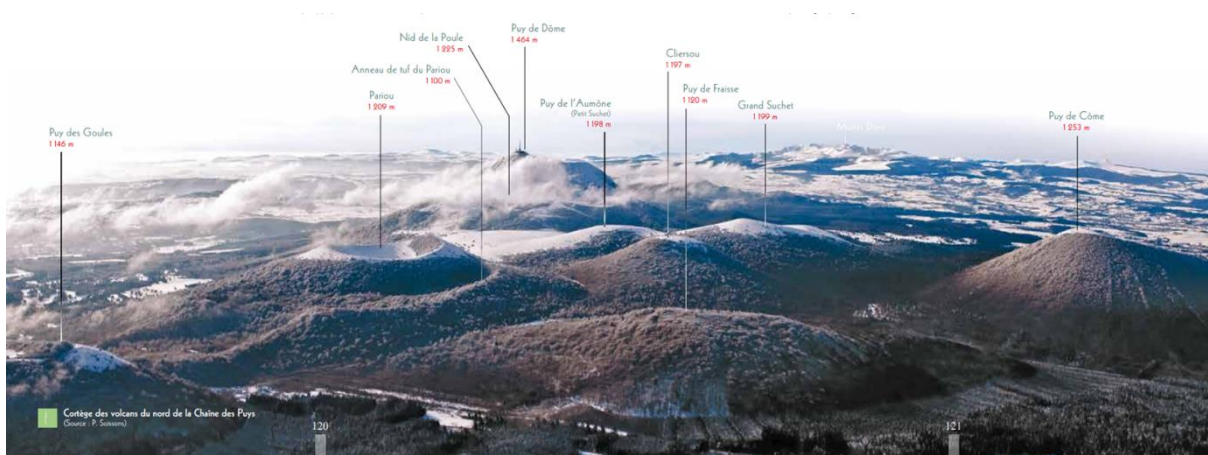


Title: The monogenetic volcanism of the Chaîne des Puys, Massive Central, France

Leaders: Lucia Gurioli (lucia.gurioli@uca.fr), with Andrew Harris, Benjamin Van Wyk de Vries, H  l  ne Balcone-Boissard, Nicolas Cluzel, Didier Laporte, Etienne M  dard et al.

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Summary: The Cha  ne des Puys comprises around 80 Quaternary monogenetic volcanoes, which represent the youngest products of intraplate alkaline volcanism in the French Massif Central. The chain is 30 km north-to-south, and 3–4 km west-to-east. Constructs are mostly scoria cones, but with maars, tuff rings, and trachytic lava domes. The uniqueness of the geological setting of this volcanic field along the Limagne graben fault has made this area a UNESCO World Heritage site. This field trip will allow the participant to view and think about many different deposit types and the processes behind their emplacement, from the macro-to-micro scale, while placing the activity in the geodynamic setting. Trips will include visits to (i) lava flows moving across a periglacial basement, (ii) lava domes and excavations into them, (iii) scoria cones and fallout deposits, (iv) tunnels beneath the city of Clermont Ferrand that cut cross-stratified basaltic surges, and (v) thick and well-preserved sections through trachyte block-and-ash flow and blast deposits.



The Cha  ne des Puys viewed from the North (Boivin et al. 2017). Below, left: basaltic explosive deposits as exposed at the Lemptegy quarry, and mantled by a white trachytic deposit from the blast of the Chopin to the North. Below, right: cross-stratified deposits of the Jaude maar, as visible in tunnels and excavations into the Roman settlement beneath the modern city of Clermont Ferrand.

- When:** Pre-conference, 22-29 June 2025
- Start and finish locality:** Clermont Ferrand train / bus station, and/or Aulnat airport
- Day 0** Monday 23: *Arrival*
Arrival: Transfer to hotel, ice-breaker, introduction.
- Day 1** Tuesday 24: *Overview of the Chaîne des Puys volcanic history and geological context*
Includes: Visit to the summit of the Puy de Dome and its meteorological observatory and museum, plus hike to the Cliersou lava dome and Pariou cone.
- Day 2** Wednesday 25: *Maars*
Includes: Visit to the tunnels and caves beneath Clermont Ferrand that expose the deposits of the Maar de Jaude as erupted through lake sediments, and the Maar de Beaunit on Hercynian granites.
- Day 3:** Thursday 26: *Lava flows, and interaction with the topography and sediments*
Includes: The lava flows of the Tiretaine valley, the Grave Noire scoria mound and the interaction between the Grave Noire lava flow and sediments of the Limagne basin.
- Day 4:** Friday 27: *Anatomy of a monogenetic eruption*
Includes: Feeder system, cryptodomes, scoria cone deposits and lava flows, plus blast deposits from the Puy Chopin, as exposed at the Lemptegy Quarry.
- Day 5:** Saturday 28: *Monogenetic subplinian eruptions*
Includes: Deposits and constructs of La Vache and Lassolas eruptions.
 Goodbye party and dinner.
- Day 6:** Sunday 29: *Departure*
Departure: Transfer to Geneva for the Conference (at the participants expense)
- Level of fitness:** Light to medium
- Required equipment:** Passport or ID-card (and/or visa) valid for travel to France.
 Hiking boots, wind and waterproof jackets, sun protection, daypack.
- Accommodation type:** Maison International at Clermont Ferrand or
 Archipel de Volcans, at St Genes Champanelle.
 Shared (twin) rooms with private bathroom (single room at extra cost)
 Breakfast included.
- Number of participants:** max 20
- Cost:** **400 €**
 For transport from the hotel to field sites and entry fees,
 Accommodation with breakfast.
 Travel to and from Clermont-Ferrand, and lunch / dinner not included



Day 1 Puy de Dome from Puy de Cliersou (Picture credit: Daniel Harris)



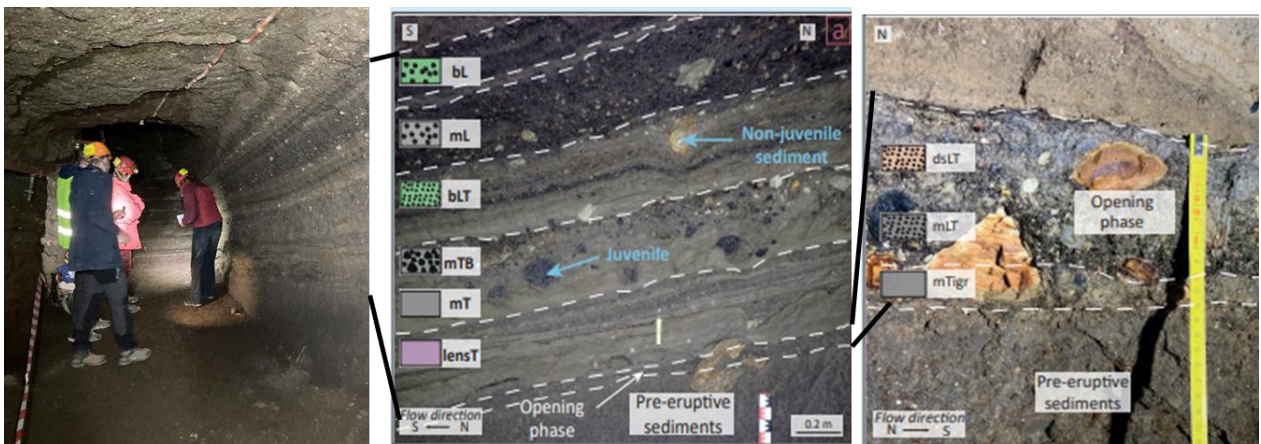
Day 1 Meteorological observatory at the top of Puy de Dome (Picture credit: Observatoire de Physique du Globe de Clermont-Ferrand)



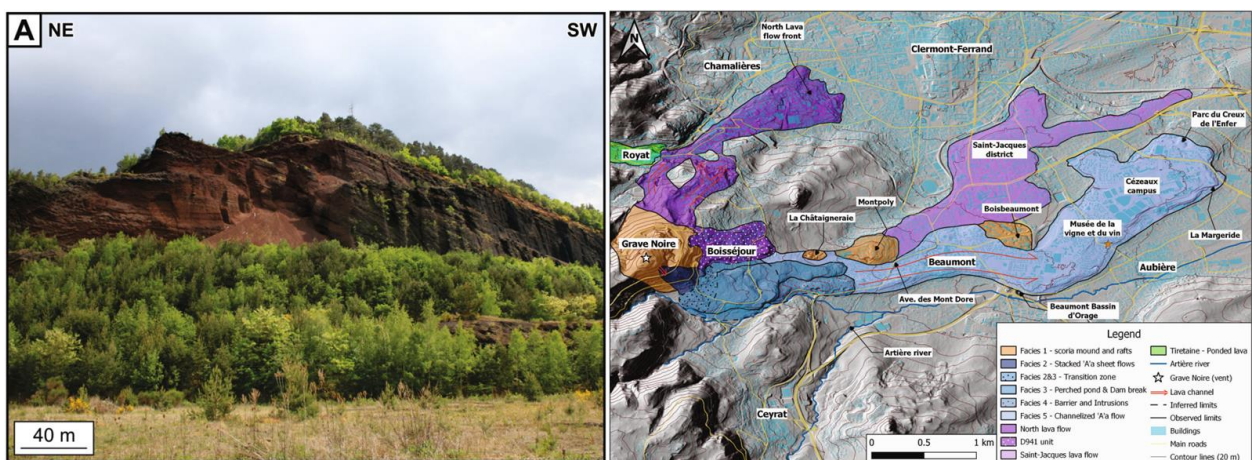
Day 2 Phreatomagmatic deposits of the Maar at Beaunit (Picture credit: Remy Jubertie)



Day 2 The scoria cone of the maar at Beaunit containing mantellic enclaves (Picture credit: Remy Jubertie)



Day 2 Phreatomagmatic deposits of the Jaude maar (Picture credit: Remy Jubertie & Olivier Pigeron)



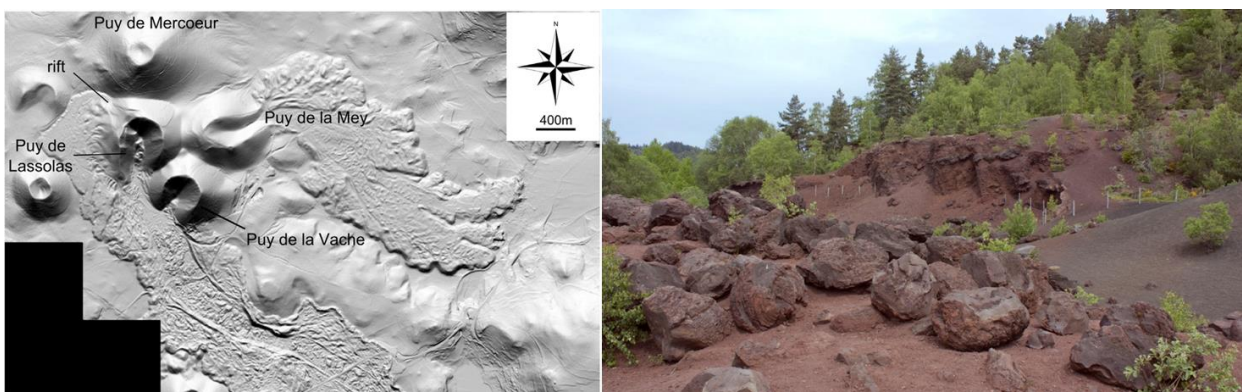
Day 3 Grave Noire scoria mound and lava flows (modified from Harris et al. 2023)



Day 4 Lemptegy Quarry (modified from Delcamp et al. 2014)



Day 4 Trachitic blast deposit from the Chopin exposed at Lemptegy (Picture credit: Didier Miallier)



Day 5 Lidar image (source: CRAIG-APEI-SINTEGRA 2013) of the Puy de la Vache, Puy de Lassolas and Puy de la Mey scoria cones, showing the associated lava flows and the rifted southwestern flank of Puy de Lassolas (modified from Jordan et al. 2016)