







# 4<sup>th</sup> Colloquium of the International Geoscience Programme (IGCP638) in Algeria

Algiers, October 28<sup>th</sup> - 29<sup>th</sup>, 2019

International Conference Centre, Club des Pins

Followed by a field trip, Oct. 30<sup>th</sup> - Nov. 2<sup>nd</sup>

# Geodynamics and Mineralizations of Paleoproterozoic formations for a sustainable development

# Sponsored by UNESCO and organized by :

- The Algerian Geological Survey Agency (ASGA)
- The Ministry of Industry and Mines
- The Ministry of Higher Education and Scientific Research

#### **PARTNERS**





#### **IGCP638 Leaders:**

Tahar AÏFA / University of Rennes 1 (France)

Moussa DABO / FST / University Cheikh Anta Diop of Dakar (Senegal)

Karima TAFER / ASGA (Algeria)

http://igcp638.univ-rennes1.fr

#### **INTRODUCTION**

The fourth symposium of the IGCP638 on the geodynamics and mineralizations of the West African Craton (WAC), will take place on October 28<sup>th</sup> - November 2<sup>nd</sup>, 2019 in Algeria.

It will join together the international scientific community (professionals of the academic and mining sectors) on the topic: "Geology of the Paleoproterozoic formations for a sustainable development". The event will proceed in the form of conferences (two days) in Algiers (International Conference Centre, Club des Pins) and of field trips (four days) according to the schedule indicated below. The sets of themes of the conference will relate to geodynamics, mineralizations, geochemistry, geochronology, geophysics, mapping, lithology, sedimentology, imagery, environment (pollution and deforestation related to mines) and other related subjects.

The events and targets are: (i) generate active exchanges between the actors of the field (enquiring, expert mining); (ii) produce scientific knowledge on the geology of the WAC for an update of the academic and school programmes and facilitate mining exploration; (iii) reinforce the capacity of the participants on the field methods of the Paleoproterozoic (Birimian) basement geology by the means of field trips (possible sampling of specimens).

#### **COMMITTEES**

#### **LOCAL ORGANIZING COMMITTEE**

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ASGA: Agence du Service Géologique de l'Algérie CRAAG: Centre de Rech	erche en Astronomie, Astrophysique et Géophysique, ESMG: Ecole Supérieure

ASGA: Agence du Service Géologique de l'Algérie, CRAAG: Centre de Recherche en Astronomie, Astrophysique et Géophysique, ESMG: Ecole Supérieure des Mines et de la Géologie, FSAC: Faculté des Sciences Aïn Chock, GET: Géosciences Environnement Toulouse, IFAN: Institut Fondamental d'Afrique

noire, IRD: Institut de Recherche pour le Développement, SODEMI: Société pour le Développement Minier de la Côte d'Ivoire, UCA: Université Cadi Ayyad, UCAD: Université Cheikh Anta Diop de Dakar, UFHB: Université Félix Houphouët-Boigny, UFR STRM: Unité de formation et de Recherche des Sciences de la Terre et des Ressources Minières, UH2C: Université Hassan II Casablanca, UFS: Université Paris-sud, USTHB: Université des Sciences et de la Technologie Houari Boumediene

#### **DATES**

Publication of the 2<sup>nd</sup> circular: July-August 2019

Session submission deadline: <del>July 31<sup>st</sup>, 2019</del> postponed to September 1<sup>st</sup>, 2019 Abstract submission deadline: <del>July 31<sup>st</sup>, 2019</del> postponed to September 1<sup>st</sup>, 2019

Publication of the final circular: September 10<sup>th</sup>, 2019 Notification of accepted abstracts: September 15<sup>th</sup>, 2019

Payment fees: on site at the Conference

Confirmation deadline to attend the meeting: September 30<sup>th</sup>, 2019

#### **CONFERENCE PROGRAMME**

Registration and reception: October 28<sup>th</sup>, 2019 Talks and plenaries: October 28<sup>th</sup>–29<sup>th</sup>, 2019 Scientific sessions: October 28<sup>th</sup>–29<sup>th</sup>, 2019 Field trip: October 30<sup>th</sup> – November 2<sup>st</sup>, 2019

#### **REGISTRATION**

Online registration is open till July 31<sup>st</sup> September 1<sup>st</sup>, 2019. The registration form is available on the Website (<a href="https://igcp638.univ-rennes1.fr/">https://igcp638.univ-rennes1.fr/</a>) to page of events (Abstracts): (i) register online before (ii) sending your abstract online as well. A receipt will be sent to you automatically.

### **Registration fees**

Category	Fees (us \$)	Remarks		
Colloquium				
Academic	~120 us \$ *	The fees will be adjusted in the final circular depending on sponsors financial support		
Other professionals				
Student	~14400 DA**			
Field trip				
Academic	075 0 *	The number of places is limited to 50.		
Other professionals	~275 us \$ *	Participation is on a first come, first served.		
Student	~33000 DA**			

**NB** : 1 € ~ 135 DA, 1 us \$ ~ 120 DA

Registrations are open online (https://igcp638.univ-rennes1.fr/).

- (i) The registration fees cover the following services:
- Conference materials and/or field trip (abstracts and/or field trip guide booklet)
- (ii) The registration fees for the field trip cover the following services:
- Transportation
- Accommodation
- Food services

**NB**: The Steering Committee will support the transport for the field trip and also plan to support the accommodation of some participants, in particular PhD students.

Accommodation and food services (apart from the first two days of the conference) are the responsibility of the participant.

#### **OFFICIAL CEREMONY**

Under the chairwomanship of her Excellency the Minister of Industry and Mines Allocutions of:

- President of the organizing committee (ASGA)

- Her Excellency the Minister of Industry and Mines
- His Excellency the Minister of Higher Education and Scientific Research

#### **PLENARIES**

Expected topics of potential invited keynote speakers, selected for the plenary meeting of 20-30 mn each, including presentation and discussion.

Plenaries	Conference titles	Speakers
1	Mineral resources in Algeria: state of play and perspectives	Dr. A. Zerrouki <sup>1</sup>
2	Mineral exploration in Algeria: current state and perspectives	Pr. D.E. Aïssa <sup>2</sup>
3	Iron mines in Algeria	Dr. M.I. Mouzaïa <sup>3</sup>
4	Two contrasting sources for base-metal mineralization in northeast Algeria: Evidence from fluid inclusion and stable isotope studies	Pr. R. Laouar <sup>4</sup>
5	Are there any correlations between West African Craton and Rio de la Plata Craton?	Pr. T. Aïfa⁵
6	First evidence of late Permian alkaline magmatism at the edge of the Sahara Platform (north of the West African Craton): geochronological/geochemical data and geodynamic significance	Pr. M.C. Chabou <sup>6</sup>
7	Metallogenic implications of a new geodynamic model for the Eglab, Algeria	Dr. C. Taylor <sup>7</sup>
8	REE-rich minerals in Paleoproterozoic carbonatites from Ihouhaouene, Hoggar	Pr. K. Ouzegane <sup>2</sup>
9	Geological heritage: Legal aspects and methodological approach	Dr. A. Zerrouki <sup>1</sup>

<sup>&</sup>lt;sup>1</sup>ASGA: Agence du Service Géologique de l'Algérie, <sup>2</sup>USTHB: Université des Sciences et de la Technologie Houari Boumediene, Algiers, <sup>3</sup>SOMIFER: Société des Mines de Fer d'Algérie, <sup>4</sup>Université de Annaba, <sup>5</sup>Université de Rennes, <sup>6</sup>Université de Sétif, <sup>7</sup>USGS: United States Geological Survey

#### **ORAL COMMUNICATIONS & POSTERS** (see the **programme** on the website)

The oral and poster sessions are focused on the following sub-topics:

- (1) Mineral resources and sustainable development.
- (2) Tectono-structural constrains, geological events, fluid inclusions, metamorphism, geochemistry and geochronology of Paleoproterozoic terrains.
- (3) Hydrogeology and environment for a sustainable and drinking water.
- (4) Geophysical exploration and mineral resources.
- (5) Education and policies in Earth sciences.
- (6) Chronostratigraphy, sedimentology and stratigraphy of the Precambrian.
- (7) Geopark, geotourism and geo-ethics for promotion of Earth heritage.

The sub-topics may have several subjects.

#### **SUBMISSION OF ABSTRACTS**

All the abstracts will be examined by the scientific committee of the IGCP638 and the authors whose abstracts are accepted will be advised. The abstracts will be accepted for an oral or a poster presentation and the authors are enjoined to indicate the preference at the time of the presentation. The abstracts must be submitted only online using the Word format, the procedure to follow is indicated on the Website (<a href="https://igcp638.univ-rennes1.fr/">https://igcp638.univ-rennes1.fr/</a>) to the page of events (<a href="https://igcp638.univ-rennes1.fr/">Abstracts</a>). Before submitting your abstract, you refer to the format suggested to apply absolutely (<a href="https://igcp638.univ-rennes1.fr/">https://igcp638.univ-rennes1.fr/</a>) on the <a href="https://igcp638.univ-rennes1.fr/">Website</a>.

The Abstract submission deadline is July 31<sup>st</sup>, 2019 postponed to September 1<sup>st</sup>, 2019. Acceptance will be decided on September 15<sup>th</sup>, 2019.

NB: PhD students having the best abstracts will be sponsored to attend the event (according to the cash in hand).

#### **GRANT APPLICATION**

Some IRD grants are available for MSc & PhD students. The selection of applications is conditioned by "best Abstracts" submitted in due time (see the mandatory conditions: grant application).

#### **EXHIBITIONS**

The exhibitions will offer a single occasion of networking for the geoscientists to meet the representatives of the Research institutes and companies. It will also allow the companies to conclude marketing, the development of the business and recruitment. The exhibitions will be open throughout all conference. The potential exhibitors must contact the secretariat of the conference by E-mail at: igcp638@univ-rennes1.fr

#### **FIELD TRIP**

The post-conference field trip (October  $30^{th}$  – November  $2^{nd}$ , 2019) will be held according to the program below: The main aim, with the help of some specialists of this area, is to allow the participants:

- (i) examine and discuss together some key outcrops for the understanding the lithology and the geodynamics in relationship with mineralizations,
- (ii) visit operating mines within the area of Sétif: iron of Djebel Anini, lead-zinc deposits of Boukhdima, and Chaâbet El Hamra zinc mine [dinner and overnight at El Bachir Hotel, Sétif].
- (iii) Visit of the roman ruins and roman city of Djemila (close to Sétif), then departure to Guelma. A visit to the archaeological site of <u>Aïn Boucherit</u> (near El Eulma and close to <u>Ain Hanech</u> site), called the Cradle of Humankind following the discovery of lithic tools in cut stones and fossil bones of animals going back <u>2.4 million years</u>, could also be on the programme (see e.g. reference below) [dinner and overnight at Bouchahrine complex, Guelma].
- (iv) discover a wide variety of geological facies of the mineralized rocks within basins, thermal places (Guelma area) related to recent tectonic activities where several exploited ore deposits can be distinguished. (a) The station of Hammam Debbagh thermal spring (Guelma area) will be visited. It shows an active thermal source on top of a faulting system, with output water temperatures ranging between 89°C and 98°C indicating a high thermal gradient. Such water contains sodium chloride and calcium sulfate, and may also contain very low amount of radon and arsenic. However the discussion will be open and will focus on the formation of travertines which are cross-cut by several faults and fractures oriented in close relationship with the stress regime changes of North Africa during Mio-Plio-Quaternary. (b) Outcrops of the Kabyle Basement with its suite of metamorphic core complex, and numerous deposits of Paleozoic and Mesozoic ages within Annaba area will be visited [dinner and overnight at Bouchahrine complex, Guelma].
- (v) On the way back to Algiers before night, numerous deposits of Paleozoic and Mesozoic ages will be visited. The discussions may continue till Algiers.

**Tourism:** While being at the vicinity of the rich Roman ruins and <u>ancient roman city of Djemila</u> (near Sétif), we will take this opportunity to make a detailed visit of ruins and examine the geological outcrops around, A visit to the Archaeological site of <u>Aïn Boucherit</u> (near El Eulma and close to <u>Ain Hanech</u> site), called the Cradle of Humankind following the 2018 discovery of lithic tools in cut stones and fossil bones of animals going back <u>2.4 million years</u>, could also be on the programme.

Visit of Algiers and its surrounding area

Tourism: Possible individual or group visits of Bay of Algiers, Bardo & National Fine Arts Museums, Casbah

### List and route of field trip

Field trips	Routes	Coordinators
Paleozoic-Mesozoic Formations: from Algiers to the Tunisian border i.e. Algiers / Sétif / Guelma / Annaba (Oct. 30th - Nov. 2nd)	Geo-cross section:  (i) visit of operating mines within the area of Sétif: iron ore deposits of Djebel Anini, lead-zinc deposits of Boukhdima, and Chaâbet El Hamra zinc mine. Geological facies of the mineralized rocks within basins, Hammam Debbagh thermal spring (Guelma area). (ii) outcrops of the Kabyle Basement with its suite of metamorphic core complex  Tourism: Roman ruins and ancient roman city of Djemila, Possible visit to the archaeological site of Aïn Boucherit	M. Zerrouki (ASGA), M. Boutaleb (USTHB, Algiers), M. Chabou (Univ Sétif), M. Mouzaia (Ferphos Co.), M. Laouar (Univ Annaba)
Possible Tourism: Algiers area (1 day)	Bay of Algiers, Bardo & Fine Arts Museums, Casbah	In progress

# **SPONSORS**

The organisers are willing to receive sponsorship of specific events for the Colloquium. This will include the technical sessions, workshops, conference materials, field trips, etc.

#### **LIST OF HOTELS**

(Booking 2 or 3 nights according to arrival: Oct. 27<sup>th</sup> to Oct. 30<sup>th</sup> and after the field trip). Group booking **Résidence hôtelière Palmarium** Algiers can be made with advantage prices (see Annex for more details). However, a detailed list of hotels will be given in the last circular. The best for the participants is to be all together in the same hotel for transport facilities till the conference place.

#### **VISA**

For participants needing a visa to enter in Algeria, they should first register and send their abstract using the igcp638 website. <u>VISA files</u>: In order to establish the invitation letters (i) to facilitate the processing of visa files at Embassies of Algeria, or (ii) to get grants from your institutions [e.g. travel expenses to attend the 4<sup>th</sup> IGCP638

meeting], please send the following information to <u>ASGA</u>: 1- affiliation (institution) full address; 2- country of origin; 3- position; 4- copy of passport (n°)

#### **PUBLICATION**

A special issue will be published

Deadline for submitting articles ("proceedings") for the special issue of the *Geological Survey of Algeria Bulletin* postponed to: November 20<sup>th</sup>, 2019! information on the following link Bulletin ASGA

#### ANNEX

#### **ACCOMMODATION**

(Please book 2, 3 or 4 nights according to arrival: Oct. 27th to 30th and after the field trip)

Booking at **Résidence hôtelière Palmarium** of Algiers, close to the **International Conference Centre, Club des Pins**, can be made with advantage prices, more cheaper if the room is shared. Notice, however, that <u>you must book using the below E-mail</u>, stating that you are one of the delegates who will attend the IGCP638 meeting for which the negociated fees have been established.

You will receive a confirmation of your booking after October 12<sup>th</sup> 2019.

A detailed information is given below for these negociated advantage prices to be all together within the same hotel and for transport facilities till the conference place and vice-versa.

Accommodation near the International Conference Centre, Club des Pins, Algiers

#### Résidence hôtelière Palmarium

îlot n°97 Palm-Beach, Staoueli, Algiers E-mail : <a href="mailto:residencepalmarium@gmail.com">residencepalmarium@gmail.com</a> Website : <a href="mailto:www.residencepalmarium.com">www.residencepalmarium.com</a> Phone : +213(0)232031/+213(0)23201233

Fax:+213(0)23201232

Hotel "Résidence hôtelière Palmarium"	Fees for one night (DA)
Single room	7000
Double room	7000
Triple room	8000
Suite 04 PAX	9000
Suite 06 PAX	10500

**NB**: 1 € = 135,29 DA; 1 us\$ = 120 DA

NB: Breakfast is included. A fitness room and a play room are available for the guests.

The organizing Committee will provide transportation (shuttle) from the hotel to the conference place. Note that there is a shuttle from the International Airport to the hotel as well.

# PARTICIPANT FLIGHT PLAN (Participants from abroad)

Name – SURNAME / E-mail
Institution
Date, time of arrival in Algeria and Airline Company
Date, time of departure from Algeria and Airline Company
Hotel (or other place) during your stay in Algeria
Your participation
*Colloquium and 4-days field trip *Colloquium and 1-day field trip
*Colloquium only
*4-days field trip only

## **IMPORTANT!**

Please copy both the E-mail addresses below and paste them into your E-mail box. Then send this PARTICIPANT FLIGHT PLAN after filling it.

igcp638@univ-rennes1.fr atika.ferhoum@asga.dz