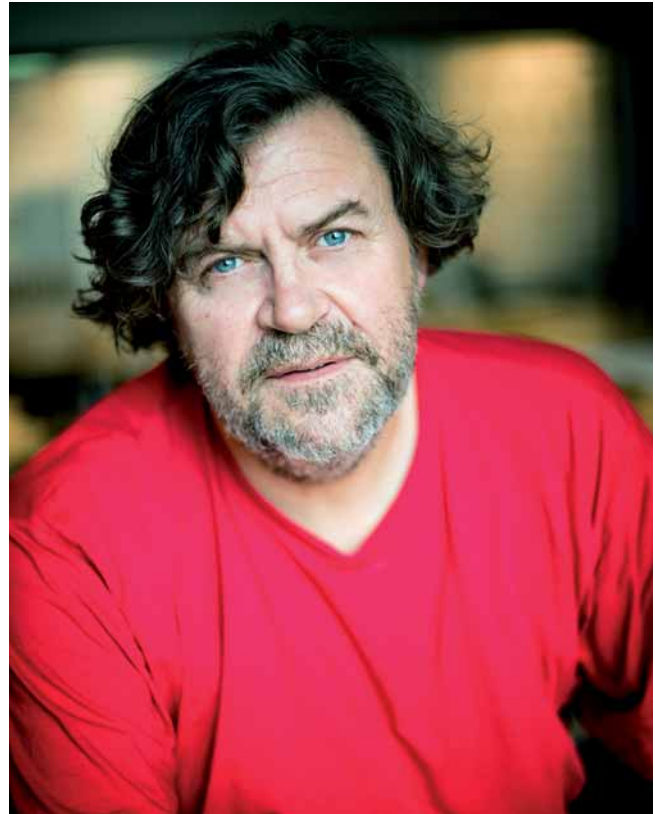


Leopold-von-Buch-Plakette awarded to Prof. Dr. Trond Helge Torsvik

Prof. Dr. Trond Helge Torsvik was awarded with the Leopold-von-Buch-Plakette for his broad-based geoscientific work in plate tectonics and in particular the refinement of global palaeogeography. Above all, his scientific results harmonise geophysical, regional geological and palaeontological data to reconstruct palaeogeographic development with concentration on the Palaeozoic era. The DGGV recognises the ability of Trond Helge Torsvik to be able to cooperate on an international and interdisciplinary level. The award ceremony was held during the GeoBerlin2015 conference in Berlin. This conference, dedicated to Alfred Wegener, under the title “Dynamic Earth – from Alfred Wegener to today and beyond”, demonstrated that even 100 years after the publication of Alfred Wegener and about 50 years after the initiation of the DSDP project, plate tectonics is still a fascinating theme in earth sciences that thrills geoscientists all over the world – in particular Trond Helge Torsvik, the 2015 awardee of the DGGV.

Trond Helge Torsvik started his career in palaeomagnetism and rock magnetism. He made his PhD in 1985 in geophysics at the University of Bergen/Norway, went to Oxford/UK and Michigan/USA, before he came back to Scandinavia, where he had various professorships in Lund/Sweden, Trondheim/Norway, and finally Oslo/Norway where he is still working.

During the late 1980s, he developed a wider interest in global palaeogeography and Earth history as a postdoctoral researcher in Oxford/UK. In his earlier studies, originally motivated by Stuart McKerrow (Oxford/UK), he focused on Palaeozoic palaeogeography. These studies established him as a leading authority on Palaeozoic palaeogeography. Today, co-operating with Robin Cocks (London UK), his interest in palaeogeography is as wide as possible, including the entire Earth history and involves the innovative pairing of time-tested palaeontology (the distribution of fossils) with quantitative palaeomagnetism to constrain and understand Earth’s pre-Mesozoic geography. With various collaborators, he has also examined the distribution and history of plates



since the breakup of Pangea, probed the underlying processes that cause plate motions, and investigated the effects of plate motions through time on the evolving Earth. These studies have established the PGP group (Centre for Physics of Geological Processes) and collaborators as world leaders in deciphering relative and absolute plate motions. Currently, Trond Helge Torsvik is the director of a Norwegian Centre of Excellence, the “Centre for Earth Evolution and Dynamics” (CEED). This centre was installed in 2013 and includes scientists from all aspects who deal with the evolution of the Earth in the sense of plate tectonics in its widest form. “Plate tectonics describes how the Earth’s plates move but not the

forces behind this,” says Trond Helge Torsvik and he expects, by explaining the plate tectonic relationships, in particular by linking plate tectonics with processes in the deep mantle, such as plumes and mantle convection, a “fourth revolution in the geosciences”.

The variety of topics addressed by Trond Helge Torsvik span the Precambrian to the Present, and range from the core-mantle boundary to the surface of the entire Earth. His initial focus on geophysics does not detain him from continuing his research in the fields of structural and regional geology, global palaeogeography, Earth’s history and some aspects of palaeontology. By now, he is, on a global perspective, one of the most respected experts in Palaeozoic palaeogeography and palaeogeography in general. He combined results from palaeomagnetism and the distribution of fossils, but his studies are not limited to the distribution of plates. He has thought about the processes behind the plate motions, the effects that these plate motions through time have had on the Earth and its evolution, the nature of Wilson cycle tectonics, about absolute plate motion reference frames, and a lot more. His current interests again span a

wide range – in various dimensions: in space from the deep parts of the Earth at the core-mantle boundary to the surface, and what links surface and deep mantle processes, hotspots, large igneous provinces and kimberlites (diamonds), net lithosphere rotation, dynamic topography, geodynamic modelling, and software development linked to global databases; and in time: from the Precambrian to the present, the formation, assembly and dispersal of supercontinents, and the dynamics of true polar wandering.

All these activities of Trond Helge Torsvik are documented in an impressive list of publications that includes more than 200 papers in international journals and books, among them several publications in “Nature” and “Science” and more reports and public presentations. Most interestingly next year he will publish a textbook that will summarise much of his research: “Earth History and Palaeogeography”. It will be published at Cambridge University Press together with his colleague Robin Cocks from London/UK.

Martin Meschede, Greifswald