

6 PRE - Large landslides, climate changes and human impact in the Italian Dolomites since the Lateglacial

Excursion Leaders: **Mauro Soldati** (University of Modena and Reggio Emilia), **Alessandro Pasuto** (CNR – IRPI), **Sandro Rossato** (University of Padova), **Silvana Martin** (University of Padova), **Susan Ivy-Ochs** (ETH Zurich)

Proposed Excursion Dates: 9-12 July

Draft Itinerary: Padova - Peron rock avalanche (Sospirolo – BL) - Vajont landslide (Erto – BL) - Cortina (overnight) - Cortina landslides - Corvara (overnight) - Corvara landslides - Trento (overnight) – Lavini di Marco (Rovereto – TN) - Padova train station - Rome

Definitive cost per head: € 800

Accommodation arrangements: Hotel

Proposer Contact Details:

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Description

The field trip will take place in the Italian Dolomites. Here, the outstanding scenery of the calcareous mountains meets with the slope instability. Several landslides and related deposits were dated from the Lateglacial to present, clustering in different periods. The first phase is observed in the Preboreal and Boreal and includes both translational rock slides, which occurred following the withdrawal of LGM glaciers, and rotational slides and flows, probably favoured by high groundwater levels due to an increase of precipitation and/or permafrost melting. A second concentration of landslide events occurred during the Sub-boreal, when mainly rotational slides and/or flows occurred. Finally, some historical events occurred, including huge rock avalanches. Climate degradation, seismic shakings and human activity played a role in the occurrence of such events, contributing to the rock mass instability or acting as triggers.

We will visit both the location of huge historical events (i.e., the Vajont landslide and the Masiere di Vedana rock avalanche), and the places where recurrent mass movements occurred as a response of climatic events (i.e., Cortina and Badia areas) and seismic shakings (i.e., Lavini di Marco site). Discussion on triggering and predisposing factors will be proposed, paired with direct observations of the deposits' main features and the introduction to the geological and structural settings of the areas.

