



Book review, *From Lake to Sand — The Archaeology of Farafra Oasis, Western Desert, Egypt*, edited by Barbara E. BARICH, Giulio LUCARINI, Mohamed A. HAMDAN and Fekri A. HASSAN, Sapienza University of Rome, Dipartimento di Scienze dell'Antichità; Ministry of Antiquities, Egypt; Firenze, All'Insegna del Giglio, 2014, 503 pp., €60.00 (paperback), ISBN 978-88-7814-520-7.

Starting from its title, this volume highlights the importance of environmental changes and emphasizes the central contribution to archaeology in the research carried out in the oasis of Farafra, in the Egyptian Western Desert, under the coordination of Barbara Barich and Fekri Hassan between 1990 and 2005. The book consists of 7 parts and is divided into 19 chapters, together with an introduction and a concluding section, for a total of about 500 pages.

In her introduction, Barich offers a concise history of the research carried out by the University of Rome La Sapienza over more than fifteen years, identifying among the most significant results the construction of a visitor centre in Qasr Farafra and the active participation to the creation of the White Desert National Park. Barich underlines how among the guidelines of her project were precisely the safeguard, conservation and protection of an important archaeological context in a desert environment. On the historical level, she stresses how Farafra provides the first evidence of “direct” relations between the oases and the Nile Valley, especially during the wettest phases of the Holocene.

In the introducing chapter (1), Barich provides a summary of excavations and surveys activities, in the contexts of Sheikh el Obeiyid, Hidden Valley and in the Farafra Cave. Part I, composed of three chapters, presents the historical context and the main archaeological aspects. In chapter 2, Van Peer analyses the Middle Stone Age occupation: based on two short surveys, the work indicates a scarce presence of MSA artefacts, especially when compared to other contexts of the Western Desert.

In chapter 3, Barich still holds the hypothesis of a local proto-domestication of cattle (generally rejected in the current debate) and summaries the main lines of the archaeological sequence, taking up what proposed by Wendorf and associates in their last contributions. In chapter 4, Cappozzo and Palombini present a brief revision of the historical occupation of the oasis.

Part II focuses on the geology and geomorphology of the landscape. In chapter 5 Hassan and colleagues reconstruct the geomorphology of the study area, identifying a playa deposition phase of particular relevance between 9650 and 6670 uncal BP.

Part III is dedicated to the Wadi El Obeiyid playa. In chapter 6, Hamdan addresses the sedimentological and geomorphological aspects, while in chapter 7 Barich describes in detail the archaeological context and the main features of the study area, in particular the radiocarbon chronology (from 8080 to 4090 uncal BP), with a concentration of dates in the 7th millennium uncal BP. The lack of pottery — a quite particular phenomenon considering its frequency in other similar contexts — is striking, while fragments of ostrich egg-shells are abundant. The area of fieldwork is divided into 5 arbitrary zones (although the methodology used for their definition is rather unclear). The changes and contractions of the lake are crucial to understand the distribution of archaeological features, mostly temporary camps. During the Middle Holocene we record the most significant human occupation. The study of a lithic workshop, located in the area of El Bahr, is the subject of chapter 8, by Barich. In chapter 9, Marina Gallinaro presents a detailed study of combustion structures. The analysis includes the mapping of 98 fireplaces (three of which are dug and dated: 7170±140, 6540±40, 6180±40 uncal BP). The selection of contexts to be excavated was based essentially on the conservation of these highly significant structures. Spatial density analyses in a GIS environment led to the identification of 6 main groups: these, associated with C14 dating and lake variations, suggest seasonal occupations.

The fourth part is dedicated to the Hidden Valley and Wadi el Obeiyid and is opened by a very detailed description of the Holocene sedimentology by Hamdan (chapter 10), aimed at the reconstruction of macro-climatic variations and lacustrine changes.

Chapter 11 is divided in several sections. In 11/1 Barich describes the main features of the Hidden Valley, with special emphasis on the “village”, consisting of a dozen small stone structures of circular shape. Sixty C14 dates were made, which place human occupation

between 7800 and 6000 uncal BP. The site, which is in fact a palimpsest, presents several rather close phases of occupation, “to the extent that we can envisage a form of stable settlement” (p. 203) between about 7200 and 6000 uncal BP. It is during this phase that we record the presence of a bimodal rainfall regime, with Mediterranean winter rains from the north and summer monsoon from the south. Four main phases are described (years uncal BP): phase A) 7600-7250, seasonal; phase B) 7200-6900, wet, torrential rainfall; phase C) 6800-6500, wet with light rainfall; phase D) from 6200 onwards, dry. In the second and third sections of the chapter, Barich and Lucarini analyse in detail the stone artefacts, with an internal division related to the excavation seasons: perhaps a joint presentation with an integrated repertoire would have been more appropriate. Giulio Lucarini also analyses the technology of bifacial products in chapter 11/4. This is a very accurate study in which 105 tools are analysed. Their features suggest possible relations with the Levantine tradition, potentially associated with the introduction of domestic sheep and goats. Lucarini points at a possible symbolic value for these artefacts: in fact, 4 were collected in a single hearth, radiocarbon dated to 6350±85 uncal BP. In the fifth section of chapter 11, Lucarini deals with the “large stone tools” from Hidden Valley: they are 150 millstones and grinders, mostly from surface contexts. Following (11/6), Cristiani presents the results of the functional study of objects made on ostrich egg-shells, including beads. In section 7, Gallinaro presents the systematic study of the fireplaces of this area. These are 21 structures (2 of which excavated), poorly preserved and highly disturbed (mainly by tourists), which confirm the exploitation of the playa during the dry season. The study of material culture also included the techno-functional analysis of bone instruments carried out by Petrucci (11/8). Unfortunately, the state of preservation and functional alteration of the products do not allow the

identification of the animal species used. In the last section (11/9), Barich and Lucarini draw a comprehensive reconstruction of the Hidden Valley occupation phases. In particular, Unit III is characterized by the presence of a lake, frequented by human groups with sheep and goats. Rainfall is not abundant: according to the authors' estimates it should be around 100-150 mm per year. According to geomorphological studies, in the last 6000 years a quantity of deposit varying between 4 and 8 meters has been eroded. The presence of aquatic plants between 7300 and 6800 uncal BP helps to identify a bimodal rainfall regime. According to Barich and Lucarini, the contacts and comparisons that can be highlighted are primarily with the Western Desert to the south-west of Farafra, such as Djara, Dakhla, Kharga (especially in the period 7600-6800 uncal BP). These connections are archaeologically highlighted by the "lens-shaped" arrowheads (perhaps perforators).

Part V collects the studies on food resources used by the inhabitants of Hidden Valley. Ahmed Fahmy (chapter 12) presents the archeobotanical investigation based on the analysis of 87 sediment samples (total volume 105 litres), mostly from fireplaces or similar structures. Many taxa (32) have been identified, with a prevalence of wild cereals, including sorghum, followed by *panicum*, *setaria*, *brachiaria* and so on. In chapter 13, Lucarini presents an interesting and innovative experimental study aimed at understanding the actions implicated in sorghum processing. Analysing the various ethnographically documented techniques, Lucarini builds an experimental protocol tested on both wild and domestic varieties. Manual action on wild species appears to be the most profitable technique, but does not encourage selective pressure. The absence of sickles in Farafra is not surprising: denticulated elements or small un-retouched bladelets could perform the same function, in some way emphasizing the idea of an opportunistic approach.

Achilles Gautier's archaeological study provides very important elements for understanding the mechanisms of introduction of domestic livestock and more generally on the exploitation of animal resources. The absence of domestic cattle stands out. Only 15 fragments are attributed to goat/sheep, 12 of which come from the most problematic portions of the site, given the strong erosion. The context of a mandible of an adult ovicaprid is dated to 7251±67 uncal BP, one of the oldest evidence in Africa.

The sixth part is dedicated to the rock art of Farafra (Cave 1) and Boats Arch: Hamdan and colleagues (chapter 15) suggest, on a geological basis, that the art at Cave 1 was produced around 7000 uncal BP, while in chapter 16 Barich describes in detail the artistic aspects, together with three appendices related respectively to the Boats Arch, a new rock art site in the area (Lucarini, Mariotti), the study of the filling faunas (Kowalski et alii) and the palynological analyses (Schulz), both from Cave 1.

Part VII is dedicated to archaeometry and anthracology. Belluomini and Manfra (chapter 17) present the date-set of 121 C14 datings that cover the entire Holocene, with a concentration between 6600 and 5100 BC. Hamdan and colleagues (chapter 18) report the results of petrographic and geochemical analyses of the lithic industry and grinding equipment from Wadi el Obeiyid, identifying 4 main groups of raw materials, underlining a different procurement area in different chronological phases. Muntoni and Gatto (chapter 19) present a report on aspects relating to the pottery production, based on the study of about a hundred ceramic fragments, mostly from Ain e-Raml. The scarcity of material, its poor state of preservation and the few decorative elements make any interpretation difficult. Cottini and Castelletti (chapter 20) present the anthracological study of plant remains from Hidden Valley: just over 300 samples were identified, of which 60%

belong to Acacia, the remaining 40% to tamarisk.

In the concluding chapter (21), Barich and Lucarini provide a general reconstruction of the main phases of human occupation during the Holocene in the Farafra area. The earliest evidence, relating to groups of hunter-gatherers, is characterised by short-term occupations, mostly along the lake shores, dated to 9420-7925 uncal BP. The bimodal rainfall regime, which is established between 7200 and 6800 uncal BP, would have allowed, according to the authors, a year-round residential occupation. However, the documentation does not seem to fully support this assertion, given the possibility that stone structures and other evidence could have been reused several times, on a seasonal basis, albeit for relatively longer periods. There is not even unanimous agreement on the (cited) rainfall estimates — between 50 and 150 mm per year according to Kröpelin; between 300 and 400 mms according to Haynes — which respectively define deeply different environmental scenarios. From about 6800 uncal BP, human occupation shows occasional and light features.

In sum, the cultural reconstruction identifies a first phase called “Early Wadi El Obeiyid A”. Dated between 7700-7250 uncal BP (6600-6100 BC), with transitional characters, eventually marked by an arid phase that sees the introduction of domestic sheep and goats. The “Late Wadi El Obeiyid A” phase, dated 7200-6800 uncal BP (6100-5700 BC), shows the presence of more stable clusters of structures, thanks to the increase in rainfall. The archaeological data supporting the hypothesis of longer periods of occupation and hence a population growth are based on the increase of radiocarbon dates. However, this evidence is rather fragile and in some ways holds a potentially circular reasoning. Increase of C14 dates does not necessarily equate to growth of people: more and independent data are necessary to support this interpretation. In any case, such an increase

would be visible, according to the authors, also in Dakhla (Bashendi 1) and Kharga. As for the village of Hidden Valley, there are structured hearths with different phases of occupation of the playa, evidence of logistic exploitation of the region. According to Barich and Lucarini, the introduction of sheep and goats does not define a radical change in subsistence strategies of local human groups, but rather a broadening of their food security to include hunting activities and the systematic collection of plant resources, such as to define these groups as “foragers-herders”. As pointed out several times, this change occurs in conjunction with some innovations in material culture: not so much the appearance of “bifacial tools” of possible Levantine origin as suggested, among others, by Rudolph Kuper and Stephan Kröpelin, but — according to Barich and Lucarini — principally elements such as the Nizzanim points, typical of SW Levant. In any case, the authors underline how Farafra’s production is strongly rooted in the Western Desert tradition. In completing their synthesis, Barich and Lucarini underline the importance of the slab structures at Sheikh el Obeiyid: numerous and of variable dimensions, they characterize this phase of occupation between 7300 and 7000 uncal BP and they show similarities with other contexts of the Western Desert, starting from those of phase Masara C at Dakhla, up to Kharga. During the Wadi El Obeiyid B phase, dated between 6700 and 6300 uncal BP (5600-5200 BC), there was an increase in seasonal movements, with a growth of fireplaces and the presence of more elaborate structures, in a climatic trend towards increasing aridity. In Phase C, dated between 6200 and 4000 uncal BP (5200-2500 BC), human occupation is more rarefied. In the authors’ interpretation, the ability to build elaborate stone structures is based on important investments in time and energy, which is only possible with “stable” populations. Although the state of preservation of Farafra’s evidence is particularly good, I believe that

the construction of these elements does not necessarily imply the presence of stable populations, given the use of mainly local raw materials, their rather simple building technique and the limited size of the same slabs (rarely exceeding 1 m in size).

From an editorial point of view, the volume is excellently produced, richly illustrated and of considerable value — sold at a reasonable price (€ 60), which is still too high for many colleagues and libraries in Africa. An e-book version of the book (at a discounted price) should be considered in order to make this important work available to a larger audience. I would have preferred a title page for each chapter — as common today in collective works such as this one — as well as a reference list at the end of each chapter rather than at the end of the book, which would have been more useful — but these are minor issues.

On the scientific level, this book represents a formidable contribution not only to the understanding of the cultural dynamics

of Farafra oasis during the Holocene, but more generally to the reconstruction of the connections between climatic and environmental variations in a crucial phase of human occupation in the Egyptian Western Desert. I am honoured that much of this research has been undertaken thanks to the continuous and generous support of my university, Sapienza University of Rome, and of our Ministry of Foreign Affairs, that have made this research possible. I congratulate the Editors and all the Authors for this achievement and Barbara Barich in particular, for her enduring engagement in the study of Saharan archaeology. Finally, the wealth and completeness of the published data represent a kind of digital preservation of this important context, today unfortunately inaccessible due to instability in the region following the “Arab Spring”.

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