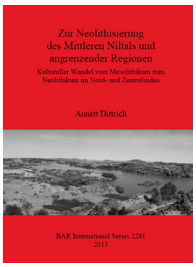
Book Review



Zur Neolithisierung des Mittleren Niltals und angrenzender Regionen. Kultureller Wandel vom Mesolithikum zum Neolithikum im Nord- und Zentralsudan. *By Annett Dittrich.* B.A.R. International Series 2281. Archaeopress, Oxford, 2011, ix+454 pp. ISBN 9781407308586. £50.00 (Paperback).

The reviewed dissertation of Annett Dittrich is an extremely ambitious project dealing with a relatively large area over a period of time of at least 6 millennia, from the beginning of the Holocene up to the fifth millennium cal BC. Relevant topics such as research history, site formation processes, absolute ages and artefact material have been evaluated. Based on this, the relationship between sites and assemblages to known archaeological complexes or temporal units is re-examined, and at times their validity is reconsidered. Furthermore, supra-regional dispersion models of so-called Neolithic innovations are revised.

The outline of the research history is enlightening, although it is often subjective and biased. In a review of research history you would expect a compilation of the most relevant sites, projects, researchers and above all their publications. Instead of this you feel dragged into an ideologically biased contention with the critics of A.J. Arkell, one of the pioneers of Sudanese Archaeology.

The revision of the archaeological sites is probably the main outcome of the thesis. Of particular interest is the examination of site formation processes. Dittrich presents information on the preservation of archaeological sites in alluvial and limnic systems as well as on surfaces in arid environments that are worth knowing for every archaeologist working in that area. As a result she succeeds in demonstrating to what extent the lack of understanding of site formation can lead to striking misinterpretations of the archaeological record as shown in the case of the Quadan. In addition, the author presents a method for studying the stratigraphic distribution of artefacts in order to identify post-sedimentological re-arrangement of deposits, which come from several occupation events. This approach results in a plausible re-interpretation of some multi-phase sites such as Shaqadud or Khartoum Hospital.

A further important contribution is the revision of radiocarbon ages. In particular, Dittrich provides a very systematic treatment of the data, which includes lists of raw uncalibrated dates, lab numbers, and $\delta^{13}C$ values, which unfortunately is not taken for granted in other publications. Furthermore Dittrich rejects data after facing issues such as dated material, dating method or unclear origin of the dated sample. The latter means that most of the ages older than 5.5 ka calBC are considered critically. On the other hand the use of "bp" instead of "BP" must be criticised just as the attempt to speculate about continuous or discontinuous occupation of sites, considering the mostly sparse and contradictory database. I also suggest that the attempt to subdivide the settlement history of the working area with the help of so-called "wiggle-ranges" (*Wiggle-Bereiche*) should be rejected. The underlying idea of this concept is the existence of plateau phases in the ^{14}C calibration curve. Within these plateau phases the possibility of calibration is rather limited. Archaeologists are "blind" and upheavals are hardly detectable. Conversely, Dittrich transfers these plateaus into phases which don't work simply because these plateau phases have no stable length. Length or duration of these phases is a mathematical function of the standard deviation of the individual data. Thus a physical phenomenon is projected onto the archaeological record, resulting in static phases which barely correlate with changes of characteristics such as artefacts or subsistence strategies. This is altogether a questionable starting situation for further interpretations.

The title also promises a study of processes on a supra-regional level. By looking at figure 1.3, remarkable discrepancies become obvious concerning the time of occurrence of Neolithic innovations such as cattle domestication or the invention of pottery. The early appearance of domesticated cattle documented on

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sites studied by the Combined Prehistoric Expedition (CPE) in southern Egypt has been criticised for a long time. The main criticism is that domestication is only proven indirectly. According to Fred Wendorf and his team, environmental conditions of the Early Holocene, in particular the limited availability of water, did not allow the existence of wild cattle in the area. Their survival could only be guaranteed by human support, such as the building of wells. Like other authors, Dittrich rejects this hypothesis and accepts the age of 5.4 ka calBC as the earliest expected date for the appearance of domesticated cattle in the Nile valley, emphasising the need for renewed discussions about the autochthonous African domestication of cattle. The possibility of an introduction of cattle together with sheep, goat and domesticated species from the Near East — as it is true for Eurasia — would be sufficient to explain the archaeological record.

A second supra-regional topic stressed by Dittrich is the initial appearance of pottery. This part of the theses however is hard to comprehend. According to common understanding, pottery appears in North Africa already during the Early Holocene. Climatic amelioration including increasing precipitation leads to the northwards shift of the savannah belt. These changes resulted in the emergence of extended distributions of wild grass that were harvested and presumably processed in pots. Early ^{14}C-ages from Mali date back to the 10th millennium calBC. After her revision of all radiocarbon ages Dittrich accepts only ages from 6.5 ka calBC onwards from the Khartoum-Butana-Region, and in the case of the Central Sahara certainly from 5.5 ka calBC onwards! There is for sure justified criticism regarding some early data such as Sarurab or Wadi el Akhdar 83/33 where the dating of wavy-line pottery is doubtful indeed. However ^{14}C-ages from more recent excavations such as Ounjoungou or Tagalagal cannot be so easily wiped off.

In general the unfortunate choice of several terms such as "Ceramic decoration circles" (*keramische Verzierungskreise*), "cyclic phases" (*Zyklische Phasen*), "segment-shaped composite tools" (*Segmentförmige Kompositgeräte*), *Lunaten* and, as already mentioned, "wiggle ranges" (*Wiggle Bereiche*), or their imprecise application as in the case of erosion versus deflation should be criticised. In particular the blurred use of the terms "Mesolithic", "Epipalaeolithic" or "Late Palaeolithic" is surprising. In a thesis dealing with the Neolithisation process I would expect greater emphasis on the terminology that is used and the transitional models employed; however, this is not the case here. Furthermore Dittrich's justifications for using the term "Mesolithic" in the North-African context is somewhat underwhelming. The discussion about the use of the term is mixed up with the debate on the existence of a distinct Early Holocene hunter-gatherer culture with proper characteristics regarding subsistence strategies and artefact composition. Dittrich argues that whilst the "Mesolithic" is considered a controversial term, the "Neolithic" is not, which is absolutely not true. And yet, it is precisely in this use of terminology that researchers try to cope with the complex situation that characterises the transition to food production. These attempts range from using terms such as "Pastoral" — emphasising the pastoral component of an economy — to local chronologies using more neutral terms such as "Djara A" and "Djara B". The term "Mesolithic" was coined to describe the particular situation in Central Europe, between the last glacial period and onset of the Neolithic. Reforestation, characterising the European Mesolithic, created a particular ecosystem and changes in wild game composition, which forced the inhabitants to adopt new hunting strategies and mobility patterns, resulting amongst other things, in the creation of new tools and the use of different raw materials. The transition to food production was comparatively abrupt and irreversible. This pattern cannot be transferred to Northern Africa, neither with regard to environment nor to subsistence strategies. Therefore the term "Epipalaeolithic" seems to be more appropriate in the sense of an expiring multi-faceted Palaeolithic, leading to complex regional solutions, based on broad-spectrum economies, for coping with the harsh environments of North Africa.

The layout and quality of figures in this book are agreeable, except of some unfortunate, bothering line breaks. Only the concept of the tables is a bit confusing. List 2 would be clearer if justification would be replaced by a table structure. Even the division of the different lists is not evident. An overall chart including all sites, abbreviations, raw and calibrated dates would be clearer.

Altogether this book makes an important contribution towards the understanding of the Early and Mid Holocene occupation history of the Middle Nile valley and adjacent regions. Especially commendable is the revision of the most important sites of the study area, including absolute ages and site formation processes, and the resulting re-interpretation of assemblages and regional cultural units. The supra-regional discussion about the appearance of pottery and domesticated species as well as the proposed chronological subdivision, however, needs further attention. A convincing Neolithisation model still remains a desideratum.

Jörg Linstädter
University of Cologne, Germany