

Recent Research on Neolithic and Predynastic Development in the Egyptian Nile Valley

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From the very beginning of his studies in Northeastern Africa, Professor Michał Kobusiewicz concentrated on the prehistory of this region. His interests went beyond the Palaeolithic to encompass later periods during which the foundations were laid for the unified Egyptian state. This is well evidenced by his paper on “Neolithic and Predynastic Development in the Egyptian Nile Valley”, presented at a meeting of the members of the International Commission of the Later Prehistory of Northeastern Africa in Cologne and published in 2002 (Kobusiewicz 2002). Professor Kobusiewicz delivered both a very detailed overview of the contemporary state of research on the period in question as well as an outline of the most important research problems for further investigations. Since the publication of that paper, further research on the prehistory of Northeastern Africa has shed new light on the issues pointed out by M. Kobusiewicz. This article reviews the most recent studies on one of those issues, e.g., the origins of the Neolithic in Northeastern Africa.

KEY-WORDS: Egyptian Neolithic, Egyptian Prehistory, Nile Valley, Fayumian, early and middle Holocene, Western Desert

INTRODUCTION

In 2002, Professor Michał Kobusiewicz published his paper on “Neolithic and Predynastic Development in the Egyptian Nile Valley” in the proceedings of the symposium “State of Current Research in the Archaeology of Northeastern Africa” held in Cologne in spring 1990 (Klees and Kuper eds 2002). The aim of the meeting was to summarize the state of research on the prehistory of this region. However, most of the contributors pointed out large gaps in the knowledge on this subject. In his paper, Professor Kobusiewicz (2002) focused on the Neolithic and Predynastic of the Egyptian

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Nile Valley and presented both the current state of research in this region as well as an outline of the most important research problems for further investigations. One of the matters for further studies mentioned in the contribution was the problem of the origins of the Neolithic communities in Northeastern Africa, both in the Nile Valley and in the Egyptian part of the Sahara. M. Kobusiewicz also outlined the need to investigate the relations between the communities from the Nile Valley and those from the neighbouring regions – the Western Desert and the Near East. In addition, he mentioned the existence of some chronological gaps in our picture of Egyptian prehistory and the importance of lithic assemblages neglected by many researchers.

Over the years that have passed since the publication of the paper, new research on the prehistory of Northeastern Africa has shed fresh light on the issues presented by M. Kobusiewicz. Although gaps still exist, our knowledge on the socio-economic processes that took place in the Egyptian Nile Valley as well as in the Sahara in the early and middle Holocene is now much richer than in the 1990s. In this paper, the author focuses on one of the research matters outlined by M. Kobusiewicz – the origins of the Neolithic in Northeastern Africa, both in Lower Egypt as well as in the desert. From the perspective of the current state of research, especially in the Fayum region, it is clear how accurate were his assessments of the problems identified by M. Kobusiewicz, and how apposite were his research suggestions and tips.

THE ORIGINS OF THE NEOLITHIC IN NORTHEASTERN AFRICA

Lower Egypt

The first Neolithic communities emerged in Lower Egypt approximately in the middle of the 6th millennium BC. A new subsistence strategy, the introduction of pottery and a sedentary lifestyle have been named as the main features distinguishing this period from the preceding Epipalaeolithic. It is generally agreed that domesticated plants and animals, alongside other elements of the Neolithic package, were introduced into Lower Egypt from the southern Levant (Krzyżaniak 1977; Ciałowicz 1999; Midant-Reynes 2000; Wengrow 2006; Tassie 2014).

The timing of the discoveries of Neolithic sites in Lower Egypt (early 20th century) had a major effect on today's idea of the prehistoric communities occupying this region in the period in question. The culture-historical approach, widely accepted at the time of the discoveries, resulted in dissecting the Neolithic occupation of Lower Egypt into three isolated cultural units characterised by a limited quantity of available data. On the basis of the discoveries made in the first part of 20th century, three cultural units were identified and are currently known as the Fayumian, the Merimde, and the el-Omari cultures (Caton-Thompson and Gardner 1934; Junker 1920–1940; Debono and Mortensen 1990). The communities represented by these units occupied

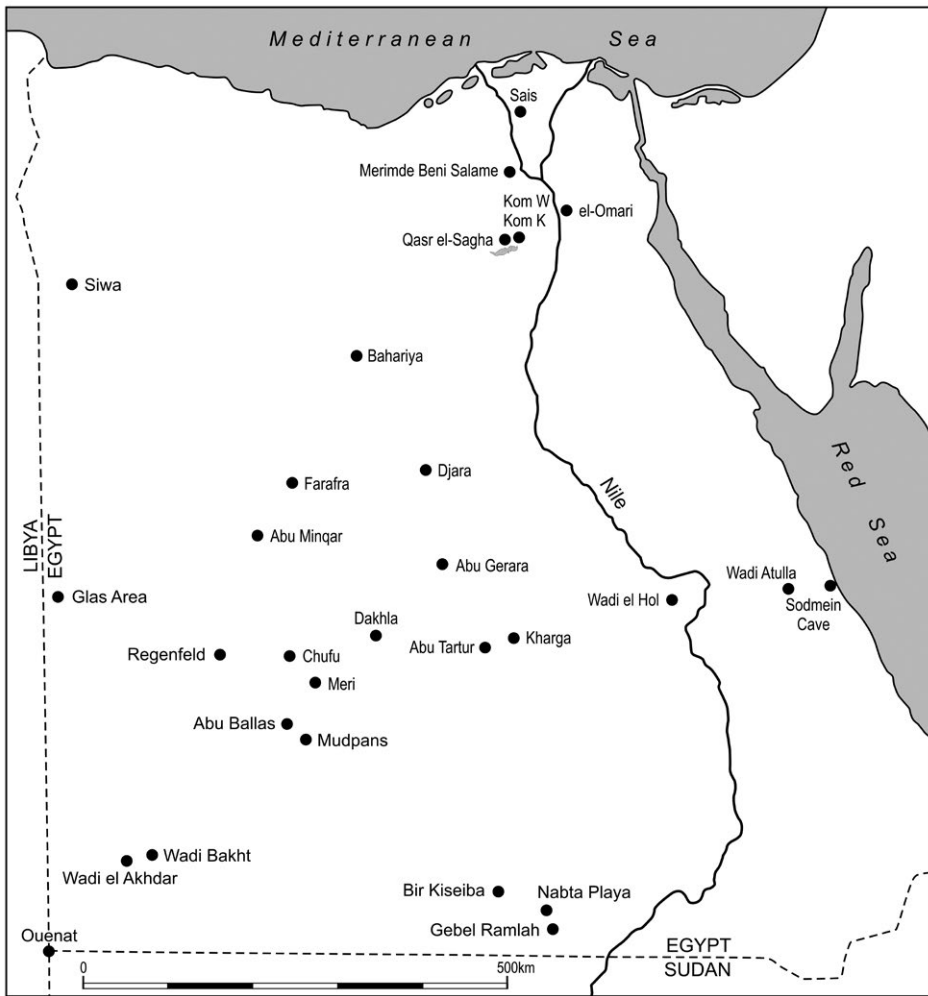


Fig. 1. Map of Northeastern Africa showing the most important Prehistoric sites.
Drawn: J. Kędelska.

different parts of Lower Egypt and overlapped only in certain periods. However, it is quite obvious that the cultural map of Lower Egypt in the period in question is full of blank spots, while all the currently known Neolithic (Fig. 1) sites probably represent only a small fraction of sites representing the actual Neolithic presence in Lower Egypt (Maćzyńska 2018).

Archaeologists have returned to the Fayum Depression as well as to Merimde Beni Salame after a long break. Research carried out in the Fayum between 2003–2013 contributed to a number of important discoveries that changed our knowledge of

the region (Holdaway and Wendrich eds 2017). The latest discoveries in the area indicate that the lack of traditional settlement structures associated with a traditional farming society probably results from the movement of people and animals across this region. The mobile way of life linked to the exploitation of various resources was not conducive to permanent occupation. Sites from the area were probably short-term hunting or fishing stop-over locations, perhaps accompanied by somewhat larger seasonal base camps. Another part of the mobile pattern were storage facilities used by groups moving across the area (Holdaway and Phillipps 2017). The early Fayumian people were probably pastoralists herding domesticated sheep, goats and cattle. These animals, although of Near Eastern origin, could have been introduced to the Fayum from the Eastern and Western Desert, where their presence in the 6th millennium BC is unquestionable (Tassie 2014: 236; Brass 2018). At a certain point in time, the inhabitants of the northern shore of Lake Qarun adopted also domesticated plants of Near Eastern origins (barley, wheat, flax). The plants may have arrived from the Delta area, where farming settlements already existed in Merimde Beni Salame and Sais (Tassie 2014: 236). At the beginning, plants grown for food were probably only an addition to the resources offered by the lake, still intensively exploited (Linseele *et al.*, 2014). At that time, pigs and dogs may have been introduced too, in addition to the previously known domesticated species (Tassie 2014: 231). These changes were accompanied by a reduction in the degree of mobility of the Fayumian communities. However, in the context of the most recent research in the Fayum, the movement of people was characteristic for all periods of occupation in the Fayum while “people moved into, out of and across a landscape rather than settling within it” (Holdaway *et al.*, 2017: 222, 224).

In the light of the recent investigations, many features of the Fayumian community (settlement pattern, grain storage systems, mobility, the small proportion of domestic animals and use of wild resources) mean that this community was closer in nature to the groups that occupied Northeastern Africa, rather than to the Neolithic Levantine societies (Holdaway *et al.*, 2016; Holdaway and Phillipps 2017).

The research in the Fayum has also helped fill in a gap in the Neolithic period. It has demonstrated human activity on the shore of Lake Qarun during the occupation gap between the Epipalaeolithic and the Neolithic periods. A number of age determinations from the later part of the early Holocene indicates frequent human activity across the northern shore of Lake Qarun until around 4000 BC (Holdaway *et al.*, 2016: 176–177).

Our poor understanding of the Neolithic occupation in the western Delta has attracted researchers specialising in the prehistory of this region. In 2013, the Imbaba Governorate Prehistoric Survey began in Merimde Beni Salame (Fig. 1) with the aim of surveying the western Delta hinterland around the Neolithic settlement (Rowland and Tassie 2014; Rowland 2015; Rowland and Bertini 2016). The researchers involved in the project set out to recreate the local environment and determine the role of humans in relation to it in its prehistory. The researchers focused on the transition between

the Epipalaeolithic and the Neolithic in order to understand the adaptation of farming and herding in Lower Egypt. Even though the project is still underway, its authors have already managed to collect information about human activity in this area from the Middle Palaeolithic and to demonstrate that the area occupied by the Neolithic settlement in Merimde was actually larger than once believed. Attempts at collecting new AMS radiocarbon dates also seem promising, as they can help fine-tune the site's chronology. Particularly remarkable is the fact that, as in the Fayum, the community inhabiting the Merimde settlement was not fully sedentary, and probably utilised the area around Wadi el-Gamal and exploited available resources for hunting, food processing and working tools (Rowland 2015).

The Egyptian part of the Sahara

Archaeological research conducted since the 1960s in the Egyptian Sahara confirmed the existence of evidence for intensive activity of hunter-gatherer and early herder groups in the early and middle Holocene. Remains left in the desert indicate the presence of a unique socio-economic system during the Holocene humid phase (8500–5300 BC; Kuper and Kröplin 2006).

In the early Holocene (*c.* 9000 cal. BC), the desert changed into a dry savannah, as a result of an abrupt northward shift of the tropical rainfall belt. Despite milder conditions, human presence in this area still depended on a few important elements, such as water, vegetation, and animals (Kuper and Kröplin 2006; Bubenzer and Reimer 2007).

The early Holocene in the Western Desert is linked to the activity of hunter-gatherer groups, whose traces (remains of short-stay camps) have been found near water sources, such as playas, pans or springs. Hunting was their basic subsistence strategy, and the role of wild plants depended on their availability, gradually increasing in the course of the Holocene humid phase (Gehlen *et al.*, 2002).

During the early Holocene, the Nabta Playa-Bir Kiseiba area was a special place (Fig. 1). Its specific environmental and climatic conditions had a significant impact on the trajectory of the development of human groups occupying this area. This is where the oldest traces of domesticated cattle (late 9th and 8th millennium BC) and intensive exploitation of wild plants were found. The special relationship between humans and animals, as well as the possibility to collect and store wild plant grains, allowed people to survive in the harsh conditions of the savannah. It was here that the oldest, richly decorated Egyptian ceramics of African origin appeared and it is from here that it probably was adopted for use in other parts of the Egyptian Sahara (Wendorf and Schild 2001; Jórdeczka *et al.*, 2013).

The middle Holocene (7000 cal. BC) saw an improvement in climatic conditions and, consequently, an intensification of human activity in the eastern Sahara, with a growing number of sites across the entire region. Traces of extended human presence

were recorded as well, interpreted as an episode of sedentism (e.g., Dakhleh Oasis, Farafra Oasis; Fig. 1). However, mobility still guaranteed survival, and people travelled over long distances in search of water, animals, and plants. During this period, the importance of wild plants increased and traces of their intensive exploitation can be observed in the archaeological assemblages. Undoubtedly, an important event was the emergence of domesticated animals – ovicaprines and cattle. Their importance was initially insignificant while hunting was still the main source of food. However, people started to move not only in search of water and food but also in search of pastures for animals. The relationship between humans and animals that which began at the time, led to the development of a pastoral economy at the end of the Holocene humid phase (Kuper and Riemer 2013; Riemer *et al.*, 2013).

Around 5300 BC, a declining number of C14 dates from the Western Desert have been recorded, suggesting a decline in settlement activity (Riemer *et al.*, 2013). This change has been linked to the southward withdrawal of the monsoonal rains and the onset of the desiccation of the Egyptian Sahara. The climatic changes triggered the movement of people and thus caused a migrational shift to the north (the Fayum, the Delta), to the Nile Valley, to southern Egypt, and to northern Sudan. In the oases, isolated from northern and southern influences, new cultural traditions began to develop. Moreover, the area between the Nile and the desert was criss-crossed by pastoral groups (e.g., Tasian) who stopped over in oases or in locations ensuring easy access to water and the pastures in the Nile Valley.

Tasian materials are known from a few localities in the Western and Eastern Desert (Fig. 1) e.g., at Gebel Ramlah, Wadi el-Hol, the Kharga Oasis and Wadi Atulla (Darnell 2002; Friedman and Hobbs 2002; Gatto 2010; Briois *et al.*, 2012; Dachy *et al.*, 2018). On the one hand, all these finds indicate a high degree of mobility of the pastoral Tasa people, while on the other, they suggest links with desert traditions developed during the Holocene humid phase, rather than with the Nile Valley. The Saharan hunter-gatherers and early herders could have been the ancestors of the Tasa groups who were forced to modify their way of life when the conditions in the desert became harsher. They adopted pastoralism and moved between the valley and the desert, which allowed them to survive (see also Tassie 2014: 266–282).

CONCLUSIONS

Over the last few years of research on the origins of the Neolithic in Northeast Africa many new aspects of the social and economic development in the region in the period in question have emerged.

First of all, together with the progress of research, it became more apparent how the Neolithic Lower Egyptian groups gradually could no longer be seen as resembling

the typical Neolithic farming communities known from the area of the Near East. Although the bones of domesticated animals are present in archaeological assemblages, it now seems that the role of animal husbandry as one of the subsistence strategies was rather minor (Linseele *et al.*, 2014). During the 6th millennium BC, domesticated plants were probably not known in Lower Egypt, or were known on a very small, experimental scale (see Shirai 2017). The Neolithic groups, thanks to the abundance of natural resources in the vicinity of the lake or the river, relied on food resources offered by the environment (Linseele *et al.*, 2014). The lack of permanent settlement structures in this area is interpreted in the context of a partially mobile way of life. Moving within the Fayum Depression or Wadi el-Gamal and adjacent desert areas, people were able to use the resources offered by the natural environment, including food and raw materials used for tool production.

Secondly, the origins of the Neolithic groups in Lower Egypt are linked both to the influences from the Levant as well as those from the Egyptian Sahara. Importantly however, the available evidence does not prove any direct contacts between Lower Egypt and the southern Levant or Lower Egypt and the Western Desert, or the presence of migrants from the eastern Sahara or the Near East in the northern part of Egypt during the Neolithic. This research problem still needs further investigation (Tassie 2014: 194–240; Mączyńska 2018: 52–64).

Finally, the recent research on the origins of the Neolithic communities in Northeastern Africa has allowed the partial filling of the other gaps outlined by M. Kobusiewicz. New chronological determination from the Fayum have proven that the gap between the Neolithic and the Epipalaeolithic should be interpreted only as a result of lack of evidence, rather than an actual hiatus in occupation on the shores of Lake Qarun (Holdaway *et al.*, 2016). Additionally, investigations in Lower Egypt and the eastern Sahara have provided plenty of information on the relationships between the two regions (Shirai 2010; 2013; Mączyńska 2018). Moreover, research in both areas has demonstrated that lithic assemblages offer important clues for researchers, as suggested by Professor M. Kobusiewicz in his paper (Kobusiewicz 2002: 215).

The recent investigation have provided valuable evidence for understanding the cultural development of prehistoric Northeastern Africa. However, many issues still require further study. Even now, with access to the newest dating methods, chronology still seems to be the weakest point in the research on the prehistory of these regions. Moreover, the challenges are similar to those faced in the 1990s. Prehistoric remains are still in danger due to the intensive development of farming areas in Egypt.

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