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UNIVERSITÀ DEGLI STUDI DI CASSINO
DEPARTMENT OF ANTIQUITIES OF LIBYA

UAN TABU

In the Settlement History of the Libyan Sahara

Edited by
Elena A.A. Garcea

Arid Zone Archaeology

Monographs 2

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This series collects original case studies dealing with ancient societies from the Late Pleistocene throughout historical period. Focus is on cultural transformations, economic organisation, and palaeoenvironmental reconstruction. Area of interest is the arid belt stretching from North Africa (Sahara and Nile Valley, in particular) to the Arabic peninsula up to central Asia.

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In the Settlement History of the Libyan Sahara

Edited by
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with contributions by

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A. Livingstone Smith, A.M. Mercuri, K. Neumann,
A. Rizzo, G. Trevisan Grandi, L. Trombino,
D. Uebel, P. Van Peer

and a comment by M.M.A. McDonald

Arid Zone Archaeology

Monographs 2

We were all nomads once, and crossed the deserts and the seas on tracks that could not be detected, but were clear to those who knew the way. Since settling down and rooting like trees, but without the ability to make use of the wind to scatter our seed, we have found only infection and discontent.

J. Winterson

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Table 13.I, p. 215 – The faunal remains from the 1960-63 excavation.

Commentary

This book is the latest in a series of monographs to be published by members of the Italo-Libyan Joint Mission on their work in and around the Tadrart Acacus in South-Western Libya. The project, which initially focussed on the remarkable rock art of the area and its archaeological context, has since blossomed into a multi-disciplinary investigation of the archaeology and palaeoenvironment of the Central Acacus massif, and of some 6000 km^2 atop the nearby Messak Settafet plateau and on the dune-covered lowlands around them. The Tadrart Acacus is the easternmost of the Central Saharan mountain ranges, and one of the few locations within that volatile area in which it is still safe to work. This rugged, arid environment provides an unusually rich record for geoarchaeologists, with caves and rockshelters that contain deeply stratified deposits, and often extraordinary preservation of organic and other remains.

Addressing this record, members of the Mission have identified some 450 sites throughout the region, ranging in age from the Early Stone Age to the Late Pastoral (Cremaschi and di Lernia 1998b). They have focussed particularly on the Holocene portion of the sequence, applying up-to-date, indeed often pioneering, methods to recover and analyse data on the changing palaeoenvironment and human responses to it. In the process they have defined a sequence of five phases marked by varying settlement systems and mobility patterns, extractive, and then food producing economies, ties beyond the region, and inferred ritual, all against a backdrop of changing environmental conditions through the Early and Mid-Holocene.

The strengths of that approach are clearly evident in this volume, which focuses on the rockshelter of Uan Tabu in the Central Acacus. A trench dug in the 1960s by S. Tiné was expanded in the early 1990s under the direction of E. Garcea and was taken down to bedrock, revealing a sequence stretching from the Upper Pleistocene to the Late Holocene. Three main phases of occupation were identified within the 2.5 metres of deposit: one from the Upper Pleistocene attributed to the Aterian unit, and two from the Early Holocene, termed the Early and Late Acacus phases. In addition, surface evidence within the shelter attested to occupations throughout the Mid-Holocene by pastoralist groups.

This volume contains reports by twelve specialists on such topics as the processes forming the sedimentary sequence at Uan Tabu, the archaeological sequence, the position of the Uan Tabu Aterian and related assemblages within the Middle Palaeolithic/Middle Stone Age of North Africa, the artefact categories from the Early and Late Acacus occupations, pottery manufacturing processes, combustion structures of the Late Acacus, and the information gleaned from various palaeobotanical studies concerning climate change and human exploitation of plants and animals throughout the Early and Mid-Holocene. The editor mentions that there was a great deal of discussion and circulation of manuscripts amongst contributors during the preparation of the volume. The result is a coherent, detailed and well-integrated account of varying palaeoenvironments and human adaptations in the Central Acacus from the Upper Pleistocene through to the Late Holocene.

Three aspects of this work might be of particular interest to archaeologists working beyond the southwestern Fezzan. They include the evidence from Uan Tabu and elsewhere in the area bearing on the later Upper Pleistocene archaeological sequence for North Africa, the kinds of information to be gleaned from studies of site organization in Uan Tabu in the Late Acacus, and the remarkably detailed picture generated by the palaeobotanists concerning changing environments and human adaptations through the Early and Mid-Holocene.

The Aterian is perhaps the best-known Upper Pleistocene technocomplex in the Sahara, but as explained here by Garcea and Van Peer, many questions remain concerning the origin, dating, and even the nature of the unit. The discovery at the bottom of the Uan Tabu deposit of a nearly metre-deep unit containing Aterian material was thus particularly significant. From this unit comes the only unquestionable date for the Aterian from the Central Sahara (an OSL date of 61,000 BP from near the top of the deposit), together with pedological evidence for a climate almost as arid as the present one. Chipped stone was the only category of archaeological evidence to survive in the deposit. However, by considering raw material procurement patterns and lithic technology, as well as the tool typology (which had been published elsewhere), Garcea detects two different stratigraphic assemblages within the sequence, and is able to suggest that, for most of that span, the shelter served as a habitation site for what may have seen seasonally sedentary groups.

The Aterian deposits at Uan Tabu are cut at the top by an erosional unconformity, and then covered by material of Holocene age. Van Peer presents evidence from elsewhere in the region, though most of it from surface scatters, suggesting a more complex sequence for the later Upper Pleistocene, with assemblages both preceding and post-dating the Aterian. At Uan Afuda cave not far from Uan Tabu, a very small assemblage was found within a fossil dune formation similar to the latter's Aterian deposits. On technological grounds, the Uan Afuda material is considered to predate slightly the Uan Tabu Aterian. Two other small assemblages from the Messak Settafet, while quite different from the Uan Tabu Aterian, are thought, partly on taphonomic grounds, to be roughly contemporary with it.

Even more intriguing, perhaps, is the evidence for post-Aterian material. Abundant palaeoenvironmental evidence indicates that much of the Sahara was hyperarid during the Late Pleistocene after c. 60,000 BP, while the paucity of the archaeological record would suggest widespread abandonment of the desert. Nothing had been recorded for the Central Sahara for that period, and claims for Late Pleistocene material elsewhere, such as the Khargan or Sheikh Mabruk unit of the Egyptian oases, remain controversial.

Against that background, Van Peer's description of two possible "Late Palaeolithic" assemblages is very interesting. Tidwa-surface and Imrawen 1A, 1B, and 2A are both small collections from surface scatters on the Messak Settafet. In each assemblage, both blades and flakes were produced, the latter using a Levallois reduction strategy similar to one found in the Nile Valley Late Palaeolithic. The use here of *en éperon* butt preparation on laminar elements was also common in the European Magdalenian. Garcea points out that the distinctive treatment of platforms and of the bulbar area of flakes, and the many smallish blanks with steep marginal retouch that are found in these two assemblages, are also prominent features of Caton-Thompson's Khargan industry. In Dakhleh Oasis, there is a growing body of evidence to suggest that the Khargan and closely related groups (collectively called the Sheikh Mabruk Cultural Unit) are (*contra* Caton-Thompson) post-Aterian, and indeed might be dated fairly late within the long Late Pleistocene hyperarid period (Wiseman 1999). It now appears that there may be at least one other cultural unit that falls between the Dakhleh Aterian and the Sheikh Mabruk (Wiseman 1998). The picture remains fragmentary, and as Van Peer observes, good stratified material is needed. Still, there is evidence to suggest that humans continued to inhabit the desert during the Late Pleistocene period of hyperaridity, at least in certain favoured localities such as the large oases and in mountainous terrain.

The deposits of the Uan Tabu shelter pertaining to the Late Acacus phase of the Early Holocene contained a remarkable feature: the remains of a wooden hut. The structure was within the trench excavated in the 1960s, but the finds had never been published. Garcea analyses this artefactual material, in the case of the lithics considering the operational sequence, the choice of raw material, core reduction strategies and so on, as well as the tool kit. She then factors in the spatial distribution of the various categories of artefact, together with the distribution of the material from the 1990s excavation of an area outside of the hut. The result is a remarkably detailed picture of site organization in the Uan Tabu Late Acacus. It appears, for instance, that much of the knapping and grinding, and the jobs requiring perforators and denticulates, took place away from the hut, but activities involving a variety of other stone tools (many of top quality material), the pottery, and the more fragile artefacts in organic materials, were carried out within the structure, indeed mostly on its left side. Garcea then combines the evidence from Uan Tabu with that from other Late Acacus excavated sites and survey data to postulate a settlement system for that phase that was largely focussed on the mountains, with relatively sedentary groups occupying sites showing well-defined activity areas, and exploiting a relatively wide variety of plant and animal resources.

This detailed reconstruction of Late Acacus site organization and the settlement system in turn throws the Early Acacus adaptation into sharper relief. Groups in this earlier phase are smaller, more mobile, exploiting both mountains and lowlands, and have a relatively specialized tool kit to exploit a limited range of resources, particularly the Barbary sheep.

The same extraordinary preservation of organic remains that makes possible the detailed reconstruction of site organization and settlement systems for the Early and Late Acacus, is also exploited by the palaeobotanists to detail changes in climate and subsistence patterns throughout the Early and Mid-Holocene. By studying the pollen and carpological (fruit and seed) remains from the archaeological sequence, Mercuri and her colleagues are able to document a surprisingly complex and sophisticated subsistence pattern within what remained, through the Late Acacus, essentially an extractive, rather than a food producing economy.

The climate, as revealed through the pollen from Uan Tabu and other excavated sites, was relatively wet in the Late Glacial (c. 14,000-11,000 bp) and became gradually drier (but with reduced seasonality) through the Early Holocene (9800-8600 bp), and then abruptly more arid with the start of the Mid-Holocene. Through the Early Holocene, the vegetal landscape evolved from a rather monotonous savannah during the Early Acacus phase, to drier but more diversified conditions for the Late Acacus, and then steppe-like to desert conditions for the Pastoral phases through the Mid-Holocene.

In the Early Acacus, relatively small groups exploited the available resources, particularly grasses and Paniceae, mostly for human food, and mostly on a seasonal basis, only occasionally storing any of the material in the rockshelter. In the Late Acacus, the larger, more sedentary groups exploited the now diverse local resources somewhat more intensively. Much of the deposit in Uan Tabu consisted of ash and unburned vegetal matter. A broad spectrum of plants was used for food, fodder, bedding and construction, and possibly also for medicine, cosmetics and ritual. Of particular interest are various wild cereals that seem to have been stored and roasted as needed, and cattails, apparently used as both food and roofing for the hut. In general, the Late Acacus record suggests the harvesting, storage, processing, selection, and caring for desirable species, together with the transmission of botanical knowledge through space from site to site, and across many generations, but without actual domestication (the manipulating of genetic material) or the switch to agriculture.

A similar picture of intensification without domestication emerges from the Early Holocene record on animal exploitation. Both the palaeobotany reviewed above, and geomorphological evidence compiled by

Cremaschi and Trombino, suggest that animals were penned in the rockshelter. In the Early Acacus layers, where the faunal remains consist entirely of Barbary sheep, fragmentary coprolites of ruminants were detected in the deposit. The evidence is stronger for the Late Acacus, where caprovid dung, the storage of what appears to be fodder, and signs of heavy trampling, all suggest the holding of animals, presumably for delayed use. The evidence from Uan Tabu thus supports the argument, already published (di Lernia 1998a, 1999d), for the management of Barbary sheep in both Early and Late Acacus levels at the nearby Uan Afuda cave, and at other sites in this part of North Africa.

In summary, the contributors to this volume use sophisticated techniques of recovery and analysis to compile a vivid picture of changing palaeoenvironments and human adaptations in the south-western Fezzan from the Upper Pleistocene to the Late Holocene. The work can, among other things, serve as a sobering reminder to those of us who work on often badly deflated sites elsewhere in the Sahara, of how complex and finely nuanced the archaeological record can be, where conditions of preservation are such as occur in the deeply stratified sites of the Central Acacus.

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