

# Predynastic development in Upper Egypt

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## 1. Introduction

It has long been recognized that Egyptian civilization developed from the preceding Predynastic cultures of Egypt. The Predynastic period refers to "Neolithic" occupations along the Nile River prior to the political unification of Egypt around 3,100 B.C. The best known Predynastic sequence has been recorded in Upper Egypt. Previous work conducted several decades ago suggested an evolutionary sequence based on ceramic decoration and form (Petrie, 1917; Brunton and Caton-Thompson, 1928). The earliest of the Predynastic cultures was called "Badarian", followed by the "Amratian" and "Gerzean."

The origin of the Badarian is not known, but influence from the Near East has been suspected (Frankfort, 1951; Kantor, 1965). Brunton and Caton-Thompson (1928) suggested that the Predynastic Egyptians were not indigenous, but possibly arrivals from the area of the Red Sea. The idea of an intrusion of people into the Nile Valley has been repeated by more recent workers. Non-ceramic sites in Egypt dated prior to the Predynastic show little relationship with the later ceramic sites (Wendorf *et al.*, 1970; Vermeersch, 1970).

That these "Neolithic" groups came from outside the Nile Valley is generally accepted, but their origin has been placed in the east (Kantor, 1965), west (Hassan *et al.*, 1980), and south. Baumgartel (1965) and Arkell and Ucko (1965) postulated that the origins may be found in Sudan.

In order to assess these hypotheses, it will be necessary to establish ceramic characteristics and chronological parameters for the ceramic industries of Upper Egypt both along the Nile and in the Western Desert, as well as for the cultural development in Northern Sudan (Fig 1). Recent field work in each of these areas relate to this problem.

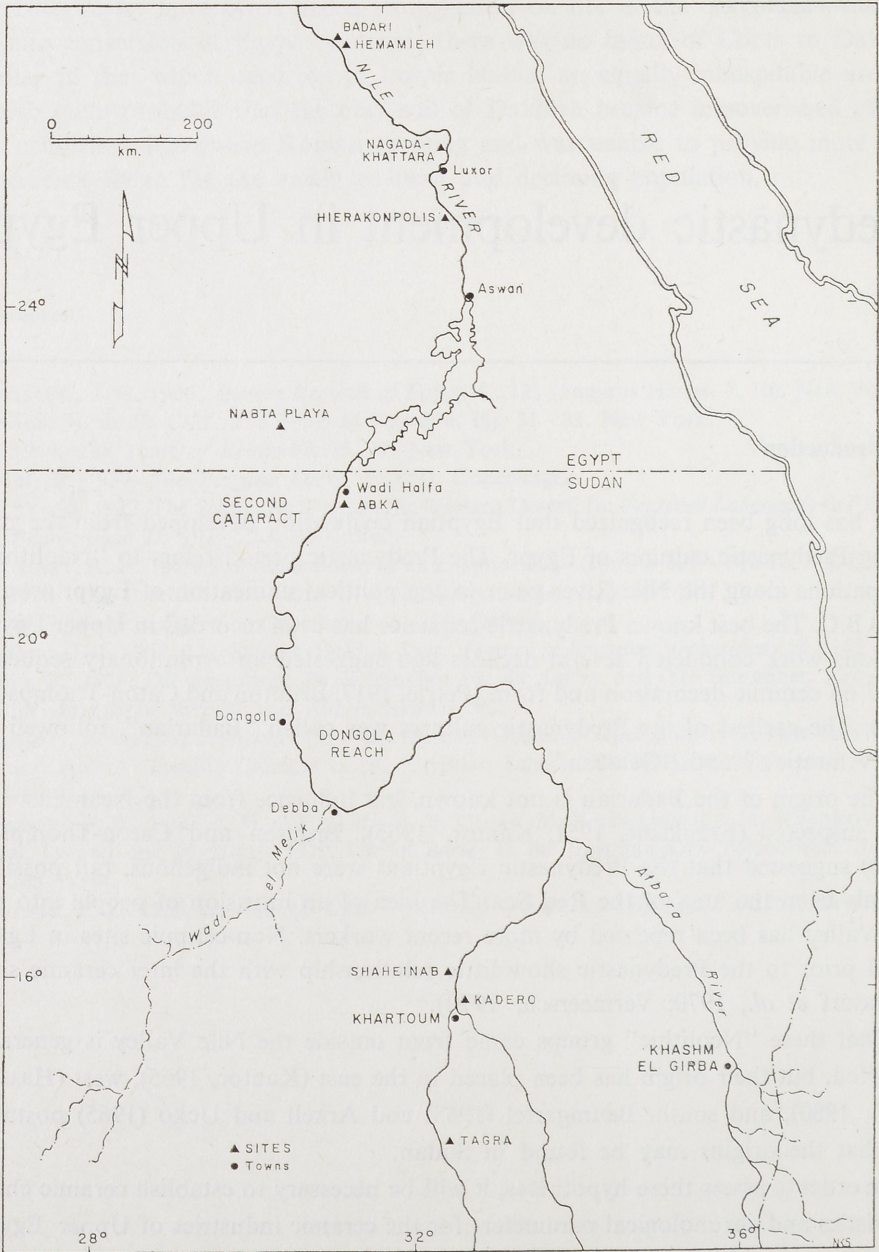


FIG. 1. Map of the Central Nile



## 2. Cultural sequences

### 2.1. Nile Valley

The previously accepted chronology for Upper Egypt along the Nile indicated a change from preceramic occupations to the Predynastic period beginning about 5,600 years ago. This estimate was based on radiocarbon dates provided by Libby (1955):

"Culture"	Sample	14C Age (B.P.)
Gerzean	C-813	4,720 ± 310
Gerzean	C-812	5,020 ± 290
Amratian	C-814	5,577 ± 300
Amratian	C-811	5,619 ± 280
Amratian	C-810	5,744 ± 300

The solid carbon method was used to date museum samples from Predynastic graves. Comparison of solid carbon dates with more modern techniques of radiocarbon dating reveal the earlier dates are about ten percent too old (Hassan, Hays and Shepard, n.d.).

Recently, thermoluminescence dates were published for the Predynastic period (Caton-Thompson and Whittle, 1975):

"Culture"	Sample	TL Date (B.C.)
Gerzean ("D" ware sherd)	OX TL 131 b18	3,775 ± 300
Amratian (polished red sherd)	OX TL 131 b9	4,330 ± 355
Amratian ("rippled" sherd)	OX TL 131 b19	4,360 ± 355
Badarian ("rippled" sherd)	OX TL 131 b10	4,450 ± 365
Badarian (polished red sherd)	OX TL 131 B12	4,510 ± 475

The dates were on pottery samples from the Ashmolean Museum which contained some of the original soil matrix. The dates could be misleading, however, due to an error in estimating the environmental dose rate (Caton-Thompson and Whittle, 1975). Even though the dates are in good stratigraphic agreement, they are considerably older than expected from radiocarbon determinations.

More recently, new radiocarbon dates have been obtained from a series of Predynastic sites near El Khattara in Upper Egypt. Based on the pottery, the sites must be considered as Badarian (Hays, 1976). Other dates result from work at Hierakonpolis (Table 1).



Table 1

## Radiocarbon dates from Predynastic sites in El Khattara and Hierakonpolis

Culture	Site	Sample	14C Age (B.P.)
Gerzean	South Town	W-4350	4,680 ± 60
	South Town	W-4349	4,730 ± 70
Amratiian	Hierakonpolis (Loc. 14)	WSU-1730	4,250 ± 130
	Hierakonpolis (Loc. 14)	WSU-1729	4,830 ± 120
Badarian	Hamamiya	GrN-223	5,110 ± 160
	Hamamiya	WSU-1728	5,290 ± 130
	Hierakonpolis (Loc. 11)	UW-104	4,720 ± 94
	Hierakonpolis (Loc. 11)	UW-105	4,717 ± 94
	Khattara (KH 1)	SMU-351	4,930 ± 70
	Khattara (KH 1)	SMU-360	5,030 ± 100
	Khattara (KH 1)	WSU-2256	5,270 ± 100
	Khattara (KH 3A)	TX-2340	4,970 ± 70
	Khattara (KH 3A)	SMU-353	4,780 ± 70
	Khattara (KH 3B)	SMU-493	5,214 ± 54
	Khattara (KH 3B)	WSU-2255	4,960 ± 100
	Khattara (KH 6A)	SMU-303	5,005 ± 69
	Khattara (KH 6A)	SMU-355	4,810 ± 80

In addition, two thermoluminescence dates are available from the El Khattara sites (J. Huxtable, personal communication). These dates are in general agreement with the calibrated radiocarbon dates from the same sites (Hays and Hassan, 1976):

Culture	Site	Sample	TL Date (B.C.)
Badarian	KH 1	OX206 a2	3,800 ± 400
Badarian	KH 3	OX206 b4	3,350 ± 550

As a result of this recent work, it has been suggested that a reappraisal of the evolutionary sequence of Predynastic development is required (Hays, 1978). It must be concluded that the Badarian and Amratiian are contemporary followed by the Gerzean.

## 2.2. Western Desert

During the past few years several areas of the Western Desert of Egypt have been examined under the direction of Fred Wendorf.

Of particular interest is the area near Nabta Playa located about 100 km west of Abu Simbel (Fig. 1). Several sites around these ancient lakes have provided an extraordinary picture of cultural development. Beginning as early as 8,200 B.P., there is evidence of settled ceramic-using occupation which possibly also had do-



mesticated plants and animals (Wendorf and Schild, 1980). The following sequence has emerged for the Western Desert:

Culture	Date (B.P.)	Climate
Late Neolithic	6,300 - 5,800	Pluvial 3
Middle Neolithic	7,700 - 6,300	Pluvial 3
	7,900 - 7,700	Arid Phase
Early Neolithic	8,200 - 7,900	Pluvial 2
	8,500 - 8,200	Arid Phase
Terminal Palaeolithic	9,000 - 8,500	Pluvial 1

The Early Neolithic contains a few sherds comparable in decorative motif to some atypical sherds from Early Khartoum. The lithic assemblage shows marked continuities with the earlier local Terminal Palaeolithic, but no relationship to the Khartoum Mesolithic in the Nile Valley (Wendorf and Schild, 1980).

With the onset of the major pluvial period at 7,700 B.P., the playa was occupied by peoples of the Middle Neolithic, making mat-impressed pottery comparable to the dotted-wavy line pottery of the Late Khartoum Mesolithic. In addition, these people already had domestic cattle, as well as sheep and goat.

By 6,300 B.P. the Late Neolithic sites at Nabta Playa contain ceramics unrelated to the Khartoum Horizon Style, but comparable to that described for the Abkan (Ware Group M, Nordström, 1972) on the Nile near the Second Cataract. Domestic cattle continue to be found, as well as some domestic sheep and goat (Wendorf and Schild, 1980).

### 2.3. Sudan

In Nubia, there is thought to be a generic link between the generally aceramic Qadan and the ceramic Abkan (Shiner, 1968). On two of the Final Qadan sites there were a small number of potsherds which display affinities with the Khartoum Variant or Abkan pottery. Following the Qadan are several Ceramic Age industries: the Khartoum Variant, the Abkan, and the A-Group (Table 2).

The term Khartoum Variant implies a relationship with the Khartoum Mesolithic described by Arkell (1949). The lithic industry was sufficiently unlike the Qadan and Abkan that it seemed to be the result of a new group (Shiner, 1968). On the other hand the lithic industry of the Khartoum Variant also is significantly different from that of assemblages of the Khartoum Horizon Style further to the south (Hays, 1974).

Whereas the Khartoum Variant appears to be intrusive, the Abkan is believed to be an outgrowth of the aceramic Qadan and also, to phase into the Early A-Group of Nubia (Nordström, 1972). The Abkan pottery, as classified by Nordström, is



Table 2

## Radiocarbon dates from late prehistoric sites in northern Nubia

Culture	Site	Lab	<sup>14</sup> C Age (B.P.)
Terminal A-Group	SJE-340	U-2425	4,270 ± 70
	SJE-340	U-2426	4,440 ± 90
	Afia	TF-47	4,380 ± 115
Classic A-Group	SJE-277	U-819	4,630 ± 120
Terminal Abkan	11-I-16	GXO-423	4,935 ± 130
	AS16-S-10	U-2490	5,330 ± 80
Developed Abkan	AS16-S-10	U-820	5,730 ± 160
	IX : 5	M-803	5,960 ± 400
Early Abkan	CPE-605	WSU-190	6,430 ± 200
Khartoum Variant	DIW-5	TX-1155	6,540 ± 110

composed of a wide variety of surface treatment. Unburnished, plain pottery is very common. Another predominant ware is thin, burnished, and decorated with rocker stamp designs. "Rippled" surface and "black-mouthed" wares are diagnostic of the Terminal Abkan pottery. The latter are the forerunners of the "rippled wares" characteristic of the Nubian A-Group (Nordström, 1972).

### 3. Summary

In view of the recent suggestions that the Egyptian Predynastic was influenced by settlers from the deserts, it is necessary to evaluate such possibilities. It has been suggested that the Terminal Palaeolithic groups in the Western Desert may have come from the Nile Valley of Upper Egypt or Nubia (Wendorf and Schild, 1980). There are close similarities in typology and in general tool structure with the Nile Valley sites, but subsequent desert sites show marked differences from the slightly later sites on the Nile.

The Early Neolithic sites in the Egyptian desert are dated ca. 8,200 B.P. and are related to the previous Terminal Palaeolithic. A contemporary Egyptian Nilotic site would be El Kab. Ceramics and domesticates are present at the desert sites, but not at the Nile sites which emphasized fishing and hunting.

On the other hand, recent dates at Early Khartoum sites in the Central Sudan also indicate an early beginning for ceramic technology. The site of Sorourab II near Khartoum yielded two charcoal dates of 6,550 B.P. (Abbas M. Ali, personal communication). The site of Shabona on the White Nile produced a shell date of 7,000 B. P. (Clark, personal communication). During this period, Khartoum Mesolithic related sites also are found in the northern Sudan.

The Sudan occupations are contemporaneous with the Late Khartoum related "Middle Neolithic" at Nabta Playa in the Western Desert of Egypt. These desert



sites, however, contain evidence of settlements of herders and farmers. The "Late Neolithic" at Nabta has ceramics which are similar to the "Abkan" of the Nubian region of the Nile.

It is significant that there are no settlements in Upper Egypt during this time period. The earliest ceramic-bearing sites in Upper Egypt are the Predynastic Badarian recently radiocarbon dated to 5,200 - 4,800 B.P. (Hays, 1978).

Ca 5,800 B.P. drying conditions forced abandonment of the desert. If these people moved to the Nile Valley, it must have been to the Second Cataract region of Northern Sudan. There we have evidence of similar groups (Abkan) which were indigenous to the area.

4. Conclusion

Almost a decade ago, it was suggested that ceramic technology spread from the Sahara into the Nile Valley (Khartoum Horizon Style) where it mixed with Near Eastern ceramic ideas (Gerzean) moving southward up the Nile (Hays, 1971). Ce-

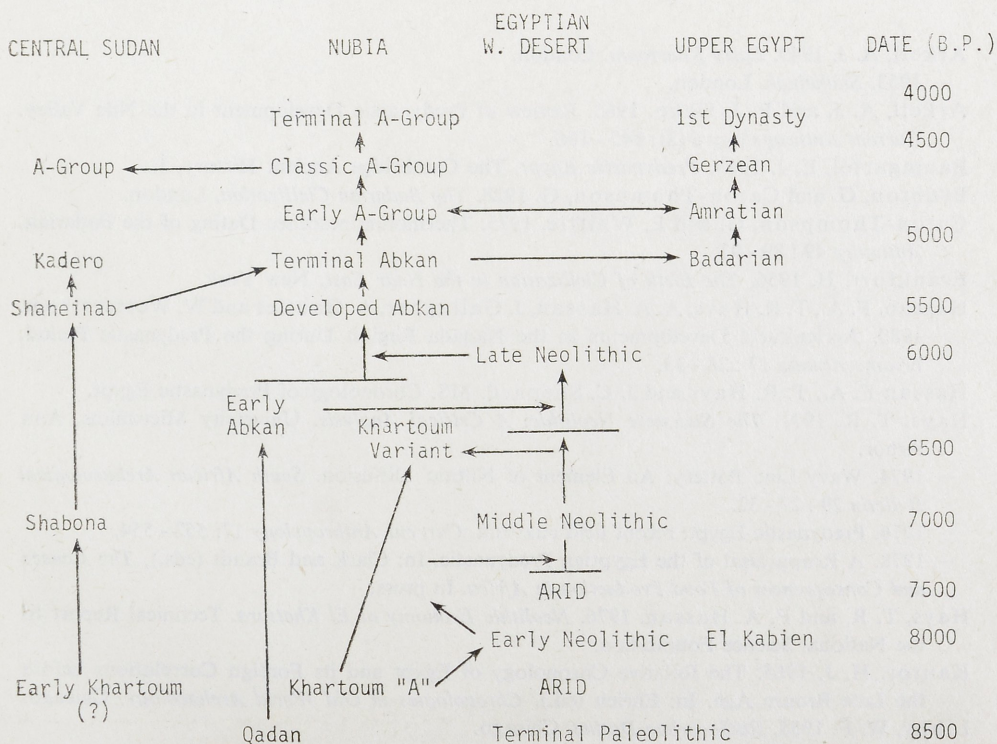


FIG. 2. The development of the ceramic traditions on the Central Nile



amics along the Nile in the Sudan show a change through time from rather thick, comb impressed, unburnished pottery (Khartoum Mesolithic) through a thin, burnished, impressed ware (Shaheinab Neolithic) to a thin, burnished "ripple ware" with black tops (Terminal Abkan). The latter pottery is similar to the "rippling" characteristic of the Predynastic Badarian in Upper Egypt, as well as the Nubian "Classic A-Group". The possibility exists, then, that the ceramic tradition suddenly occurring along the Nile in Upper Egypt ca. 5,000 years ago (Badarian) resulted from a northward diffusion from Sudan.

If the occurrence of the different ceramic styles in northeast Africa is plotted through time, the following picture emerges (Fig. 2). The Early Abkan developed from the indigenous aceramic Qadan, but received its ceramic traits from the Shaheinab Neolithic of Central Sudan. The Terminal Abkan evolved into the A-Group in Nubia, and the Badarian/Amratian in Upper Egypt. Subsequently, these Predynastic Egyptian groups were succeeded by the intrusive Gerzean from the north.

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