8.45 am Welcome by M. Routhiau & C. Robion-Brunner

9am-9.45am

## From the last hunter-gatherers to the first herders in the Rift Valley: three ongoing research programmes...

Jessie Cauliez (CNRS, TRACES), Lamya Khalidi (CNRS, CEPAM) et Clément Ménard (musée Tautavel).

The laboratory of reflection for three research programmes, PSPCA in Djibouti (TRACES), Late Stone Sequence in Ethiopia (TRACES) and VaporAfar (CEPAM) in Ethiopia, is that of the Rift Valley, where a major climatic event, a phase of hyperaridity known as the Big Dry, led to the massive extension of desert zones and the reduction of the tropical forests during the last glacial maximum between 23 and 15,000 BCE. A few thousand years later, from the 4/3rd millennium BCE, the first societies with a production economy were established under the constraint of a climate that had once again become very degraded by a new warming. Differential chronology, rhythms, technical innovations, plurality of subsistence economy models according to environmental biodiversity, demography, human and animal biological variability, settlement dynamics, and exchange networks are documented in these three complementary research programmes, which work on the description of the transition between the last hunter-gatherers and the first stockbreeders, from the end of the Pleistocene to the middle Holocene in this region.

9.45am-10am Discussion

10am-10.20am

## History of woody biodiversity and its exploitation from the end of the Pleistocene to the recent Holocene in the Horn of Africa (14000-4000 BP).

Friyat Angersom (University of Toulouse Jean Jaurès).

The late Pleistocene and Holocene periods witnessed crucial climatic and socio-economic changes in the human history of the region. Their impacts on woody vegetation and practices related to the exploitation of forest species are still very poorly documented due to the lack of archaeobotanical studies in East Africa. A few relatively early palynological studies set the regional and supra-regional palaeoenvironmental framework and contribute to understanding the climatic framework for the Late Pleistocene and Holocene. These sequences nevertheless benefit from low-resolution radiocarbon dates (e.g. Bonnefille et al. 1986, Mohammed 1992, Bonnefille and Mohammed 1994). In order to obtain a direct approach to past forest biodiversity on a local scale, its evolution, and its use by human societies, we wish to study charcoal from archaeological sites. This anthracological analysis is being carried out as part of a Ph.D. thesis supervised by Caroline Robion-Brunner (CFEE) and Aurélie Salavert (MNHN). It will enable us to characterize the woody environment, its dynamics, and its exploitation by humans for fuelwood from the Late Stone Age (LSA) to the Neolithic (14,000-2,000 BP) in the Ethiopian Rift Valley. Therefore, we will (1) establish a modern charcoal repository, as the Horn of Africa has a high rate of endemism and high woody biodiversity, (2) analyze charcoal from 7 archaeological sites currently located in savannah and semi-desert zones: Bulbula 1, Deka Wede (central Rift valley, Ethiopia), Kurub-07 (Afar, Ethiopia), Lakora-03, Raso-02, Hedaito Le Dora and Antakari (Djibouti). In this paper, we will present the context of our thesis, the methods employed, and the studied collection.

10.20am-10.35am Discussion



# History of metals in Ethiopia: Assessment and new archaeological data

Caroline Robion-Brunner (CNRS, CFEE) and Hiluf Berhe (Collège de France).

Our knowledge of the history of metallurgy and metals in Ethiopia and the Horn of Africa is quite limited compared to the rest of Africa. The use of non-ferrous and ferrous metals is attested there during the first millennium B.C. and the discovery of a few ironworking remains, rather in the northern part of the country, shows that iron was produced and transformed into objects from the ancient period until very recently, including the medieval period. In 2018 and 2019, Professor Hiluf Berhe (Mekelle university and Collège de France) and his team discovered and studied an important ironworking site located in the north of the town of Wuqro. Gud Bahri site contains all the steps of the iron metallurgy in a 9-hectare area: mining of hematite-rich veins on a hillside, iron smelting and smithing workshops and a habitat site. Thanks to the pottery identification and the radiocarbon dating, the occupation of the site took place between the 7th-8th and the 11th century AD. In this paper, we review what we know about the history of metals in Ethiopia and present recent archaeological iron discoveries near the town of Wukro.

11.45am-12am Discussion



12pm-12.20pm

## An investigation of metal collections from pre-Aksumite tombs at Yeha: collection from the 1960/61 excavations.

Gizachew Nigusu (University of Addis Ababa).

Burial site of Da'ero Mikael is one of a very significant part in Archaeological site of Yeha along with the great Temple and great palace of Be'al Guebri. It preserved rich intact underground archaeological structures located around these monumental structures dating to the early first millennium BCE. It covers a total area of 250 m<sup>2</sup> located about 300 m to the south east of the Great Temple near to the Valley of Shillanat. The graves are excavated by Francis Anfray in the 1960s and 1970s. There are a series of seventeen rock-cut graves that most likely belongs to the rulers who lived at the palace of Grat Bea'l Geubri. The grave contents of these tombs included abundant pottery, different metal objects including those made out of gold, zoomorphic seals dominantly made up of bronze, other tools such as beads and an alabaster vessel that witness the artistic and technological sophistication of the time. Even though archaeological study of Yeha material culture is studied from the holistic approach of all the collections we have, we do also need to understand the nature of the metal collections further in order to better understand the technology, distinctive metal style of Yeha people specifically, and the function of the metal objects. Very little is known about the metal working in Africa as well as the horn even though there are an enough amount of evidences from varies sites to deal with. The collections are currently most of them presented in ARCCH collection room. In my ongoing study, I'm seeking to establish typological classifications, based on morphological characteristics, ordered according to their chronological or spatial context, or their function. After taking a very deep examination of every possible and necessary measurements of each, I also try here to address the question of the primary function of these objects, and to relate the functional types obtained in their context of discovery. The technology of workmanship is also another important aspect try to look in to even though there is a very gap of information currently.

#### 12.35pm-14pm Lunch Break



14pm-14.45pm

Abaya Mission: pursuing and renewing the research on Megalithic Landscape in the Gedeo Zone.

Anne-Lise Goujon (CFEE) and Vincent Ard (CNRS).

The Megalithism of the Horn of Africa is one of the richest and most exceptional on the African continent, particularly in terms of its engraved stelae. Archaeological research conducted on the monuments of central and southern Ethiopia (tumuli, "dolmens", stelae in funerary or other contexts) has revealed the flourishing of these megalithic societies between the 8th and 15th centuries. In February

2018, in the framework of the production of a documentary, a new large-scale mission co-directed by Vincent Ard and Anne-Lise Goujon, was set up in the Gedeo and Guji areas (SNNPR and Oromyia regions), on the eastern foothills of Abaya Lake. In order to pursue the research started by Roger Joussaume's team in the 1990', this 2018 mission aimed to collect new data and implement new study methods: discovery of new sites, inventory of the geological nature of the stelae, extraction sites survey and study of stelae traces to determine the shaping and transport techniques, geophysical survey revealing the existence of unknown structures, excavations and of new sites and 3D modelling of the best-preserved sites. The results and perspectives of this program will be presented.

14.45pm-15pm Discussion

15pm-15.20pm

#### Local Memory and Megalithism in the Central Highlands of Ethiopia

Alebachew Belay (University of Dabra Berhan).

For a quite long time in the history of archaeology, considering the collective understanding of the local community where an archaeological project implemented is limited. This is especially true when it comes to the continent Africa which has been considered as a "dark continent" as a result of the recent history of written culture. However, now a day ethnographic data is found to be complementary to archaeological data, especially for the archaeology of historical periods and that's why the emerging sub-discipline in archaeology called community archaeology gives greater attention towards making the community around involved in various ways in the course of every archaeological project. Although it has the oldest written culture in sub -Saharan Africa, Ethiopia has cultures and periods in the past with little or no historical information. In this regard, megalithic culture in the Central Highlands of Ethiopia that belongs roughly to the medieval period but is devoid of historical information is a case in point. During the fieldwork for my Ph.D. study, I gave due emphasis to documenting oral and living aspects of the local memory related to megalithism in the region. Even though it is difficult to take all the cases for a grant, there are lessons to draw about the intra - and inter-regional as well as global connections.

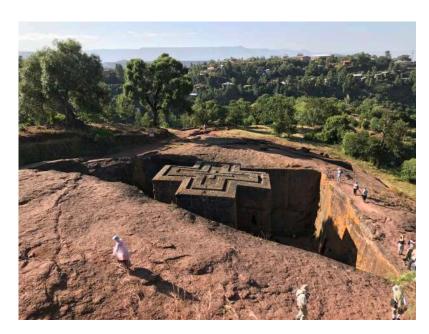
15.35pm-16pm Break

16pm-16.45pm

#### Research at Lalibela (Ethiopia): anomalies, spoils and manuscripts.

Marie-Laure Derat (CNRS, Orient et Méditerranée) and Romain Mensan (TRACES).

Research on the site of the rock churches of Lalibela began in 2009 with the aim of rethinking its place in the territorial history of the Ethiopian kingdom, as a possible capital and religious centre, and in the history of the Christianisation of Ethiopia. This implied finding the means to date the monuments, by questioning the synchrony or otherwise of their excavation; to identify the culture that prevailed before Christianisation; to study the objective elements that make it possible to induce the presence of a royal court in these places, or in the vicinity, and the inclusion of the site in a network of political, religious and economic relations at the regional and kingdom levels. From the outset, the Lalibela mission therefore chose a plural approach, involving specialists from various disciplinary backgrounds, in order to go beyond an architectural and stylistic study of



the rock-hewn monuments. Three different and complementary methodological approaches will be presented in the course of the presentation, which will enable us to take a new look at the site and to refine the questions: the reading of anomalies on the monuments, which enabled us to establish a phasing of the excavation; the excavations in the rubble resulting from the excavation of the monuments, which enabled us to uncover a secular occupation in the vicinity of the monuments, also in synchronicity; and the analysis of the manuscripts, whose data resonate with the archaeological results.

16.45pm-17pm Discussion

 $17pm\hbox{-}17.20pm$ 

### Troglodytism and rock-cut activity in various forms: current research in the Ethiopian Highlands.

Manon Routhiau (University of Toulouse Jean Jaurès, TRACES).

The talk will focus on research conducted as part of the PhD's proposal in Archaeology on rock-hewn activity and troglodytism culture in Ethiopia. Begun in October 2019, the subject of this thesis has evolved in response to initial findings from fieldwork. The subject has also had to be accommodated according to the geopolitical situation on the Ethiopian territory, forcing to review the approach of the subject without access to the field. It is now a question of carrying out a census of data concerning all the anthropic forms of a troglodytic culture and rock activity on Ethiopian territory. In the footsteps of the Lalibela team, the aim is to understand their settlements and their evolution over time and space, of which the best known and most widespread form seems to be the rock churches. In this paper, we review on how the research is currently being carried out, what the objectives are and what the initial reflections are.

17.20pm-17.35pm Discussion and end of day.