Kharga Oasis, Egypt: key to timing transdesert contacts in the mid-Holocene

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We have long known, through shared artifact traits, of ties across the desert from the Nile Valley to the west and southwest during the relatively humid early to mid-Holocene. What remains unclear is the exact timing of such links, and the nature of the entities involved in both the Nile Valley and the desert (Fig. 1). It was in the mid-Holocene that people in the Egyptian Nile Valley were moving towards cultural complexity, and one of the issues is the role that Africans from beyond the Valley may have played in the early stages of the development of the Egyptian civilization. Now a survey team from Yale University is demonstrating close links between Upper Egypt and Kharga Oasis in the Western Desert throughout the Predynastic. From Kharga Oasis in turn, we can plug into the detailed cultural sequence being built for the Central Western Desert through our work in Kharga and Dakhleh Oases. Thus we should be able to define much more precisely the nature of the relationship between the Valley and the oases to the west at this crucial time.



Fig. 1. Map of Egypt showing location of places mentioned in the text.

The work in the two oases is carried out through the multidisciplinary Dakhleh Oasis Project (DOP), on which I have served as Holocene Prehistorian since 1979, and the Kharga Oasis Prehistoric Project (KOPP), since 2000. In Kharga Oasis, we draw heavily upon the work conducted in the 1930s by G. Caton-Thompson and E. Gardner (Caton-Thompson 1952). The survey team from Yale working between the Valley and Kharga Oasis is the Theban Desert Road Survey (TDRS), led by Deborah and John Darnell (D. Darnell 2002; J.C. Darnell 2002). The Theban area in Upper Egypt is the closest spot along the Nile Valley to the major oases of the Western Desert, and there are clearly marked camel trails, plus the modern Kharga-Luxor highway, linking these regions. The Darnells are demonstrating that there were close ties between the two areas throughout the Predynastic.

The Yale team has been recording sites along the desert routes and around Kharga with both Nile Valley and oasis artifacts. Much of the material is pottery: they report imported Nile Valley ceramics, made in the distinctive Nile silt, locally made wares in typical oasis fabrics, and oasis-made imitations of Nile Valley forms. Parallels in lithics are noted as well. We have similar finds on KOPP sites in Kharga (in Fig. 2, the red dots mark Theban Desert Road sites, blue dots, KOPP sites). The Darnells stress that these sites span the Predynastic and beyond, suggesting continuous close ties between the two areas throughout. As an example, their site Qarn el-Ginah on the oasis floor yields Badarian pottery, and we get Badarian ripple ware at localities MD-22 an dMD-36. Other sites yield later material. Caton-Thompson (1952) noted the close ties in lithic artifacts between her "Peasant Neolithic" sites in Kharga and the Naqada I site of Armant on the Nile. We get similar material, for instance an "Armant ax" with the distinctive transverse edge from MD-22. There are likewise parallels from the Late Predynastic and Early Dynasties, for instance, a pair of distinctive Late Predynastic knives from KOPP locality REF-14 in Kharga. In brief, there are in Kharga Oasis a number of sites that can be fairly closely tied to various parts of the Egyptian sequence.



KHARGA AND AREA SITES WITH NILE VALLEY AND OASIS ARTIFACTS

- 1. Badarian pottery: Qarn el-Ginah
- 4. Badarian pottery: MD-22
- 3, 4. Naqada I Armant lithics: REF-12, MD-22
- 6. Naqada I,II,(III) pottery: Cave of Wooden Pegs
- 5. Naqada II, III rock art, pottery: Bir Nakheila
- 2. Late Predynastic/Early Dynasties pottery: Yebsa
- 3. Late Predynastic/Early Dynasties lithics: REF-14

Fig. 2. Sites around Kharga Oasis and elsewhere in the desert yielding Nile Valley and oasis artifacts. (Red dots: sites recorded by TDRS. Blue dots: sites recorded by KOPP).

Meanwhile, in nearby Dakhleh Oasis, after 25 years of work by DOP palaeobotanist U. Thanheiser, C.S. Churcher (fauna), A.R. Warfe (ceramics) and myself, we have a firm sequence for post-Pleistocene developments in this part of the Eastern Sahara, including a wealth of information on subsistence and on the nature of social groups. Moreover, we can now extend this sequence to Kharga Oasis, thus potentially linking up with the Nile Valley sequence.

Briefly, the mid-Holocene sequence in Dakhleh must be considered in light of the environmental background: fairly humid through the early Holocene, drying through the mid-Holocene, until current levels of hyperaridity are reached about 3800 BC, and with short-lived arid episodes even during the wetter part of the sequence (Fig. 3).



Fig. 3. Chart showing Later Prehistoric cultural units in Dakhleh Oasis in relation to early to mid-Holocene climatic conditions.

The mid-Holocene sequence in Dakhleh consists of Bashendi A, starting ca. 6400 BC, Bashendi B spanning 1800 years until 3800 BC, and Sheikh Muftah, which persists until 2200 BC. Bashendi A seems in some ways the apogee of Late Prehistoric settlement in Dakhleh Oasis. As shown in Fig. 3, it coincides with the latter part of the humid period, at a time when there may have been an unusual bimodal – winter and summer – rainfall pattern. In the Bashendi A unit, there are slab structures, probable semi-sedentary settlements, including Locality 270 with 200 structures. Groups intensively exploit wild

cereals, sorghum and millets. They hunt, and I suspect they may also have herds, although there is no faunal evidence for this as yet. They use both plain and impressed pottery, the latter in the Sahara-Sudanese tradition. There is some evidence to suggest they may be moving away from a purely egalitarian society (McDonald in press).

The succeeding Bashendi B cultural unit extends through the period of aridification (McDonald 2002). There are almost no slab structures now: the sites are sometimes quite extensive scatters of hearth mounds. Botanical evidence unfortunately does not preserve, although grinding equipment (slabs and handstones) is common on the sites. Now groups herd cattle and goats, and also continue to hunt. They appear to be mobile pastoralists, exploiting the oasis and the desert beyond. Evidence in the form of prestige items suggests the presence of elites. Items include bracelets, toggles, stone beads and small polished ground-stone axes –artifacts later associated with the "mobile elites" as pastoral groups spread to the west and southwest across the Sahara later in the mid-Holocene.

In the Sheikh Muftah unit, as desiccation continues, sites are confined to the central lowlands of the oasis, where they are often associated with marshy areas. There is however also evidence that some traveled extensively beyond the oasis: the tabular chert used for many of their tools had to be imported, and their stage stops in the desert are marked by the enigmatic "Clayton rings". Still, on the whole, the Sheikh Muftah seems a hardscrabble existence. While their sites are confined to the centre of the oasis, there is no sign of structures or of permanent settlement. There is no evidence of cultivation. They hunt and herd cattle and goats, apparently exploiting the cattle for more than just meat (dairying? blood? transportation?). The few human skeletal remains suggest a population under stress. The analyst J. Thompson reports evidence of malnutrition in the form of enamel hypoplasia and porotic hyperostosis, of heavy workloads, and of early death. The Sheikh Muftah unit survived to witness an incursion from the Nile Valley in Old Kingdom times.

Now with our recent work in Kharga Oasis, we find that our Late Prehistoric sequence for Dakhleh is largely applicable there as well. In Kharga we work not on the oasis floor, but on the escarpment along the eastern edge of the oasis (Fig. 4; Kleindienst et al. 2006). Essentially we work on the face of the escarpment, on the piedmont terraces below, and on a strip along the top of the Plateau. We tend to focus on the several passes giving access to and from the oasis floor. Holocene prehistoric sites are found in two main contexts; atop the Plateau, usually associated with playa deposits, and in two major embayments within the Escarpment: at Midauwara in the south, which is the site of the modern railroad and the highway to Luxor, and at Refuf, site of an old rail line running down to Kharga.

Now it might be thought that this would be somewhat forbidding territory, high above the oasis floor, where one could expect at most small campsites resulting from overnight stays by those traveling to and from the oasis. In fact the evidence suggests the Escarpment was often an attractive destination, with groups staying put for what may have been prolonged periods. In the Midauwara embayment there are slab structure sites for both the early and mid-Holocene. MD-18 consists of 80 structures in three clusters, one from the early Holocene, two from the early mid-Holocene. In the Refuf Pass, REF-14 with its late Predynastic lithics, consists of at least 20 well-built slab structures. In addition, there are extensive hearth mound fields like those of Bashendi B, in many of the basins within the Midauwara embayment, and along the Plateau top from Abu Sighawal to Refuf. (This cultural unit in Kharga is labeled the Baris unit).

The assemblages at many of these sites are very similar to those described for Dakhleh, suggesting that the two oases, linked by the Plateau Escarpment that borders them both, constituted a single cultural entity through much of the early and mid-Holocene. In the early Holocene, at Midauwara there are hut circle sites with lithic assemblages almost identical to the assemblages at Masara C sites in Dakhleh (McDonald 2003). For the mid-Holocene, the large slab structure locality MD-18, and a smaller one, MD-24, have assemblages much like that of 270 and other Bashendi A sites in Dakhleh, including both the plain and impressed pottery. Likewise, the Late Baris hearth mound fields at Midauwara, the

Refuf Pass and elsewhere, have much the same assemblages as those of Bashendi B localities in Dakhleh, down to the prestige items littering the surface on MD-22. Incidentally, one odd feature of the Midauwara hearth mound sites, not mentioned elsewhere, are artificially rounded limestone balls, the largest up to 16 cm in diameter. There is at least one or two on each of the late Baris sites we visited this season.



Fig. 4. Kharga Oasis showing areas worked by KOPP. (Base map after Caton-Thompson 1952: Pl. 126).

What then are the links for the mid-Holocene between Upper Egypt and the large oases of the Central Western Desert? It appears that Dakhleh Bashendi A, with its large settlement sites, came to an end long before the Badarian got underway in the Nile Valley (Fig. 5). Still, some of its distinctive artifacts – hollow based arrowheads, bifacial knives, side blow flakes and tranchets (just coming in in late Bashendi A, and characteristic of Bashendi B) are all found later on Nile Valley Badarian sites. Rather it is the Bashendi B (and in Kharga, Late Baris), that overlaps with the Predynastic (the Badarian and some of Naqada I). Thereafter, the Sheikh Muftah persists until late Old Kingdom times. The Sheikh Muftah

however gives the impression of a cultural backwater, as the Nile Valley was by then rushing towards complexity. Bashendi B (and Late Baris) mobile herdsmen would seem the best bets for interacting, with and perhaps stimulating, the actors in Upper Egypt who were moving towards complexity.

NILE VALLEY			DAKHLEH OASIS
Date BC	2 Period	Dynasty	
2000	1 st Intermediate	VII-XI	
2500	Old Kingdom	VI V IV III	
3000	Early Dynastic	II I	Sheikh Muftah
3500	UNIFICATION	×	
4000	Tredynastic		: 1
4500	Fayum Neolithic		
5000			Bashendi B
5500		•	
6000			Bashendi A

Fig. 5. Chart showing correlations between Dakhleh Oasis mid-Holocene cultural units and the sequence in the Egyptian Nile Valley.

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