

---

# Records of AHP in the Northern Farafra depression inferred from geoarchaeological and sedimentological study

Mohamed A. Hamdan<sup>1</sup>, Barbara E. Barich<sup>2,3</sup>, and Giulio Lucarini<sup>\*†4,5,2</sup>

<sup>1</sup>Cairo University, Cairo, Egypt – Égypte

<sup>2</sup>International Association for Mediterranean and Oriental Studies (ISMEO), Rome, Italy – Italie

<sup>3</sup>Rome Sapienza Foundation, Italy – Italie

<sup>4</sup>Institute of Heritage Science, National Research Council of Italy (ISPC-CNR), Rome, Italy – Italie

<sup>5</sup>University of Naples “L’Orientale”, Naples, Italy – Italie

## Résumé

During the Early and Mid-Holocene, the now hyperarid Wadi el-Obeiyid in the Northern Farafra depression experienced phases of favorable climate with rainfall that resulted in the formation of playa lakes and abundant grass vegetation. Starting from the earliest phases of the Holocene, the region was reoccupied by human groups after the abandonment during the Late Pleistocene. This paper presents the results of the geoarchaeological survey integrated by geomorphological and sedimentological investigations carried out along the Wadi el-Obeiyid, with particular regard to the Sheikh el-Obeiyid and Quss Abu Said areas. Three phases of playa corresponding to three occupation phases intermingled with two deflation scree layers, corresponding to wet and dry climatic conditions, were recorded in these areas. Playa PI is recorded at the wadi floor starting from ca. 11,000 cal. BP and it ends with Scree 1, possibly corresponding with the 8.2 ka BP arid event. The new humid phase, corresponding to Playa PII, starts at Sheikh/Bir el-Obeiyid from ca. 8000 cal. BP and shows the presence of slab structure sites and lithic production belonging to the so-called bifacial tradition. Both sedimentological and palaeobotanical features indicate that during this period the Wadi el-Obeiyid benefitted from winter Mediterranean rainfall. A short dry episode (Scree 2, ca. 7100 cal. BP) falls between Playa PII and Playa PIII which is dated from ca. 6400 to 6100 cal. BP. This points to a final Mid Holocene exploitation phase of the area, probably by small groups of herders who periodically visited the region when the climate was already starting to deteriorate. The sedimentological characteristic of Sheikh/Bir el-Obeiyid playa sediments record several cyclic depositional episodes, each composed of (1) initial high-stand, followed by (2) a long episode of ephemeral lake sediment accumulation, and finally (3) lake shrinkage and prolonged exposure and sand dune accumulation. During the late Holocene, the climate was generally arid and groundwater-supported lakes replaced the rain-fed playas of the early-mid Holocene. After 4500 cal. BP, the playa basins became dry when the lake dried up and humans abandoned the area. The observations reported here, compared with the paleoenvironmental sequence already established for other areas along the Wadi el-Obeiyid (El Bahr, Hidden Valley), and the 14C dates available, will allow a more precise correlation between environmental and population changes.

---

\*Intervenant

†Auteur correspondant: giulio.lucarini@cnr.it

**Mots-Clés:** Farafra, Egypt, Holocene, AHP, Geoarchaeology