



UNESCO-IUGS-IGCP-INQUA
INQUA 501 - IGCP 521 Six Plenary Meeting
and Field Trip



First Circular

Hellenic Centre for Marine Research at the Hydrobiological Station of Rhodes
Greece

27 September – 6 October 2010



INQUA 501 “Caspian-Black
Sea-Mediterranean Corridor
during the last 30 ky: Sea level
change and human adaptive
strategies”

IGCP 521 “Black Sea-
Mediterranean Corridor during
the last 30 ky: sea level change
and human adaptation”

<http://www.avalon-institute.org/IGCP>

IGCP 521 Co-Leaders:
Valentina YANKO-
HOMBACH (Canada,
Ukraine, also
Leader of INQUA 501)
Yücel YILMAZ (Turkey)

Pavel DOLUKHANOV
(UK) – deceased on 6th
December 2009

Organizers



ORGANIZING AND EXECUTIVE COMMITTEE

President	Valentina YANKO-HOMBACH, Ukraine, Canada, Leader of INQUA 501 and Co-Leader of IGCP 521 Dimitris SAKELLARIOU, Greece
Chairman of the Organizing Committee	
Executive Secretary	George Hatiris, Greece
Technical Director	Irena MOTNENKO, Canada
Members	Andreas SIOULAS, Greece Grigoris ROUSAKIS, Greece Vasilis KAPSIMALIS, Greece Panos GEORGIOU, Greece Spyros MAROULAKIS, Greece Voula MALLIAKA, Greece Sofia MASTRAGELOPOULOU, Greece
Field Trips	Dimitris SAKELLARIOU, Greece Stathis STEIROS, Greece Evi NOMIKOU, Greece

SCIENTIFIC COMMITTEE

Valentina YANKO-HOMBACH, Canada, Gilles LERICOLAIS, France
Ukraine
Geoff BAILEY, U.K. Vasilis LYKOUSIS, Greece
Ilya BUYNEVICH, U.S.A. Ronald MARTIN, U.S.A.
Helmut BRÜCKNER, Germany Michaela MELINTE, Romania
Petko DIMITROV, Bulgaria Petra MUDIE, Canada
Allan GILBERT, U.S.A. Dimitris SAKELLARIOU, Greece
Nic FLEMMING, U.K. Andreas VOETT, Germany
Evgeny LARCHENKOV, Ukraine Tamara YANINA, Russia

INTERNATIONAL ADVISORY COMMITTEE

Allan CHIVAS, Australia (President of INQUA)
Yücel YILMAZ, Turkey (Co-Leader of IGCP 521 and President of IGCP 521-INQUA 501 First and Fifth Plenary Meeting and Field Trip)
Mariana FILIPOVA-MARINOVA, Bulgaria (Co-President of IGCP 521-INQUA 501 Fourth Plenary Meeting and Field Trip)
Nicolae PANIN, Romania (Co-President of IGCP 521-INQUA 501 Fourth Plenary Meeting and Field Trip)
Alexander POKRYSHKIN (President of IGCP 521-INQUA 501 Third Plenary Meeting and Field Trip)
Olena SMYNTYNA, Ukraine (President of IGCP 521-INQUA 0501 Second Plenary Meeting and Field Trip)

EDITORIAL BOARD OF ABSTRACT VOLUME

Editors Allan GILBERT, U.S.A.
Valentina YANKO-HOMBACH, Canada, Ukraine

EDITORIAL BOARD OF FIELD TRIP GUIDE

Editors Dimitris Sakellariou, Greece
Vasilis Lykousis, Greece
Authors Stathis Steiros, Greece
Dimitris Sakellariou, Greece
Evi Nomikou, Greece
Vasilis Lykousis, Greece

EDITORIAL BOARD OF QI SPECIAL VOLUME

Editor-in-Chief Norm CATTO, Canada
Guest Editor Valentina YANKO-HOMBACH, Canada, Ukraine
Guest Editor Allan GILBERT, U.S.A.
Guest Editor Dimitris SAKELLARIOU, Greece

AIMS AND SCOPE

The main goal of the INQUA 501-IGCP 521 project is to provide cross-disciplinary and cross-regional correlation of geological, geochemical, geophysical, paleontological, archaeological, and historical records for the entire Caspian-Black Sea-Mediterranean Corridor (CCBSMC) in order to evaluate the influence of sea-level change and coastline migration on human adaptation during the last 30 ky. INQUA 501-IGCP 521 investigates the evolution of the coastal zone, where a rich sedimentary and archaeological archive provides a superb opportunity to study spatial and temporal interactions between human adaptation and environmental change.

The Sixth Plenary Meeting and Field Trip is focused on the progress of INQUA 501-IGCP 521 with special attention to (1) Linear and non-linear geological processes and concepts through correlative studies of a wide range of sites through the “Corridor” that are needed to achieve a better understanding of the influence of global climate change and/or active tectonics on regional sea-level fluctuations, coastline evolution, transformation from lacustrine to marine environment, eco- and sedimentary systems (including deposition of sapropels), as well as prehistory and history of the adaptation of Anatomically Modern Humans; (2) Correlation of sea-level changes in the “Corridor” with those in the Caspian Sea; (3) Improvement of standards in research methods and techniques (e.g., quantitative modeling of environmental crises with detailed identification of the factors involved and their behavior); (4) Delineation of the main areas of natural risk (e.g., erosion, flooding) required for proper environmental management; and (4) Further elaboration of a complete database on bibliography, radiocarbon assays, archaeological sites, and artifacts linked to the sea-level changes.

The meeting brings together multidisciplinary scientists from all over the world and enhances the West-East scientific dialogue by providing a supportive background for collaboration regarding the correlation and integration of their discoveries on the influence of climatically/tectonically induced sea-level changes and coastline migration on humanity. This is an area of strategic importance not only for all coastal countries but also for at least 17 other countries sharing the drainage basin that is one-third the size of the European continent.

The meeting will cover seven days. Three days (28 - 30 September) will be spent on the plenary sessions, and four days (1- 4 October) will be dedicated to the field trips.

SCHEDULE

27 September: Arrival and Registration.

28 - 30 September: Plenary Sessions.

1-4 October: Field trips.

5 October: Departure.

TECHNICAL SESSIONS

The final number of plenary sessions will depend upon the number of participants and accepted presentations. To be accepted, the presentation has to deal with results obtained from the study of the Black Sea-Mediterranean region. It can also have a more general scope, for example, GIS-based modeling of the water exchange between adjacent basins: Application to the Manych-Kerch Outlet, Bosphorus Strait, and Dardanelles; Geoinformation Systems: An overview with regard to the Caspian-Black Sea-Mediterranean region. Topics that go beyond description of data and address interpretation and broader understanding are especially encouraged.

Topics:

- Paleontology, bio-, and ecostratigraphy of the CBSMC
- Palynology, GIS maps and models of changing vegetation based on available pollen diagrams and surface samples from both marine and lake sites of the CBSMC
- Geophysical records and sequence stratigraphy of the CBSMC

- Correlation of sea-level changes in different areas of the CBSMC based upon sediment fingerprints, geomorphological features of ancient coastlines supplemented by paleontological and palynological data, and radiocarbon dating
- Geochemical proxies for climate and sea-level changes in the CBSMC, and paleochemistry of isolated basins
- Delineation of the effects of active tectonics on coastal changes in the CBSMC
- Effects of active tectonics on coastal, paleogeographic and paleoceanographic features in the CBSMC and delineation of such tectonic effects
- Paleoceanographic evolution in terms of paleotemperature, paleosalinities, paleoproductivity, and circulation patterns of the CBSMC
- Efficiency of the Kerch-Manych and Marmara gateways
- Evolution of the CBSMC water masses and their possible sources in space and time
- Reconstruction of climate dynamics and tracing the evolution from wet to arid periods
- Elaboration and comparison of sea-level curves
- Degassing of the Black Sea
- Assessment and correlation of available information on human adaptation to environmental change in the CBSMC
- Preparation of databases of archaeological artifacts and determination of prospective areas in the search for new archaeological sites (on land and underwater) in the CBSMC
- GIS-linked mathematical modeling of climate change, human and ecosystems dispersal, and air-sea exchange in the CBSMC
- Environmental security and sustainable development of the CBSMC
- Compilation and integration of paleontological, micropaleontological, bibliographic, radiocarbon, sedimentological, and paleoceanographic data sets cartographically into a unified and constantly updated Geoinformation System

FIELD TRIPS

Fieldtrip 1 (1st-2nd October): Sea-level changes versus vertical tectonics on Rhodes Island

The island of Rhodes is located very close to the eastern part of the active Hellenic Arc, which is characterized by sinistral strike-slip movement between the underlying African Plate and the overlying Aegean Plate (Fig. 1, 2). The high relief of the island, the numerous active faults and fault zones, the vertical displacement of shorelines, and the historical reports on destructive earthquakes compose the profile of a tectonically and seismically very active area. Destructive seismic events took place in 227 BC, 197 BC, 183 BC, AD 344, AD 477, AD 516, and AD 1481.

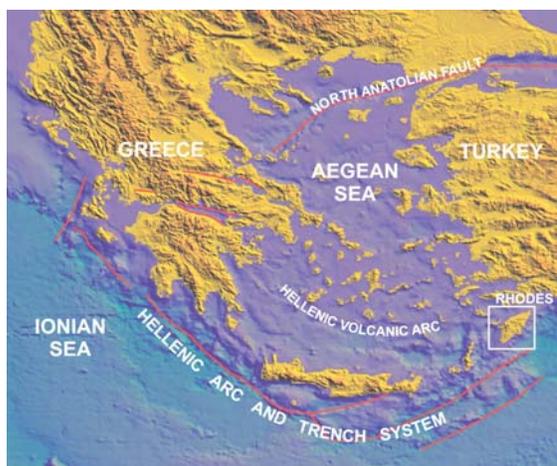


Figure 1. Geodynamic elements of the Aegean Region and location of Rhodes Island



Figure 2 Satellite imagery of Rhodes Island. The city of Rhodes is located at the northern tip of the island.

The alpine basement of Rhodes Island consists of sedimentary and metamorphic rocks and ophiolites, which are relevant to alpine formations known from Mainland Greece. Plio-Quaternary lacustrine and marine formations cover unconformably the alpine structure. Their occurrence and deposition is largely controlled by the post-alpine faulting. Numerous active faults and fault zones create a puzzle-like structure mainly along the eastern coast of the island, where small areas of high relief built up by alpine rocks alternate laterally or rise above the younger Plio-Pleistocene sediments (Gauthier 1979; Lekkas et al. 1993). The entire island is undergoing an eastward rotation around a horizontal axis striking NE-SW, parallel to the long axis of the island (Laj et al. 1978). Strong evidence of this rotational movement is the asymmetric development of the drainage system of the island and of the superficial distribution of the younger post-alpine Plio-Pleistocene sediments.

The superposition of the successive Quaternary sea-level changes and the vertical tectonics has resulted in the formation of marine terraces uplifted at various elevations to 400 m above present sea level. Paleo-shorelines are visible mainly along the eastern coast of the island lying up to 4 m above the present mean sea level and indicating repeated vertical movements of the coastal region during the last 6000 years caused by fault activity. The most impressive event was the sudden uplift of about 3.8 m of the northernmost part of the island, including the area of the city of Rhodes, which is likely to be linked with the earthquake which destroyed the Colossus in 227 BC.

Detailed studies along the cliffs of Tsambika beach revealed the existence of six distinct shorelines at 2.45 – 0.5 m above present mean sea level in the last 5000 years.

The participants will have the opportunity to visit sites of uplifted paleo-shorelines (Ladiko – “Anthony Queen’s beach,” Tsambika beach, etc.), uplifted marine terraces (Rhodes town, Faliraki, Lindos), coastal prograding sequences (Kalythies), active faults offsetting terraces (Lindos), sites of fossiliferous Pliocene marls, cold-water corals including *Lophelia* (Lardos), and many other sites of geological interest.



Figure 3. Uplifted Holocene paleoshorelines in Ladiko Bay (“Anthony Queen’s Bay”).



Figure 4. Uplifted Pleistocene marine terraces close to Lindos.

Fieldtrip 2 (3rd October): The Volcano of Nisyros Island

Nisyros is a volcanic island located in the eastern Aegean Sea, at the eastern tip of the Hellenic Volcanic Arc. The Hellenic Volcanic Arc parallels the Hellenic Arc and Trench System 200 km behind as a result of the ongoing NNE-ward subduction of the East Mediterranean lithosphere, the subsequent melting of the downward moving crust, and the rise of magma along major fractures.

The island of Nisyros is exclusively made of Quaternary volcanic rocks, represented by alternating lava flows, pyroclastic layers, and more viscous lava domes, ranging in age from 200 to 25 ka. Nisyros forms a truncated cone with a base diameter of 8 km and a central caldera, 4 km in diameter (Fig. 5, 6). The evolution of this volcano started with an underwater volcano, with erupting basaltic and andesitic pillow lavas, and was followed by a stratovolcano which grew on top of the submarine lavas. After several eruptive phases, two major rhyodacitic plinian eruptions covered the whole island with pyroclastic flows and pumice falls, and subsequently, a major collapse of the volcano formed a large caldera at <20 ka BP.

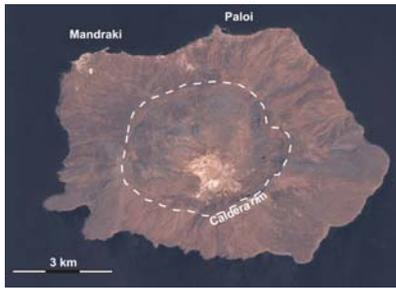


Figure 5. Landsat satellite imagery of Nisyros Volcanic Island.



Figure 6. The caldera of Nisyros volcano with the active craters.

The only reported historical explosions are associated with the formation of several phreatic craters inside the caldera, such as Alexandros, Polyvotis, Stephanos, Phlegethon, and Achelous, which are still emitting fumaroles. Violent earthquakes, gas detonations, steam blasts, and mudflows accompanied the most recent hydrothermal eruptions in AD 1871–1873 and 1887.

We will sail from Rhodes to Mandraki, the main town of Nisyros. We will take a bus and drive up the flanks of the volcano. We will enter the volcanic caldera, and we will have the opportunity to walk on the bottom of the active craters, next to the fumaroles, and feel the earth boiling underneath our feet. We will sail back to Rhodes on the evening of the same day.

Fieldtrip 3 (4th October): Archaeological sites of Rhodes

The participants will visit and be guided through some of the most important archaeological sites of the island

SOCIAL PROGRAM

During the conference, a series of tours and entertainment will be organized. More details will be announced in the Second Circular.

VENUE

The conference will be held under the auspices of the Hellenic Centre for Marine Research (HCMR, <http://www.hcmr.gr>) at the Hydrobiological Station of Rhodes, Greece (Fig. 7, 8), Cos Street, 851 00 Rhodes, Greece, Tel: +30 2241027308, +30 2241078320; Fax: +30 22410 78321; Email: hsr@hsr-ncmr.gr.

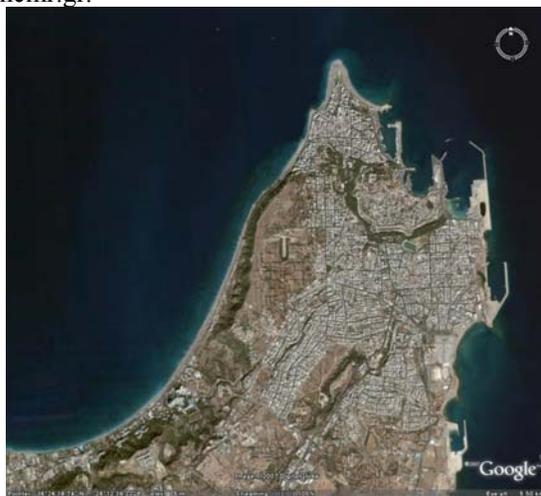


Figure 7. Google image of the city of Rhodes.



Figure 8. Location of the Hydrobiological Station of Rhodes at the northernmost tip of the city of Rhodes.

HELLENIC CENTRE FOR MARINE RESEARCH (HCMR)

The Hellenic Centre for Marine Research (HCMR, <http://www.hcmr.gr>) is the main governmental research institution in Greece aimed at carrying out multidisciplinary scientific and technological research of the hydrosphere (marine and inland waters), its organisms (fisheries, genetics), its interface with the atmosphere (operational oceanography), the coastal zone, the sea floor and the geosphere underneath it, and the physical, chemical, biological, and geological conditions that prevail and regulate the above-mentioned systems.

The first Greek marine research institute, the Marine Hydrobiological Station, was established in 1914, and accomplished its first studies in fisheries and marine biology in 1915. In 1985, the National Centre for Marine Research (NCMR) was established and placed under the jurisdiction of the General Secretariat of Research and Technology. NCMR thus became the main vehicle of marine research in Greece. During the same year, 1985, the ocean-going R/V AEGAEO was purpose-built for carrying out marine research. In 1987, further progress was made with the establishment of the Institute of Marine Biology of Crete (IMBC) in Heraklion, Crete. IMBC rapidly developed and, with the R/V PHILIA, played an important role in the areas of marine biology, fishing, and aquaculture during the past years. The integration of NCMR and IMBC took place in 2003 and gave birth to the new organization, the Hellenic Centre for Marine Research (HCMR).

HYDROBIOLOGICAL STATION OF RHODES

The Reale Istituto di Ricerche Biologiche di Rodi (Royal Biological Research Institute of Rhodes) was founded in the years 1934-1935, during the Italian occupation of the Dodecanese Islands (1912-1943). The Station came into existence during the Italian occupation of Rhodes, and its Art-Deco-inspired exterior and interior have been preserved as a historic landmark. HSR is both an HCMR research unit and a public Aquarium/Museum, thus combining research and recreational, educational, and awareness-raising programs. The overall aim of the Hydrobiological Station of Rhodes is to develop and disseminate scientific knowledge on the marine environment and its conservation. As one of the field stations of HCMR, it carries out research commitments as part of its operational requirements. As one of the few Aquaria in the Eastern Mediterranean, it attracts more than 200,000 visitors annually and undertakes a lot of public awareness, educational and dissemination activities.

ABOUT RHODES ISLAND

Rhodes, one of the Mediterranean's most beautiful islands, lies in the southeastern part of the Greek Archipelago and belongs to the Dodecanese island group. With an area of 1,398 km², a maximum length of 77 km, a maximum width of 37 km, and a permanent population of about 100,000, it is the fourth largest of the Greek islands.

The ancient Greeks were so taken with the charms of the island that they associated its beneficent climate with a myth, according to which, Helios, the life-giving sun-god, enchanted by its natural beauty, asked Zeus to be the protector and benefactor of the island. In mythology, Rhodes was the daughter of Poseidon and Amphitrite (or Aphrodite) and the beloved of Helios, who gave her name to the island.

HISTORY OF RHODES

Rhodes is an island full of history. Around 1550 BC, the Minoans settled on Rhodes and set up a trading station on its northwestern coast. When the Minoan civilization declined, the Mycenaeans arrived on the island and, first of all, founded Ialysos and Cameiros. The Mycenaeans were followed by the Dorians in 1100 BC, who divided the island into three regions constituting three independent city-states: Cameiros, Lindos, and Ialysos. In 700 BC, those three cities, together with Cnidus, Halicarnassus, and Cos, joined to form an amphictyony (political and religious federation), known as the Dorian Hexapolis.



Figure 9. The city of Rhodes viewed from the north.

After the Persian Wars in the early fifth century BC, Diagoras, coming from the aristocratic family of Eratides of Ialysos, won a victory in the Olympic Games of 464 BC and made Rhodes famous throughout the Greek world. In 332 BC, Rhodians allied themselves with Alexander the Great. After his death, Demetrius from Egypt, one of his successors, attacked Rhodes with 40,000 soldiers equipped with the latest technology in siege engines of that time. Rhodes resisted successfully, and the Rhodians built a 30 m high statue dedicated to their patron Helios, the famous “Colossus of Rhodes,” one of the “Seven Wonders of the World.” The Colossus stood in its original position until 227/6 BC, when it was demolished by a strong earthquake. The statue remained fallen but untouched for about 800 years until, in AD 653, the Moabite Arabs, who had conquered the island, sold its bronze to a Jewish merchant, who is said to have needed 900 camels to carry it off.

In 164 BC, the Rhodians entered into an alliance with the Romans. In AD 57, St. Paul visited the island and in AD 325, Rhodes was represented at the First General Council of the Church. After the division of the Roman Empire, the island was incorporated into the Eastern Roman State and then to the Byzantine Empire. In AD 1191, Phillip II of France and Richard the Lionhart stopped off at Rhodes on their way to the Holy Land.

In AD 1306, Rhodes came under the rule of the Knights of St. John, who played an important role in the struggle for the deliberation of the Holy Land. During that era, Rhodes managed to emerge from obscurity and enter into a new period of prosperity, which terminated on July 22, 1522, when Suleyman II the Magnificent besieged the island with a force of 100,000 men. The occupation lasted 390 years until the Italians, in 1912, landed forces and took the island. Rhodes, together with the rest of the Dodecanese islands, was incorporated into Greece on March 7, 1948.

ACCOMMODATION

The Organizing Committee has arranged special prices for the participants of the INQUA 501 - IGCP 521 meeting in the hotels (Table 1). Participants have to arrange their accommodation by contacting the reception desk of these hotels directly, or they may stay in any of the numerous other hotels in Rhodes town.

Table 1. List of hotels

	Single room	Double room
MEDITERRANEAN HOTEL (A' class superior) Kos str., 85100 Rhodes Tel.: +3022410 24661 Fax: +3022410 22828 http://www.mediterranean.gr/	57.50 € B/B, 65.50 € H/B	75.00€ B/B 91.00 € H/B
LA VITA (4*) Papanikolaou str., 85100 Rhodes Tel.: +30 22410 24911 Fax: +30 22410 24912 http://www.mitsishotels.com	40.00 € B/B	55.00 € B/B
MARIE HOTEL (B' class) 7, Kos str., 85100 Rhodes Tel. : +3022410 30577 Fax: +3022410 22751 http://www.rodos.com/marie-hotel/index.htm/	57.00€ (Sept.) B/B 42.00€ (Oct.) B/B	71.00€ (Sept.) B/B 52.00€ (Oct.) B/B
ESPERIA HOTEL (3*) 7, Griva str., 85100 Rhodes Tel: (+30) 22410 23941 Fax: (+30) 22410 23164 http://www.esperia-hotels.gr/EsperiaHotel/index.html/	38.00€ (Sept.) B/B 26.00€ (Oct.) B/B	51.00€ (Sept.) B/B 39.00€ (Oct.) B/B
MANOUSOS HOTEL (3*) 25, Leontos str., 85100 Rhodes Tel: (+30) 22410 22741 Fax: (+30) 22410 28834 http://www.helios.gr/hotels/manousos/	45.00€ B/B	60.00€ B/B
Best Western Plaza Hotel of Rhodes (4*) 7, Ierou Lochou Str., 85100 Rhodes Tel: +30-22410-22501, Fax: +30-22410-22544 http://www.rhodesplazahotel.com/ 10% discount for more than 7 days	70.00€ B/B +15.00€ H/B	80.00€B/B +15.00€ H/B
ATLANTIS CITY HOTEL (3*) 29 Ionos Dragoumi str. 85100 Rhodes Tel. +30 2241024821-2 Fax: +30 2241027002 http://www.atlantisgroup.gr 10% discount on the prices in the next columns due to collaboration with HSR/HCMR	Sept.: 56.00€ B/B Oct.: 40.00€ B/B	Sept.: 75.00€ B/B Oct.: 45.00€ B/B
CITY CENTER HOTEL(3*) 2 Iroon Politehniou str. 85100 Rhodes Tel. +30 2241036612 Fax: +30 2241025427 www.citycenterhotel.eu 15% discount on the prices in the next columns due to collaboration with HSR/HCMR	Sept.: 56.00€ B/B Oct.: 40.00€ B/B	Sept.: 75.00€ B/B Oct.: 45.00€ B/B

REGISTRATION FEE

Table 2. Registration Fee (Please refer to the “Registration Form”)

	Registration before June 30, 2010	Registration after June 30, 2010
	Euro	Euro
Participant	300	350
Accompanying person	250	300
Student*	200	250

The registration fee covers conference kit, refreshments during coffee breaks, conference dinner, lunches during field trips, museum entrance fees, and bus transportation during the field trip. It does not cover hotel accommodation or dinners during the conference and field trips.

REFUND POLICY

Fifty percent refund before June 30, 2010. No refund is possible after June 30, 2010.

FINANCIAL SUPPORT

INQUA 501-IGCP 521 will have very limited funds, as most probably no funds will be obtained from IGCP 521 this year. Therefore, applicants should seek funds from elsewhere to help underwrite the costs of attendance. Preference in allocations of funds will be given to those from the developing world who present a high quality paper that will be accepted by the Scientific Committee.

CONFERENCE LANGUAGE

The official conference language is English.

ABSTRACT

Preference will be given to extended and informative abstracts containing new data and arguments. As a rule, your abstract(s) should be around 2 pages. But we are quite flexible with the length of the abstract if it contains new data and arguments.

Short and uninformative abstracts or abstracts irrelevant to the themes of the meeting will not be considered.

The guidelines for abstract preparation and submission are outlined in the Abstract Template. You must specify the mode of your presentation: ORAL or POSTER. No abstracts will be accepted without registration of at least one of the authors. Every registered participant has the right to submit up to two extended abstracts as the first author.

ORAL AND POSTER PRESENTATION

Each speaker will have 20 minutes for presentation including questions. Poster format is 100x180 cm. Projection Equipment: Screens, LCD (PowerPoint presentation) projectors, and overhead projectors are available.

PUBLICATION

Accepted abstracts will be published in the Volume of Extended Abstracts. The full papers will be published in INQUA 501-IGCP 521 Fifth Special Volume of the journal *Quaternary International*. For preparation of the manuscript, refer to Instructions for Contributors.

VISA

Visitors from other countries must carry a valid passport and, in certain cases, visas, to be able to enter Greece. For more information on visas and other required travel documents, please contact the Greek Embassy or Consulate in your area before your departure. Invitation Letters will be provided upon your request. Each attendee is responsible for obtaining his/her visa.

CLIMATE

End of September – beginning of October is rather favorable time of the year for field trips, although it may be hot. Daily temperature is about 27° C, and at night, it is about 24° C.

TRAVEL

Rhodes Island is easily accessible by direct, regular or charter flights from all main airports of Europe. The airport is located a few kilometers west of the city of Rhodes. Regular buses connect the airport with the city centre.

A fairly good maritime connection connects Rhodes Island with Piraeus harbor, especially in summer time.

DEADLINES

- | | |
|--------------------------|---|
| February 10, 2010 | First Circular on INQUA 501 - IGCP 521 website (www.avalon-institute.org/IGCP) |
| February 10, 2010 | Abstract submission and registration opens |
| June 30, 2010 | Abstract submission closes |
| July 31, 2010 | Notification of abstract acceptance |
| June 30, 2010 | Deadline for early registration |
| August 31, 2010 | Second Circular and the Conference Programme on INQUA 501 - IGCP 521 website (www.avalon-institute.org/IGCP) |
| December 31, 2010 | Submission of full paper to INQUA 501 - IGCP 521 special volume of <i>Quaternary International</i> journal closes |