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***Joint International Dyke Conference (IDC 8)-Large Igneous Provinces (LIPs 8)-  
Rodinia 2023 Conference (Marrakech, Morocco)***

***Mid- Conference Field Trip B (1 day): 7 June 2023.***

***Magmatic, sedimentary and tectonic markers of Phanerozoic rifting on the northern  
border of the High Atlas of Marrakech, Morocco***

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The High Atlas Mountains is part of the Atlaso-Mesetien domain and is formed by an intracontinental orogeny during the Alpine (Cenozoic) phase. This Alpine is related to the Africa/Europe convergence (lithospheric shortening) and to thermal processes (such as the warm anomaly of the mantle).

From Marrakech city to the seaside resort of Oukaïmeden, we observe the main morphological units of the High Atlas according to the following succession:

- The Haouz basin area (altitude from 500 to 1000m).
- The subatlasic zone, which corresponds to the first mountains (altitude between 1000 and 1500m). It consists of Cenozoic, Cretaceous (Senonian) and Permo-Triassic formations.
- The High Plateau area (altitude between 2000 and 2700m), like those of Yagour and Timenkar plateau. They correspond to the Triassic Formation of Oukaïmeden.
- The axial zone corresponds to the magmatic and Precambrian formations. The altitude of this zone is than 2700m to 4167m (Jbel Toubkal).

This geomorphological organization shows that the geological material is getting older towards the axial zone of the Mountains (Precambrian formations) representing exhumed basement formed by inverse faults during the Atlasic compression.

This excursion is dedicated to a part of the northern border of the High Atlas of Marrakech, which corresponds to the highest point of North Africa with the Jbel Toubkal (4167m) and is characterized by the Meso-Cenozoic, Paleozoic and Precambrian formations.

**1- Programme:**

*During this one day field trip, we will observe the successions formed during the -Triassic-Jurassic rifting (lithology of sedimentary rocks and Central Atlantic Magmatic Province (CAMP) volcanism) and reconstruct its relationship with the elements of the basement (Carboniferous and Precambrian).*

*This will be established during three stops:*

- - **Stop A:** *Basaltic CAMP volcanism of the Ait-Ourir section*
- - **Stop B:** *General presentation of the formations and geomorphological zones of the Ourika Valley*
- - **Stop C:** *Precambrian and Paleozoic formations and their tectonic relationship with the Triassic deposits at the Oukaimeden area: lithology, texture, structure, anthropogenic activities and outcrops along the Oukaimeden road.*

### 2- Conditions of participation

<i>fees of the excursion</i>	<i>100 € /\$</i>
<i>Minimum number of people to do the tour</i>	<i>20 persons</i>
<i>Registration and payment</i>	<i>Online reservation and payment of fees on the 1st day of the congress</i>

### 3- Some pictures



*The 201 volcanic succession of the Central Atlantic Magmatic Province (CAMP): the Ait Ourir section is a complete volcanic pile with the classic four Formations : Lower, Intermediate, Upper and Recurrent Basalts*



*Pillow lavas surrounded by hyaloclastites from the lower part of the Intermediate Basalt Formation*