



**Report of the 15th International Young Geomorphologists' meeting,
VIRTsburg Castle online edition
June 24-25, 2021**

The German Young Geomorphologists (YG) conducted the 15th International Young Geomorphologists' meeting in VIRTsburg Castle (powered by gather.town) from June 24-25, 2021. In total 56 participants from the German-speaking countries (D-A-CH) but also from India, South Africa, New Zealand and other countries gathered online for two days due to the Covid-19 pandemic. The list of international attendees comprised undergraduate, graduate and PhD students as well as postdocs from a lot of different universities and institutions. The focus was for attendees to present and discuss their own research and general geomorphological topics in a rather informal and friendly environment. Also, we wanted to uphold the tradition of having annual meetings despite the pandemic situation.

The main frame of the program consisted of two thematic sessions of oral and spotlight presentations, one poster session and one keynote talk. The sessions for oral presentations were organized as follows:

Session I: "Landforms as indicators for climate and archaeological reconstructions" featuring talks by Cathleen Kertscher (Leipzig University), Johannes Schmidt (Leipzig University), Sarah Teuber (Technical University of Braunschweig), Mathias Vinnepand (University of Mainz), Felix Martin Hofmann (University of Freiburg), Olivia Verplanke (Keele University), and Bruno Johannes Boemke (RWTH Aachen).

Here the poster session took place as well. 8 Posters were presented on a wide range of topics from a variety of participants, originating from different universities and institutes

Session II – "Erosion and denudation – monitoring, measuring, modelling" featuring talks by Emma Lodes (GFZ Potsdam), Doris Hermle (Technical University of Munich), Andreas Ruby (University of Trier), Robert Busch (FU Berlin), Surajit Kundu (Triveni Deni Bhalotia College, WB, India), and Stephan Pötter (RWTH Aachen).

Proceedings

Due to the unusual online format, prior to the actual conference program, the platform was presented virtually. All kinds of rooms and places for every purpose were created, catering to all possible needs.

The program started with the usual introductory games in which the participants shortly introduced themselves and their research projects ("Scales Game"). After this introduction the e-Participants found their places in the conference hall and the first sessions' Spotlight presentations started. All talks led to lively discussions and interesting questions were asked and answered. After a short break, the poster session concluded the scientific part of the first day. Every presenter had 60 seconds on their hands to present their work and research. An extra room was created for a poster discussion

afterwards. This gave all participants the possibility to take in the posters' contents throughout the whole conference. The discussion led to interesting input and the presenters also had the possibility to check out the other posters, besides answering questions about their own work. The variety of topics was widespread and covered themes from DEM modelling of glacial geomorphology to anthropogeomorphological impact on wetlands, for example.

The first day ended with an open-ended gathering within the virtual environment.

Friday kicked off with a quick welcome from the organizing committee, which was followed by the keynote talk held by Prof. Dr. Tony Reimann from the university of Cologne. He shed light on new ways to utilize OSL dating methods (pun very much intended). Also, he talked about alternative scientific career paths which led to a very lively discussion afterwards.

After a quick break, giving everybody the opportunity to refill their coffee mugs, the second session of spotlight presentations kicked off. "Erosion and denudation" was the main topic. Within 90 minutes, six interesting presentations tackled aspects of monitoring, measuring and modelling of the topic. Work from all kinds of landscapes in different parts of the world was presented. Here as well a busy discussion came to be, which pushed the scientific exchange as intended.

After a farewell and some closing remarks from the organisation board, interested young scientists gathered and a new committee board was formed for the next two years. A mix of experienced members and newcomers make up the crew, ensuring for a smooth transition.



Gathering of the participants on the "beach".

General Points

Due to the online format, a field trip, usually an integral part of the young geomorphologists meeting, sadly was not able to be conducted, leading to a shorter meeting. Nevertheless, great discussions and exchanges between the attendees came about.

The YG group is thankful for the financial support of the German Working Group on Geomorphology (AK Geomorphologie) and sponsoring companies (see attached) that make it possible to run a Young Geomorphologists' meeting every year that is affordable for young scientists.

PROGRAM

Thursday, June, 24th 2021

13:30-14:30 Introduction and Games - get to know gather.town, the program, and the group
(hosted by Johannes & Janek)

14:30-16:30 Session I: Landforms as indicators for climate and archaeological reconstructions
(Convener: Jörn, Julian & Simon)

Cathleen Kertscher (Leipzig University): Sub-decadal scale coupling of the Moroccan Sidi Ali lake core record with historical and meteorological data for the last 120 years.

Johannes Schmidt (Leipzig University): Centennial to millennial-scale cyclicity of Holocene climate and environmental dynamics in the Western Mediterranean (Lake Sidi Ali, Middle Atlas, Morocco).

Sarah Teubner (TU Braunschweig): Lake inventory of the karst mountains of southern Mexico.

Mathias Vinnepand (University of Mainz): Dust dynamics in western Central Europe during late OIS 3 and OIS 2 - provenance studies of the Schwalbenberg Loess-Palaeosol-Sequence .

Felix Martin Hofmann (University of Freiburg): Chronology of the last glaciation maximum in the Black Forest, southern Germany.

Olivia Verplanke (Keele University): Understanding the Origin and Palaeoglaciological Significance of Herefordshire's Ice Age Ponds: An Issue of Equifinality?

Bruno Johannes Boemke (RWTH Aachen): Mapping Upper Palaeolithic site probability in Lower Austria – a geoarchaeological multi-factor approach.

17:00-18:00 Poster session (Convener: Mario & Johannes)

Renée Grundling (Southern African Young Geomorphologists) – Anthropogeomorphological Wetlands

Manoah Muchanga (University of Zambia) - Impact of Buffer Zone Anthropogenic Activities on the Geomorphic Evolution of the Downstream of the Magoye River Channel in Southern Zambia

Julian Krieger (RWTH Aachen) – Quality assessment of open-source DEM's in northwest Namibia.

Lukas Dörwald (RWTH Aachen) - Meso- to macro-scale landscape modelling with SfM-MVS photogrammetry: a case study from the Urft Lake water reservoir (Eifel Mountains, western Germany)

Laura Kögler (University of Trier) - Subsurface particle transport in coarse-grained vineyard soils - a laboratory flume experiment

Mario Kirchhoff (University of Trier) - Spatial distribution of argan-tree influence on soil properties in South Morocco

Katharina Wetterauer (GFZ Potsdam) - Alpine Headwall Retreat - Supraglacial Debris - Deglaciating Times : What's the story behind?

Levan Tielidze (Antarctic Research Centre, Victoria University of Wellington, New Zealand) - Glacial geomorphology of the Ahuriri River valley, New Zealand

17:15-18:00 Poster discussion

Friday, June 25th 2021

08:15-08:30 **Welcome and organization**

09:00-10:15 **Keynote: Prof. Dr. Tony Reimann (University of Cologne)**

10:30-12:00 **Session II: Erosion and denudation - monitoring, measuring, modelling
(Convener: Mario, Janek, Renee, Steffi)**

10:30 *Emma Lodes (GFZ Potsdam):* Bedrock fracturing and erosion: perspectives along a climate gradient.

10:45 *Doris Hermle (TU Munich):* Application of Digital Image Correlation on multispectral images for landslide investigation, Sattelkar, Austria.

11:00 *Andreas Ruby (University of Trier):* Gully erosion monitoring in Southern Morocco via Structure-from-Motion.

11:30 *Robert Busch (FU Berlin):* Modeling Gully Erosion Susceptibility to Evaluate Human Impact on a Local Landscape System in Tigray, Ethiopia.

11:45 *Surajit Kundu (Triveni Devi Bhalotia College, WB, India):* Flood probability estimation and vulnerability assessment in the Damodar River, Eastern India.

12:00 *Stephan Pötter (RWTH Aachen):* The largest mega-yardangs can be found in Southern Siberia – preliminary results and conceptual model.

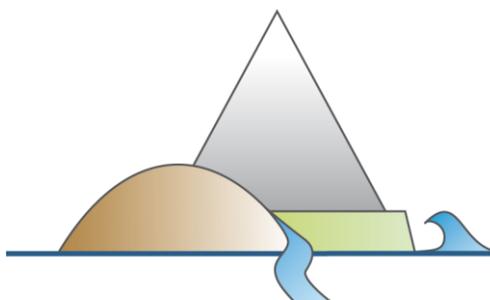
12:15-open end **Election of the new board, feedback and farewell (hosted by Julian & Steffi)**

Participants

Nr.	Name	First Name	Affiliation	E-Mail
1	Alsleben	Jonas	University of Bonn / SLF Davos	jonas.alsleben@web.de
2	Anshul	Yadav	IIT Roorkee	ayadav@hy.iitr.ac.in
3	Arindam Sarkar	Arindam	Independent Researcher	arindam.srkr1@gmail.com
4	Bingen	Anne	University of Trier	s6anbing@uni-trier.de
5	Boemke	Bruno Johannes	RWTH Aachen University	bruno.boemke@geo.rwth-aachen.de
6	Buckel	Johannes	TU Braunschweig	j.buckel@tu-braunschweig.de
7	Busch	Robert	FU Berlin	robert.busch@fu-berlin.de
8	Dörwald	Lukas	RWTH Aachen University	lukas.doerwald@rwth-aachen.de
9	Döscher	Niels	RWTH Aachen University	niels.doescher@geo.rwth-aachen.de
10	Grimm	Bastian	University of Mainz	bastian.eww.grimm@t-online.de
11	Haselberger	Stefan	University of Vienna	stefan.haselberger@univie.ac.at
12	Hermle	Doris	TU Munich	doris.hermle@tum.de
13	Hofmann	Felix Martin	University of Freiburg	felix.martin.hofmann@geologie.uni-freiburg.de
14	Junge	Andrea	JLU Gießen	andrea.junge@geogr.uni-giessen.de
15	Kang	Ranbir	Kennesaw State University	ranbirkang@gmail.com
16	Kertscher	Cathleen	Leipzig University	cathleen.kertscher@uni-leipzig.de
17	Kirchhoff	Mario	University of Trier	kirchhoff@uni-trier.de
18	Kirsten	Fabian	FU Berlin	fabian.kirsten@fu-berlin.de
19	Kögler	Laura	University of Trier	laurakoegler95@gmail.com
20	Köhler	Tamara	University of Bonn	tkoehler@uni-bonn.de
21	Kraußhaar	Sabine	University of Vienna	sabine.kraushaar@univie.ac.at

22	Krieger	Julian	RWTH Aachen University	julian.krieger@rwth-aachen.de
23	Kundu	Surajit	Triveni Devi Bhalotia College	surajitkundu.geo@gmail.com
24	Kunz	Julius	University of Würzburg	julius.kunz@uni-wuerzburg.de
25	Levan Tielidze	Levan	Victoria University of Wellington	tielidzelevan@gmail.com
26	Lodes	Emma	GFZ-Potsdam	lodes@gfz-potsdam.de
27	Manschott	Nina	Goethe University Frankfurt	mannschott@em.uni-frankfurt.de
28	Maud Brown	Maud	University of Bristol	zj20813@bristol.ac.uk
29	Meister	Julia	University of Würzburg	julia.meister@uni-wuerzburg.de
30	Meyer-Heintze	Simon	University of Würzburg	simon.meyer-heintze@uni-wuerzburg.de
31	Muchanga	Manoah	University of Zambia	mmuchanga@unza.zm
32	Oehler	Salome	JLU Gießen	salo.lilinne@gmail.com
33	Pagels	Julia	FU Berlin	julia.pagels@fu-berlin.de
34	Pötter	Stephan	RWTH Aachen University	stephan.poetter@geo.rwth-aachen.de
35	Profe	Jörn	JLU Gießen	Joern.Profe@geogr.uni-giessen.de
36	Raab	Gerald	University of Zürich / Dalhousie University	gr.science@gmx.at
37	Renée Grundling	Renée	Southern African Young Geomorphologists	renee.grundling@gmail.com
38	Rieder	Julia	University of Würzburg	julia_rieder@gmx.net
39	Ringleb	Bastian	JLU Gießen	Bastian.ringleb@geogr.uni-giessen.de
40	Ruby	Andreas	University of Trier	s6anruby@uni-trier.de
41	Sander-Beuermann	Wera	University of Hildesheim	sanderbe@uni-hildesheim.de
42	Schiffmann	Johanna	TU Braunschweig	johanna.schiffmann@gmx.de
43	Schmidt	Johannes	Leipzig University	j.schmidt@uni-leipzig.de
44	Seeliger	Martin	Goethe University Frankfurt	seeliger@em.uni-frankfurt.de
45	Slabon	Aron	German Federal Institute of Hydrology	slabon@bafg.de
46	Stammler	Melanie	University of Bonn	stammler@uni-bonn.de
47	Stauch	Georg	RWTH Aachen University	gstauch@geo.rwth-aachen.de
48	Teuber	Sarah	TU Braunschweig	sarah.teuber@tu-bs.de
49	Tofelde	Steffi	University of Potsdam	tofelde@uni-potsdam.de
50	Trappe	Julian	University of Würzburg	julian.trappe@uni-wuerzburg.de
51	van Dongen	Renée	GFZ-Potsdam	dongen@gfz-potsdam.de
52	Verplancke	Olivia	Keele University	x4c62@students.keele.ac.uk
53	Vinnepand	Mathias	University of Mainz	mavinnepp@uni-mainz.de
54	Walk	Janek	RWTH Aachen University	janek.walk@geo.rwth-aachen.de
55	Wetterauer	Katharina	GFZ-Potsdam	kwett@gfz-potsdam.de
56	Wiegand	Tim	University of Würzburg	tim.wiegand@stud-mail.uni-wuerzburg.de

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