

Awards Ceremony Speech

Acceptance of the 2013 Shen-su Sun Award by Peng Peng

Mr. President, Ladies, and Gentlemen:

I am sorry I cannot physically attend the Goldschmidt meeting, because the U.S. embassy in Beijing is not ready to issue me a visa after several weeks of administrative processing!

First and most importantly, it is my great honor to receive the 2013 Shen-su Sun Award. I thank the Shen-su Sun Foundation for nominating me, and I am grateful to Sun Weidong for his kind help. I cannot believe this is all true. Dr. Shen-su Sun was an exceptional geoscientist who won great respect for his tremendous, pioneering contributions to the geochemistry of the solid Earth and mantle dynamics, and for his unselfish and boundless mentorship to younger generations of scientists in the field of geochemistry. It is a pity that I am not really a geochemist but a multi-disciplinary Precambrian geologist. I hope I can be worthy of the award with my work on paleogeographic reconstructions and the geology and tectonic evolution of the North China Craton.

I met Dr. Shen-su Sun in 2002 in Peking University where he was giving a geochemistry course. During this 16-lecture course, I learnt not only the concepts of modern geochemistry, but also the way to carry out academic research. His course was very impressive. It was like fresh air to my mind and soul. He summarized the requirements of a progressive scientist in 8 Chinese characters, which would be difficult to translate, but can be summarised in one phrase: “work hard, win easy”. His incisive thought and sharp criticism had a profound and stimulating influence on a young beginner. Although he passed away in 2005, I feel that I shall always be with him.

My career has been influenced by many people and much serendipity. I grew up in a small village in southern China. I was fortunate to have unwavering support from my parents, who had lost their chance in education during their childhood. To enable and support my study, my mother and I went from door to door to sell self-made small artworks. My father was a local artist, and he hoped I would also be a calligrapher and painter. But this was strongly opposed by my mother, who thought art was an unstable career. Her mind, as well as my interest in natural

sciences, finally won my father's approval when the final decision came in 1993 when I was 15 years old.

In 1996 an unexpected chance arrived. Peking University nominated me to enter the geology department without sitting an entrance exam. I was in a dilemma. All my 11 roommates tried to dissuade me from accepting the offer in thinking geology was a dangerous and laborious career. Another problem was I was thinking of choosing biology at another university. However, my teachers Zhang Yan'an and Zeng Ding'an encouraged me to enter the field of geology. It was a sleepless night. The next day I made my decision and accepted the offer. I guess there was one thing that encouraged me: an acceptance meant that my parents' expectation of entering a top university in China became true. This made local news in the village, and a celebration was held with outdoor movies.

In 2000, another opportunity arrived. Both the Institute of Geology and Geophysics in the Chinese Academy of Sciences and Peking University recommended me to be a graduated student. I chose the former as I thought the Institute to be the very place for research. I worked under Professor Zhai Mingguo, who had and still has a major influence on my research, and way of living. Professor Zhai is one of the most well-known Precambrian geologists in China with his contributions on metamorphism and early tectonics. When I joined his group, he was the Vice-Director of the Institute and was extremely busy. In our first meeting, he told me that he needed someone to study the dyke swarms in China. Although not knowing much about dykes at the time, I immediately accepted the invitation. I will always remember the first time I went to the field 2 months later when I finally found my first dyke. My 5 years of Ph.D. research was full of joy. Prof Zhai was most generous and open-minded with his students. He was always encouraging me at every step, and ready to forgive my mistakes. My career greatly benefitted from his kindness and the open mental environment he built.

I was awarded my Ph.D. in 2005 when I was already working as a post-doc in the Institute. In 2008 I became an Associate Professor, and in 2012 was promoted to Professor; I was the youngest Professor in our institute. My study during this period benefitted from many people, including our group leader Guo Jinghui; the

Vice-Director of the institute Wu Fuyuan; the Directors of the department Li Xianhua and Xiao Wenjiao; my colleagues Zhao Guochun, Wan Yusheng, Li Jianghai, Zhao Taiping, Liu Shuwen, Ni Zhiyao, Li Qiuli, Chen Fukun, Hou Guiting, Jiang Neng, Li Tiesheng, Liu Wenjun and many others. Among them, Guo Jinghui tried his best to find opportunities for me, and Wu Fuyuan always encouraged me to be innovative. I thank all of them.

In 1999 I met Timothy Kusky and we soon became great friends. Tim is a specialist in Precambrian tectonics. On his first trip to China I was an undergraduate, and was lucky to be able to work with him. I was moved by the idea of Tim and my then-teacher Li Jianghai that in the 2.5 Ga complex in eastern Hebei there is a remnant Archean ophiolite; our first field trip resulted in a Science paper in 2001. It was then that I decided to be a field geologist.

Another person who has influenced me greatly is Brian Windley. I cannot remember when we first met, but it was after I read his book *The Evolving Continents* in 2000. He is really a gentleman. He has unselfishly helped my studies, as well as my English. We have spent many happy times in the field in Inner Mongolia, and his ideas on early tectonics have deeply influenced my way of thinking.

The man who, more than anyone else, turned me from a regional geologist into a supercontinent specialist, is Wouter Bleeker. In 2007 there was an IGCP meeting in Wutai Mountains, when he recommended me to Ulf Söderlund in Sweden to learn about the separation of baddeleyite, which is the key mineral for age dating of mafic rocks. I visited Ulf in 2008 in Lund University to learn the technique, and that was a fruitful and wonderful time of my life.

In 2009 I got the chance to visit Wouter in the Geological Survey of Canada in Ottawa for 6 months, which was an unforgettable experience. Wouter is a serious and warm-hearted person. He tried his best to convince me of his ideas on paleogeographic reconstructions based on mafic dyke swarms, and on another subject, Archean mineralization. We spent a couple of months in the field in the Slave craton, which was really tiring, as we walked about 20 km in wild swamps every day with the constant fear of polar bears. But it was most worthwhile.

I was also lucky to work with Richard E. Ernst and Ross Mitchell. Richard was always generous with his time and ready to help me. I first met him in Finland in 2005, when he gave a talk on LIPs, large igneous provinces, with a pointer that had a balloon-shaped red lips on the end. Since then, we have continuously discussed possible connections between the North China Craton and supercontinents. He asked me to compile a map of dykes in China,

which became a main task in the following years, and I am happy that it is partly completed. When I was in Ottawa, he frequently invited me to his childrens' play activities, which made me feel I was a family member. He was so kind that I wish to express my special thanks here. During my stay in Ottawa I also worked with the paleomagnetist Ross Mitchell, who was a Ph.D. student from Yale University. We collected hundreds of samples with only a hammer. I was happy when he called me "rock-master Peng". He has a great talent in both geology and music, and we spent a lot of happy times together in the wild. I was also touched by his ability to write papers in a moving car on the road.

In 2013 I visited Sergei Pisarevsky, Li Zhengxiang, Michael Wingate and Eric Tohver in Perth where I stayed for half a year. Perth is a beautiful city, where I was recharged, not only in mind and body, but also in constructive ways of study. I realised that it is important that a person's research should catch other peoples' interest, rather than being a repetition of known data and methods or an excessive interpretation and speculation that cannot be either substantiated or denied.

My career through Precambrian geology has been made possible by many colleagues, especially the international and Chinese Precambrian geology community, the mafic dyke swarm community, and many friends. I have worked in North Korea with late Paek Rong-jun, South Korea with Oh Chang-whan, South Africa with Alfred Kröner, Brazil with Elson P Oliveira, India with Sajeew Krishnan, and manifold regions with Zhao Xixi.

I would also like to thank my wife Wu Jing for her continuous support. My daughter Boyun was only 6 months old when I left home for Canada for half a year in 2009. At that time Wu Jing was a fulltime mathematics teacher, and she had to take care of Boyun by herself. I still admire that fact that she was able to conquer all the difficulties. It must be hard to be the wife of a field geologist; I have to spend more than 3 months in the field every year. But she has helped me in every possible way. I thank her and am sorry I have not expressed this well enough before.

Finally, I am grateful to the Goldschmidt Conference for providing this platform, and I thank the Shen-Su Sun Foundation once again for this award. Thank you all for coming.

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