



Geosciences and Society – Bridging the gap with GeoParks and Co

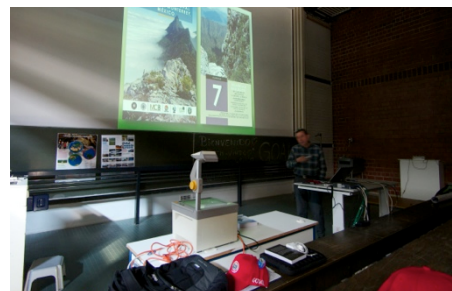
Workshop and excursion, March 27 to 31, 2014

Report and Outlook

Preliminaries. The largely and generously DAAD-supported GOAL meeting took place from March 27 to 31 (Thursday to Monday) in direct coupling with the 24th Latin-America Colloquium (LAK) in Heidelberg. 31 Latin-American GOAListas took part that had applied for DAAD support and another three GOAListas on their own steam. In addition, the two German organizers and vent leaders, professors Dr. Klaus Stanek and Dr. Jörg Matschullat raised the total number of GOAL-participants to 37. During the workshop in Heidelberg, also the long-term German GOAL-coordinator Prof. Dr. Christoph Breitkreuz and some regional guests participated.

The event consisted of two parts: a workshop and an excursion – both devoted to the topic GeoParks. This UNESCO-based category has been applied for several times over the last years by Latin-American countries – albeit in vain. From a total of currently 100 successful GeoPark projects worldwide, there are only two in Latin America (in Brazil and Uruguay). Workshop and excursion aimed consequently to make up for knowledge deficits, to exchange experiences and to enable through the excursion to visit successful German Geo-Park projects near the event location and to directly talk to and discuss with responsible colleagues on site. This approach could fully be realized and must certainly be seen as highly successful. It was important and very good for the GOAL network to see that the long-term Regional GOAL coordinator for Latin America, Prof. Reinaldo Garcia (Columbia and Canada) was willing to shoulder this task for another period and was re-elected univocally. This grants continuity not only in the already high standard of internal communication but also in the guidance of the steady stream of new GOAL applicants and members (see below).

GOAL Workshop. The oral and poster presentations of the GOAListas (see attached abstract volume) highlight the current understanding of the topic in the individual nations (17 out of 26 contributions directly targeted the GeoPark topic). Here, the presentations of Dr. Jorge Ellis (UNESCO Ecuador) and Dr. Jörg Matschullat were able to clearly address deficits and to give the first and very concrete hints on how to successfully apply for and manage a Geo-Park idea. “*Grey is all theory*”, if one is not successful in forwarding content in a vivid and hands on manner through truly experienced persons. This was the aim of the excursion that started already during the workshop with a short visit of the nearby museum mine “Anna Elisabeth” in Schriesheim (<http://www.bergwerk-schriesheim.de>).



Left: Late night GOAL-assembly in the Heidelberg University Cafeteria. **Centre:** Jorge Ellis drove the message home. **Right:** Juan Alonso Ramirez Fernandez on the Monterrey project

Two members of the former silver and iron vitriol mine (part of the GeoPark Odenwald) had prepared themselves very well to our visit. Both in respect to their introductory words and the subsequent mine visit, they showed the absolute dependency of a successful GeoPark on the engagement of the local (and regional) civil society that carries the project with its engagement and permanent interest. They also explained how it is not just about geoscientific topics, but just as much about cultural and socioeconomic reality and history.



Left: Historical picture of the mine Anna Elisabeth in Schriesheim. **Centre:** Miner with a “frog” lamp, pushing a mine trolley (Hunt) in the mine. **Right:** GOAListas underground

At the GOAL-internal meeting on Thursday, both the obvious consolidation of the network – a clear result of the trusting support by DAAD, without which the network could not yet sustain itself – and the result of a vivid and engaged discussion about the next GOAL event location – to decide for Argentina (see page 5) illustrated the by now obtained maturity.

GOAL Excursion. After closing the most inspiring workshop that led to many lively discussions, the participants travelled on Saturday afternoon by bus and under the guidance of Klaus Stanek and Jörg Matschullat first to Aalen and thereafter to Nördlingen. In Aalen, we visited the Urweltmuseum Aalen as part of the GeoPark Swabian Alb (<http://www.geopark-alb.de/de/de/de/Urweltmuseum-Aalen?pid=18>). The guided tour through the museum and the introductory lecture by Dr. Siegfried Roth again emphasized the absolute relevance of the engagement of civil society and the important role of civil associations and clubs next to the interest and responsibilities of communal and county or province-related bodies – if a GeoPark is to be sustainably successful. Dr. Siegfried Roth did not conceal, which kind of hindrances and challenges need to be mastered, even after establishing a GeoPark. This includes permanent fund-raising and volunteer-hunting.



Urweltmuseum Aalen. Left: Prepared coral in life position. **Centre:** Plesiosaurus figure for kids. **Right:** one of the most beautiful pieces of the Aalen collections, a Jurassic fish fossil

The extended discussion with Dr. Roth delayed our arrival in Nördlingen. Long after nightfall, we just made it to a dinner in the youth hostel and some individual city strolls. Early the next morning, a visit of the Ries crater museum under the guidance of geologist Dr. Gisela

Poesges brought the first truly major highlight to our excursion (<http://www.rieskrater-museum.de/index.php/de/>). While the previous sites were more of an example for the enormous and heartfelt engagement of laypeople and partly a few specialists as well as (mostly retired) citizens that have no employment by the respective institution, both the Nördlinger Ries as an important asteroid impact structure and the remarkable and highly sophisticated museum stand for professional, effective and highly qualified combination of research activities and public teaching and outreach to a highly diverse clientele. Dr. Poesges directly targeted the visitors' interest and it was no surprise that our time plan again went out of proportion. Thus the group climb and visit onto the Daniel (church spire of the St. George Church) had to be drastically shortened and we were almost running both up and downstairs before and after a magnificent outlook and overview of the crater structure to reach our bus in time.

That visit was helpful nevertheless, since we could see the double ring structure of the Ries in all clarity. The bus delivered us jointly with Dr. Poesges to two important outcrops of the inner ring of the impact structure; with one showing the so-called "Bunte Breccie" (coloured breccia) with pieces of the entire lithology of the Ries basin, and another, where we could investigate the suevite under magnifying glasses (this is to be taken literally with geoscientists). The entire visit was enticing and fascinating. At the same time it clearly demonstrated which level of effort and financial expenditure are to be mastered if a GeoPark shall be established on such a niveau and is to be successfully managed.



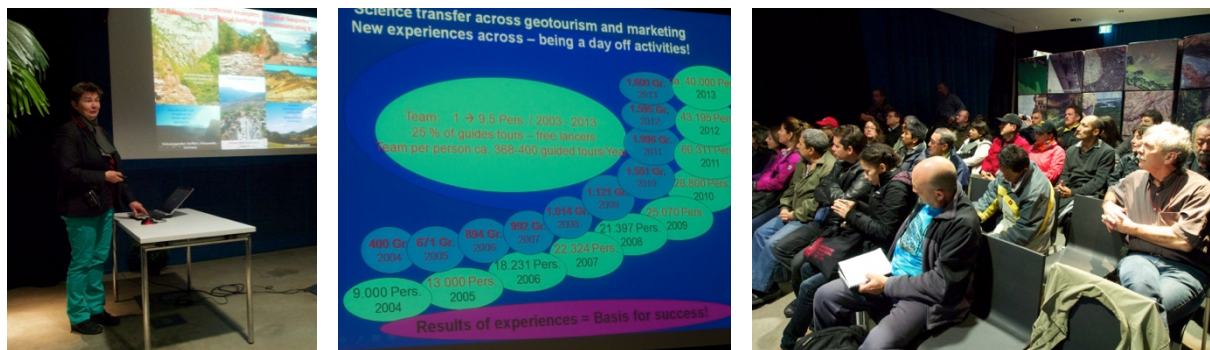
Ries crater museum Nördlingen. Left: Poster at the entrance with the "Daniel". Centre: 3D-model of the impact crater. Right: The GOAListas at the museum entrance

It was late afternoon already, when we left – again into the GeoPark Odenwald. The second site there (after Schriesheim) was the GeoPark entrance Buchen with the Eberstadt dripstone cave (http://www.tropfsteinhoehle.eu/de/eberstadter_tropfsteinhoehle/index.html); directly next to an active large quarry, where the local rocks from the Lower Muschelkalk (Middle Triassic) are being mined. Again a smaller GeoPark project, yet with a new and architectonically attractive visitor's centre and highly engaged volunteers. The young man guiding us was very well prepared and had even and especially for us learned some English specialists' term for his tour – leaving an excellent impression. This location showed very clearly, which challenges relate to the GeoPark condition that economic activities shall not only be allowed but if possible even fostered. In the cave this translates into recently formed cracks that are doubtlessly a result of the nearby blasting and mass removal activities. Again we arrived late in the Darmstadt youth hostel and most went to bed right away.

Left: Between the stations. Centre and right: in the Eberstadt cave



The last excursion site and another true apex, the Messel pit, lies in close proximity of the City of Darmstadt (<http://www.grube-messel.de>). Yet, we could neither see any signs for it in the city nor in the youth hostel that would have pointed to this remarkable heritage site of global relevance. We were received by the head of the World Heritage site Welterbe Grube Messel gGmbH, geologist Dr. Marie-Luise Frey and her co-worker geologist Yvonne Roeper. The visit was to become by all means the crowning end of the excursion. Dr. Frey had not only taken lots of time for us, but again thoroughly prepared and took intense note of our pre-excursion information. Her long-term experience (prior to her work for the Messel pit), derived from the Vulkan Eifel project and her responsibility today also as a member of the UNESCO GeoPark Board was the backdrop to share the most profound and basically tailored experience relating to GeoPark projects with us GOAListas. Following her fascinating and open talk, she was permanently surrounded by GOAL member country representatives and could partly give very concrete tips for the future work in Latin America.



Messel pit. Left: Dr. Frey presents. Centre: Data on visitor numbers in the Messel pit as of 2004. Right: Attentive GOAListas

Following the presentation, we received an intense guided tour through the exquisite visitor's centre. Dr. Frey explained in detail the underlying reasons and motivation for showing exactly what and how particular items on display (partly interactive). Thereafter, geologist Yvonne Roeper and Dr. Frey led us into the pit and explained further details and particularly the challenge to find a healthy balance between wishing to show "everything" to the visitor on the one hand and safety considerations as well as the vested interest of partners such as the involved research bodies (Senckenberg and Messel museum) on the other hand. Upon the good bye from this spectacular and most excellently prepared visit, we participants were surprised with a bag full of publications and a DVD showing the challenges of turning an active mining pit (with partial industry activities going on until today) via the intended post-industrial use as a garbage dump into a well-visited and most relevant UNESCO world heritage and key GeoPark Odenwald site.



Messel pit. Left: Crocodile skeleton. Centre: Maria del Carmen Alvarez Enciso scrutinizes a piece of Messel oil shale. Right: Geologist Yvonne Roeper explains the fabulous Ida find

Richly endowed and intellectually almost exhausted, we now have to return. The bus delivers most of us to the Frankfurt/Main airport and some back to Heidelberg, whose return flights are scheduled for the next day only.

Some original voices from participants after the events:

Ich glaube dass es für viele von uns (inkl. ich!!!) nicht klar war, was GeoParks wirklich sind...
(André Jasper, Brasilien)

Allow me to repeat that our GOAL workshop was very important, mainly due to the enthusiasm put into action for you and Klaus. (Reinaldo Garcia, Columbia and Canada)

También quiero agradecer por la organización del GOAL, muy bien, muy interesante y también el apoyo para participar del LAK 2014. Esperemos tener suerte con la organización de la actividad de Argentina. Ayer envíe un mail a la Asociación Geológica Argentina y al Servicio Geológico Argentina, para informar que vamos a realizar una propuesta al DAAD para hacer un Taller-Seminario en Argentina. (Raul Becchio, Argentinien)

Miscellaneous. This report is accompanied by the balancing of the event account from the very thankfully received financial DAAD support, and the programme and abstract volume of the event. Because of the latter, the program has not been repeated in this report.

GOAL members (GOAListas) appear increasingly and cross-country active. This certainly also applies to the GeoPark topic. At the 17th Peruvian Geological Congress (October 12-15, 2014 in Lima; <http://www.sgp.org.pe/congreso-geologico/>) a special session shall be dedicated to the topic GeoParks and quite a number of GOAListas are expected to actively participate. Next year (2015), we hope to be able to launch another GOAL meeting in Argentina, again dedicated to the GeoPark idea and intensifying the work done in Heidelberg and during the excursion this time (see below). We again hope for DAAD support for this important event.

Another fine product from the GOAL GeoRisk topic that we triggered a few years ago (also DAAD supported), is a substantial book publication with UNESCO support: Ellis J, Lacaba RG, Sánchez Boschini I (eds; 2012) *Deslizamientos: efectos, evaluación y gestión de riesgo. Lecciones aprendidas de América Latina y el Caribe*. UNESCO and CYTED; 350 p.; ISBN 978-9942-9875-3-2. Another most recent book publication already targeting the GeoPark topic, appeared in 2013 by and with GOAListas: Cantú Ayala C, Rovalo Merino M, Marmolejo Moncivais J, Ortiz Hernández S, Serriñá Garza F (eds; 2013) *Historia natural del Parque Nacional Cumbres de Monterrey, México*. Universidad Autónoma de Nueva León; 414 p.; ISBN 978-607-27-0074-1. Specimen copies of both volumes were given to the library of TU Bergakademie Freiberg, Europe's most extensive Geo-related library.

Outlook

Both the event programme and abstracts illustrate that a critical mass of GOAListas is involved in GeoPark projects. This report shows that the so far rather sobering experience of successful related projects in Latin America is largely due to a certain level of ignorance and related misunderstandings.

The GOAL event in March 2014 can rightfully claim to have strongly contributed to exchange those misunderstandings with knowledge and understanding; an important step towards a future proper planning and development of GeoPark projects in Latin America.

Before this backdrop, we now concretely started planning to accompany the already existing approach of establishing a GeoPark in Argentina, the province of Salta (Saltasaurus) with locations such as Humahuaca and La Rioja (photo at right). We intend to invite to a GOAL meeting there in 2015, hoping for DAAD support. Following an excursion that shall make us more familiar with the potential GeoPark region, we want to use the workshop format to jointly develop concrete planning steps for that GeoPark project Salta.

