

Excursion of the Swiss Young Geomorphologists (SGmS)

## Rockfall management and water management issues in the Valley of Trient

Trient (Valais), 26-27 September 2024



Photo: J. Bussard, 2024

**The Young Geomorphologists' 2024 autumn excursion** took place in the Valley of Trient (Valais), in the Mont Blanc massif, and was attended by 12 participants from the universities of Fribourg, Lausanne and SUPSI. During the first day, a detailed analysis of the water resource in the territory of the Vallée du Trient regional nature park, and more specifically in the communes of Trient and Finhaut, was presented by Margaux Delalex (Interdisciplinary Centre for Mountain Research, University of Lausanne). During a walk from the Col de la Forclaz to the village of Trient following the “bisse du Trient” (traditional irrigation channel), Margaux described the characteristics of the water resource in the area and showed some maps and illustrations to highlight the **complexity of water management** in this area, which has to deal with several uses (hydroelectricity production, drinking water, irrigation, tourism, etc.) and issues (pollution of drinking water with arsenic, obsolescence of pipes and infrastructure, natural hazards, etc.). The presentation also showed how various stakeholders are involved in water management.

After a night in the refuge “le Peuty” in Trient, Gaëlle Moulin and Patrick Gabioud (Tissières SA, Martigny) presented the **monitoring and management strategies of the Berte-Gremé landslide/rockfall** area, which affect the two hamlets of Berte and Gremé, in the commune of Trient.

This area is closely monitored due to the risk of landslides triggered by snowmelt or heavy rain, which could release large boulders. The forest's condition has deteriorated, reducing its protective capability. In response, a 4 m high protective dike was constructed in 2018 to shield the surrounding area. The dike effectively prevents damage to the residential properties below, but its construction and the removal of material from the unstable slope also reactivated the landslide. The monitoring system includes a theodolite, and prisms positioned on the large boulders with a high probability of mobilisation. A warning system is in place in order to evacuate the concerned population if a movement of the monitored boulders is detected. Questions regarding land management (planification of building zones) and responsibilities in the case of damage or accident were also discussed.



Experts from Tissières SA explain the monitoring system of the Berte-Gremé landslide/rockfall area. Photo: J. Bussard, 2024

Organisers

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