



2nd Circular

IGCP 653 regional workshop and field excursion February 12-16, 2018, Cadi Ayyad University Faculté des Sciences et Techniques, Marrakesh, Morocco

A regional workshop and field excursion of IGCP 653: The Onset of the Great Ordovician Biodiversification Event will be organized in Marrakesh, February 12-16, 2018.

February 12-13, 2018, an IGCP 653 workshop at Cadi Ayyad University, Marrakesh, similar to the workshop that took place at Nanjing, May 15-16, 2018, will be organized for students from Morocco, however all scientists and participants from IGCP 653 are welcome.

After the workshop, a three-day field trip is organized February 14-16, with geological excursions to some of the classic sections of the Lower Ordovician Fezouata Fossil-Lagerstätte, allowing participants to observe the geological context of the exceptional Fezouata Biota.

Workshop venue

The workshop will be held in the captivating city of Marrakesh, which offers an ideal setting for scientific meetings. Founded at the beginning of the 11th century by the Almoravids, the 'Red City' boasts an exceptional cultural heritage and remarkable natural surroundings, such as the snow-capped High Atlas mountains, and its beautiful palm gardens.



The workshop will take place in:
Amphithéâtre 3
Faculté des Sciences et Techniques
Cadi Ayyad University
Boulevard Abdelkrim Khattabi
40000 Marrakesh



Accommodation

Participants to the workshop and/or field excursion are free to choose their own accommodation in Marrakesh and should make their own arrangements for booking, preferably near the *Faculté des Sciences et Techniques*.

Within the very large choice of hotels in Marrakesh, the organising committee is suggesting the **Imperial Plaza Hotel** (<http://www.hotel-imperialplaza.com/>), which is very close (about 250 meters) from the workshop venue at the Faculté des Sciences et Techniques.

This hotel will be also the meeting point for the departure of the field excursion on Wed. 14 February 2018, at 9.30 a.m. (see below).

Workshop

Participation to the workshop is free.
Official languages of the workshop are English and French.

Provisional programme - *Programme prévisionnel*

Monday, February 12th – *Lundi 12 février 2018*

8h30: Welcome - *Accueil*

9h00: *Introduction and welcome - Introduction et accueil des participants*
Khadija El Hariri (Cadi Ayyad University, FST, Marrakesh, Morocco)

9h15: *The Great Ordovician Biodiversification Event: definition, concept, duration*
Thomas Servais (CNRS, Université de Lille, France)

10h00: coffee break – *pause café*

10h30 : *Evolution of the early metazoans in the Ediacaran and the early Palaeozoic*
David A.T. Harper (Durham University, UK)

11h30 : *The Fezouata Lagerstätte: history of a major discovery*
Bertrand Lefebvre (CNRS, Université de Lyon1, France)

12h30: lunch - *repas de midi*

14h00: *Lower Ordovician timescales and Ordovician stratigraphy*
David A.T. Harper (Durham University, UK)

15h00: *Chitinozoans: a key fossil group for Ordovician and Silurian biostratigraphy* (Les chitinozoaires : un groupe biostratigraphique clé pour l'Ordovicien et le Silurien)
Aïcha Achab (Institut national de la recherche scientifique, Québec, Canada)

15h30: *Graptolites: the history of a major fossil group and its biostratigraphical application to the Fezouata Lagerstätte*
Juan Carlos Gutierrez-Marco (Instituto de Geociencias, CSIC-UCM, Madrid, Spain)

16h00: coffee break – *pause café*

16h30: *Trilobites - morphology, biology and evolution*
Lukas Laibl (Université de Lausanne, Switzerland)

17h00 : *Diversity and disparity of Radiodonta through time*
Stephen Pates (Oxford University, UK)

17h30 Echinoderms: *The Early Palaeozoic diversification of echinoderms: new insights from the Fezouata Lagerstätte.*
Bertrand Lefebvre (CNRS, Université de Lyon1, France)

18h00: *Acritarchs: base of the marine food chain and potential driver of the GOBE*
Thomas Servais (CNRS, Université de Lille, France)

18h30: closing Day 1

Tuesday, February 13th – *Mardi 13 février 2018*

8h30: Welcome - *Accueil*

9h00: *Past Software: presentation of a statistical software for paleontological applications*
David A.T. Harper (Durham University, UK)

10h30: coffee break – *pause café*

11h00: *An introduction to the Geobiodiversity Database (GBDE)*
Fan Junxuan (Nanjing Institute of Geology and Palaeontology, China)

12h30: lunch - *repas de midi*

14h00: Les enjeux et problèmes pour la protection du patrimoine paléontologique et géologique marocains
Khadija El Hariri (Cadi Ayyad University, FST, Marrakesh, Morocco)

14h45: Introduction to the regional geology of the Fezouata area - *Introduction à la géologie régionale de la région de Fezouata*
Abderrahmane Soulaïmani (Cadi Ayyad University, FSSM, Marrakesh, Morocco)

15h30: *Precise age of the Fezouata Lagerstätte*
Thomas Servais (CNRS, Université de Lille, France)

16h00: *Information for the field trip to the Fezouata Lagerstätte*
Bertrand Lefebvre (CNRS, Université de Lyon1, France)

16h15: Mary Anning Award 2017 presentation – *Remise du Prix Mary Anning 2017*
closing Day 2

Coffee breaks & lunches

Coffee breaks are kindly offered to all participants by the Cady Ayyad University.

For lunches, participants should make their own arrangements. There is a large choice of shops and small restaurants all around the Faculté des Sciences et Techniques.

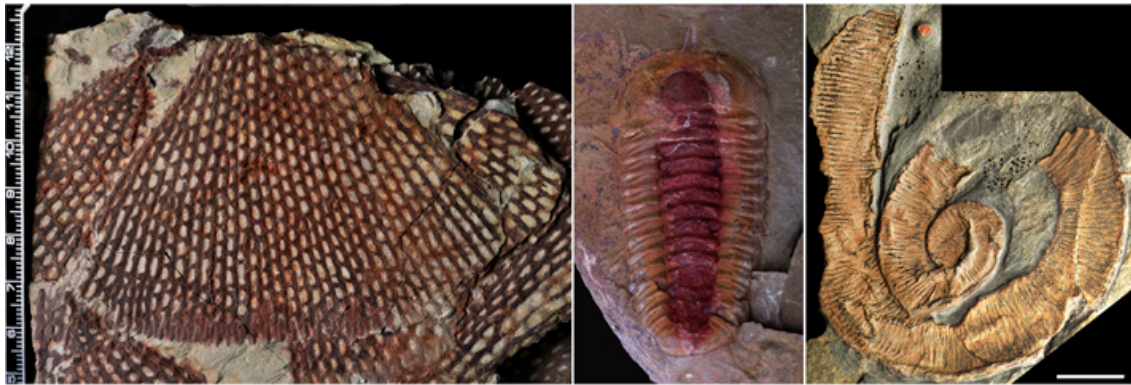
Money

Currency in Morocco is the Dirham. It is relatively easy to withdraw cash almost anywhere in Marrakesh (numerous bank automates). This is also possible in Zagora.

1 Euro \approx 11 dirhams
1 GB £ \approx 13 dirhams
1 US \$ \approx 9.5 dirhams
1 Chinese Yuan \approx 1.5 dirham

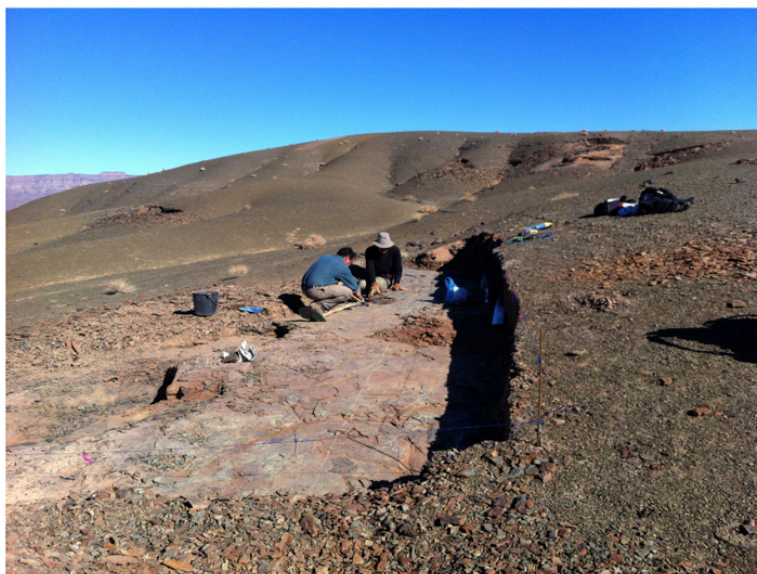
Field Excursion to the Lower Ordovician Fezouata Lagerstätte, Zagora (Anti-Atlas, Morocco)

The aim of this field excursion is to bring participants to the Ternata plain (Draa Valley, N. of Zagora), in the Central Anti-Atlas of Morocco, where several sites yielding the exceptionally preserved organisms of the Fezouata Biota were discovered in the early 2000s. The abundant and diverse assemblages of the Fezouata Biota document a key evolutionary transition, with fossils from the Cambrian Explosion in assemblages typical of the Great Ordovician Event. The Fezouata assemblages are characterized by a mixture of typical post-Cambrian taxa (e.g. asterozoans, cheloniellids, cirripeds, crinoids, eurypterids, graptolites, ostracods, xiphosurans), along with the iconic taxa of Cambrian series 2-3 Lagerstätten (e.g. anomalocaridids, demosponges, lobopodians, marrellomorphs, naraoiids).



from left to right: *Araneograptus murrayi*; *Bavarilla zemmourensis* (with articulated antennae); *Palaeoscolex? tenensis*.

During this field excursion, a full day will be spent visiting two major fossiliferous sites. In the first one (Bou Izargane, late Tremadocian), exceptional preservation is restricted to thin, lens-shaped horizons. Each level has yielded abundant remains of distinct, low-diversity assemblages, generally dominated by one or two taxa (e.g. anomalocaridids, marrellomorphs, palaeoscolecids, stylophoran echinoderms, trilobites).



The second fossiliferous site (at the bottom of Jbel Bou Zeroual, middle Floian) has been extensively quarried out by fossil collectors. This locality has yielded extremely abundant and diverse assemblages, dominated by articulate brachiopods, molluscs and trilobites. Exceptionally preserved fossils are relatively rare and include demosponges, possible annelids, as well as arthropods (e.g. aglaspidids, cheloniellids).



Excursion programme

Wed. 14 February: departure from Imperial Piazza Hotel, Marrakesh (9.00 a.m.), lunch in the High-Atlas (noon), panoramic view of the Early Palaeozoic strata in the Agdz area (afternoon), and arrival in Zagora (late afternoon-evening). Night in Zagora.

Thu. 15 February: visit to the Bou Izargane locality (morning and lunch), visit to the Jbel Bou Zeroual locality (afternoon). Night in Zagora.

Fri. 16 February: departure from Zagora (morning), stop at Amane n'Tourhart (Late Neoproterozoic stromatolites), lunch in Ouarzazate (noon), and arrival in Marrakech (late afternoon).

Practical details

Registration fees to the field excursion include transportation (minibus), all meals, and accommodation in Zagora (two nights).

Weather: temperatures are usually cool in the morning and in the evening (5-10°C), warmer in the afternoon (15-25°C).

Please take all necessary field work equipment with you (shoes, hammer, lens, ...).

Please contact the organisers if you have any special medical / dietary / food requirements.

Organizing Committee

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BACHNOU ALI (Cadi Ayyad University, FST, Marrakesh, Morocco)
BENNANI Oumaima (Cadi Ayyad University, FST, Marrakesh, Morocco)
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Contact

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