

Yes Conference 2019

Post Conference Field Trip “Construction and destruction of a mountain range: The Bohemian Massif”

Date: 14.09.2019 – 18.09.2019

The aim of the excursion is to look at endogene and exogene processes that are linked to the rise and destruction of mountain ranges. We will discuss ideas and concepts that have been presented during the session “How to construct and destruct a mountain range” in the field. We will compare our findings in the field with the accepted concepts of uplift rates, cooling, erosion and exhumation and try to find new ways to upcoming questions. Starting with the high-grade metamorphic units of the Erzgebirge (Ore Mountains), we will travel to the southeast through different metamorphic nappes to reach the ancient foreland basin close to the city of Brno. During the endogene part of the excursion we will visit the deeply eroded Variscan Orogen. The focus will be on the exhumation mechanisms of deeply subducted metamorphic units, comprising Coesite and Diamond bearing UHP rocks in the Erzgebirge. In the central Czech Republic, we will have a look at outcrops of the metamorphic lower- to mid-crustal units of the Moldanubian Domain, which are supposed to represent an orogenic root. The outcrops of the Moravosilesian Nappe System will lead us into mid-crustal levels. Changes in rheology and mineralogy from lower to upper crust indicate the ongoing retrograde metamorphism during exhumation. The second part of the field trip focuses on the sedimentary basin fill of the eastern foreland basin looking at exogene processes. The coarse grained clastics of the sedimentary filling in the „Culm-facies“ foreland basin are derived from the nearby exhumed metamorphic units. Clast counting in mass flow deposits of carboniferous age reveals a time resolved change in the clast content. The last stop of the excursion is in the Permian Buskovice Graben, a witness of the post-Variscan extensional phase that is recognizable all along the Variscan belt.

Date	Programme	Rough Topic	Context to the topic
14.09.	9:00 – 11:00	Travel from Berlin Campus Lankwitz to Freiberg Area	
	11:00 – 16:00	Erzgebirge	Extrusion of high grade metamorphic units
	16:00 – 17:00	Travel to Hotel/Campsite	
15.09.	7:00 – 12:00	Erzgebirge	Extrusion of high grade metamorphic units
	12:00 – 16:30	Travel to Brno Area, Geology on the way	Central Bohemian Massif, high grade metamorphic units, what happens in the lower crust of an orogenic root? , Postvariscan Granites
	16:00 – 17:00	Travel to Hotel/Campsite, Blansko	
16.09.	7:00 – 11:30	Crossing the Moldanubian - Moravian Boundary, Svratka Window	middle crust , Nappe stacking, source rocks of the foreland basin fill
	12:30 – 16:30	Transition into Moravian Karst, (Visit Macocha Cave)	prevariscan units, upper crust
	16:30 – 17:30	Travel to Hotel/Campsite, Blansko	
17.09.	7:00 – 14:00	Moravo-Silesian Basin, Sedimentology, petrology of basin fill	sedimentology and provenance study
	14:00 – 16:30	Boskovice Furrow	if we have time for that: postvariscan extension, gravitational collaps?
	16:30 – 17:00	Travel to Hotel/Campsite, Blansko	
18.09.	9:00 – 16:00	Travel back to Berlin Campus Lankwitz	

225€ per participant (including transport, bed in dormitory and breakfast during the fieldtrip, lunch and dinner must be paid individually); Registration deadline is the 1st of June.

Additional Information:

This field trip leads you into gentle landscape. There is, nevertheless, the necessity of good footwear and appropriate clothing, as we might face rough and even cold weather. You also should be able to hike for some kilometres. The field trip language will be English.

This fieldtrip is explicitly open to all disciplines in geology. Thus, we hope to discuss multiple aspects of the topics in field.

Be aware that during this fieldtrip everyone is self-reliant. The organizers do not take responsibility for the safety of the individual.