



ECROFI XVIII - Siena 6-9 July 2005



Excursion to the Aeolian Islands

9 - 13 July, 2005

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Program Highlights

First day (10.07.05) The Island of Vulcano

Vulcano 120 ka to 1888-1890 AD - Composite volcano with two calderas and a small eccentric basaltic shield (Vulcanello) formed of high-K calc-alkaline and shoshonitic basalt to andesite (Primordial Vulcano), latite to rhyolite (Lentia), potassic alkaline shoshonite-trachyte (Vulcanello), and of rhyolite pyroclastics and lavas (Cono della Fossa active cone).

We will first observe the fumarolic activity in *Vulcano Porto*, and the small shield of Vulcanello (potassic lavas; 183 B.C. – 1550 A.D.). After lunch, proceeding along the road to the Piano, we will take a trail on the left to reach the top of the main cone. At the *Gran Cratere* rim we will have a close-up observation of the products of the last eruption of 1888-90, and a panoramic view of the Caldera della Fossa (18 – 8 ka) and of the surrounding volcanoes forming the Aeolian archipelago. We will discuss the model for the magma plumbing system beneath Vulcano, based on fluid inclusion study in quartz xenoliths.

Second day (11.07.05) The Island of Lipari

Lipari 220 ka to 580 AD - Multicenter volcano formed of calc-alkaline and high-K calcalkaline basaltic andesite and andesite, followed by latite and abundant rhyolite lava flows, domes and pyroclastic rocks.

We will be leaving Lipari town northwards by bus, to look at the recent Rocche Rosse obsidian lava flow (580 A.D.) and pumice cone, at *Pomiciazzo* beach and *Acquacalda*. Close to *Terme S. Calogero*, we will further observe the andesite lava flows, bearing cordierite, sillimanite and garnet. Proceeding anticlockwise, next stop will be at *Timpone ospedale* to look at the oldest basaltic lava flows of calcalkaline affinity (< 200 ky). We will continue southwards to Muria Valley. The Muria valley

provides an excellent exposure of most of the Mt. Guardia surge deposits sequence (40 ka) in a proximal area. We will end observing first The S. Nicola dome, consisting of a sub-aphyric rhyolite containing variously deformed enclaves of latitic composition, and finally the domes structures of the Mt. Guardia sequence, in the southeastern sector of Lipari.

Third Day (12.07.05) The Island of Stromboli

Stromboli 200 ka to present - Stratovolcano with summit caldera and flank collapses, and a satellite neck (*Strombolicchio*) formed of mafic to intermediate lavas and pyroclastic rocks with calc-alkaline, shoshonitic and potassic alkaline petrochemical affinities.

Two excursions:

- A) ***Ascent to the crater:*** the ascent to the summit of Stromboli will allow observing the active cone of the present day Strombolian activity. The top of Pizzo Sopra la Fossa (918 m a.s.l.) is the end of the ascent. Being 150 m above the active vents, it is possible (with good weather conditions), to have an impressive view of all the craters, and of the intermittent moderate Strombolian explosions. Observation of rocks will be limited, due to the difficulty of ascent.
- B) ***Tour of Stromboli:*** We will first take a boat to join the village of Ginostra, which can be reached only by sea. In Ginostra, we will observe the products of the recent Neostromboli activity (13-6 ka), with the most potassic lavas of the Island (leucite in the ground mass or rarely as microphenocryst). We will continue by boat passing in front of the Sciara del Fuoco to sample the last products of 2003 eruption. We will finally reach the satellite neck of Strombolicchio (1 mile NE of Stromboli), where the oldest products (200 ka) of calcalkaline affinity outcrop. We will then go back to have lunch at the beach and continue looking at the recent S. Bartolo calcalkaline lava flow. A tour by boat will allow us to have a close look to the main volcanological features of the volcano.

Notes

- **The excursion guide will be distributed to all participants in Siena.**
- Ascent to the top of Stromboli depends on civil protection alerts. For this reason, a confirmation for excursion **A** will be given on site.
- Landing at the Sciara del Fuoco in Stromboli depends on the civil protection. If we will not be allowed, we will look at the lava flows from the sea, during excursion **B**.
- Those who want to take obsidian samples should bring goggles and gloves.
- In the field, a long break is planned during lunch time in selected beaches, to escape summer-day peak heat.

Preliminary Schedule

9th July 2005

- 16.00 Bus from Siena - Piazza Gramsci to Roma
- 19.00 – 19.15 Arrival in Roma - Stazione Tiburtina
- Dinner in a restaurant close to the Stazione Termini;
- 21.32 night train from Roma (Stazione Termini) to Milazzo. Wagon lit – 2 class

10th July 2005

- 6.45 Arrival at Milazzo railway Station;
- 9.10 hydrofoil to Lipari island (~ 1 hour);
- 10.20 Arrival at Lipari Island. (Hotel Augustus)
- 11.30 - 11.45 hydrofoil Lipari - Vulcano (~ 10 minutes)
- **12 - 19 Vulcano Island**
- 20.30 – 21 Dinner - Ristorante Filippino

11th July 2005

- **8.30 – 19.00 Lipari Island** (Minibus)
- 20.30 – 21.00 Dinner - Ristorante Filippino.

12th July 2005

- 7.00 Hydrofoil to Stromboli (EXCURSION A; ~ 1.20 hour)
- 8.00 Hydrofoil to Stromboli (EXCURSION B; ~ 1.20 hour)
- **8.30 (A –Ascent to the crater) or 9.30 (B – Tour by boat) - 15.45 Stromboli Island**
- 16.00 Free time in Stromboli or Lipari*
- 20.30 - 21 Excursion Dinner – Ristorante Filippino

13th July 2005

- 7.00 Hydrofoil Lipari – Napoli (~ 5-6 hours)
- **13.00 – 14.00 Napoli – End of excursion.**

Notes

- The excursion will cover all transport and meal costs during the travel and the field trip in the Aeolian Islands. Packed lunches will be provided for the days in the field. Dinners are planned in a Lipari Restaurant. Alcohol and soft drinks are **NOT** included.
- WWW's:
 - Hotel Augustus:*
www.emmeti.it/Welcome/Sicilia/Eolie/Lipari/Alberghi/Augustus/index.uk.html
 - Ristorante Filippino:* www.bernardigroup.it/filippino/indexuk.htm
- ***Last... don't forget sun cream, hat, swimming suit, and hiking boots!***