

International Geologic Correlation Program (IGCP) 464:
**“Continental Shelves during Last Glacial Cycle.
knowledge and applications”**

In February 2001 Unesco approved a five-year International Geological Correlation Project entitled “Continental Shelves during last glacial cycle. Knowledge and applications” (IGCP464). The project was a follow-up of the previous IGCP396 “Continental shelves during the Quaternary”. At present (August 2004) the project involves some 362 researchers from 39 countries.

The project aims to define the palaeoenvironmental evolution of the continental shelves, particularly leading into and since the Last Glacial Maximum. This will include the processes that have produced the present morphology, stratigraphy and sedimentology.

An emphasis is given on research training in modern methods for shelf studies, by an integrated series of workshops delivered in developing countries, and by visits and research exchange with key laboratories (seismic interpretation, geochemical and isotopic laboratories, geotechnical facilities).

Applied aspects dealt by the project are the occurrence of mineral deposits, geotechnical and engineering properties of continental shelf sediment, neotectonic and environmental studies; finally the identification of the cultural heritage of palaeoenvironmental changes of shelves (e.g. human, floral and faunal migrations across archipelagic and land bridges).

Previous IGCP464 meetings:

1st Annual Conference, Hong Kong 25-28/10,2001
2nd Annual Conference, S.Paulo (Brazil) 30/8-3/9, 2002
3rd Annual Conference, Wollongong 14-19/12, 2003
European Regional Conference, Gdansk 8-10/15/2003
N. American Regional Conference, Vancouver 8-10/15/2003

Organising Committee

Daniela Merelli
Chiara Altobelli
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Fieldtrip organisation

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During-conference contacts

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Scientific sponsorship:

United Nations Education, Scientific and Cultural Organization (UNESCO)
International Union of Geological Sciences (IUGS)
International Union for Quaternary Researches (INQUA)-
Commission on coastal and marine processes
Federazione italiana di Scienze della Terra (FIST)
Dipartimento Scienze della Terra, Università di Roma “La Sapienza”
Regione Lazio, Assessorato per l’Ambiente –
Dipartimento per il Territorio

Conference sponsors:



IGCP-464 4th ANNUAL CONFERENCE

28/8 - 3/9 2004 Roma and Ponza Island, Italy
igcp464conference@uniroma1.it

PROGRAM



Convener

Francesco Latino Chiocci
Dipartimento Scienze della Terra,
Università “La Sapienza”, Roma

DAY ONE, Saturday 28 July. Rome
Museum of Mineralogy, Università "La Sapienza", P. Aldo Moro 5

19.00 Icebreaking

DAY TWO, Sunday 29 July 2004, Rome
La Sapienza Conference Hall, Via Salaria 113

08.30-09.30 Registration

09.30 Welcome to delegates; official opening of the annual IGCP464 meeting.

SESSION 1 Shelf response to climatic eustatic oceanographic changes during last glacial cycle.

Chairman: Allan Chivas - Un. of Wollongong, Australia

- 10.10 Sea level changes in the Maldives with respect to multiple interacting parameters. Mörner N.
- 10.30 Multiproxy evidence of late glacial to Holocene and of Sangamonian millennial-to seasonal-scale climatic oscillations in the St. Lawrence estuary, eastern Canada. St-Onge G., de Vernal A., Hillaire-Marcel C., Long B., Duchesne M.
- 10.50 Pearl river estuary related sediments as response to Holocene climate change and anthropogenic impact – project pecai. Zhou D., Harff J
- 11.10 Coffee break

SESSION 1 (continuation)

Chairman: Natalia Patyk-Kara Russian Academy of Sciences

- 11.30 The role of the meandering of Brazil current in the sedimentation of the outer shelf-upper slope off southeastern Brazil under different climatic conditions: sedimentological data and a numerical modelling approach. De Mahiques M. M., Calado L., Almeida da Silveira I. C., França Lima A.
- 11.50 The Holocene highstand systems tract in the gulf of Cadiz shelf, NE Atlantic ocean: a record of oceanographic forcing and recent environmental changes. Lobo F. J., Fernández-Salas L. M., Hernández-Molina F. J., González R., Dias J. M., Díaz del Río V.
- 12.10 **Session 1 Discussion**
- 12.30 Lunch
- 13.30 Business meeting

SESSION 2 Record of environmental changes on the shelves of the world since LGM .

Chairman: Gilles Lericolais, IFREMER, France

- 14:30 Geographic change in Atlantic Canada from L.G.M. to the Present Shaw J.
- 14.30 Geomorphological, deposition and foraminiferal indicators of late Quaternary tectonic uplift in Iskenderun Bay, Turkey. Yanko-Hombach V., Korál H., Av_ar N., Motnenko I., McGann M.
- 14.50 A sequence of events, which took place during the last global sea-level rise, detected along the continental margin of the eastern Mediterranean offshore Israel. Gvirtzman G., Wieder M., Ron H., Sivan D.
- 15.10 Coastal-marine processes and sediment supply during the post-LGM transgression in the northern part of the Argentine Continental Shelf. Violante R. A.

- 15.30 Sea-level and environmental changes since the LGM in the de La Plata River (Argentina). Cavallotto J. L.
- 15.50 Mineral resources of the Russian Arctic shelf under last glacial maximum conditions. Alekseev M. N., Patyk-Kara N. G., Drouchits V. A.
- 16.10 Coffee break

SESSION 2 (continuation)

Chairman: Renée Hetherington Un. Of Victoria, Canada

- 16.30 Effect on different delta types on shelf, continental slope and deep-sea sedimentary architecture genesis in a relative-sea-level fall/lowstand context: examples from the Manicougan deltaic prism, Canada. Duchesne M. J., Long B. F.
- 16.50 Ground-truthing of boomer seismic profiles in Tai o Bay, Hong Kong SAR, China. Yim S. W. W., Wong H. K., Chan L. S., Lüdmann, Ridley Thomas W. N.
- 17.10 Carbonate sediments and coral reef of Australia's Western Margin . Collins L.
- 17.30 **Session 2 Discussion**
- 19.00 Conference dinner and concert. *Cloister of S.Clemente al Celio (12th cent.), Via dei Querceti, Rome*

DAY THREE Sunday 29 July, Rome
La Sapienza Conference Hall, Via Salaria 113

SESSION 3 Shelf evolution since LGM and its influence on human cultures.

Chairman: Lindsay Collins, Curtin University, Perth, Australia

- 09.30 Preservation of coastal landscapes during the Holocene transgression, Bras D' Or Lakes, Nova Scotia Shaw J. Taylor R.B
- 09.50 Climate of the Last Glacial Cycle and the Peopling of the Americas. Hetherington R., Montenegro Neto A., Weaver A., Eby M., Wiebe E.
- 10.10 Continental shelf evolution during the last glacial cycle- influence on human culture. Hetherington R.
- 10.30 Was the last rapid sea change in the Black Sea linked to a catastrophic event 7500 years ago? Lericolais G., Popescu I., Panin N., Guichard F., Popescu S
- 10.50 The Black Sea flood controversy in light of the Late Quaternary history of the Black Sea. Yanko-Hombach V.
- 11.10 Coffee break
- 11.30 **Session 3 Discussion**

SESSION 4 Geology of Western Pontine Islands.

Chairman: Wyss Yim University of Hong Kong, China

- 11.50 Palmarola: Prehistoric obsidian trade Zarattini A.
- 12.10 Volcanic activity and geodynamic setting of the western Pontine Islands. Conti A., Dolfi D.
- 12.30 Lunch

SESSION 5 Geology of W Pontine Continental Shelf.

Chairman: Francesco L. Chiocci, Un. of Rome , Italy

- 13.50 Geological characters and evolution since LGM of Western Pontine continental shelf (Tyrrhenian Sea).. Martorelli E., Altobelli C., Chiocci F. L., D'Angelo S.

- 14.10 Temperate carbonate sedimentation of Pontine Islands continental shelf (Central Tyrrhenian Sea, Italy) in comparison with W Australia extratropical deposits. Altobelli C., Collins L..
- 14.30 The carbonate sedimentation in the Pontinian shelf: facies, controlling factors and record of the events. Brandano M., Civitelli G., Veneziano P.
- 14.50 Rhodolith facies development during the Holocene sea level rise at the Pontian Islands shelfbreak Basso D., Corselli C., Morbioli C.
- 15.10 The "Atlas of Submerged Depositional Terraces along the Italian coasts". Chiocci F.L., D'Angelo S., Romagnoli C.

Posters on Geology of W Pontine Continental Shelf.

(5 minutes presentation)

- 15.30 Holocene Coastal evolution of Palmarola Island (Tyrrhenian Sea). Silenzi S., Devoti S., Molinaro A., Zarattini A: Distribution of recent foraminiferal assemblages near the Ponza Island (Central Tyrrhenian Sea, Latium, Italy) Frezza V., Carboni M. G., Matteucci R:
- The carbonate sedimentation in the pontinian shelf: facies, controlling factors and record of the events. Brandano M., Civitelli G., Veneziano P.
- Rhodolith facies distribution on the Pontinian Islands shelf. Sañé Schepisi E., Abdelhahd N., Basso D., Chiocci F. L:
- Lowstand Depositional Terraces surrounding Western Pontine Archipelago Martorelli E., Chiocci F.L., Pazzini A.
- 15.50 **Session 4 and 5 Discussion**

16.10 Coffee break

16.30 Final business meeting

DAY FOUR, Tuesday 31 July 2004

08.00-12.00 Transfer from Rome to Ponza Island
Free afternoon in Ponza.

DAY FIVE, Wednesday 1 August 2004, Ponza Island

- 08.00 Breakfast
- 08.30 Group 1 start fieldtrip on small boat.
Group 2 start fieldtrip on oceanographic vessel (R/V Universitatis)
- 13.10 Lunch
- 17.30 End fieldtrips
- 19.00 **Fieldtrip dinner Frontone Beach**

DAY SIX, Thursday 2 August 2004, Ponza Island

- 08.00 Breakfast
- 08.30 Group 2 start fieldtrip on small boat
Group 1 start fieldtrip on oceanographic vessel (R/V Universitatis)
- 13.10 Lunch
- 19.00 End fieldtrips

DAY SEVEN

Morning: transfer from Ponza Island to Rome
Lunchtime: end of fieldtrip at Termini train station in Rome