

CHRONICLE

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Symposium on “The 100-year-old concept of Ice Age”

Pécs, October 1–3, 2009

The third and at the same time closing volume of the series „*Die Alpen im Eiszeitalter*” was published in 1909. The authors of this book, ALBRECHT PENCK and EDUARD BRÜCKNER laid the foundations of alpine ice age chronology and its division, which are still current in our days. To honour this centenary, an international conference was organized at the Department of Physical Geography, Institute of Geography of the University of Pécs. The scientific conference had basically two aims: first, to pay homage to the researchers ALBRECHT PENCK and EDUARD BRÜCKNER; second, to provide an opportunity for the researchers of the geomorphological discipline to share their recent achievements with each other including those interested in the new scientific results related to the ice ages. The conference attracted nearly 70 participants who delivered 50 lectures given in 5 sections devoted to different topics. On the first day, the public could listen to lectures of the plenary session, numerous posters were introduced, and professor emeritus FERENC SCHWEITZER received greetings by his colleagues on the occasion of his 70th birthday. On the second day, the participants outlined their new results at the section meetings called “Geomorphology”, “Geology and Palaeontology”, as well as “The Impact of the Ice Age on Society”. For the third day a professional field trip was organised.

The conference was opened by ZOLTÁN DÖVÉNYI, head of the Institute of Geography. In his speech he presented a detailed report on PENCK and BRÜCKNER’s professional career. After that professor JÓZSEF TÓTH congratulated professor SCHWEITZER on his 70th birthday, and handed over the presentation copy of the volume of studies dedicated to the person fêted. The professor was also congratulated by MÁRIA SZABÓ, director of the Institute of Geography and Earth Sciences of the Eötvös Loránd University; by ANTAL LEHMANN, retired AP, formerly director of the Duna–Dráva National Park; by ÉVA KIS, senior research worker of the FKI; by GÁBOR VARGA, senior AP of the Institute of Geography in Pécs, as well as by JÓZSEF ECK, investment director of RHK Ltd.

The plenary session started with a lecture delivered by JÓZSEF SZABÓ entitled “The history of the research on ice ages – how old is the ice age actually?”. As the exploration of the ice age(s) reaches back at least two hundred years, he summarized the results attained during the 100 years subsequent to the great work being the basic motivation of the conference. In his lecture called “The Pleistocene roots in the Miocene”, LÁSZLÓ KORDOS summarized the triggers of the great environmental changes in the Pleistocene, which reach back to the Miocene; he also gave an account of the role and results of MIKLÓS KRETZOI and his students related to the division and investigation of the ice ages. FERENC SCHWEITZER gave a lecture entitled “The opportunities of the formation of ice ages in the Late Neogene”, in which he highlighted the importance of plate tectonics in their development, and also introduced the traces of the great climatic changes of the Late Neogene, being detectable in the Carpathian basin and its environment.



Group of participants listening to poster presentation, among them (left to right) JÓZSEF SZEBERÉNYI, SZABOLCS ÁKOS FABIÁN, FERENC SCHWEITZER, BÁLINT BERTA and ZOLTÁN DÖVÉNYI



Professor SCHWEITZER with representatives of the first generation of his disciples, now tutors at the Institute of Geography of the University of Pécs



Professor SCHWEITZER in action at Beremend limestone quarry



Mini field symposium on Pleistocene biostratigraphy at Kozármisleny section

In the poster section, young researchers and students were given the opportunity to briefly present their results in varied topics:

- KRISZTINA BABÁK: Relationship between the Quaternary changes of the floodplain of Körös and flood prevention;
- VIKTÓRIA BORS and ALEXANDRA GIBER: Petrographic analysis of the stone blocks bigger than 20 cm in the South Pest Plain;
- MÓNIKA GINZER: National parks with remnants of ice ages as attractive tourism destinations;
- JUDIT GYÜRE, PÉTER KOVÁCS and KLÁRA STEFÁN: Cultural infrastructure in Europe and Hungary related to ice ages;
- GERGELY JAKAB, BALÁZS MADARÁSZ, ÁDÁM KERTÉSZ and LEVENTE RONCZYK: The role of Pleistocene deposits in the current geomorphic evolution;
- MLADJEN JOVANOVIĆ, ULRICH HAMBACH, TIVADAR GAUDÉNYI and SLOBODAN MARKOVIĆ: Stratigraphy of the loess-paleosol sequences of the Middle Pleistocene in Voivodina;
- ANNAMÁRIA KURILLA and TAMÁS VATI: Scientific content of the animated cartoons aimed at the younger generation;
- TAMÁS LASSU: Recent geomorphic evolution of the eastern margin of the Pécs Basin;
- HEDVIG PROKOS and GÁBOR VARGA: Morphology of the Séd Valley at Szekszárd;
- BERTALAN RADVÁNSZKY: Modelling of climate changes in the drainage area of the Tisza;
- TAMÁS VATI: Representation of the ice age in the textbooks of geography in primary and secondary schools.

The first day was closed by a welcome party organized in the Hotel Laterum, where FERENC SCHWEITZER was decorated for his efforts made for the Faculty of Sciences (University of Pécs) by the dean, ISTVÁN GERESDI.

On the second day, the scientific lectures were given within the framework of three section meetings. The section called "*Geomorphology*" was opened by TITUSZ BUGYA, who presented the geoinformatic methods used for the identification of the alluvial terraces. SZABOLCS CZIGÁNY and ERVIN PIRKHOFER described the flash floods taking place at the end of the Pleistocene, and playing role in the geomorphic evolution of the north-western part of the USA. SZABOLCS ÁKOS FÁBIÁN and ANITA HORVÁTH gave a lecture about the difficulties in dating of the periglacial permafrost phenomena – primarily that of the OSL dating problems of the sand wedges – and about the novel results. PÉTER GADÁNYI spoke about the Pleistocene changes of the volcanic surface features in Iceland. NOÉMI LÍVIA GÖRCS analyzed the Quaternary tectonic movements in the valley of the Baranya Channel. ANDRÁS HEGEDŰS and JÁNOS VÁGÓ characterized the derasional surface features of the Bükkalja based on complex morphological investigations. TÍMEA KISS, GYÖRGY SIPOS and KATALIN GYÖRGYÖVICS examined the morphometric parameters of the sand forms to be found in the sample territory of Inner Somogy, with a special regard to the age of the surface features. ISTVÁN PÉTER KOVÁCS presented the Somló's morphometric analysis on GIS basis, and demonstrated the main differences between the young and old derasional valleys. DÉNES LÓCZY presented an overview of the new scientific results related to the movements of ice. KRISZTINA SEBE and DÉNES LACZIK introduced the Pleistocene deflation traces detectable in the Mecsekalja, on the basis of the occurrence of ventifacts. GYÖRGY SIPOS, TÍMEA KISS, ZSOLT HORVÁTH and LEVENTE KOROKNAI demonstrated the paleohydrological conditions of the Pleistocene and Holocene channels in the Lower Tisza Region. JÓZSEF SZEBERÉNYI presented the terrace levels of the Danube and its minor tributaries in the area of Kismaros–Verőce. MÁRTON VERESS gave a lecture about the impact of ice on karstification in the various sample areas of high mountains. ZOLTÁN ZENTAI reported about the survey of the periglacial permafrost phenomena in Vas County.

As the opening lecture of the section meeting called “*Geology and Paleontology*”, JÁNOS BALOGH talked about the identification of the Blake paleomagnetic event in the Hungarian loess stratotypes. JÓZSEF DEZSŐ and JÁNOS ORSZÁG reconstructed a Miocene karst development sequence from the pore deposits of the Cave of Abaliget, which – with a significant sedimentation gap – is superimposed by the Pleistocene deposit formation. TIVADAR GAUDÉNYI and MLADJEN JOVANOVIĆ examined the paleoenvironmental conclusions drawn from the molluscs fauna of the last glacial on the loess plateau at Titel. ERZSÉBET HORVÁTH analyzed the application of the MS-curves, as well as the relation between other (OSL, TL, ^{14}C) methods of dating, in connection with the climate changes detectable in the loesses. LAJOS TAMÁS KATONA, LÁSZLÓ KORDOS, ISTVÁN LINKAI, ÁRPÁD MAGYARI and JÁNOS KOVÁCS introduced the detailed paleontological description of the mammoths of Csajág (*Mammuthus primigenius*) and the already existing data of the isotopic dating. In her lecture, ÉVA KIS analyzed the visible levels of Middle European loess stratotypes from several points of view. JÁNOS KOVÁCS talked about the possibilities of global correlation between paleosols, which represent numerous new research topics and pose problems for the experts. CSABA VÍGH gave a lecture about the granulite gravels to be found in the gravel succession of the southern part of the Pest Plain, as well as represented its possible places of origin.

Within the section meeting “*The Impact of the Ice Age on Society*” BALÁZS BRADÁK demonstrated a possible modern interpretation of the ice age theories. PÉTER GYENIZSE and GYÖRGY LOVÁSZ analyzed the impact of the Pleistocene and Holocene deposits and processes of human settlement in south-east Transdanubia. LÁSZLÓ GYURICZA investigated the role of the surface features in tourism, and characterized them according to tourism product types. ANDRÁS HERVAI presented landscape reconstruction of the ice age. ÁDÁM KERTÉSZ talked about the potential geomorphologic processes of the global climate change and the Holocene interglacial, and also emphasized the rising frequency of extreme events. LÁSZLÓ NAGYVÁRADI the ancient floods of the Danube and its influent streams analyzed within the frameworks of an international project (NSF). VILMOS POZSÁR demonstrated the conditions of Pleistocene glaciation over the continents beyond Europe. LEVENTE RONCZYK gave a lecture about the anthropogeomorphic surfaces of Pécs, highlighting the importance of anthropogenic filled-up surfaces.

On the last day of the conference, a professional field trip took place. The participants visited the fauna site at Kozármisleny, which was introduced by GÁBOR VARGA and BERTALAN RADVÁNSZKY. The findings revealed during the building of the subsidiary road of the highway M6/M60 are the representatives of the typical Late Pleistocene cold steppe fauna. SZABOLCS ÁKOS FÁBIÁN talked about the formation problems of the Pécs Basin from the point of view of neotectonics, loess-stratigraphy and outlined the evolution of the valley- and drainage network. While on the bus trip, VILMOS POZSÁR introduced the physical geography of the Villány Hills and its environment, emphasizing the definite structural morphology. In the limestone quarry of Beremend, FERENC SCHWEITZER demonstrated the role of joint-filling deposits (red clays and reddish soils) played in the reconstruction of paleoenvironment. GYÖRGY VARGA spoke about the possible chronological subdivision and stratigraphic problems of old loesses and loess-like deposits.

The professional lectures given during the three days of the conference have proven unambiguously that the research on the Pleistocene and the ice ages still has several open questions, and also drew the attention to the outstanding scientific achievements of the Hungarian experts, even in international comparison.

SZABOLCS ÁKOS FÁBIÁN – BERTALAN RADVÁNSZKY