Obituary to Aykut Barka
by
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Aykut Barka was born in Istanbul on 7th January 1952. He completed his basic education in Istanbul where he also studied his BSc and MSc degreees in Geological Engineering Department at Istanbul University during 1970-1975. After his graduation he started working at the Mineral Research and Exploration Institute (MTA) in Ankara. One year later he was awarded a scholarship from the same institute and went to Bristol University in England, where he studied for his *PhD* under Dr. Paul L. Hancock's supervision on *"Seismotectonic Aspects of the North Anatolian Fault Zone".* He published the main findings of his PhD thesis in several international periodicals such as Journal of Structural Geology and the Nature. In 1981, Barka returned to Turkey and joined to MTA. Prof. Nafi Toksoz invited him to Massachusetts Institute of Technology (MIT) where he focused on the earthquake geology in 1986. Meanwhile, the space geodesy and remote sensing studies were developing rapidly. He thought that these disciplines would play an important role on investigations of active faults. With this enthusiasm he added new datas to his PhD work and published an extensive synthesis on the North Anatolian Fault Zone together with Kandinsky-Cade in 1988. Barka started to be well known in American geology during this period. He was also invited to California Institute of Technology (*Caltech*) in 1990 after MIT. In California, he had the chance to study San Andreas Fault, which surprisingly exposed similar properties to the North Anatolian Fault. His new experiences on the earthquake geology excited him to apply those to the North Anatolian fault. He returned to Turkey in August 1990 and started to work at Kandilli Observatory and Earthquake Research Institute in Istanbul. In 1992, he joined to Geological Engineering Department of Istanbul Technical University as an associate professor. He was promoted to full professorship in 1996. The same year he published his *"Slip Distribution Along the North Anatolian Fault Associated with the Large Earthquakes During 1939–1967"* paper, published in the Bulletin of the Seismological Society of America, which is a well-known one now, This paper was one of the most important papers that were written about the North Anatolian Fault in recent years. Later, *Barka* and *Stein* used these slip-rates to calculate the stress triggering along the NAF by Coulomb modeling. The overall results of this study showed that the Izmit city and the surrounding regions were under a big earthquake risk. He tried to explain this risk in the scientific way. In 1997, he became a member of *Eurasian Institute of Earth Sciences* at ITU. Two years later the North Anatolian Fault was ready for a big rupture as expected and it confirmed *Aykut Barka* with a M_w=7.4 magnitude earthquake on August 17, 1999. He immediately went to field with his friends. They made the first observations and the measurements. He got in touch with his foreign colleagues in the following days, and he has challenged many respected earthquake geologists to rush to Turkey for various investigations.

A new period started in Barka's life. The next earthquake risk was over the biggest city of Turkey, *Istanbul,* which is nearby the expected segment to be ruptured at the western continuation of NAF in the Marmara Sea. Turkish media was racing to learn from Aykut Barka. He was the co-director of *National Earthquake Council* of Turkey, which was established after the 1999 Gölcük–Düzce earthquakes by the *Turkish Government.* Beside these responsibilities, he continued producing scientific data for Marmara Sea region with his colleagues.

Aykut Barka , alas, died on 1st of February 2002 following a very risky brain surgery, after being kept under in intensive care unit for 22 days. He was a dedicated scientist and a devoted teacher. He was a unique person because of his modest and tender nature. *Barka* has many interesting scientific papers and abstracts, and his long-lasting contributions to *Earth Sciences Community* worldwide will always be remembered.

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It is with great sadness, mixed with the joy of unforgettable memories that I write about my dear friend *Aykut.* Above all, Aykut was a dedicated scientist and a true patriot. He loved his work. He loved his country. For generations to come his work will live through the large body of research he left behind and the many students and colleagues he mentored over the years. I want to emphasize that all of us who cared for Aykut must now do our part to assure that his legacy lives on in the future. Most critical now is to provide the continued support and guidance to his postdoctoral scientists and students who face the daunting task of moving on with their lives and work. This would surely have been the first concern of Aykut, who was unique in his unselfish approach to scientific inquiry and his care and concern for the people around him. We will never forget you Aykut! It was an honour to know and work with you. May you rest in Peace.

Rob Reilinger, MIT

A Euology for Aykut A. Barka: *Aykut* was an internationally honored scientist for so many reasons – the quality and depth of his work; his plain talk to the Turkish public; his tireless efforts to convince the government to confront the potential for an earthquake disaster; his unstinting integrity; and his humour, openness, and selflessness. He embodies the highest calling of science in service to the public. All of us who new and worked with Aykut will miss him terribly. But the message of his life time work is clear: Strive to understand the mystery and hazard of the Earth on which we live, and communicate that insight – both the joy of discovery and the risk of disaster – to those most affected.

Ross S. Stein, US Geological Survey

Aykut Barka is gone: We loose one of the most experienced and brilliant scientists we have invited to work with us at IPG-Paris. Personally, I lost my dearest friend Aykut and it is hard to find consolation to my deep sorrow. We wish to say today that we are sharing our sentiments with our Turkish friends.

Rolando Armijo, IPG-Paris

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