

A proposal to hold the 9th International Congress on the Jurassic System in Jaipur (Rajasthan), India

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WHY IN JAIPUR

General/Cultural information

- India has a large cultural diversity and old traditions.
- Jaipur (Pink city) is a city of palaces and a heritage city of India. The observatory in Jaipur has recently been included in world heritage, not far (265 km) from the international Airport in New Delhi.
- Jaipur is one of the cities of the tourist's "Golden Triangle" of India (New Delhi–Jaipur–Agra).
- A one-day mid-conference visit to the touristic highlights of the city (Palace of the Wind, City Palace, Observatory, Amber Fort, Jaigarh Fort) will therefore be offered to the participants.
- The city has a large and very old university, University of Rajasthan, supported by the State Government of Rajasthan.

Logistics

- Jaipur is connected with New Delhi and Mumbai by all modes of conveyance. There are several flights per day from Indira Gandhi International Airport (Domestic Terminal) in Delhi and the International Airport in Mumbai (Bombay).
- Not very expensive.
- Good logistic and hospitality; there are wide range of Hotels, five star hotel to simple but clean guesthouses.
- Excellent weather condition from November to February (average day time temperature 25–30°C).
- Temperature-wise, the best time for the congress would be early January so that the pre-congress field trip could take place immediately after Christmas.

WHY IN INDIA

- It has not been held in India, in spite of the fact that a large number of geo-scientists have been working on Jurassic sediments since mid nineteenth century.

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Palace of Wind, Jainpur

- Much progress on the sedimentology, stratigraphy and palaeontology of the Jurassic basins has been achieved during the last two decades by several research groups.
- There are many Indian Geologists who work on marine and non-marine Jurassic strata, who are not able to attend an international congress outside India due to financial or other reasons. They would benefit if the congress were held in India.

GEOLOGICAL INFORMATION

- Offers an opportunity for the participants to visit marine and non-marine Jurassic outcrops in India (particularly, the Kachchh, Jaisalmer and Gondwana sedimentary basins).
- Easy accessibility of the marine and non-marine Jurassic outcrops.
- Basins display very good exposures.
- All the sedimentary basins are very rich in fossils (invertebrates, vertebrates and plant fossils) well suited for palaeoenvironmental studies.
- Paleogeographically, the marine outcrops (Kachchh and Jaisalmer basins on the western margins of the Indian subcontinent) represent a part of the southern Tethys geological domain and a separate biogeographic province (Ethiopian Province).

PROPOSED PRE- AND POST-CONGRESS FIELD TRIPS

Middle and Upper Jurassic rocks of the Kachchh Basin (one week):

The Kachchh Basin is a small rift basin, situated on the western margin of the Indian craton. It is well known for its rich marine fauna of ammonites, bivalves, brachiopods, corals, sponges, echinoderms, microfossils, trace fossils,

etc. Environments range from alluvial fans to rivers and carbonate and siliciclastic ramps. The strata show a distinct cyclicity influenced partly by regional tectonics, partly by relative sea-level and climatic changes.

The trip will include a visit to the vast Recent salt flats of the Great Rann of Kachchh and to remains of the 3000 years old Indus Valley civilisation at Dholavira in Khadir “Island”.

Middle and Upper Jurassic rocks of the Jaisalmer Basin (one week):

The Jaisalmer Basin is a pericratonic shelf basin, situated also on the western margin of the Indian craton. Although the sequence is less complete than that of the Kachchh Basin it also has a high diversity of marine fauna. Environments range from continental to marginal marine to carbonate and siliciclastic ramps. The basal part of the succession is known world over for very rich gymnosperm wood fossils. There are a few marine marker horizons in the younger part of the succession, which can be used for interbasinal correlation (Pandey *et al.*, 2009). The field party will be based in Jaisalmer, one of the most beautiful medieval cities of India. Included in the programme is a visit to the sand dunes of the Thar desert.

Non-marine Jurassic rocks of the Gondwana Basins in the central and eastern part of India (one week):

The rocks of Gondwana Supergroup (Permian to Cretaceous) in India are known since later part of the 18th century. These rocks were developed in intra-cratonic eastern, central and western Indian rift basins (Biswas 1999). The tectono-sedimentary evolution suggests three stages of evolution of basins: (1) sag basin stage at the beginning of rifting (Late Carboniferous to Early Permian), (2) rifting episodes of Gondwanaland (Late Permian to Early Jurassic,



Callovian: offshore siliciclastic basin fill, Chari Formation, Jumara Dome, Kachchh

(3) rifting related to drift stage of the Indian plate (Middle Jurassic to Early Cretaceous). These non-marine sediments are famous world over for rich coal deposits and well preserved plant and vertebrate fossils. An overview of literature shows that there has been a lot of progress in the Gondwana researches in India. Based on temporal distribution of plant and vertebrate fossils three fold classification for Gondwana Supergroup has been proposed. The stratigraphic superposition of various sedimentary beds shows rapid change in the climatic conditions, *i.e.* from cold to warm and humid to arid.

The Jurassic formations of Gondwana Supergroup are only exposed in Kachchh, a western Indian pericratonic rift basin and partly in the Pranhita-Godavari and East coast basins in the central Indian part of the Craton (Bandyopadhyay, 1999).

The succession will be very interesting for palaeobotanists, vertebrate palaeontologists and participants working on non-marine sediments. Included in the programme is a visit to either Lucknow with its typical Mogul architecture or to the holy city of Benares (Varanasi) along the Ganges River.

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