

OBITUARY – MATTHIAS R. KRBETSCHEK (1956-2012)

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On October 15th, 2012 we lost not only a dear friend but also a distinguished colleague in the field of luminescence dating and geochronology.

After a prolonged period of illness, Matthias Krbetschek finally passed away at his home in Freiberg (Germany) on October 15th, 2012. He will not only be remembered for his outstanding professional achievements in the development and application of luminescence dating techniques, documented by almost 80 scientific publications, but especially for his kindness and personality. Matthias was always willing to help, share his knowledge and also happy to share a beer or two. While he certainly was not a person of many words, he always considered his words carefully.

Matthias R. Krbetschek was born in Frankenberg (Saxony, GDR) in 1956. After school he was trained as a mechanic, while receiving his university entry diploma, which was a specific form of education in former East Germany. Then he joined the *University of Freiberg* and received a degree in geology on tin deposits in 1982. Subsequently he worked for almost 5 years as a geological research assistant in the Lausitz lignite field, doing research on the Quaternary sediments for the exploration research department of the state run open air lignite mining company. During this time he developed his interest in obtaining age estimates for these sediments and therefore went back to the *Technical University of Freiberg* to pursue a doctoral thesis.

These interests led to the set-up of the first luminescence dating laboratory of the former “German Democratic Republic” in 1988, located at the department for *Applied Physics* at the *Technical University of Freiberg*. This was made possible within the framework of the project “*Contributions through natural radioactivity and*



geochronology to environmental and climatic studies” of the *Saxonian Academy of Science (SAW)*. For training and scientific exchange Matthias went to Estonia in 1989 to work with the late Galina Hütt and performed the first luminescence dating for East German sediments.

Immediately after German reunification, in 1990, Matthias sought contact with West German and international scientists working in luminescence dating. A strong relationship between his laboratory and the Luminescence laboratory of the *Heidelberg Academy of Science* at the *Max-Planck Institute for Nuclear Physics* in Heidelberg (Germany) developed, which culminated in a large project on luminescence spectroscopy within the framework of the scheme ‘*New technologies for the humani-*

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ties', funded by the German *Ministry of Education and Research* (BMBF). As a result of these close contacts a regular meeting of the Heidelberg and Freiberg luminescence groups was established, which later became the '*German Luminescence and ESR dating Meeting*'. Many friendships with Matthias developed during the hiking in any wind and weather, which traditionally takes place at these meetings.

In 1993, the project in Freiberg was diversified, receiving a long term funding by the '*Sächsische Akademie der Wissenschaften*' (SAW), and the operational part of the branch '*Quaternary Geochronology*' was led by Matthias. He was awarded the title *doctor rerum naturarum* (Dr. rer. nat.) by the faculty of *Geosciences, Geotechnics and Mining* of the *Technical University of Freiberg* in 1995 for his thesis entitled '*Luminescence dating of quaternary sediments from Central, East and Northern Germany*'.

Matthias' interests were widely spread and his fundamental background in physics was essential not only for his work, but also for the many colleagues who sought his advice and he was always willing to share his knowledge. Much of his efforts were dedicated to fundamental research on luminescence emissions, but he also got involved in assessing the impact of secular disequilibrium upon dosimetry, together with his dating work in many parts of the world. His keen interest in Pleistocene ice margins led him to work in Russia and Kamchatka, the Lena delta and various other places, often in collaboration with renowned institutions, such as the Alfred-Wegener Institute. He has provided a major contribution to

our knowledge of the age of western European interglacials as well as ice advances during glacial times, often related to archaeological or palaeoanthropological questions.

One of his major achievements was the development of infrared radiofluorescence (IR-RF) dating as the result of a series of PhDs at his laboratory and at the TU Freiberg. Matthias was always open for new technological and technical challenges, like luminescence spectroscopy or detection of luminescence in the yellow wavelength band and also using yellow stimulation. Many of his achievements were obtained through his supervision of many theses from different institutions throughout his career.

Probably the most striking character of his personality was his friendliness and openness to everybody, which, for example, made him decide within a few hours of knowing one of us to travel around Turkey together for almost a week, following the *Archaeometry'94* conference in Ankara.

After funding by SAW expired, Matthias started working for the company '*Freiberg Instruments*' in 2011 and gave proof of his innovativeness by designing a new luminescence reader, named '*lexsyg*'. During this time he fell ill and was not able to fulfil his duties in continuing his luminescence work in Freiberg within his new position at the *Senckenberg Museum for Mineralogy and Geology* (Dresden) starting in 2012.

Matthias will be remembered as a distinguished colleague by all who knew him, and by many of those as a very dear friend.