

## FIELD TRIPS A5

### From rifting to collision in central High Atlas: Sedimentary and tectonic evolution of an intracontinental, peri-Tethyan basin

- **Date:** Thursday, 25 October-Saturday, 27 October (begins and ends at the Convention Center, Marrakech)
- **Leaders:** A. Souhel (University of El Jadida), F. El Bchari (University of El Jadida), K. El Hariri (University of Marrakech), J. Canérot (emeritus prof. University of Toulouse), D. Chafiki (University of Marrakech), E. M. Ettachfini (University of El Jadida), A. Gharib (University of El Jadida) and R. Lowener (GFZ-Potsdam).
- **Fee:** € 340 (twin accommodation), € 380 (single accommodation), including GST, transportation, two days of accommodation and meals, three days of lunches and water, field guide book)
- **Limit:** Minimum 12 persons; maximum 24 persons
- **Registration deadline:** 1st September 2007



**Progressive unconformity of Upper Liassic deposits  
on top of tilted Lower and Middle Liassic formations, Talmest ridge, High Atlas**

#### Who should attend?

Exploration and development geologists interested in the stratigraphy and structure of the Peri-Tethys Mesozoic-Cenozoic basins, and wishing to examine superb geological outcrops in the inverted and deeply dissected Central High Atlas.

#### Objectives and content

This 900 km long field trip gives the opportunity to visit the northern half of the High Atlas belt in the area where it connects with Middle Atlas. The high mountainous range (hardly less than 4000 m),

made up of smoothly folded Mesozoic sediments, abruptly dominates its northern Neogene foredeep (Tadla plain). Abundant wadis and springs permit luxurious cultivations all along the piedmont, whereas the mountains are rather devoted to nomad sheep and goat breeding. Gorgious sceneries are encountered during the trip, such as the Ozoud falls, Ait Bougemmez valley, the Azourki pass (nearly 3000 m a.s.l.), the Cathedral conglomerates, etc.

From the point of view of the sedimentary basin evolution, emphasis is put on the following points: i) Triassic- Jurassic rifting and transgression of the Tethyan sea; sequential stratigraphy of the Liassic-Dogger deposits from the internal platform to the basin axis; ii) Basin upfilling and late evolution during the Middle-Late Jurassic and Early Cretaceous; syn-sedimentary tectonics, basaltic volcanism, deltaic red beds, Dinosaur tracks; iii) Early-Late Cretaceous transgression from the Atlantic ocean into the Atlas-Meseta Aptian gulfs; Cenomanian-Turonian platform; K/T boundary at some typical sections.

Structural observations mainly concern, i) the relationships of the Middle and High Atlas domains during the Jurassic, then during the Cenozoic compression; and ii) the inverted fault and fold structures, particularly along the Atlas-Tadla boundary close to Beni Mellal.

Transportation will be by comfortable 4x4 vehicles as driving on small dirty roads are required. Short, invigorating walks on rough terrane are required during some of the stops.

## Itinerary

