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Farafra Oasis between the Sahara and the Nile

In these last years research was continued at Farafra Oasis by the archaeological Mission of the University of Rome "La Sapienza", which has been running regular field-campaigns since 1987. The first research cycle, in the 1987-1991 period, was aimed towards a general geo-archaeological assessment of the region. Currently more in-depth studies are being done.

The Mission combines a territorial survey in a range of about 100 km with traditional excavation. The first type of research was necessary for an adequate understanding of territorial exploitation and of settlement patterns achieved by prehistoric groups. For the same reason a strong emphasis was put on the paleoenvironmental and paleoclimatic reconstruction, giving evidence of a humid and arid phase alternation inside the depression, which affected both the concentration and dispersion of human groups. These objectives have already been illustrated in previous publications (Barich & Hassan 1987; 1990; Barich 1991).

From a general point of view, our research is oriented towards reconstructing the type of economic process that was undertaken locally, and how food production (proto-agriculture) could eventually replace the Late Palaeolithic hunting-gathering practices. Regarding this aspects Farafra does not seem to be much different from other Western Desert centres. The most recent research indicates a diffuse sedentary process inside the Oases, with a following migration flow towards the Nile valley, in the arid phase of the Late Holocene (Barich et al. 1992; McDonald 1991a). Currently the Mission's research is focusing on specific areas of the Farafra depression to define the region's role in the pastoral movements which largely spread through the Sahara in the Middle/Late Holocene, and whose direction was mostly the Nile Valley.

As previously mentioned, the Mission is operating in a geo-archaeological perspective which calls for a strong emphasis on climatic and paleoenvironmental reconstruction. One suggestion by F. Hassan (Barich & Hassan 1987), is based

Laboratory and sample number	Site	Material & amount (gr.)	Conventional Ages $T_{1/2}$ 5568±30	$T_{1/2}$ 5730±40	Calibrated (95% confidence)
R-2006	RJH	ostrich-shell (16.4)	5580 ± 110 B.P.	5530 ± 110	4430-3890 B.C.
R-1895	FA IV	ostrich-shell (39.5)	6670 ± 95 B.P.	6860 ± 100	5885-5285 B.C.
R-1901	BAH 5d	ostrich-shell (48)	6730 ± 60 B.P.	6930 ± 60	5925-5335 B.C.
R-1894	FA II	ostrich-shell (45.7)	6950 ± 60 B.P.	7150 ± 60	6195-5435 B.C.
R-1909	AD XIIIb	ostrich-shell (14.3)	7000 ± 410 B.P.	7210 ± 420	6525-5330 B.C.
R-1902	BAH 2c1	charcoal (16)	8080 ± 60 B.P.	8310 ± 70	7200-6700 B.C.
R-1983	AR exc	charcoal (8.2)	9650 ± 190 B.P.	9930 ± 200	9050-8250 B.C.

Table 1. Farafra Oasis (Western Desert, Egypt).
Radiocarbon dates from different areas of the depression (after Alessio et al. 1992).

on the general framework offered by Western Desert oases and was confirmed by radiocarbon dates from various areas of the depression (Table 1)¹.

The most recent research has provided opportunities for defining such a sequence more thoroughly. The sedimentological analyses of the playas (Mahmoud 1990) indicate abundant rainfall conditions during the Early and Middle Holocene. During these humid phases, which followed each other at intervals of 100-200 years, water reserves formed in various places of the depression developing small lacustrine basins ("minioases") which represented a real mirage for ancient human groups and fauna. Today, we find the fossil vestiges (yardangs) incorporating remains of the ancient settlements of such basins. Working on such an ample range within the depression brought about the detection of various inhabitation nuclei: Qasr Farafra, Ain e-Raml, Abu Kasseb, Rajih, Ain Dalla. Since 1988 a systematic investigation of the Bahr Playa basin/depression along the road leading to Ain Dalla has been underway, which has revealed the great importance of this inhabitation nucleus. It is here, where our most current investigations are being concentrated (Fig. 1).

Bahr Playa is a dry valley located in the northern section of El Quss Abu Said, a rectangular mesa bounded by a steep escarpment cut into the Farafra limestone. It represents the highest flat-topped surface in the region. The area,

¹ Carried out by Prof. G. Belluomini of the CNR and the Department of Earth Sciences of the University of Rome "La Sapienza" (see Alessio et al. 1992).

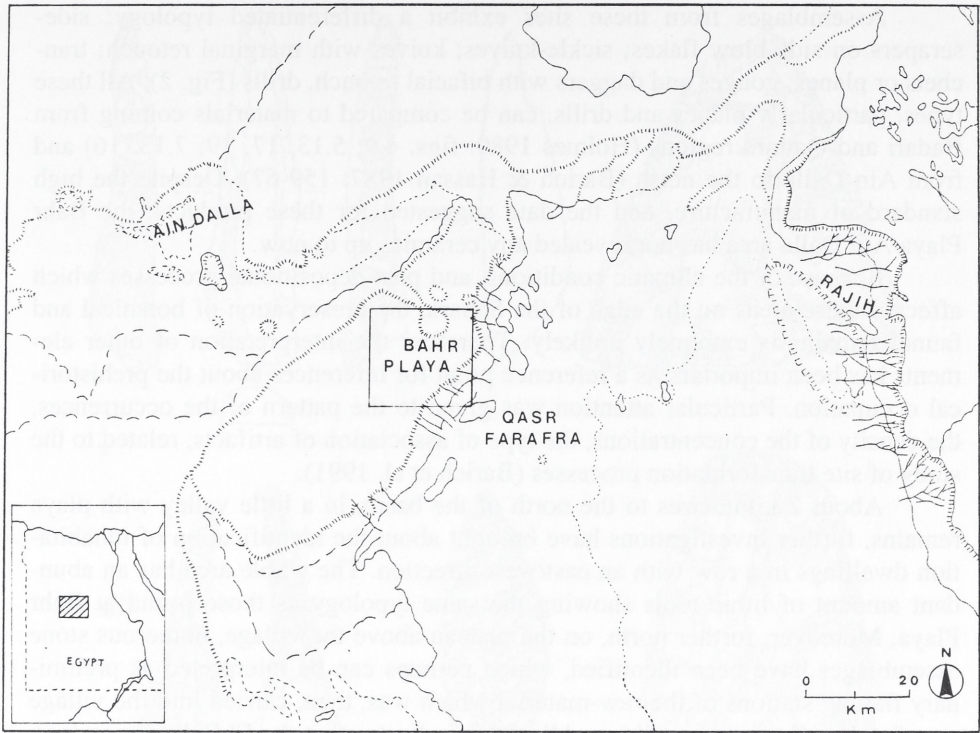


Fig. 1. Location of El Bahr basin within the Farafra.

which extends about 1 km over one of the plateau pediments, represents an ideal sample for carrying out a territorial-type investigation, evaluating the interconnections, both in horizontal and vertical dimensions, among the assemblages: true archaeological layers brought to light by the post-depositional processes of the playas. A general reconnaissance of the basin allowed for defining five occupation areas indicated by various concentrations of tools, interpreted as workshop areas, fireplaces, possible foundations of dwellings, stone artifact "assemblages". The beginning of the inhabitation sequence can surely be dated to the Early Holocene, chronologically indicated by the date in the ninth millennium (8080 ± 60 ; R-1902). The remains belonging to this phase are included in the lower layer of the playa in direct contact with the bedrock (e.g. workshop 2A; concentration 5E). Site 2A yielded over one thousand debitage products showing a definite Epi-Palaeolithic blade and bladelet technology. The C 14 dating from charcoals collected in situ, currently underway, could confirm this attribution.

The most intense occupation phase at Bahr Playa can be placed in the Mid-Holocene (date 6730 ± 60 ; R-1901) and has been documented by the majority of the concentrations picked up until now (sites: 2B, 2G, 3A, 4C, 5E).

Assemblages from these sites exhibit a differentiated typology: side-scrapers on side-blow flakes; sickle-knives; knives with marginal retouch; tranchets or planes; gouges and daggers with bifacial retouch, drills (Fig. 2). All these types, particularly planes and drills, can be compared to materials coming from Badari and Qattara regions (Holmes 1989: figs. 4.9; 5.13, 17, 19; 7.13, 16) and from Ain Dalla to the north (Barich & Hassan 1987: 159-67). Despite the high standard of manufacture, and the date suggested for these products, the Bahr Playa/Ain Dalla area has not revealed any ceramics up to now.

Because of the climatic conditions, and post-depositional processes which affected these areas on the edge of the Sahara, the preservation of botanical and faunal remains is extremely unlikely. Therefore the interpretation of other elements has been important as a reference point for inferences about the prehistorical occupation. Particular attention was given to the pattern of the occurrences, the density of the concentrations, the type of association of artifacts, related to the study of site transformation processes (Barich et al. 1991).

About 2 kilometres to the north of the basin, in a little valley with playa remains, further investigations have brought about the identification of inhabitation dwellings in a row with an east/west direction. The whole area has an abundant amount of lithic tools showing the same typology as those found at Bahr Playa. Moreover, further north, on the plateau above the village, numerous stone assemblages have been identified, which perhaps can be interpreted as preliminary flaking stations of the raw-material which was, then, carried into the village area for the subsequent working. All of this indicates that the El Bahr region took on progressive importance as a "strategic" occupation nucleus in the interior of the Farafra depression. However, such phenomenon is to be evaluated in a more general perspective, in the framework of the transformation of occupational model of the entire region.

The various patterning of remains thereof inside the depression, interpreted on the archaeological ground - that is, in terms of behaviour - shows a modification of human tendencies, with a progressive trend towards sedentarization. A progressive process of settlement stabilization can be reconstructed, with a major, prolonged stability on the territory which allowed for the transformation of the economic model from procurement strategies (hunting integrated by early domestication experiences) to proto-agricultural forms, in the areas favoured by the presence of spontaneous wild plants.

In defining the regional framework it is fundamental to recognize the transformation undergone by the precipitation regime which conditioned the peopling of the area. About 10,000 years ago there was a humid phase, of irregular and violent rains, whose duration can be estimated to about 8,600 years B.P. During this phase the human groups moved along a rather extended circuit, reaching the various oases of the Western Desert without excluding excursions towards the Saharan plains. Such movements, in search of wildlife and pastures for the first herds were determined, in fact, by the extreme variability of the pre-

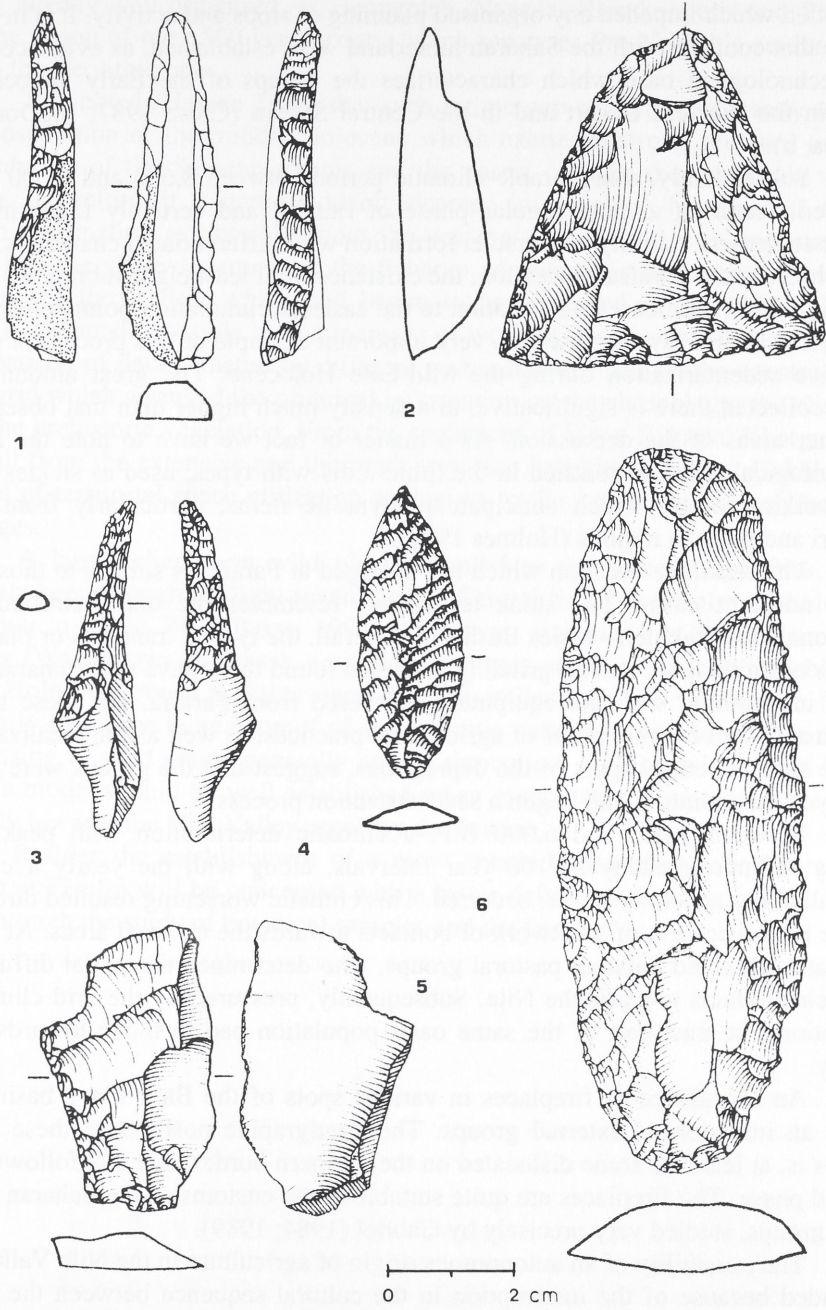


Fig. 2. Farafra Oasis. Stone artifacts from El Bahr basin.
 1, 3: drills; 2: tranchet-axe; 4: arrow-head; 5: side-scraper; 6: plane.

precipitation which impeded any organised planning of stops and activity. It is in this phase that contacts with the Saharan hinterland were established, as evidenced in the technological base which characterizes the groups of the Early Holocene, both in the Western Desert and in the Central Sahara (Close 1987; McDonald 1991 a, b).

Subsequently, a favourable climatic period between 8,600 and 7,000 B.P. occurred, featuring a more regular phase of rainfall and certainly favouring a major settlement stability with nuclei formation with differentiated characters. On the whole, in the Farafra depression, the existence of at least eight subregions can be suggested ("minioases") in relation to the easier accumulation points of drainage water. Bahr Playa represents a very important example of this process of progressive sedentarization during the Mid-Late Holocene. The great amount of tools collected there is significant, in a density much higher than that observed in other areas of the depression. As a matter of fact we have to note the high technological standard reached in the lithic tools with types, used as sickles and for working wood, which anticipate predynastic items, particularly from the Badari and Nagada regions (Holmes 1989).

The resulting situation which has emerged at Farafra is similar to those of other northern oases. The stone technology resembles the one identified by McDonald for Dakhleh - facies Bashendi. Overall, the typical tranchets or planes, blades or knife-saws, and all grinding materials found there have many characteristics in common with the equipment recovered from Farafra. All these tools which act as an indirect proof of agricultural practices, as well as the localization of the sites in central spots of the depressions, suggest that the groups were sedentary at that point, or had begun a sedentarization process.

Between 7,000 and 6,000 B.P. a climatic deterioration with peaks of aridity at approximately 50/100 year intervals, along with the yearly average rainfall being generally lower, occurred. This climatic worsening resulted directly in the intensification of a network of contacts towards the external areas. At first the oases attracted Saharan pastoral groups, who determined the initial diffusion of their products towards the Nile. Subsequently, pressured by the arid climatic conditions, at least part of the same oasis population had to move towards the valley.

An abundance of fireplaces in various spots of the Bahr Playa basin reveals an intrusion of external groups. The stratigraphic position of these fireplaces is, at least for some dislocated on the northern border, one that follows the humid phase. The fireplaces are quite suitable to the customs of the Saharan pastoral groups, studied very precisely by Gabriel (1984; 1989).

The possibility of an autonomous origin of agriculture in the Nile Valley is excluded because of the interruption in the cultural sequence between the Pre-Neolithic settlements (which date previously to 7,100 B.P.) and the Neolithic ones. The latter appear suddenly in the Fayum immediately after 6,500 B.P., while the period between 6,500 and 5,000 bears witness to flourishing neolithic

sites, already well organised, as Hemamieh, Nagada, Hierakonpolis and Badari. Hence, a gap of over 500 years exists, which separates Pre-Neolithic settlements from the Neolithic ones.

It is noted (Hassan 1988) that such a time gap corresponds exactly to the arid oscillation of the middle Holocene which exerted a strong pressure on the equilibrium of the Saharan groups and the oases, pushing them towards water zones. Therefore, it is understandably deemed important to have access to as much information as possible about the western region. And it is important to note that the acknowledgment of the Saharan contributions to the neolithization process of the Valley, which had begun to be discussed in the 1970's (Hays 1975), was made possible by the increase of work in the Western Desert, by the comparison of data gathered by different research teams and by the construction of a grid which arranged the principal information on the chronology, the climate and the prehistoric vegetation. From the sequences of Siwa, Baharia, Kharga, but overall from the extensive and thorough sequence brought to light at Dakhleh, a model of territorial space utilization analogous to the one recognized at Farafra emerges.

A large reliance on wild plants, parallel to the pastoral activities, has recently been brought to light regarding the Central Saharan peoples (Schultz & Adamou in press; Wasylikowa 1993). Moreover, according to the most recent results (Wasylikowa in press), a similar economic status is also attributable to Early Holocene groups at Nabta since the ninth millennium B.P.² Therefore, from the Early Holocene there is proof of an economic pattern associating gathering to processing of wild plants generally spread throughout the Central Saharan belt. Such a model should be well established when groups started moving more frequently towards the Nile Valley urged by desiccation.

Besides the establishment of a more detailed chronology our future research at Farafra will be concerned with a better definition of the economic pattern through the study of botanical samples and the fauna.

² These results do not confirm the presence of barley and wheat previously recognised (see Close 1992: 165-166).

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Between the Nile and the Nile - Djara: Rabut's Cave in the Western Desert

The area of Farafra Oasis in the Western Desert, situated in the Libyan Desert, is one of the most arid and inhospitable regions in the world. It is a vast, flat, sandy plain with no permanent water sources. The only water available is from the Nile River, which flows through the desert from the south. The area is characterized by extreme temperatures, with high daytime temperatures and low nighttime temperatures. The soil is very dry and lacks nutrients, making it difficult for plants to grow. The area is also sparsely populated, with only a few small settlements and nomadic camps.

Archaeological excavations in the area have revealed a rich cultural heritage. The most important site is Rabut's Cave, which has yielded a large number of artifacts, including tools, weapons, and jewelry. The artifacts are dated to the Neolithic period, around 10,000 years ago. The site is located in a small, rocky outcrop in the desert. The cave is a simple, rectangular structure made of mud and stone. It has a single entrance on the north side. The interior of the cave is filled with artifacts, including a large number of flint tools, a bone arrowhead, and a piece of pottery. The site is also surrounded by a low wall made of mud and stone.

The main structure of the site is a large, rectangular building made of mud and stone. It has a single entrance on the north side. The interior of the building is filled with artifacts, including a large number of flint tools, a bone arrowhead, and a piece of pottery. The site is also surrounded by a low wall made of mud and stone. The artifacts are dated to the Neolithic period, around 10,000 years ago. The site is located in a small, rocky outcrop in the desert. The cave is a simple, rectangular structure made of mud and stone. It has a single entrance on the north side. The interior of the cave is filled with artifacts, including a large number of flint tools, a bone arrowhead, and a piece of pottery. The site is also surrounded by a low wall made of mud and stone.

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