

**L'histoire des déserts et des lacs tropicaux:  
Paléohydrologie, Géochimie Isotopique, Climat et Sociétés  
*Symposium en hommage à Françoise Gasse (1942-2014)***

**Tropical deserts and lakes through time  
Paleohydrology, Isotope geochemistry, Climate & Societies  
*Symposium in memory of Françoise Gasse (1942-2014)***

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**PROGRAMME / PROGRAM**

**1<sup>er</sup> Juillet / 1<sup>st</sup> July 2015**

8:30am: ACCUEIL/ WELCOME

9:00am: Nicolas Thouveny - Florence Sylvestre

Introduction

9:30am: Maurice Taieb - Claude Hillaire-Marcel

Les grandes étapes de la carrière de Françoise The main periods of Françoise' career

**Session 1: Les diatomées & les isotopes de la silice biogénique**

**Diatoms & Biogenic silica Isotops**

**Modérateurs/Chairmans: Christine Paillès - François Nguetsop**

10:00am: **Key-note speaker** Sherilyn Fritz

Insights on diatoms, hydrology, and climate from the career of Françoise

10:30am: Christine Cocquyt

The importance of Françoise Gasse for the diatom research in Africa

10:45am: Françoise Chalié, Vincent Roubeix, Françoise Gasse

Diatoms-hydrochemistry transfer functions in intertropical Africa: past, present and future developments.

11:00am: PAUSE CAFÉ / COFFEE BREAK

11:30am: **Key-note speaker** Philip Barker

Diatoms and their stable isotopes: applications in East Africa

12:00pm: Benjamin Quesada, Florence Sylvestre, Françoise Vimeux, Jessica Black, Christine Paillès, Corinne Sonzogni, Anne Alexandre, Pierre-Henri Blard, Alain Tonetto, Jean-Charles Mazur, Hélène Bruneton

Impact of Bolivian paleolake evaporation on the  $\delta^{18}\text{O}$  of the Andean glaciers during the last deglaciation (18.5-11.7 ka): diatom-inferred  $\delta^{18}\text{O}$  values and hydro-isotopic modelling

12:15pm: Anne Alexandre, Christine Pailles, Corinne Sonzogni, A. Peter Kershaw, Raphael A.J. Wust, Chris S.M. Turney

$\delta^{18}\text{O}$  signature of phytoliths from the last interglacial Lynch's Crater sediments (QLD, Australia): insight on changes in precipitation sources.

12:30pm: DÉJEUNER & POSTERS AU FORUM / LUNCH & POSTERS AT FORUM

**Session 2: Traceurs isotopiques & cadre chronologique des hydrosystèmes/  
Isotopic tracers & chronological framework in hydrosystems**  
*Modérateurs/Chairmans: Jean-Luc Michelot - Abdel Benkaddour*

14:30pm: **Key-note speaker:** Claude Hillaire-Marcel

Late Quaternary Gregory Rift paleosoils and paleolakes: their evolution and dating

15:00pm: Kamel Zouari, Najiba Chkir

Paleohydrology of endorheic basins in Southern Tunisia during Upper Quaternary

15:15pm: Christiane Causse

Paleoclimatic continental archives: traces of major events during the last million years

15:30pm: Elisabeth Gibert-Brunet, F. Barbecot, Piotr Tucholka, Wei Keqin, Lin Ruifen, Françoise Gasse, Alina Tudryn, M. Gillon

Palaeoenvironmental reconstruction of Late Quaternary deposits from Lake Aibi (Dzunggary, North-Western China).

15:45pm: PAUSE CAFÉ / COFFEE BREAK

16:15pm: **Key-note speaker:** Asfawossen Asrat Kassaye & Andy Baker

High-resolution, multi-proxy, Late Quaternary speleothem records from the Mechara caves, Southeastern Ethiopia

16:45pm: Matthieu Carré, Moufok Azzoug, Paul Zaharias, Abdoulaye Camara, Rachid Cheddadi, Amadou Gaye, Serge Janicot, Myriam Khodri, Juliette Mignot, Nancy Mitma, Nicolas Patris, Malick Wade

Rainfall in the Sahel and global temperature: lessons from a 1500-year long paleoclimate record

17:00–19:00pm: Table ronde avec le comité scientifique, publication du symposium, organization d'autres colloques, sessions de congress etc

Round table with the scientific committee: publication of the symposium, organizing further tributes, special sessions,

20:00pm: DINER/ DINNER IN AIX-EN-PROVENCE

**2 Juillet / 2<sup>nd</sup> July 2015**

**Session 2: Traceurs isotopiques & cadre chronologique des hydrosystèmes/  
Isotopic tracers & chronological framework in hydrosystems**  
*Modérateurs/Chairmans: Laurent Bergonzini - Asfawossen Asrat Kassaye*

9:00am: **Key note speaker:** Dagnachew Legesse

Isotope-enabled coupled catchment-lake water balance model, IWBMiso: description and validation

9:30am: Christine Vallet-Coulomb, Dagnachew Belachew Legesse, Magali Troin, Eduardo Piovano, Florence Sylvestre, Françoise Chalié.

Simulating lake level, salinity and isotopic composition for understanding the climatic forcing of hydrological variations: case studies from tropical areas

9:45am: Abdelfattah Benkaddour, Rachid Adallal, Ali Rhoujjati, Emmanuel Chapron, Rachid Cheddadi, Christine Vallet-Coulomb, Thierry Courp, B. Hebert, H. Idabdellah, Guillaume Jouve, Sébastien Marguerite, Samuel Meulé, Corinne Sonzogni, Florence Sylvestre & Laurence Vidal. Limnological and hydrochemical preliminary results from Azigza lake, Middle Atlas Morocco

10:00am: Benjamin Ngounou Ngatcha, Guillaume Favreau, Christelle Marlin, Jean-Paul Dupont, Jacques Mudry  
Isotopes techniques for monitoring depressed water table in sub-Saharan Africa: the case of Yaérés plain in the Lake Chad basin

10:15am: PAUSE CAFÉ / COFFEE BREAK

### **Session 3: Paléolimnologie et Paléohydrologie** **Paleolimnology and Paleohydrology** *Modérateurs/Chairmans: Philip Barker - Sherilyn Fritz*

10:45am: **Key note speaker** : Daniel Olago, David Williamson and the CLAREA team  
Tropical lakes as key observatories of climate and social impacts over hydro-and ecosystem resources: a tribute to Francoise Gasse

11:15am: Sarah Coffinet, Arnaud Huguet, Nikolai Pedentchouk, David Williamson, Laurent Bergonzini, Pierre–Etienne Mathé, Fatima Laggoun-Défarge, Hughues Boucher, Amos Majule, Catherine Masao, Thomas Wagner & Sylvie Derenne  
RESON\*: A 4000 yr ecosystem multi-proxy record from the Kyambangunguru crater marsh (Rungwe volcanic province, Tanzania).

11:30am: **Key note speaker**: Suzanne Leroy and many co-authors  
The Caspian Sea, this mysterious sea!

12:00pm: Laurence Vidal & Lucilla Benedetti and all contributors from CEREGE, IPGP, ECOLAB, AUB, CNRS-L  
The Yammouneh basin (Lebanon): active faulting and climate change at work over the last 400 kyr"

12:15pm: DÉJEUNER & POSTERS AU FORUM / LUNCH & POSTERS AT FORUM

### **Session 4: Paléoclimats, moussons et sociétés** **Paleoclimates, monsoons and societies** *Modérateurs/Chairmans: David Williamson - Benjamin Ngounou Ngatcha*

14:00pm: **Key-note speaker**: Timothy Shanahan  
Forcings, feedbacks and the evolution of the West African monsoon over the past 21,000yrs.

14:30pm: Stefan Kröpelin  
Trou au Natron and Era Kohor: the unresolved paradox of the Tibesti crater palaeolakes (N Chad)

14:45pm: Alain Durand, Zibo Garba, Mathieu Le Coz, Benjamin Ngounou Ngatcha, David Sebag  
Holocene paleohydrography and geological structures in the Lake Chad Basin : the Tafassasset « River » (Niger), the Angamma « delta » (Chad), the captures of the Logone River (Cameroon and Chad)

15:00pm: Victor François Nguetsop, Ilham Bentaleb, Charly Favier, Céline Martin, Sophie Bietrix, Simone Servant-Vildary, Michel Servant  
Past climatic changes during the middle and late Holocene in Adamawa plateau (Northern Cameroon) based on multiproxy analyses.

10:15am: PAUSE CAFÉ / COFFEE BREAK

15:45pm: **Key note speaker (schedule subject to change):** Pascale Braconnot  
Sahel precipitation in past climate simulations

16:15pm: Cécile L. Blanchet, Camille Contoux, Guillaume Leduc  
Runoff and precipitation dynamics in the Blue and White Nile catchments during the mid-Holocene : a data-model comparison

16:30pm: Alice Novello, Anne-Elisabeth Lebatard, Abderamane Moussa, Doris Barboni, Florence Sylvestre, Didier L. Bourlès, Christine Paillès, Guillaume Buchet, Alain Decarreau, Philippe Durringer, Jean-François Ghienne, Jean Maley, Jean-Charles Mazur, Claude Roquin, Mathieu Schuster, Patrick Vignaud  
Diatom, phytolith, and pollen records from a  $^{10}\text{Be}/^{9}\text{Be}$  dated lacustrine succession in the Chad basin: Insight on the Miocene–Pliocene paleoenvironmental changes in Central Africa

16:45pm: Camille Contoux, Gilles Ramstein, Anne Jost, Mathieu Schuster, Pierre Sepulchre, Florence Sylvestre  
New constraints on Mega Lake Chad episodes during past warm periods and their implication for early humans

17:00pm: **Key note speaker:** David Kaniewski & Elise Van Campo  
Is the climate a motor of societal evolution?

17:30pm: Christophe Morhange & Nick Marriner  
Neo-catastrophism and coastal geoarchaeology in the Mediterranean Sea: a dangerous liaison?

18:00pm: CLOTURE DU SYMPOSIUM / END OF SYMPOSIUM

## LISTE DES POSTERS – POSTER LIST

L. Bergonzini, P-E. Mathé, M. Delalande-Le Mouëllic, F. Gherardi, E. Abdallah, S. Kajula, A. Noret, M. Thiongo, H. Neufeldt, E. Mbede & D. Williamson  
RESON: CO<sub>2</sub> flux, stable isotope geochemistry and self-potential (SP) anomalies investigation of the Shiwaga “Mazuku” CO<sub>2</sub> vent (Rungwe Volcanic Province, SW Tanzania)

M. Delalande-Le Mouëllic, F. Gherardi, D. Williamson, S. Kajula, P-E. Mathé, R. Demesmay, A. Majule & L. Bergonzini  
RESON: Temperature profiles and CO<sub>2</sub> contents in Lake Ngozi (SW Tanzania) stress an environmental risk management priority

N. El Hamouti, W. J Fletcher & C. Zielhofer  
Lake *Aguelmane* Sidi Ali, Middle Atlas Morocco, Holocene diatom evidence

Z. Garba , A. Durand , J. Lang & D. Sebag

Paleoenvironments deduced from silici-clastic sediments analysis : the depression of Termit-west of lateglacial in middle Holocene (Sahara/Sahel limit in Niger NE)

E. Gibert-Brunet, F. Gasse, P. Tucholka, L. Ruifen, W. Keqin, W. Zhixiang, A. Tudryn, C. ZhiYuang & E. Van Campo

Palaeoenvironmental reconstruction of Late Quaternary deposits from Lake Aibi (Dzunggary, North-Western China): A 16-ky evolution inferred from multi-proxy analyses for sedimentary cores

C. Lécuyer, A.-M. Lézine, F. Fourel, F. Gasse, F. Sylvestre, C. Pailles, C. Grenier & Y. Travi  
I-n-Atei paleolake documents past environmental changes in central Sahara at the time of the Green Sahara: charcoal, carbon isotope & diatom records

A. Mahamat Nour, P. Deschamps, C. Vallet-Coulomb, C. Bouchez, C. Poulin, A. Guihou, B. Hamelin, J.C. Doumnang, B. Ngounou Ngatcha, F. Sylvestre

Elemental and isotopic characterization of the dissolved load of the Chari-Logone system, Lake Chad Basin

B. Mansour, N. Yahiaoui, A. Hamadai, S. Benalou & M. Mahboubi

Une butte témoin des dépôts lacustres d'âge holocène de l'Erg Er Raoui (nord-ouest du Sahara algérien) : principaux enseignements

A. Matokeo, J. Lyimo, S.Kajula, C.Lelong, P.-E. Mathé, A. Majule , P. Vaast & D. Williamson

RESON: Land cover changes along tropical highland agroforestry systems call for an improved climate adaptation

F. Nivet, L. Bergonzini, L. Diemer, P-E. Mathé, S. Kajula, P. Ngingo, S. Mwasomba, A. Noret, A. Majule & D. Williamson

RESON: 3-year records of rainfall isotopic composition from 3 stations of the Rungwe volcanic province (SW Tanzania)

V.Roubeix & F.Chalié

Paleolimnological reconstruction at a seasonal timescale: an alternative use of diatom transfer functions

F.Sylvestre, P. Deschamps, N. Waldmann, K. Tachikawa , P. Do Amaral, A. Alexandre, E. Bard, C. Bouchez, D. Delanghe-Sabatier, J.C. Doumnang, M. Garcia, J.C. Mazur, G. Menot, A. Moussa, A. Mahamat Nour, C. Paillès, R. Rirongarti, F. Rostek, A. Vincens & N. Thouveny

Coherent monsoonal changes in the northern tropics during the African Humid Period revealed by Lake Chad sedimentary archives

A. Tudryn, P. Tucholka, F. Gasse & « Insu-Dytec » and « Understanding the Caspian Sea erratic fluctuations » Projects Members

Magnetic and clay minerals in Late Quaternary Caspian Sea sediments

C. Vallet-Coulomb, H. Delattre, C. Sonzogni, Y. Cherain & Olivier Boutron

Evaluating the application of the Craig and Gordon model by using laser-based measurements of atmospheric vapor isotopic composition.