



GEODYNAMICS @ GRAZ

(Working Group Stüwe)

Annual Report 2017



Department for Earth Sciences

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<http://www.alpengeologie.org>

<http://www.africageology.org>

<http://luftbildsteiemark.at>

GROUP MEMBERS

Masters Students:

Sebastian Wiesmayr (MSc student)

Interest: Geological studies of stone age monuments in Styria
Graduated in Spring 2017

Alexandra Herg (MSc student)

Interest: Metamorphism in the Plankogel series and Pohorje
Graduated in Fall 2017

Christoph Pucher (MSc student)

Interest: Morphology of Nil catchment Messinian crisis
Ongoing in 2017

Thorsten Bartosch (MSc student)

Interest: Neotectonics of Nock gebiet
Ongoing in 2017

Konstalin Hohmann (MSc student)

Interest: Neotectonics of Fischbacher Tauern
Started in mid 2017

Bakkalaureatsstudenten:

Kim Kozac Schersinn Indikatoren in der Plankogel Abschiebung

Matthias Gollner Geometrischer Profil durch den Plattnegneiss im Bereich Weinebene

RESEARCH PROJECTS

- Archaeological documentation of potentially stone ages monuments in Styria

Funded by: Hans Adam 2 Fürst von Liechtenstein (in cooperation with Kusch)

Total funding in 2017: 40.000,-

SCIENTIFIC PUBLICATIONS

Articles in refereed journals:

- Bartosch T., Stüwe K., and Robl J., (2017) Topographic evolution of the Eastern Alps: The influence of strike-slip faulting activity. *Lithosphere*, p. L594.591
- Dertnig F., Stüwe K., Woodhead J., Stuart F.M., Spötl C., (2017). Constraints on the Miocene landscape evolution of the Eastern Alps from the Kalkspitze region, Niedere Tauern (Austria). *Geomorphology*, 299, p. 24-38.
- Turab S.A., Stüwe K., Stuart F.M., Chew D.M., and Cogne N., (2017). Tectonics drives rapid exhumation of the western Himalayan syntaxis: Evidence from low-temperature thermochronometry of the Neelum valley region, Pakistan, *Lithosphere* 9 (6), p. 874-888. DOI: <https://doi.org/10.1130/L626.1>

Abstracts and conference presentations with publication year 2017:

- Turab S., Stüwe K., Stuart F.M., Cogne N., and Chew D.M., (2017). Escarpment evolution at the Red Sea continental margin of southwestern Saudi Arabia. EGU 2017-1544
- Stüwe K., Bartosch T., and Robl J. (2017) Topographic evolution of the Eastern Alps: The influence of strike-slip faulting activity EGU 2017- 1974.
- Stüwe K., Dertnig F., Wagner T., Stuart F.M., and Spötl C., (2017). The Enigmatic Augenstein Landscape of the European Alps. The Key to Deciphering the Landscape Evolution of the Worlds most studied Mountain Range? GSA

Public Relations Articles, Talks and Activities:

- Stüwe K. (2017) Von den geologischen Anfängen der Hohen Tauern bis zum Beginn des Anthropozäns. Vortrag, Exkursion und Extended Abstract im Tagungsband "Anthroozän – Ein neuer Blick auf die Erde als unseren Lebensraum. 25.9.-26.9.2017 Großkirchheim.
- Stüwe K. (2017) Das Alter der Alpen (populärwissenschaftliche Vortragsserie und Exkursionen in Garmisch Partenkirchen im Oktober und Dezember für Mercedes).
- Various editorial activities for LITHOSPHERE and GSA at GSA Denver (October)
- Buchpräsentation am 6.12.2017
- Projekt mit Steirischen Volksschulen via Prof. Klemens Karner Steinkisten.



Figure 1: Presentation event of the new book “Steiermark aus der Luft” on Dec. 6th , in presence of the publisher (Herbert Weishaupt) and the Dean of the science faculty, Prof. C. Gatttringer in the Botanical gardens of the University.



Figure 2: Left: New paper article on the Anthropocene workshop in the Tauern Window. Right: Invitation for the Book – presentation event on December 6th.

FIELD TRIPS AND CONFERENCE TRAVEL

- EGU
- Seattle GSA conference
- Several Trips to Garmisch Partenkirchen with Mercedes.
- Mainz Audit
- Anthropocene Workshop in Grosskirchheim
- Im Rahmen der Lehre: „Geologische 2“ Exkursion im SS „Petrologische 2“ Exkursion im SS, „Erstsemestrigen Exkursion“ im October. Verschiedene kurze Gelände Fahrten mit Bakka und MSc Studenten über das Ganze Jahr.
- Final Photo shooting for the Steiermark Book with Hombi in early March and in early October
- Visit by Dave Etheridge and talks in the Wegener Center in September

TEACHING AND EDITING ACTIVITIES

EDITORIAL RESPONSIBILITIES

- Lecture Notes in Earth Science (Springer) (Chief Editor)
- Mitteil. des Naturwiss. Vereins für Steiermark (Editor: Earth Sci.)
- Lithosphere (Science editor)

EDITORIAL BOARD MEMBERSHIPS

- Journal of the Virtual Explorer (editorial board member)
- Journal of Asian Earth Science (editorial board member)
- Austrian Journal of Earth Science (editorial board member)

EDITED JOURNAL VOLUMES

- Drescher A., and Stüwe K., 2017 (eds.) Mitteilungen des Naturwissenschaftlichen Vereines für Steiermark, vol., 147, 112 p.



Figure 3: Left: Cover of this years „Mitteilungen of the Naturwissenschaftliche Vereine für Steiermark“. Right: The „rock box“ of which 50 were prepared for Steierische Schools.



Figure 4: Elena Sizova, Philip Schantl and Dominik Sorger discussion the geology of the Bohemian Massiv. MSc student Konstantin Hohman puzzling over a half finished Menhir in the Oststeiermark. MSc student Thorsten Bartosch drafting up his mapping results from the Gurktal Alps.



Figure 5: Undergraduate students Leander Wieser and Lucia Mieseberner cutting rocks for a school project. Christoph Hauzenberger and 1st year students in October on the first year field trip. MSc student Konstantin Hohmann grinding rocks for Cosmogenic isotope dating 3 year students during the “Geologischce 2” field trip to Prübichl.