

Walking in the Footsteps of Gertrude Caton-Thompson and Elinor W. Gardner: Surveys by Kharga Oasis Prehistory Project (KOPP)

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Beginning in 1987, members of the Dakhleh Oasis Project, and recently of the Kharga Oasis Prehistory Project (KOPP), have relocated many of the prehistoric loci originally published by Gertrude Caton-Thompson and Elinor W. Gardner (Caton-Thompson 1952). We are conscious that we walk in the footsteps of these two remarkable women. At Kharga Oasis, during three field seasons between 1930 and 1933, they pioneered regional interdisciplinary research in Africa, covering all time periods and including geochronology, palaeoenvironmental studies, geoarchaeology and aerial survey. Caton-Thompson also quantified attributes in order to seriate Pleistocene artefacts, possibly the earliest attempt to do so in Africa.

Kharga Oasis in the Egyptian Western Desert is a long depression bounded by steep escarpments of the Libyan Plateau on the east and north. In 2000, KOPP was granted a Concession covering the area of the original 1931-33 surveys, covering the Plateau rim, the Escarpment face, and Piedmont terraces stretching west from the Escarpment foot (Fig. 1). Our goals are to reassess the original sequence, and to apply modern methods in order to establish a chronometrically-dated palaeoenvironmental and geoarchaeological framework for the central Western Desert. To date, the original model proposed by Caton-Thompson and Gardner has largely been substantiated. We are filling-in the blanks, and providing some rearrangements of sequences.

In 1931-32, Caton-Thompson and Gardner surveyed from Bulaq north to Wadi el-Refuf. They recognized the Wadi el-Refuf as a 'key' section: probably because of an apparent spring-laid tufa and gravel sequence that in places incorporated associated Pleistocene artefacts. In the 1932-33 season Caton-Thompson was not in the field. Gardner surveyed from Gebel Yebsa on the north to Matana on the south (Fig. 2). She had two field assistants, a graduate student in geology and a palaeontologist. That group must have discovered the Holocene localities at Gebel Yebsa, also finding and excavating the two localities classified by Caton-Thompson as "Upper Levalloisian". That portion of Caton-Thompson's seriation must have been based only upon their collections.

We relocated the 1932 camp at Bulaq. In discard piles by their tent circles were some artefacts still bearing their original India ink labels and numbers (Fig. 3). Why were these discarded? Camels overloaded?

Some results of detailed geological mapping and palaeoenvironmental sampling have appeared (Smith *et al.* 2004a; 2004b; Smith and Giegengack 2003). Uranium-series determinations obtained since 1995 on tufas capping localities originally reported to include ESA or MSA artefacts (Kleindienst *et al.* n.d.) are of particular interest to those seeking processes of change from the ESA developmental stage to the MSA:

Refuf "Locus V" (REF-002), "Upper Acheulian" *sensu stricto* in gravels underlying "Tufa 1"; capping tufa >400,000 Uys (beyond dating range).

Refuf “Locus IV” (REF-004), “Lower Levalloisian” in sediments associated with, and underlying “Tufa 3”; tufa lens in section, $198,000 \pm 5,000$ Uyrs; capping tufa, $240,000 \pm 5,000$ Uyrs;

Isochron = $220,000 \pm 20,000$ Uyrs.

Refuf “Locus VII” (REF-003), “Upper Levalloisian” in sediments underlying “Tufa 4”; capping tufa $125,000 \pm 1,600$ Uyrs.

Matana, “Site G” (MT-002), later “Upper Levalloisian” (speculatively, “proto-Aterian”) in sediments between tufas; capping tufa, $103,000 \pm 14,000$ Uyrs (Fig. 4).

Other determinations are forthcoming: e.g., for the capping tufa at Abu Sighawal, “Locus KO18” (AS-006, later “Lower Levalloisian”).

All discovered Pleistocene aggregates within sediments are in geological context. As Caton-Thompson (1952:91-144) indicated, some obviously cover much shorter time ranges than do others, having suffered minimal distances of transport, based upon the condition and coherence within the aggregates. Our fieldwork shows that Caton-Thompson’s ‘transitional’ units comprise redeposited, time-averaged aggregates that require further study. We recommend that the terms “Acheulio-Levalloisian” and “Levalloiso-Khargan” be discarded. Surface workshops retain some spatial integrity, even when used for extended periods. Fig. 5 shows KOPP cultural stratigraphic units; the “Levalloisian” units are renamed.

In 1933 Gardner (p. 179) noted, perhaps somewhat wistfully: "Riding south for a day's exploratory journey still more tufa was seen lining a deep unmapped bay in the scarp. Since, however, this was at least four days from water and our transport facilities were already stretched to their limit, this new alluring area was left unexamined." This was undoubtedly the Wadi el-Midauwara Area, where we have expended much research time: because it was previously unexplored; because of the rich Holocene record; and because it is vulnerable to looting of antiquities that is decimating the prehistoric record of the Western Desert. (See field reports in *Nyame Akuma*.)

References

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Figures

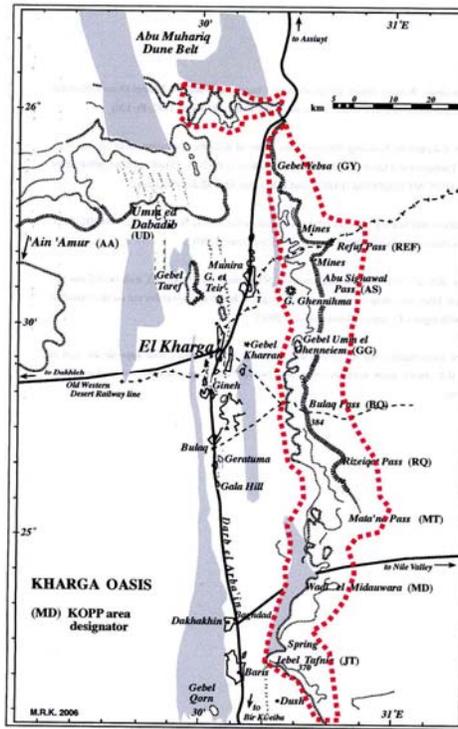


Fig. 1. Kharga Oasis, Western Desert, Egypt, showing Concession granted to Kharga Oasis Prehistoric Project, and KOPP research areas. (Base map after Caton-Thompson 1952: Pl. 126)

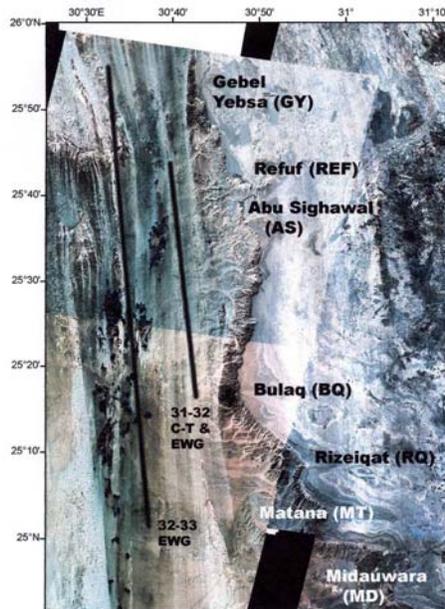


Fig. 2. Eastern Escarpment bounding Kharga Oasis (Sinn el-Kiddab), indicating areas surveyed by Caton-Thompson and Gardner in 1932-32, and Gardner in 1932-33. (Satellite photo, Smith; from NASA/GSFC/METI/ERSDAC/JAROS, and U.S./Japan ASTOR Science Team.)



Fig. 3. ESA bifaces still bearing India ink labels, found discarded at 1932 Bulaq camp in 1998 (BQ-001). Largest cleaver measures 190 X 110 x 50 mm (Kleindienst, 2000).



Fig. 4. Matana "Site G" (MT-002), looking westerly. Main trench on left (arrow), with sanded test pits on slope; MSA workshop material on bench at right. Chert nodules weather out on shale knoll to west, with figures for scale (Kleindienst, Jan. 2006).

Approximate Age Years B.P.	Cultural Stratigraphic Units		Developmental Stages
	Dakhleh Oasis	Kharga Oasis	
4,000	Sheikh Muftah Unit	Yebsa Unit	Neolithic
6,000	Bashendi Unit	Baris Unit	
8,000	Masara Unit	Midauwara Unit	Epipalaeolithic
10,000	Sheikh Mabruk Unit	Kharga Unit	Middle Stone Age (Younger)
40,000	Dakhleh Unit	Kharga Aterian Unit	
100,000	[undefined unit(s)]	Matana Unit ("Upper Levalloisian")	
	Teneida unit		-----
200,000	Gifata Unit	Refuf Unit ("Lower Levalloisian")	(Older)
300,000	Balat Unit	Dharb el-Gaga Unit KO10 unit	(Terminal)
400,000	[undefined unit(s): African Upper Acheulian <i>sensu stricto</i>]		Earlier Stone Age

Fig. 5. Cultural stratigraphic units recognized at Kharga and Dakhleh oases, with approximate ages in years B.P. based upon uranium-series and radiocarbon determinations, and archaeological seriation.