterns of archaeological sites.
- 4. Alluvial geoarchaeology, palaeohydrology and paleopedology
- 5. Natural hazards and geoarchaeology
- 6. Preservation of geoarchaeological monuments, geotourism and archaeotourism

Final program may be modified upon abstracts submission.

<u>Schedule:</u>

- August 20: Arrival in Moscow, guided excursion to the State Historical Museum, night train to Smolensk (optionally: direct arrival in Smolensk on this or the next day)
- August 21: Hotel check-in, conference registration, oral sessions, conference dinner
- August 22: Oral and poster sessions; bus excursion in Smolensk
- August 23:
 Morning: Field excursion to the Gnezdovo archaeological site

 Afternoon:
 Bus excursion to the Katyn memorial complex
- August 24:Option 1:Field trip to the Serteyka archaeological siteOption 2:Bus excursions to Smolensk cultural places22.00-23.00:Departure from Smolensk to Moscow by night train

Contact: E-Mail: Geoarch2012@yandex.ru

C7. International Symposium and Field Workshop on Paleopedology (ISFWP): "Paleosols, pedosediments and landscape morphology as archives of environmental evolution", Kursk/Russia, August 2013

Kursk is located in the central part of the Russian Plain, within the East European loess area, which is the most extensive in the World. A number of unique loess-paleosol sections have been described here. At the same time the area is also famous for fundamental Dokuchaev' studies of Russian Chernozems. Alekhin Biosphere Reserve is the only place in Europe with never ploughed Chernozem under natural steppe vegetation. During the meeting participants will have an opportunity to observe Pleistocene and Holocene paleosols as well as contemporary Chernozems.

The ISFWP will include two days of symposium with oral and poster presentations, and a four-day field workshop.

During the field trip we will demonstrate:

- Middle and Late Pleistocene loess-paleosol and pedo-sedimentary sequences, providing detailed insight of soil and landscape interaction, comparable with the most complete loess sections in Europe;
- Chernozems under virgin vegetation in the Alekhin State Biosphere Reserve will be discussed from various angles of classic views and modern concepts;
- Paleolithic sites Kostenki and Divnogor'e with paleosols related to MIS-2 and MIS-3;
- Holocene floodplain soil-sedimentary sequences of the Don River.

The two days session program will include the topics:

- Pre-quaternary paleosols and pedosediments: paleoecology and diagenesis;
- Quaternary paleosols and pedosediments: soil and geomorphologic records of Pleistocene and Holocene landscapes;
- Paleosols and pedosediments of human habitats and settlements;
- Chernozems as an archive of environmental change.
- The final program may be modified upon abstract submission.

The cultural program will include a Paleolithic museum, a Russian Orthodox Monastery, spectacular limestone highs, scenic views and the party.

The First Circular will be soon distributed via the Paleopedology Commission web site and google groups discussion forum.

<u>*Contact:*</u> Dr. Maria Bronnikova, secretary of the Organizing Committee <u>*E-mail:*</u> paleopedology2013@gmail.com



Pleistocene paleosols in Aleksandrovsky quarry



Holocene paleosols in the Don river floodplain



Cretaceous plateau, Divnogor'e

Archeological site Kostenky-14

C8. IUSS Division 1 Conference "Soils in Space in Time", Ulm/Germany, 30 September – 4 October 2013

Conference homepage under construction: <u>https://iuss-division1.uni-hohenheim.de/</u>

"Soils in Space and Time" is one of the key issues documenting the variability of the pedosphere. Soils are so variable and all of us have limited experience. Therefore it is of utmost importance to exchange knowledge from time to time and from place to place.

Division I was established by IUSS pedologists working in related fields of soil morphology, micromorphology, soil genesis, soil geography, and soil classification. Division I aims to bring these disciplines together to join their efforts in order to improve and communicate their knowledge. Especially the dynamic new commissions Palaeopedology and Pedometrics can add substantial new methods and findings to improve our work. This particularly holds true also for the working groups feeling related to Division I.

This is the first division conference - everybody is encouraged to use the given options. Join us and make the new experience. Commission 2.4. Soil Mineralogy has also been invited to contribute and the commission officers have accepted the invitation.

Local Organising Committee:

Karl Stahr, Marian Kazda, Reinhold Jahn, Thilo Streck, Ellen Kandeler, Daniela Sauer, Peter Schad, Holger Fischer, Ludger Herrmann, Martin Werth

C9. 20th World Congress of Soil Science, Jeju International Convention Center, Jeju Island/South Korea, 8-13 June 2014

The IUSS Inter-Congress Council Meeting will take place on 3-8 June 2012 on Jeju Island, South Korea. Among a number of topics, the session proposals of the commissions for the World Congress in 2014 will be discussed.

Please send your proposals (title and some sentences of explanation) for paleopedological sessions, or inter-commissional sessions with paleopedological participation, latest until end of April 2012 to: daniela.sauer@uni-hohenheim.de.

Probably the rules will be similar as for the last World Congress where each Commission could hold two sessions; in addition each division could hold two division sessions. One of these division sessions in 2010 was the joint session of the Commissions Paleopedology and Pedometrics.

C10. Conference and field workshop "Soils in modern and past landscapes", Toruń/Poland 2014

<u>Main Organizer:</u> Michal Jankowski

Topics: Soil genesis, paleopedology, soil geography, pedoarchaeology, soil classification

<u>Program:</u>

1st day

Opening session, plenary session, oral presentations, poster presentations

"Get gothic" – the Old Town tour (optional presentation of soils forming on buldings: Edifisols) Conference dinner in a gothic cellar

$2^{nd} \; day$

Oral presentations, poster sessions

Meeting at the fire – (optional presentation of soils formed on fortifications: Constructosols)

3^{rd} and 4^{th} day

Field sessions – proposals:

Field session A – Soils on glaciofluvial terraces in the Toruń Basin

Rusty soil (Brunic Arenosol), neo-relictic Gleyic Podzol, Mucky soil (Umbric Gleysol), Ochre soil (Rubic Arenosol)

Field session B – Contemporary and buried soils in dunes of the Toruń Basin Alleröd soil paleo-catena (Katarzynka), contemporary Arenosols and sequence of buried soils (Rudak), lateral podzolization (Choragiewka)

Optionally: Gąski archaeological site (?)

Field session C – Soils in young glacial landscapes (The Brodnickie Lakeland)

Eroded Luvisol, lithologically heterogenous Luvisols (2 profiles), Histosols (undrained and drained) and soils developed from limnic deposits (3 profiles)

C11. International Symposium and Field Workshop on Paleopedology (ISFWP), Lincoln/Nebraska, USA 2015

Organizers: Peter Jacobs and R. Matt Joeckel

In 2015 please consider attending an International Symposium and Field Workshop on Paleopedology (ISFWP) in Lincoln, Nebraska, USA. Nebraska is an ideal location to study paleosols in Quaternary loess deposits, along with Neogene and Cretaceous fluvial deposits. Preliminary plans include a multiple-day symposium with oral and poster presentations, a mid-meeting excursion, and a multiple-day excursion to observe Pleistocene and Holocene paleosols in loess and eolian sand deposits. Dates are not yet established, but the gathering will likely occur in July.

D. UPCOMING WORKSHOPS, TRAINING COURSES, SUMMER SCHOOLS

D1. 3rd International Summer School on Paleopedology "Paleosols as a Source of Information about Past Environments", Siberia, 1-5 August 2012

Languages: Russian and English

The summerschool will be held in Volodarka, Altai Region (250 km South of Novosibirsk and 100 km South of Barnaul) on the banks of River Ob. The area is interesting because of its diverse landscape history, abundant paleosol outcrops and a mixture of recent and relict features in surface soils. It is a part of the extensive loess plateau famous for its loess-paleosol sequences providing a detailed record of the Pleistocene. Tectonic activity and erosion cycles produced a set of buried paleosols, surface soils and exhumed paleosols which can be observed in river exposures up to 50 m high. The school will consist of lectures and field master-classes.

Among the lecturers are *Vitalyi Demkin, Tatiana Demkina* (Institute of Physics-Chemical and Biological Problems of Soil Science of RAS, Pushchino, Moscow Region), *Tatiana Blyacharchuk* (Institute of Monitoring of Climatic and Ecological Systems (IMCES), SB RAS), *Maria Dergacheva* (Institute of Soil Science and Agrochemistry, SB RAS, Novosibirsk), *Zinaida Gnibidenko* (Petroleum Institute of Geology and Geophysics, SB RAS, Novosibirsk), *Alexandra Golyeva* (Institute of Geography of RAS, Moscow), *Olga Khokhlova* (Institute of Physics-Chemical and Biological Problems of Soil Science of RAS, Pushchino, Moscow Region), *Marina Lebedeva–Verba* (Dokuchaev Soil Science Institute, Moscow), *Alexander Makeev* (Moscow State University), Lubov Orlova (Institute of Geology and Mineralogy, SB RAS), *Leonid Rikhvanov* (National Research Tomsk Polytechnic University), *Natalia Rudaya* (Institute of Archaeology and Ethnology, SB RAS, Novosibirsk), Sergey Sedov (Institute of Geology, UNAM Mexico City, Mexico), *Wolfgang Zech* (University of Bayreuth, Germany) and others.

Young scientists will present their research results during a special oral and poster session.

The lectures will cover the following topics:

- Paleopedology in the system of environmental sciences
- Morphology and micromorphology of paleosols
- Environmental reconstructions based on microbiomorphs in paleosols
- Humic acids as a memory of paleo-environments and isotopic composition of organic substances
- Soil carbonates as a record of pedogenetic processes in paleosols
- Microelements in paleosols as a source of information about paleo-environments
- Latest achievement of paleomagnetic studies
- Radiocarbon dating of paleosols

The field master classes will focus on the field study of buried and exhumed paleosols (morphology, field interpretation, sampling for different analyses, etc.).

Please complete the registration form (last page of this Newsletter) and send it to the secretary **before March 15, 2012**

E-mail: paleosol@yandex.ru

Registration fee: 260 EURO

This amount includes meals and transfer from the airport of Novosibirsk and to and from the school location, accommodation (including 1 night after arrival) and an excursion to the Altai Mountains (6-9 August).

The Second Circular will provide information about abstract submission, payment of the registration fee and details on the excursion to the Altai Mountains.

The School invites young scholars to get extra knowledge and experience and to present their own results on paleosol research.

D2. 4th International Geochronology Summer School "Dating Anthropogenic and Natural Changes in a Fragile Alpine Environment" Bergün/Switzerland, 2 – 7 September 2012

http://www.geo.uzh.ch/microsite/geochronology/

Topics to be covered in lectures, excursions and workshops include:

- **Dating techniques:** such as numerical methods (radiocarbon, exposure dating with cosmogenic nuclides, OSL, 137Cs, 210Pb, etc.); dendrochronology, ice-core chronologies, as well as relative methods like soil weathering and Schmidt-hammer technique
- Reconstruction of environmental parameters (using dendroecology, stable isotopes,)
- Climate and landscape history
- **Reconstructing geomorphic processes:** Avalanches, mud flows, land slides, rock fall, Forest fires, charcoal identification and dating.
- Presentation of the participants' own research

List of Lecturers: S. Ivy-Ochs (ETH Zurich/Uni Zurich), I. Hajdas (ETH Zurich), D. Brandová (Uni Zurich), P. Cherubini (WSL), M. Egli (Uni Zurich), H. Gärtner (WSL), K.F. Kaiser (WSL/Uni Zurich), S. Lowick (Uni Bern), E. Costantini (CRA-ABP, Firenze, Italy), L. von Gunten (PAGES), D. Dahms (Northern Univ. Iowa, USA) and others.

The Summer School is open to young researchers (PhD students and Post-Docs) worldwide. Participation is competitive and will be limited to a maximum of 20. The registration fee (600 Euro) includes accommodation (room sharing required), half board and lunch, excursion and teaching material.

DEADLINE FOR APPLICATIONS: 30 April 2012

<u>Organizing Committee:</u> K.F. Kaiser (WSL/Uni Zurich), D. Brandová (Uni Zurich), M. Egli (Uni Zurich), P. Cherubini (WSL), H. Gärtner (WSL), S. Ivy-Ochs (ETH Zurich/Uni Zurich)

E. PALEOPEDOLOGICAL PUBLICATIONS

E1. Paleopedological special issue of Quaternary International

A special issue of Quaternary International (guest editors: Peter Jacobs and Sergey Sedov) is almost ready and will probably be published within the next few months. It comprises selected papers presented at three important paleopedological events:

- 1) The symposium "Paleosols in the present and past soilscapes" held in the frame of the International Conference "Soil Geography: New Horizons", November 2009, Huatulco (Mexico);
- 2) The International Workshop "Micromorphology for paleopedological and geoarchaeological research" held in November 2009 at UNAM in Mexico City;
- Paleopedological sessions held at the 19th World Congress of Soil Science in August 2012 in Brisbane (Australia).

REGISTRATION FORM The 3rd International School on Paleopedology For Young Scholars in Siberia

Title (Dr. Prof./Mr./Mrs.,etc)			
Given			
name:			
Last name :			
XZ 61 1			
Year of birth:	•••••	•••••	
Organization:		•••••	
		•••••	
Position:		•••••	
Address:			
City:	Postal Code:		
Tel:	.Fax:		
E-mail:			
Title of paper:			
Excursion to Mountain Altai		Yes	No

Mail this form before May 15, 2012, to: Gavrilov Denis, Secretary of School Email: <u>paleosol@yandex.ru</u>