Interregional Contacts in the Later Prehistory
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The Late Neolithic of the Gilf Kebir: evolution and relations

This overview contains the results of my doctoral thesis "Archäologische Ausgrabungen im Wadi el Akhdar - Ein Beitrag zur holozänen Besiedlungsgeschichte des Gilf Kebir (Südwest Ägypten)" presented at University of Cologne in 1990. In the context of this study, I examined material from Wadi el Akhdar in the Gilf Kebir, Southwest Egypt, excavated as part of the B.O.S. ("Besiedlungsgeschichte der Ostsahara") project.

The following factors express the important preconditions for the analysis of the archaeological material and have thus essentially influenced its results:

1. A single method of study was used throughout the campaign, enveloping the selection of the sites, collection, techniques of excavation and the documentation of the material as well as its analysis.
2. The analysed material originated from a small geographically enclosed area of about 3 km².
3. The ceramic material from Wadi el Akhdar is generally poorly preserved and not numerous. The variation in decorative motifs and decoration techniques is very narrow. The classification of the Wadi el Akhdar assemblages therefore had to be done by means of the analysis of the lithic artifacts.
4. 90-99% of the lithic artifacts were produced of local quartzite.
5. 25 assemblages from 21 sites were available for comparison.
6. A total of 23 ^{14}C-dates clustered between 6,000-5,000 years b.p., establishing the focal period of settlement of the Wadi. Based on the studies of the "Combined Prehistoric Expedition", which have been going on in the Egyptian oases and deserts west of the Nile Valley since the sixties, these dates fall into the period established as the Late Neolithic. A nomadic, cattle-herding subsistence economy is very likely for this period, while plant cultivation may not have been practised at all (Gautier 1987).
7. Botanical and sediment analyses have shown that relatively homogenous climatic conditions, and thus living conditions, prevailed during the main period of settlement.

The main settlement phase of Wadi el Akhdar lasted, based on the ^{14}C-dates, from ca. 5,500-5,000 b.p. Due to considerable erosion and to chance on site discovery, a few observations point to a limited earlier and later use of the Wadi. Therefore, Wadi el Akhdar should not be seen as a primarily Late Neolithic settlement area. The predominance of Late Neolithic finds is rather the effect of the surficial preservation of these sites. Certainly not all the settlements belonging to this main phase have been discovered, but even taking this into consideration, the number of settlements is not big enough to suggest a permanent occupation of Wadi el Akhdar. The relatively low density of sites in Wadi el Akhdar demonstrates that conditions hospitable to settlement occurred only sporadically. This assumption is further supported by research in palaeobotany and geomorphology.

The excavated finds do not in themselves provide much information regarding the subsistence strategy of the inhabitants of Wadi el Akhdar. The presence of grinding implements, however, suggests that plants - most likely various wild-grasses - were being processed as food. Except for a single cattle bone from site 80/14, no remains of domesticated animals were uncovered.

The only indication of cattle-herding is provided by a rock-engraving that is unfortunately undatable. A number of roughly pecked-out figures have been worked into the relatively flat surface of an 80 x 50 x 30 cm quartzite block. The largest of the figures is a long-horned cattle. Its pointed oval-shaped body is represented in profile, while the C-formed horns are seen from above, causing the head to appear in front of the horns. This peculiar style of cattle representation is, as far as I know only to be found in western Libya until now (Ziegert 1967). Nevertheless, finds from contemporaneous sites in the Sahara make the existence of a cattle-raising economy very probable. Wadi el Akhdar offered an optimal setting for such a subsistence base. After sporadic rainfall, ephemeral water sources were probably available over longer periods of time. On the more sandy sediments of the Wadi herbaceous and bush vegetation were also available to man and animals alike.

The early phase of the Late Neolithic, represented by three assemblages is defined by the presence of numerous microliths in form of segments and a high percentage of microburins and regular bladelets (Schön 1989). Until now this kind of assemblage has only been found in Wadi el Akhdar.

The 14 assemblages of the subsequent main settlement phase are characterised by a high proportion of continuously retouched and denticulated pieces (Fig. 1). The only chronological trend evident in these assemblages is the ever-decreasing number of tools produced from large blades. The assemblages could be chronologically sorted according to the technological traits of the debitage. ^{14}C-dated assemblages showed a recognizable tendency towards the production of artifacts through the use of an increasingly simpler and rougher knapping technique over time.

The pottery can be generally described as thin-walled and hard-fired. A common decorative motif occurs in the form of bands running under the rim.

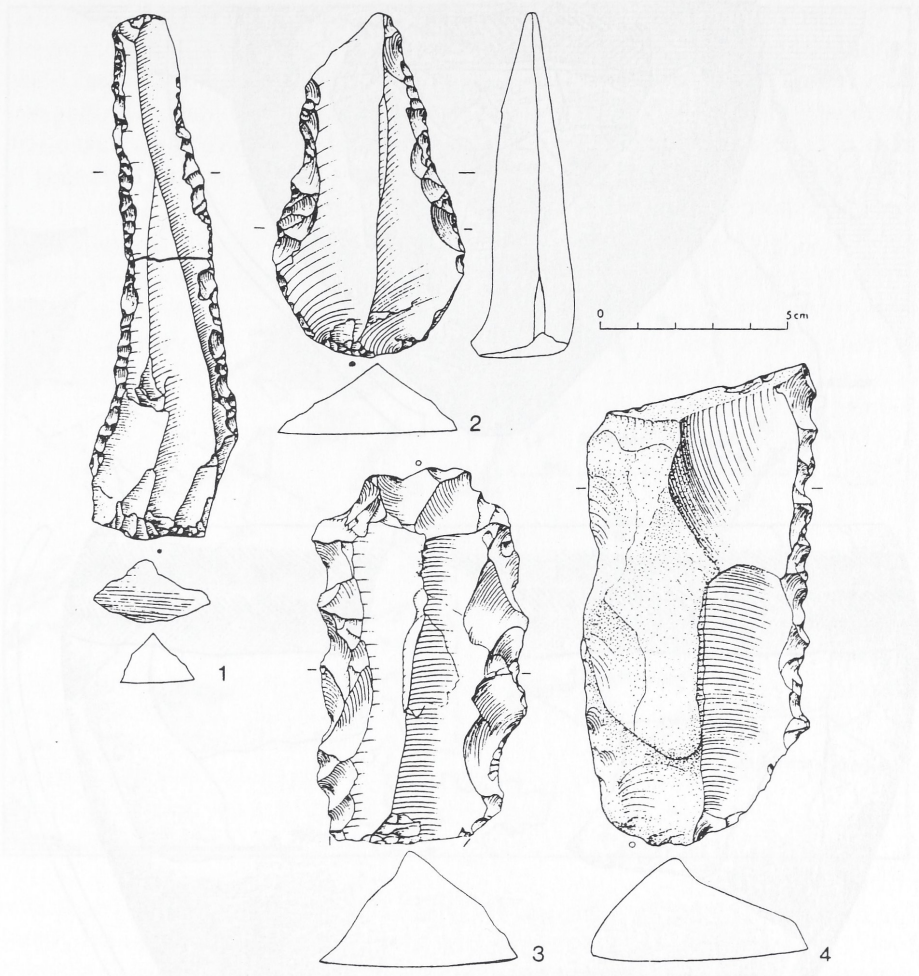

Fig. 1. Characteristic large retouched blades and flakes from different Late Neolithic sites in Wadi el Akhdar.

Comb-impressions are also very prevalent. They are used to produce slanting parallel rows as well as single or double herring-bone bands. Uniform parallel grooves across the surface occur, but are very rare. Other decorative motifs, such as impressions and incisions are also uncommon. Only three vessels were able to be restored so far as to display pointed bases (Fig. 2).

The youngest phase of the Late Neolithic in Wadi el Akhdar is represented by two assemblages which are characterized by acute-angled triangles and trapezes as well as the lack of blades or bladelets.

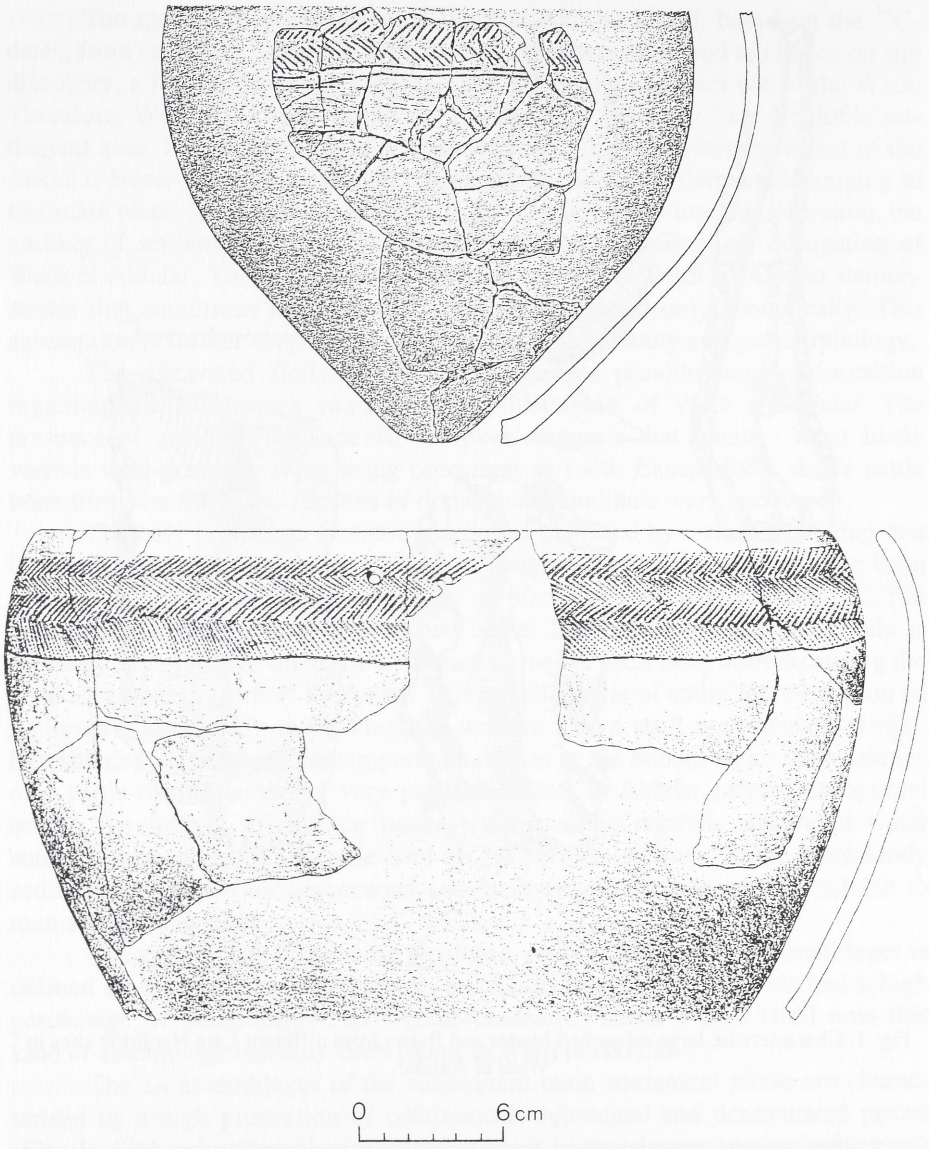

Fig. 2. Typical Late Neolithic ceramic with herring bone pattern from Wadi el Akhdar:
1. Reconstructed vessel with pointed base from site 81/2.
2. Reconstructed vessel from site 80/11 (possibly also with pointed base).

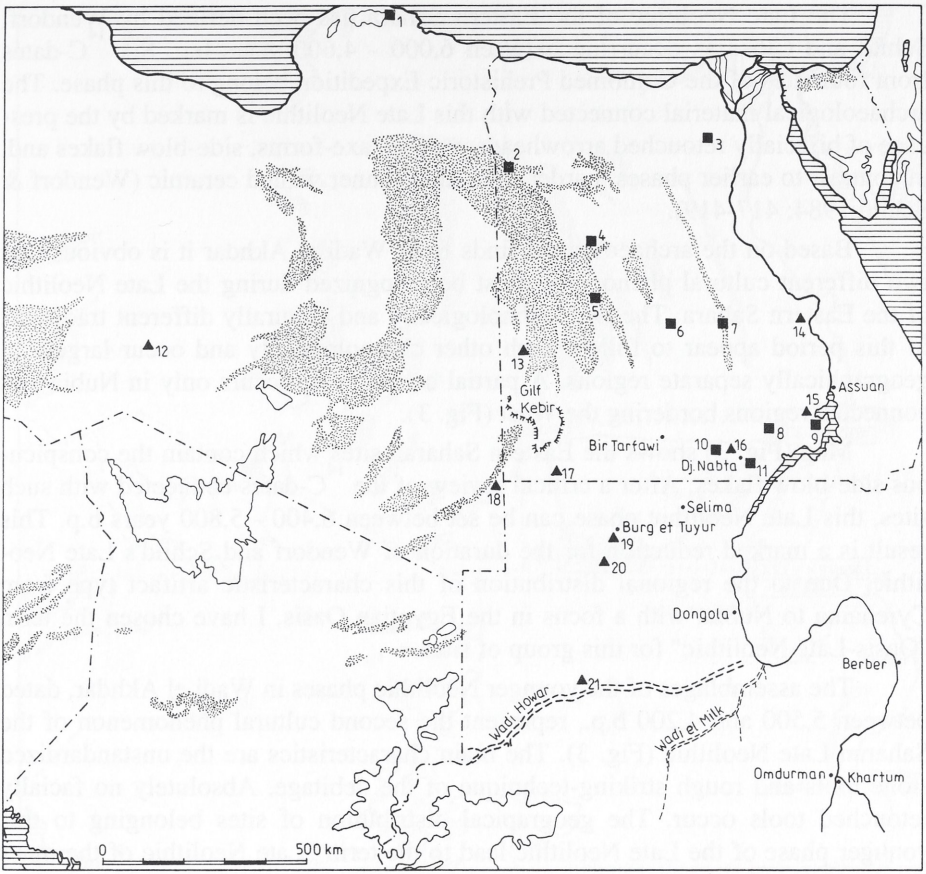

Fig. 3. Plot of discussed Late Neolithic sites in Northeast Africa.
1-11. Sites of the "Oasis Late Neolithic",
12-21. Sites of the "Late Neolithic of the Inner Eastern Sahara (LNIES)".
Regions/Sites: 1 Cyrenaica; 2 Siwa Region; 3 Fayum; 4 Ain Dalla Region; 5 Eastern Great Sand Sea; 6 Dakhleh Oasis; 7 Kharga Oasis; 8 Dungul Region; 9 Nubian Nile Valley; 10 Bir Kiseiba Area; 11 Nabta Playa; 12 Western Libya; 13 Western Great Sand Sea; 14 El Tarif, Upper Egypt (unsecure); 15 Nubian Nile Valley; 16 Bir Kiseiba Area; 17 Gebel Kamil; 18 Gebel Auenat; 19 Burg et Tuyur; 20 Wadi Shaw/Wadi Sahal; 21 Wadi Howar (uncertain).

The Late Neolithic of the Eastern Sahara has been defined by Wendorf, Schild and Close as occurring between 6,000 - 4,600 years b.p. Six ^{14}C-dates from four sites of the Combined Prehistoric Expedition belong to this phase. The archaeological material connected with this Late Neolithic is marked by the presence of bifacially retouched arrowheads, various axe-forms, side-blow flakes and, in contrast to earlier phases, harder fired and thinner walled ceramic (Wendorf & Schild 1984: 417-419).

Based on the archaeological finds from Wadi el Akhdar it is obvious that two different cultural phenomena must be recognized during the Late Neolithic of the Eastern Sahara. The two technologically and culturally different traditions of this period appear to follow each other chronologically and occur largely in geographically separate regions. A partial overlapping occurs only in Nubia and connected regions bordering the West (Fig. 3).

Map (Fig. 3) shows the Eastern Saharan sites which contain the conspicuous side-blow flakes. After a critical review of the ^{14}C-dates connected with such sites, this Late Neolithic phase can be set between 6,400 - 5,800 years b.p. This result is a marked reduction for the duration of Wendorf and Schild's Late Neolithic. Due to the regional distribution of this characteristic artifact type from Cyrenaika to Nubia, with a focus in the Egyptian Oasis, I have chosen the term "Oasis-Late Neolithic" for this group of sites.

The assemblages of the younger Neolithic phases in Wadi el Akhdar, dated between 5,500 and 4,200 b.p., represent the second cultural phenomenon of the Saharan Late Neolithic (Fig. 3). The main characteristics are the unstandardized stone tools and rough striking-technique of the debitage. Absolutely no facially retouched tools occur. The geograpical distribution of sites belonging to this younger phase of the Late Neolithic lead to the term "Late Neolithic of the inner Eastern Sahara".

The origins of the settlers in the Gilf Kebir is unclear. A weak connection to the West is indicated by the pottery, with elements comparable to the *Neolitiqué de tradition Capsienne* of the Maghreb, and by the rock engraving which displays a representational style identical to examples found in Libya. On the other hand, general similarities to stone tools and possibly pottery of the Nubian Abkan are also worthy of mention.

The main settlement phase of Wadi el Akhdar ended about 5,000 b.p., while it continued in Wadi Bakht to the northeast of Gilf Kebir until about 4,800 b.p. In northern Sudan, in Wadi Shaw and Wadi Sahal, there are two clusters of dates - a first one between 5,200 and 4,400 b.p. and a second one after a gap between 4,000 and 3,400 b.p. These dates overlap with those of the Gilf Kebir, which can also be seen in the archaeological material. For example, it has been shown that A-Group assemblages dated to about 4,400 b.p. (Schuck 1988) can be compared to those of the late main settlement phase of Wadi el Akhdar. This leads to the following hypothesis (Fig. 4):

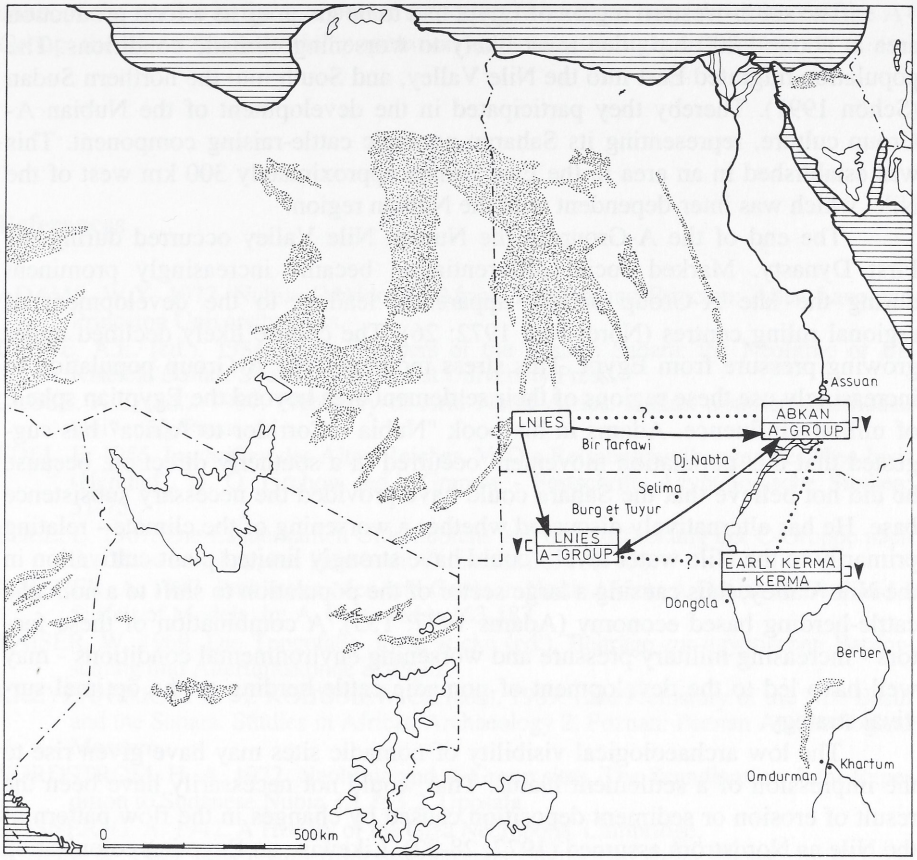

Fig. 4. Relations between the "Late Neolithic of the Inner Eastern Sahara (LNIES)" and cultural groups in Northern Sudan and the Nubian Nile Valley.

The south-western region of Egypt had to be given up as a food production area at about 4,800 b.p., due most likely to worsening climatic conditions. The population migrated East into the Nile Valley, and South into the northern Sudan (Schön 1991). Thereby they participated in the development of the Nubian A-Group culture, representing its Saharan nomadic cattle-raising component. This was established in an area in the East Sahara approximately 300 km west of the Nile, which was inter-dependent with the Nubian region.

The end of the A-Group in the Nubian Nile Valley occurred during the First Dynasty. Marked social differentiation became increasingly prominent during the late A-Group period, apparently leading to the development of regional ruling centres (Nordström 1972: 26). The culture likely declined under growing pressure from Egypt. This stress motivated the A-Group population to increasingly use these regions of their settlement area beyond the Egyptian sphere of military influence. Adams in his book "Nubia - Corridor to Africa" has suggested that this population movement occurred in a southerly direction, because he did not believe that the Sahara could have provided the necessary subsistence base. He has alternatively discussed whether a worsening of the climate - relating primarily to the Nile water level - could have strongly limited plant cultivation in the Nile Valley, thus causing a large sector of the population to shift to a nomadic cattle-herding based economy (Adams 1977: 135). A combination of these factors - increasing military pressure and worsening environmental conditions - may well have led to the development of nomadic cattle-herding as the optimal survival strategy.

The low archaeological visibility of nomadic sites may have given rise to the impression of a settlement hiatus. That would not necessarily have been the result of erosion or sediment deposition caused by changes in the flow pattern of the Nile as Nordström assumed (1972: 28-32). Likewise an Egyptian colonisation or extended military occupation of Nubia may not have been possible during the Old Kingdom. As it is likely that only an extended settlement on a large scale would have been seen as a potential threat in Egypt, the episodic use of the Nubian Nile Valley by a nomadic population would have remained possible. During this postulated settlement hiatus of the Nubian Nile Valley, pottery of the 5th Dynasty appears in Wadi Shaw (Northern Sudan, B.O.S.-site 82/52; Reisner 1942: Fig. 79; Kaiser 1969). The stone tools from the assemblage of site 82/52 do not differ from those of other sites in the region that belong chronologically as well as technologically to the tradition of the Late Neolithic of the Inner Eastern Sahara.

During the period of political weakening at the end of the Old Kingdom, and possibly further due to climatic change, nomadic groups from northern Sudan permanently returned to the Nile Valley. This event is recorded in the travel report of Herchuf and can be dated to the 6th Dynasty, ca. 2,300 B.C. (Edel 1955; 1967). This new population, whose archaeological remains are described as the C-Group and more to the south as the Kerma Culture, may well be the descen-

dants of the earlier emigrants out of the valley who have been described as the A-Group; thereby a "prehistoric" population steps into the light of history.

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