

17 Pre - Palaeosols across the Northern Apennines: insights into the Late Quaternary dynamics of an active orogen.

Excursion Organisers/Leaders: **Anna Andreetta** (Università di Firenze), **Marco Benvenuti** (Università di Firenze), **Daniele Maestrelli** (CNR, IGG, Firenze), **Stefano Carnicelli** (Università di Firenze) e **Federico Sani** (Università di Firenze)

Proposed Excursion Dates: 10-13 July 2023

Draft Itinerary: Bologna (railway station) – Reggio Emilia – Mugello – Baratti – Roma

Definitive cost per head: € 750

Minimum number of participants: 10

Maximum number of participants: 15

Accommodation arrangements: Hotel

Proposer Contact Details:

Anna Andreetta

Institution and Address: Department of Earth Sciences - University of Florence

Phone: +39 347 0939827

Email: anna.andreetta@unifi.it

Description

The Northern Apennines chain is an active orogen developed in a continental collisional setting. During the Quaternary active tectonics, climate fluctuations, and sea-level change left a clear imprinting on the regional geomorphology and the surface geology. Examination of stratigraphically correlated palaeosols within alluvial and coastal clastic successions occurring on both sides of the chain, i.e. on the active front (Northern slope) and the back-arc area (Tuscany), provide fine detail to reconstructions of the orogen dynamic during the Quaternary. Examples of dated and correlated palaeosols within their, morpho-structural, stratigraphic, and sedimentological context, will be presented and discussed on the Northern side of the chain (Ghiardo plateau, in the picture) and in the coastal Tuscany (Baratti gulf). In the transfer from the northern slopes to the back-arc area, selected stops in the Pleistocene fluvio-lacustrine Mugello basin will provide a sight into the morpho-stratigraphic architecture of an intermontane basin developed in the axial portion of the Northern Apennines.



Flatirons on the outcropping Pede-Apennine Thrust Front (PTF) frame deformed Late Pleistocene terrace threads (left); Upper Pleistocene coastal deposits with intervening palaeosols at Baratti (right).