



## Report of the 13th International Young Geomorphologists' Workshop, Wolfshausen, May 17-19, 2019

The German Young Geomorphologists (YG) held the 13<sup>th</sup> International Young Geomorphologists' Meeting close to Gießen from May 17-19, 2019. A group of 59 German and international guests from Undergraduate, graduate, PhD students as well as postdocs from 23 different institutions and universities contributed to an inspiring diverse program of scientific contributions on various geomorphological topics. The focus was to present and discuss own research and general geomorphological topics in a rather informal and friendly environment.

The main frame of the program consisted of four mixed blocks of oral presentations and spotlights, two poster sessions, one keynote, and an excursion (see detailed program attached). The sessions for oral presentations and spotlights were organized as follows:

**Session I: "Sediment dynamics in fluvial systems"** featuring talks by Steffi Tofelde (University of Potsdam) and Renee van Dongen (GFZ-Potsdam) as well as one spotlight by David Puhl (FU Berlin / GFZ-Potsdam)

**Session II: "Methods in geomorphology"** featuring one talk by Matthias Konzett (University of Vienna) and two spotlights by Anna Iglseder (University of Vienna) and Nina Marlovits (University of Vienna)

**Session III: "Mixed topics"** featuring spotlights by Anne Voigtländer (GFZ Potsdam), Andrea Junge (Justus-Liebig-University Gießen) and Dorothee Post (freelancer)

**Session "Geoarcheology"** featuring one talk by Julian Trappe (University of Würzburg)

**Session IV: "Tectonics, erosion and climate in high mountainous areas"** featuring one spotlight by Stefan Haselberger (University of Vienna) and two talks by Kai Deng (GFZ Potsdam) and Donovan Dennis (GFZ-Potsdam)

## Proceedings

The program started by the same procedure as the last years with the "Scales Game" where participants group themselves according to their research's time and spatial scale. The attendees continued to get to know each other during dinner. Subsequently, **Prof. Dr. Todd Ehlers** (Tübingen University) presented his invited **keynote lecture** on "**Latitudinal Effects of Vegetation and Climate on Catchment Denudation**". His talk triggered a very lively discussion on landscape evolution modeling and how important vegetation might be in shaping topography. Afterwards, the persons responsible for the individual posters were asked to advertise their work with one slide in a limited time of 30 seconds (for further details on the broad selection of topics see program in the attachment). This was



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followed by the actual poster session, which was open ended, so that discussion kept on going far into the night.

Saturday began with the first oral session on sediment dynamics in fluvial systems. Then, the organizing team of the German YG gave a short overview of their activities in the past year and upcoming events (e.g. YG session at EGU, social events at conferences, YG meeting 2020 in Würzburg). The YG introduced funding possibilities and awards from the German Working Group on Geomorphology (AK Geomorphologie) which are available to the YG members of the AK. In addition, the chairpersons of the YG drew attention to the upcoming elections of the YG chairpersons and the scientific advisory board on Sunday. Prior to the field trip in the afternoon, the second oral session was held on “Methods in geomorphology”. **The field trip led by Dr. Johanna Lomax (Justus-Liebig-University Gießen) and Andrea Junge (Justus-Liebig-University Gießen)** introduced the geological and geomorphological situation of the surroundings of Wolfshausen located at the margin of the Lahn valley. The main stop in the quarry Niederweimar fostered in-depth discussions of fluvial landscape evolution based on outcrops of fluvial Lahn deposits that cover the Late Pleistocene and Holocene including (reworked) remains of the Laacher See tephra. The trip also provided the opportunity for further discussion and networking. After dinner the dedicated spotlight session took place on “Mixed topics”. Spotlights were introduced in 2018 as a new format with a maximum of 5 minutes of presentation which is followed by an in depth discussion of 10 minutes or more. This allows young researchers to present their work in progress, unsolved problems or issues they face during their research. The evening ended with the continuation of the successful poster session.

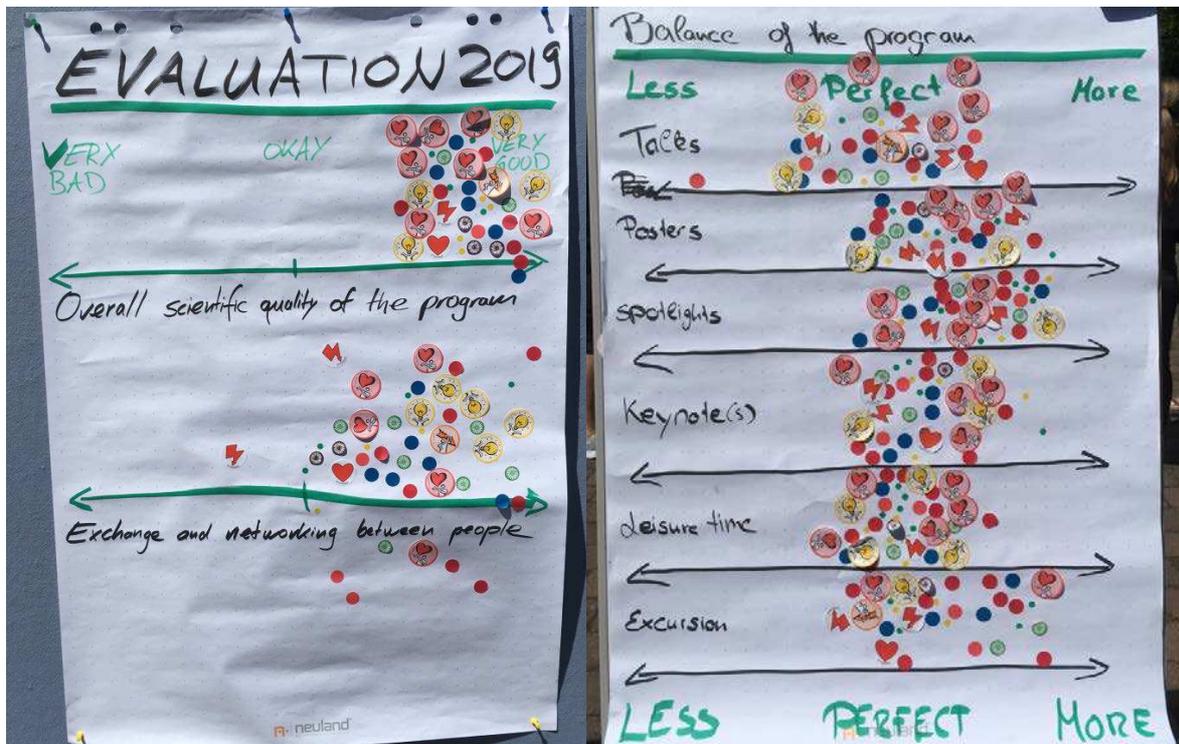
On Sunday, the program started with the last oral presentations on Geoarcheology and Tectonics, erosion and climate in high mountainous areas. Afterwards, a new board was elected. The meeting ended with an evaluation of the conference (see feedback).

## General points

On Sunday morning, three chairpersons and a support team of seven young geomorphologists were elected: Johannes Buckel (TU Braunschweig), Stefan Haselberger (University of Vienna) and Anna Schoch (University of Bonn) will chair the YG for a two-year period until the 2021 meeting. They are supported by Mario Kirchhoff (Trier University), Simon Meyer-Heintze (University of Würzburg), Jörn Profe (Justus-Liebig-University Gießen), Stefanie Tofelde (University of Potsdam), Julian Trappe (University of Würzburg), Renee van Dongen (GFZ-Potsdam), and Janek Walk (RWTH Aachen) in the upcoming tasks.

Jun.-Prof. Dr. Julia Meister (University of Würzburg) will organize the 14<sup>th</sup> international meeting of the German Young Geomorphologists group. It will take place near Würzburg from June 26-28, 2020.

The YG group is thankful for the financial support of the AK Geomorphologie and sponsoring institutions (see attached) which makes it possible to run a Young Geomorphologists' meeting every year affordable for young scientists. We also thank Simon Meyer-Heintze (University of Würzburg) for handling participant communication. We would like to specially thank Prof. Dr. Todd Ehlers for his excellent keynote lecture, Dr. Johanna Lomax and Andrea Junge for guiding the great excursion. Finally, we are much obliged to Christian Halla (University of Bonn) and Julia Meister (University of Würzburg) for their commitment, effort and excellent work during the last two/four years as chairpersons of the YG.



Overall, the feedback for the meeting was very positive, however participants would like to have more time for scientific presentations and discussions in general (spotlights, posters, and excursion).

One key point learnt from the feedback discussion is that 60 participants represent the capacity limit of such a meeting. The new board will develop strategies how to cope with potentially more than 60 registrations in the future. There was a lively discussion about spotlights and how to improve their outcome for the young scientists opting for this presentation format. While the mixed spotlight and oral sessions received very positive feedback, new formats of small-group discussions were put on the table. Parallel sessions with small-group or “fish-bowl” discussions were debated with participants also emphasizing the danger of losing partly the interdisciplinary character of this meeting by temporally splitting the group. One option to avoid splitting the group might be spotlight-related additional discussions that are announced during spotlights and that take place during leisure time for interested persons. In addition, there should be one session dedicated to non-scientific but work-related issues in order to thrive on the challenging work environment for early-career scientists.

Concerning the field trip, the group suggested to have more guided discussions related to specific topics. Furthermore, the group identified the demand for a workshop on e.g. graphic design dendrogeomorphology. Finally, the participants highlighted the importance of getting to know each other and thus recommended more introductory games at the beginning of the meeting.

The poster session was carried out on two evenings with no change in terms of content. The posters stay on the boards the whole meeting. The advantage is a time-independent opportunity to read and to discuss the presented topics.



## Kind regards

Johannes Buckel, Stefan Haselberger, Mario Kirchhoff, Simon Meyer-Heintze, Jörn Profe, Anna Schoch, Stefanie Tofelde, Julian Trappe, Renee van Dongen, Janek Walk





 PROGRAM

Friday, May 17<sup>th</sup>, 2019

16<sup>00</sup> Arrival

17<sup>00</sup> Get to know the program and the group  
Let's learn some names and share a drink

 18<sup>00</sup> Dinner

19<sup>00</sup> Keynote talk by Prof. Dr. Todd Ehlers  
Latitudinal Effects of Vegetation and Climate on Catchment Denudation

Convener: Anne Voigtländer

20<sup>15</sup> Information on Young Geomorphologists and the upcoming elections (Sunday)

 20<sup>30</sup> "30 seconds madness" and open-end poster session Convener: Tilmann Wolpert

 You have 30 SECONDS to present your topic on one slide. After the short introductions we will continue discussing the posters with some cold drinks.

**Hannah Derkum** University of Salzburg

The relevance of diffusion processes for desert pavement dynamics - an experimental study

**Josh Wolstenholme** University of Hull

The geomorphological impacts of Natural Flood Management

**René Kapannusch** GFZ-Potsdam

Glacial influence on late Pleistocene paleo-erosion rates in the north-western Himalaya, India

**Julian Krause & Christian Schäfer** University of Würzburg

BigData@Geo: Monitoring and modelling of soil moisture for Lower Franconia

**Jana Krautz** TU Dresden

Provenance of Eolian Components Of Cover Beds, West USA

**Julius Kunz** University of Würzburg

Multimethodological investigation of permafrost related landforms in the Northwest Territories, Canada

**Samah Moustafa** Damietta University

Geoarcheology of Phoenicus (Greek harbour), NW coast of Egypt

**Konstantin Nebel** John Moores University Liverpool

Extracting Holocene glacier and climate evolution from Skeidsvatn, northern Iceland

**Stephan Pötter** RWTH Aachen

Stable isotopes in loess

**Patricia Rauh** Friedrich-Schiller-University Jena

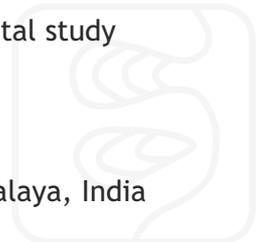
<sup>10</sup>Be exposure dating on moraines in the Sayan Mountains, Siberia

**Kamila Ryzner** University of Wrocław

Human influence on the relief evolution of loess areas in southern Poland

**Lisa Schramm** KU Eichstätt-Ingolstadt

Hypsometric Analysis of Glacier on Svalbard



**Paul Strobel** Friedrich-Schiller-University Jena

A 8.5 kyr high-resolution multi-proxy paleoclimate record from lake Voëlvlei, Southern Cape, South Africa

**Neelratan Singh** Jawaharlal Nehru University (JNU) of New Delhi

Climate and Tectonic controls on evolution of landscapes in Sutlej Valley, N-W Himalaya

**Julian Struck** Friedrich-Schiller-University Jena

Paleoclimate reconstructions in Mongolia using biomarker

**Janek Walk** RWTH Aachen

Alluvial fan morphodynamics along the coastal Atacama Desert - geomorphometric, geologic, and climatic perspectives

**Katharina Wetterauer** GFZ-Potsdam

Alpine headwall erosion rates based on  $^{10}\text{Be}$  concentrations in supraglacial debris cover



Saturday, May 18<sup>th</sup>, 2019

 08<sup>30</sup> Breakfast

 ORAL PRESENTATIONS AND SPOTLIGHTS

You have 20 minutes for your topic, so make your talk short (12-15 minutes) and leave enough time for discussion!

 SPOTLIGHT: You have 15 minutes for your topic, your spotlight talk is limited to 5 minutes. Bring your research topic or problem to the point and have plenty of time for discussion and problem solving!

09<sup>30</sup> Session I: Sediment dynamics in fluvial systems Convener: Raphael Steup

09<sup>30</sup> **Steffi Tofelde** University of Potsdam

Fill-terrace formation and sediment-signal disruption in response to environmental perturbations

09<sup>50</sup> **Renee van Dongen** GFZ-Potsdam

Discharge variability and the implications for river incision - a study along a climate gradient in Chile

 10<sup>10</sup> **David Puhl** FU Berlin/GFZ-Potsdam

Earthquake induced sediment supply in Himalayan rivers

 10<sup>30</sup> Coffee break

11<sup>00</sup> Session II: Methods in geomorphology Convener: Simon Meyer-Heintze

11<sup>00</sup> **Matthias Konzett** University of Vienna

Suitability of phytoliths as a quantitative process tracer in the Spanish Pyrenees

 11<sup>20</sup> **Anna Iglseider** University of Vienna

Use of remote sensing in monitoring of soil erosion across scales

 11<sup>35</sup> **Nina Marlovits** University of Vienna

Fall or Flow? Optimizing the choice, parameterization, and combination of landslide models

 12<sup>00</sup> Lunch

13<sup>15</sup> Field trip to the surroundings: Dr. Johanna Lomax & Andrea Junge

The field trip starts in front of building 4. Please bring sturdy shoes and your swimwear if the weather is suitable for swimming in the Lahn river.

 18<sup>00</sup> Dinner



## 19<sup>00</sup> Session III: Mixed topics Convener: Julia Meister

 **19<sup>00</sup> Anne Voigtländer** GFZ-Potsdam  
Stress controls in Geomorphology

 **19<sup>15</sup> Andrea Junge** Justus-Liebig-University Gießen  
Crowdfunding: the search for the perfect proxy.

 **19<sup>30</sup> Dorothee Post** not associated / freelancer  
Geosciences and Design

## 19<sup>45</sup> Open-end poster session

21<sup>00</sup> Get together



Sunday, May 19<sup>th</sup>, 2019

## 08<sup>30</sup> Breakfast

### 09<sup>30</sup> Geoaerchology Convener: Christian Halla

**09<sup>30</sup> Julian Trappe** University of Würzburg  
The sacred channels of Bubastis

### 09<sup>50</sup> Session IV: Tectonics, erosion and climate in high mountainous areas Convener: Christian Halla

 **09<sup>50</sup> Stefan Haselberger** University of Vienna  
Quantification of feedbacks between small scale erosion and ecological succession on slopes in a high-mountain environment

**10<sup>05</sup> Kai Deng** GFZ-Potsdam  
Denudation rate changes along a fast-eroding mountainous river with slate headwaters in Taiwan from meteoric <sup>10</sup>Be/<sup>9</sup>Be ratios

**10<sup>25</sup> Donovan Dennis** GFZ-Potsdam  
Temperature sensitivity physical weathering in alpine glacial landscapes

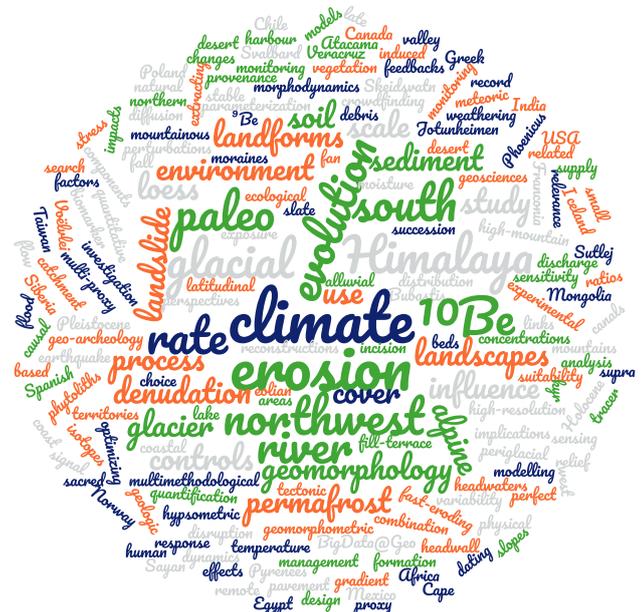
## 10<sup>40</sup> Short break

11<sup>00</sup> Election of the board and advisory board of the Young Geomorphologists

## 12<sup>00</sup> Lunch

**13<sup>00</sup> Give us what we deserve!**  
We need your opinion on what you liked and disliked!

**13<sup>30</sup> Goodbye and final remarks**

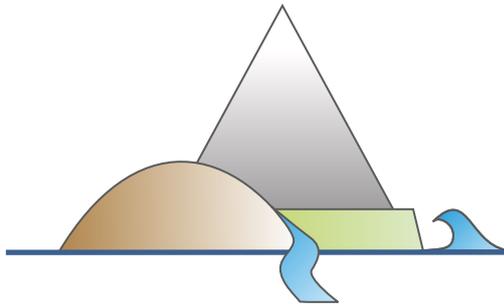



**LIST OF PARTICIPANTS**

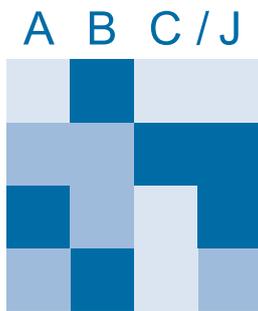
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