Volcanoes and Society: environment, health and hazards

Main Conference

23-27 May 2020

Pre-Conference Workshops

20-22 May 2020

Post-Conference Workshops

28-30 May 2020

Heraklion Crete



WELCOME ADDRESS

Dear Colleagues,

We, the Department of Geology and Geoenvironment of the National and Kapodistrian University of Athens, in collaboration with post graduate programme of "Environmental, Disaster and Crisis Management Strategies" (EDCM) and the Natural History Museum (University of Crete), are honored to invite you to participate in the Cities on Volcanoes 11, in Heraklion, Crete, Greece.

It will be our pleasure to welcome you to Crete and give you the opportunity to visit Knossos (the largest Bronze Age archaeological site on Crete called the oldest city of Europe), and the Heraklion Archaeological Museum (one of Europe's most important museums with archaeological finds from all over Crete, covering over 5500 years of the island's history).

Additionally, we will organize several field trips to Methana, Santorini volcano, Psiloritis UNESCO Global Geopark, The Minoan Villa with the Lilies, etc.

We strongly believe that Crete, considered as one of the top global tourist destinations, having easy access and the appropriate infrastructure, will fulfill all your expectations for a successful meeting.

Sincerely,

Dr. Paraskevi V. NomikouGeologist - Oceanographer
Assistant Professor in Geological Oceanography & Natural Geography
Faculty of Geology & Geo-Environment of University of Athens





In collaboration with







LOCAL ORGANIZING COMMITTEE	
Paraskevi Nomikou	Dept. of Geology and Geoenvironment, NKUA (President)
Efthimios Lekkas	Dept. of Geology and Geoenvironment, NKUA
Dimitrios Papanikolaou	Dept. of Geology and Geoenvironment, NKUA
Konstantinos Kyriakopoulos	Dept. of Geology and Geoenvironment, NKUA
Gerasimos Papadopoulos	Institute of Geodynamics National Observatory of Athens
Charalampos Fassoulas	Natural History Museum of Crete
Maria Manousaki	Earthquake Planning and Protection Organization, Athens, EPPO

IMPORTANT DATES	
April 6, 2019	First Circular
April 30, 2019	Web-Site launch and opening of Call for Session/ Workshop
July 12, 2019	Deadline for submission of Session/Workshop proposals
August 16, 2019	II Circular (containing the scientific-technical program, with sessions, workshops and field trips)
November 1, 2019	Abstract submission and Registration opening
January 25, 2020	Deadline for abstract submission
February 14, 2020	Final conference program
March 9, 2020	Deadline for Early registration
April 30, 2020	Closing date for pre-registrations

INVITATION TO PARTICIPATE

The hosting National and Kapodistrian University of Athens in collaboration with the Natural History Museum of Crete of the University of Crete invites the international scientific community and authorities that are involved in managing risks and hazards in volcanically active areas to participate in the Cities on Volcanoes 11 Conference to be held in Heraklion, Crete from May 23th until May 27th, 2020. The title of the meeting will be 'Volcanoes and Society: environment, health and hazards'. It will be focused on multidisciplinary monitoring volcanic environments in the vicinity of cities and highly touristic areas. At the same time, the ability to recognize the hazards and their impact on people, emergency management by civil protection authorities, community education, case studies and risk mitigation to reduce the impacts of volcanism and its effects on society will undoubtedly be discussed.

Crete is a well-known island in the Mediterranean not only because of its geographic position at the crossroads of three continents, but also because of its friendly and warm people, amazing landscapes, delicious food and famous archaeological sites like Knossos, the largest Bronze Age archaeological site on Crete. Heraklion is the capital of Crete and one of the most fascinating and vibrant cities in the Mediterranean. It is full of places to discover, like the wonderful mediaeval city centre. The city is also the commercial and technological centre of the island. It has a strategic geopolitical position in the south-eastern Mediterranean Sea connecting three continents and many different cultures. It offers a wealth of museums, a summer-long arts festival, historical sightseeing, amazing nightlife and events throughout the year. Heraklion has been the home town of some of Greece's most significant spirits, including the novelist Nikos Kazantzakis, the poet and Nobel Prize winner Odysseas Elytis and the world-famous painter Domenicos Theotokopoulos (El Greco).

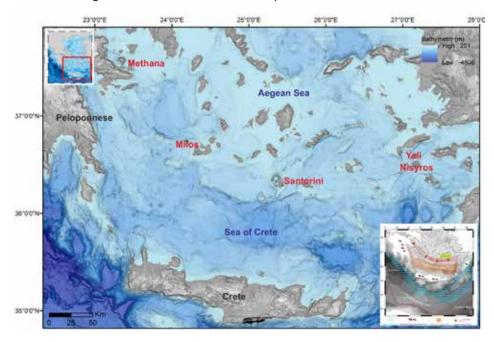
MAIN TOPIC

The Cities and Volcanoes Commission of IAVCEI aims to provide a link between the volcanology community and emergency managers, to serve as a conduit for exchange of ideas and experience among people living and working in 'cities on volcanoes', and promote multi-disciplinary applied research, involving the collaboration of physical and social scientists and city officials.

The Commission selected Heraklion as the venue for the Cities on Volcanoes Conference in 2020.

VOLCANISM IN THE AEGEAN SEA

The Aegean Volcanic Arc has been formed at the back arc region of a convergent plate boundary, where the oceanic crust of the African plate is subducting northwards underneath the active margin of the European plate. The volcanoes of the Aegean Volcanic Arc have been especially active in the Late Pleistocene – Holocene. Four groups of volcanic rocks comprise the volcanic arc, including both onshore and offshore outcrops:



Methana group, including Paphsanias submarine volcano, at the western edge of the volcanic arc in western Saronikos Gulf





/ VOLCANISM IN THE AEGEAN SEA

Milos island and volcanic centres in the surrounding islands of Kimolos, Polyaegos, Antimilos





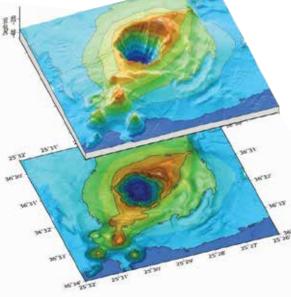
Nisyros group at the eastern edge including several submarine volcanic features



Santorini volcanic group together with Kolumbo volcanic chain at the submarine area northeast of Santorini







SCIENTIFIC-TECHNICAL AND NATIONAL STEERING COMMITTEES AND MULTIDISCIPLINARY REFERENCE GROUP

They will be announced in the Second Circular.

COURSES AND WORKSHOPS

They will be announced in the Second Circular.

PRELIMINARY SCIENTIFIC-TECHNICAL ISSUES

- > Emergency plans and crisis managements: recent case studies
- > Environmental impacts of volcanic eruptions and health effects on local communities
- > Eruption impacts on communities along the border
- > Education and communication with communities and authorities
- > Geoarchaeology, geoparks and tourism in volcanic areas
- > International collaboration at volcanoes: the ALVO mission
- > Volcanic eruptions: processes and hazards mapping
- > Volcano monitoring: alert levels and uncertainties
- > Remote sensing: application to monitoring techniques
- > Volcanic risk: evaluation and mitigation
- > Land use planning in volcanic areas
- > Monitoring Andean volcanoes: state of the art for warning and communicating with communities.

PRELIMINARY FIELD TRIPS

PRE-MEETING

Methana volcanic peninsula, 2 DAYS

Methana peninsula is located at the northeastern part of Peloponnese. It is one of the older touristic resorts of Saronikos, known not only for its hot springs along its SE beach but also for Mavri Petra volcano at Kameni Chora village. Methana city is 163km away from Athens and visitors are able to reach it in approximately 2 hours either by car through the Greek National Road 8, or alternatively by Ferry Boat from Piraeus port with an intermediate station at Aegina island. Methana peninsula is a complex andesite—dacite volcanic centre of approximately 35 km2 surface area. Volcanism is considered to have started during the late Pliocene, and the most recent activity was the eruption in 230 BC producing andesitic lava, at Kameni Hora, as described by Strabo, Pausanias and Ovidius. At the entrance of the city there is an organized and of high safety marine for yachts and Aghioi Anargyroi isle with lush vegetation.

INTRA-MEETING

Knossos & Archaeological Museum, 1 DAY

Knossos is the largest Bronze Age archaeological site on Crete and has been called Europe's oldest city. Settled as early as the Neolithic period, the name Knossos survives from ancient Greek references to the major city of Crete. The palace of Knossos eventually became the ceremonial and political centre of the Minoan civilization and culture. The palace was abandoned at some unknown time at the end of the Late Bronze Age, c. 1380–1100 BC. The Heraklion Archaeological Museum is regarded as one of Europe's most important museums.



Psiloritis UNESCO Global geopark, 1 DAY

Psiloritis UNESCO Global Geopark is located in the island of Crete, in proximity with the Heraklion, extending over an area of about 1200 km2. It covers the central part of the island including the entire area of Mountain Idi (Psiloritis) which is the highest in Crete, reaching up to 2456 m. Psiloritis Mts. rose up through the sea a few million years ago when the African continent encroached on Europe. The surrounding Talaia Ori Mountains that extend till the northern coast and the valleys of Mylopotamos, Messara and Amari are all included within its boundaries.



/ PRELIMINARY FIELD TRIPS

POST-MEETING

Santorini volcano, 4 DAYS

One of the greatest attractions of Santorini and of utmost importance is the volcano, whose former intense activity gave the island its current shape and morphology. Before the several volcanic eruptions that occurred throughout the years, some of which were submarine, the size and the shape of Santorini were quite different. Today the result of these eruptions is the creation of five separate islands, Santorini, Therasia, an uninhabited island called Aspronisi and the volcanic islands of Palaia Kammeni and Nea Kammeni. They compose a nice sight across the Aegean Sea, facing Santorini, and you can visit them as well. The existence of the volcano is visible all over the island of Santorini, especially on the bizarre beaches that are covered, in their majority, in black sand and pebbles made of solidified lava. The red volcanic rocks in Red beach, which reminds a lunar landscape, form a rare sight. Another spectacular outcome is the formation of the volcanic caldera that covers a great part of the island. This unique terrain morphology is what makes Santorini such an exceptionally beautiful island, as the settlements that are built on the caldera cliffs offer a wild beauty and a sublime view.

Milos Volcano, 4 DAYS

Milos is the most south-westerly island in the Cyclades archipelago. Located in the South Aegean Active Volcanic Arc, Milos is generally accepted as an example of an emerged volcanic edifice (1.4 Ma) created from monogenetic pulses of effusive and explosive magmatism, but has remained dormant for the last 90 kyr. The island of Milos is the largest worldwide exporter of bentonite, and is home to a significant range of metal and non-metalliferous mineral deposits. It is a preserved on-land laboratory to study hydrothermal ore-forming processes from the shallow submarine environment.

Minoan Villa with the Lilies, 1 DAY

This luxurious two-storey house of the style of Minoan villas was built on limestone stanchions at the position "Paliohora" (Amnisos). It has a chamber with "multiple doors", a bathroom, staircases and stone-paved rooms. It was named after the beautiful wallpaintings with plants and lilies that existed on walls of the building.

The villa was probably built in the Middle Minoan IIA period, that is, in the 17th century B.C. and was destroyed, according to archeologist who discovered it, by a strong earthquake or tsunami in around 1500 B.C. The monument was damaged by German soldiers in World War II. The building was excavated in 1932 by professor Spiridon Marinatos.

TRANSPORTATION

There are two ways to get to the island of Crete in Greece, either by airplane or by ferry boat. There are two airports on the island; one is located near Heraklion town and the other is located to the west of the island, called Chania. The main harbors are located in Heraklion and Chania. There are also plenty of airline companies that fly regularly to Crete, especially during the season between May and October.

Duration by ferry from the port of Piraeus: 9hours

Duration by plane from Athens International Airport: 45 minutes

Airport

Heraklion International Airport, or Nikos Kazantzakis Airport is located about 5 kilometres (3 miles) east of the city. The airport is named after Heraklion native Nikos Kazantzakis, a writer and a philosopher. It is the second busiest airport of Greece after Athens International Airport, first in charter flights and the 65th busiest in Europe, because of Crete being a major holiday destination with 7.480.408 travelers in 2017 (List of the busiest airports in Europe).

Port

Heraklion is an important shipping port and ferry dock. Travelers can take ferries and boats from Heraklion to destinations including Santorini, los Island, Paros, Mykonos, and Rhodes. There are direct ferries to Naxos, Karpathos, Kasos, Sitia, Anafi, Chalki and Diafani. There are also several daily ferries to Piraeus, the port of Athens in mainland Greece.

Highway network

European route E75 runs through the city and connects Heraklion with the three other major cities of Crete: Agios Ni-kolaos, Chania, and Rethymno.

Public transportation

Urban buses serve the city, with 39 different routes. Intercity buses connect Heraklion to many major destinations in Crete.

First Circular

CONGRESS VENUE

Aquila Atlantis Conference Centre Igias 2, Heraklion, 712 02, Crete, Greece Tel. +30 281 022 9103 • http://www.theatlantishotel.gr/



CONFERENCE WEBSITE

www.citiesonvolcanoes11.com

REGISTRATION FEES

They will be announced in the Second Circular.

ACCOMMODATION

A number of rooms have been secured at the venue hotel, as well as in various hotels of all categories, in close proximity to the meeting venue. A discount will be guaranteed for group reservations.

ORGANIZING SECRETARIAT



