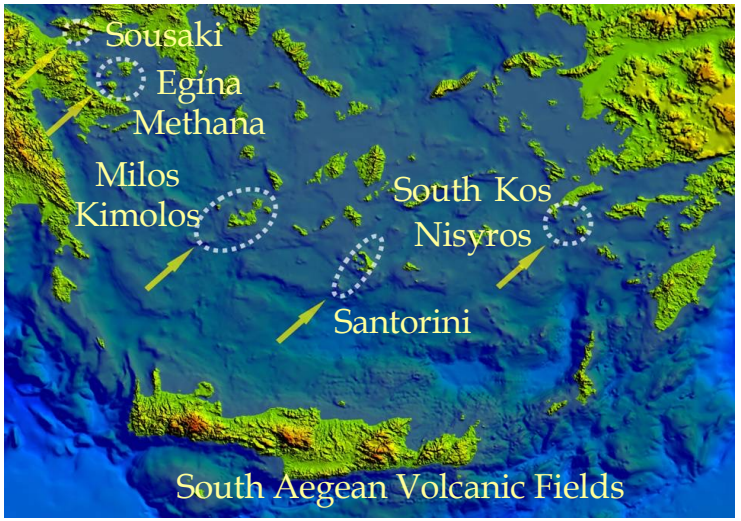
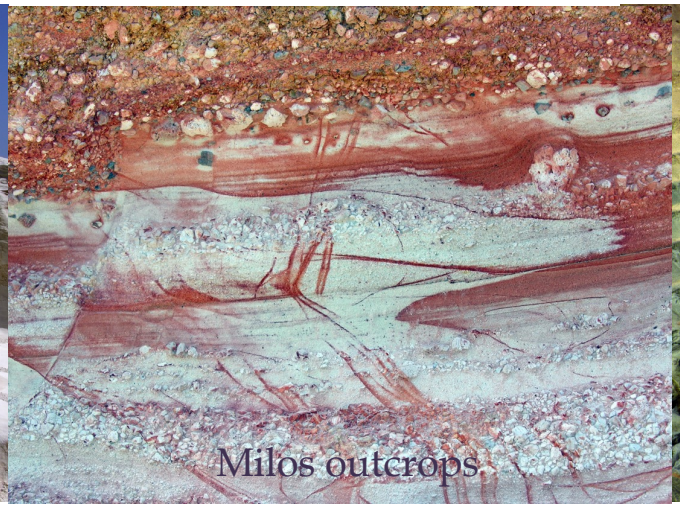
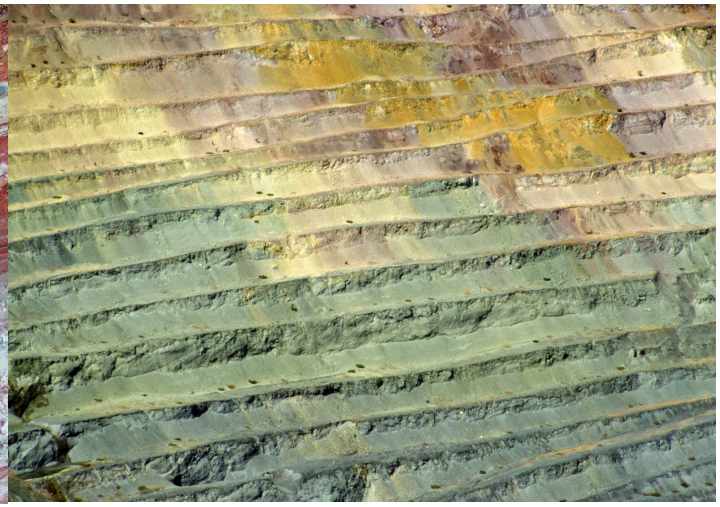
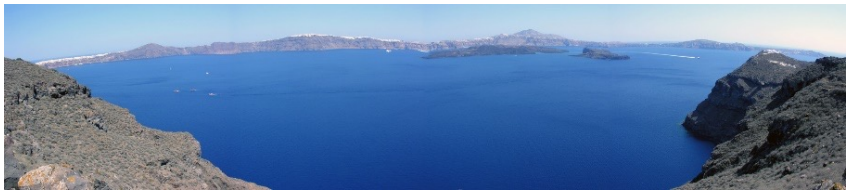
IAVCEI Commission on Volcano Geology
6th International Workshop
Santorini & Milos volcanoes
23-28 October 2023




Santorini caldera


Milos outcrops



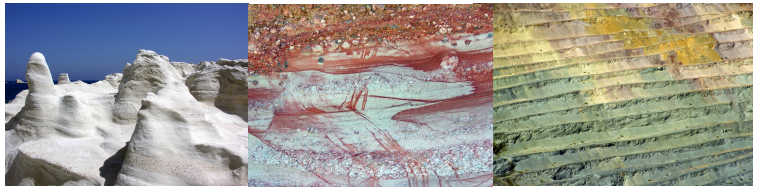


Why at Santorini:

Santorini is one of the most violent caldera volcanoes worldwide, the most active volcano in Greece with twelve Plinian eruptions over the last 360,000 years, at least four of which caused caldera collapse. The last one, the Late Bronze Age (3,6 ka) caldera-forming eruption, was one of the largest explosive eruptions on Earth in the last 10.000 years. Active volcanic centres include a) intracaldera Kameni with 8 historical eruptions from 197 BC to 1950 AD, and b) Kulumbo submarine volcano,16 km NE from Kameni, with a sub-plinian eruption at 1650 AD, causing 70 deaths.

Santorini is most apt for a Volcano Geology Commission workshop since :

1. There is a deep knowledge of the volcanic sequence, with no disputes on the outcropping products, event sequence, age etc.
2. The presence of excellent outcrops, of easy access, an open air volcanological museum, a book of field volcanology.
3. Presence of the whole possible range of subaerial volcanic products and structures: - Basaltic to rhyolitic lavas and pyroclastic deposits of any possible depositional process (Strombolian, Vulcanian, Surtseyan, Plinian) and magnitude. - Shield volcanoes to tuff rings. - Multiple caldera collapses with visible paleo-caldera unconformities.
4. Multi-choice formation grouping mapping due to topography (steep caldera cliffs).
5. No UBUs concept applied up to now.
6. A place with unique natural and cultural significance (Late Bronze Age Akrotiri settlement, caldera landscape, wineries etc.)



Why at Milos:

Milos is a compound volcano, consisting of different volcanic edifices, such as lava domes resulting from limited vent migration, which include thick volcaniclastic deposits, most of them deposited in a submarine environment. The youngest volcanic products (110-70 ka) are the Fyriplaka tuff ring and the associated rhyolitic lava flows.

Since 1 Ma ago, Milos has hosted a high enthalpy geothermal field inducing excessive hydrothermal alterations creating industrial mineral deposits and base and precious metals ore deposits.

The area is tectonically active, with earthquakes triggering several large hydrothermal explosions, both before and after the last volcanic eruption. The oldest hydrothermal explosions deposited vast debris and created mudflow formations, rich in basement fragments, i.e. "Green Lahar" formation. The youngest hydrothermal explosions in historical time (350-400 AD) took place in the SE Milos area.

Milos is most apt for a Volcano Geology Commission workshop because:

1. Presence of extensive submarine tuff and tuffite sequences.
2. Spectacular hydrothermal alteration and deposits.
3. Huge late Quaternary hydrothermal explosive activity, large craters and thick deposits.
4. Extensive historical (350~400 AD) hydrothermal explosive activity.
5. Spectacular prehistoric obsidian quarries and settlements (e.g. Fylakopi)

6th VGC workshop Program

Monday, 23 October:

Arrivals at Santorini. 20:00 Welcome dinner

Tuesday, 24 October:

08:00 – 12:00 IAVCEI – VGC info and presentations. Introduction to the SAVA volcanic fields. Geology of the workshop site targets.

12:00 – 16:00 Observation of LBA (Minoan) and older climactic eruptions outcrops in a pumice quarry (lunch packs).

17:00 – 20:00 Poster session of the participants contributions.

Wednesday, 25 October:

08:00 – 14:30 Boat transfer – Observations of the caldera cliffs outcrops (lunch onboard)

14:30-19:00 Bus transfer and observations on formations outcrops in North-Central Thira

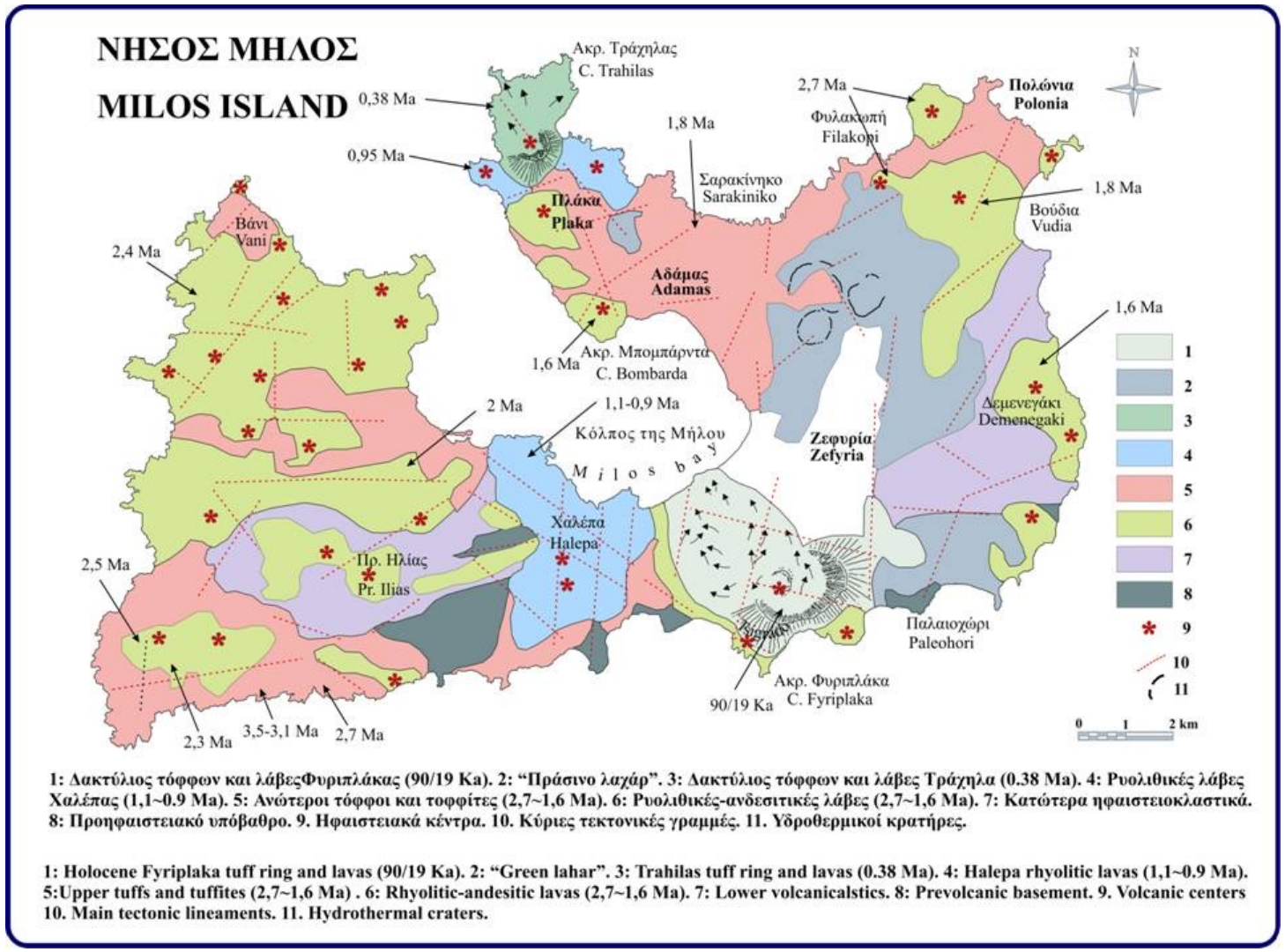
Thursday, 26 October:

08:00 – 14:30 Bus transfer and observations on formations outcrops in South-Central Thira (packed lunch). Visit of the archeological excavation site in Akrotiri (buried by the Late Bronze Age eruption)

Boat trip to Milos (14:40 – 16:40). Discussion on board

Dinner at Milos

6th VGC workshop Program



1: Δακτύλιος τόφφων και λάβεςΦυριπλάκας (90/19 Ka). 2: "Πράσινο λαχάρ". 3: Δακτύλιος τόφφων και λάβες Τράχηλα (0.38 Ma). 4: Ρυολιθικές λάβες Χαλέπας (1,1~0.9 Ma). 5: Ανώτεροι τόφφοι και τοφφίτες (2,7~1,6 Ma). 6: Ρυολιθικές-ανδεσιτικές λάβες (2,7~1,6 Ma). 7: Κατώτερα ηφαιστειοκλαστικά. 8: Προηφαιστειακό υπόβαθρο. 9. Ηφαιστειακά κέντρα. 10. Κύριες τεκτονικές γραμμές. 11. Υδροθερμικοί κρατήρες.

1: Holocene Fyriplaka tuff ring and lavas (90/19 Ka). 2: "Green lahar". 3: Trahilas tuff ring and lavas (0.38 Ma). 4: Halepa rhyolitic lavas (1,1~0.9 Ma). 5:Upper tuffs and tuffites (2,7~1,6 Ma) . 6: Rhyolitic-andesitic lavas (2,7~1,6 Ma). 7: Lower volcanicalstics. 8: Prevolcanic basement. 9. Volcanic centers 10. Main tectonic lineaments. 11. Hydrothermal craters.

Friday, 27 October:
Boat transfer – Observations of the shoreline cliffs outcrops of Milos and Kimolos (lunch onboard)
Dinner at Milos

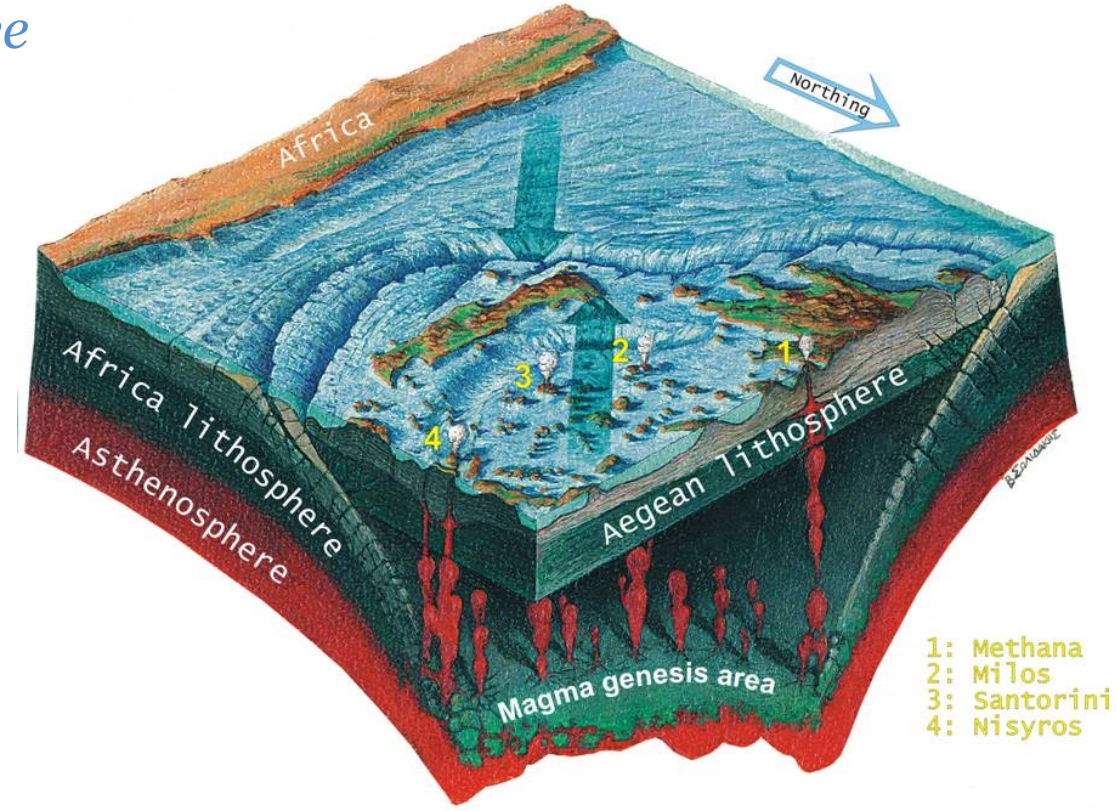
Saturday, 28 October:
08:00 – 16:30 Bus transfer – Observations of the Milos outcrops (packed lunch)
Boat departure to Piraeus (16:50 – 20:10). Discussion on board.
Departure from Athens

IAVCEI Commission on Volcano Geology 6th International Workshop

Santorini & Milos volcanoes, 23-28 October 2023

Scientific & organizing committee

- G. Vougioukalakis (HSGME, ISMOSAV)
- G. Groppelli (CNR, VGC - IAVCEI)
- J. Martì (CSIC, VGC – IAVCEI)
- K. Papazachos (AUTh, ISMOSAV)
- S. Pavlides (AUTh, ISMOSAV)
- Ch. Kanelopoulos (HSGME)
- R. Sulpizio (UniBa, IAVCEI)
- F. Lucchi (UniBo, VGC - IAVCEI)
- C. Tranne (UniBo)



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Local Organizer

NSTravel incomingjtr@nsttravel.com

Cost per person in double room : 950. Single room supplement: 225 Euro
Minimum number of participants: 40, maximum: 50.
Registration deadline: 31/8/2023 sending an e-mail to gvoug@igme.gr