

## Tisztelgés Horváth Ferenc professzor munkássága előtt *A tribute to the research and teaching of Frank HORVÁTH*



Frank HORVÁTH (white in center), distinguished lecturers (next to him in the front line: Jean-Pierre BRUN, Rennes; Leigh ROYDEN, MIT; Claudio FACENNA, Roma; standing line second on the right: Dan MCKENZIE, Cambridge) and participants of the Alpine–Carpathian–Pannonian Workshop 2007, Siófok

### **Frank HORVÁTH: a pioneer in thinking out of the box and source of inspiration**

I met Frank HORVÁTH for the first time in 1980 when I climbed together with my close friend and colleague Rinus WORTEL the stairs leading to the entrance of the Technical University of Budapest where the annual conference of the European Geophysical Society took place and where Frank stood at the entrance with Jim CHANNELL. At that time the two were already quite well known through their papers on the Adriatic sub-plate. Later that week I joined a field trip to the Bükk Mountains, led by Frank and Zoltán BALLA, also

attended by Leigh ROYDEN with whom Frank worked on the extension of the Pannonian Basin, making it one of the first test cases for the stretching model. I was struck by his warm personality, his humour and broad knowledge.

I was, therefore, extremely happy that at a day in 1989, soon after the changes that transformed Europe, an invitation by Frank arrived on my desk to come to a meeting organised by him at the Lake Balaton. I vividly remember how László LENKEY picked me up at Budapest airport together with Mary-Lou ZOBACK driving us to the meeting site after picking up a transparency in downtown Budapest.

This meeting was as many of the subsequent meetings Frank organised a wonderful mix of exciting science and warm personal contacts in a setting carefully selected by him. I was impressed by the quality and motivation of his students, amongst whom Gábor TARI, and his co-workers as well as by the team spirit. Already at that time Frank was involved in many international collaborative projects with for example Bruno D'ARGENIO and Marco SACCHI from Naples in which he actively involved other members of the Hungarian solid Earth science community.

Frank has been key in getting initiatives such as the International Lithosphere Programme Task Force "Origin of Sedimentary Basins" and the European Science Foundation EUROCORES project TOPO-EUROPE off the ground, with numerous of their meetings hosted by him, resulting in a series of special volumes of Tectonophysics, Sedimentary Geology and the Stephan Mueller Special Publication Series edited by us.

Frank was ahead of his time in his multi-scale approach to basins, linking deep structure to shallow geophysics and field data and obtaining access to vital industry data. It was this approach, conducted by him in close cooperation with András NAGYMAROSY and László CSONTOS that impressed people like Peter ZIEGLER and many others from the petroleum industry. Frank became also an important and active participant in the Integrated Basin Studies Project funded by the European Commission and the Invisible informal network of Norsk Hydro, bringing together academics and industry. Frank was pioneering in promoting the use of shallow high-resolution seismics to examine neo-tectonic deformation, initially in areas such as the Lake Balaton but later also on the Meuse river in the Netherlands. Frank realised the importance of quantitative research in geophysics for geothermal energy exploration and production, working closely together on this topic with Péter DÖVÉNYI. At the same time, Frank had a deep interest in mantle dynamics, subduction processes and their expression at the surface.

It was Frank who through his efforts in research and through giving short courses for Dutch students, involving

them also in shallow seismics on the Lake Balaton and organising meetings with great impact, became a close partner for cooperation in research and research training, which lasted for more than 25 years. Frank and myself served as the promotor of many PhD students, amongst whom Gábor BADA, László LENKEY, Péter SZAFIÁN, Géza WÓRUM, Endre DOMBRÁDI and Attila BALÁZS. A highlight in this respect was the occasion where Gábor, László and Péter received their PhD's in a joint ceremony in the Netherlands in 1999. Frank had through his broad scope of research interests and his inspiring personality a close interaction with many geologists and geophysicists in the Netherlands, in particular with members of the whole Tectonics group but also with scientists and students of other research groups in Amsterdam (in particular the Isotope Geochemistry group of Paul ANDRIESEN and their Hungarian PhD student Zsófia RUSZKICZAY-RÜDIGER), Utrecht (Rinus WORTEL and his Tectonophysics group) and Delft University of Technology (Jacob FOKKEMA and the Applied Geophysics group). The present intensive scientific cooperation between Dutch scientists and Hungarian researchers from various organisations, including the Eötvös University and the Hungarian Academy Institute of Geodesy and Geophysics in Sopron (in particular Viktor WESZTERGOM, István KOVÁCS and Eszter SZÜCS), builds on this solid foundation. This cooperation involves Hungarian PhD students Kristóf PORKOLÁB, Eszter BÉKÉSI and István BOZSÓ, exchange of staff and joint research in numerous projects, such as the ILP TOPO-Transylvania project bringing together a group of Hungarian, Romanian and Dutch scientists, working together in the spirit of Frank.

Frank combined a deep sense of humour with a very serious attitude to life and science. He leaves behind a legacy which we all should preserve and commemorate him as the Pannonian doctor with such a good heart. He is deeply missed by his many friends in our research community. We owe him a lot.

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