

Tectonic Aspects of the Alpine-Dinaride-Carpathian System

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It is recommended that reference to all or part of this book should be made in one of the following ways:

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Tectonic Aspects of the Alpine-Dinaride-Carpathian System

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Foreword: Stefan M. Schmid

This Geological Society Special Publication is dedicated to Professor Stefan Schmid on the occasion of his 65th birthday in recognition of his merits in structural geology and tectonics. Stefan Schmid is without any doubt one of today's pre-eminent geologists, both as a scientist and teacher.

Born in 1943 in Wohlen, Switzerland, he first worked as a school teacher before starting his career as a geologist. In 1968, he finished his diploma thesis and in 1971 his PhD thesis, both at ETH Zürich under the guidance of Rudolf Trümpy. After six years as a postdoctoral fellow, that brought him first to Imperial College London (John Ramsay and Ernie Rutter) and afterwards to the Australian National University Canberra (with Mervyn Paterson), he then moved back to ETH Zürich as a lecturer. In 1989, he was appointed as full professor and head of Geologisch-Paläontologisches Institut at the University of Basel.

During his scientific career, he has contributed substantially to two main fields of Earth sciences, namely the structure and rheology of deformed rocks and the processes of mountain building, especially in Alpine-type orogens.

Together with colleagues at the Australian National University and the Center for Tectonophysics (Texas A & M University), Stefan carried out numerous experiments related to the deformation of calcite in the 1970s and 1980s and exploited deformation mechanisms in other minerals. Outstanding publications during this period include the description of 'superplasticity in fine-grained limestone' and the work on 'complete fabric analysis of quartz c-axis patterns'. Along with his experimental endeavours, Stefan has always kept contact with the 'field' and applied the experimental outcomes to field studies and *vice versa*. Cited over 500 times, his publication on 'shear sense criteria' with Carol Simpson clearly expresses this attitude. Application of these criteria for reconstruction of the kinematic history of mountain belts paved Stefan Schmid's future road

from the microscale towards the macroscale in Earth sciences. Over the years, he has expanded and intensified his collaboration with colleagues from other branches of the Earth sciences and integrated this information with his sound basis as a structural geologist. Key publications include his work on the Insubric Line and his outstanding geological/geophysical transects through the Alps. In the last couple of years, Stefan has extended his area of interest both in the horizontal and vertical scale. Thanks to his close cooperation with geophysicists, he became fascinated by the recent outcomes of teleseismic tomography and their bearing on the Alps, Carpathians and Dinarides. On the horizontal scale, he moved (south)eastwards and became increasingly drawn to the Carpathians and Dinarides, first due to their challenging geology and secondly because of the attractiveness of eastern European countries.

Stefan's work in the fields of emplacement of granitic plutons, extensional tectonics and neotectonics found a broad readership, and he has lent his experience to social aspects of Earth sciences in the context of earthquake risk assessment and Alpine tunnels (NEAT).

During all this time, Stefan Schmid has incorporated and promoted young scientists. Hardly anybody can escape his overwhelming enthusiasm for good-natured debate, with students as well as non-specialists profiting immensely from his ability to extract the essentials from the geological chaos.

He clearly has had a great impact on the Earth science community, both as an outstanding scientist and as a fascinating personality, and he will, no doubt, do so for many years to come.

Happy 65th birthday, Stefan

Bernhard Fügenschuh, Niko Froitzheim and
Siegfried Siegesmund



On-site structural geology lecture on the island of Elba. Stefan is explaining the kinematics of the detachment at Punte di Zuccale. His right hand is oriented parallel to σ_1 .