

**BOOK REVIEW**

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# Review of *Ethnoarchaeology of the Kel Tadrart Tuareg: Pastoralism and Resilience in Central Sahara* by Stefano Biagetti

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## Abstract

This volume presents an ethnoarchaeological study of the Kel Tadrart Tuareg of the central Sahara (south-west Libya). The study not only provides a useful and richly detailed framework for better understanding the archaeological record of this region, but also contributes a wider range of insights on the adaptability of pastoralists to desert environments. It will be of broad interest to practitioners and researchers engaged with both the past and present of pastoralist lifeways and will also be of relevance to those working in ethnoarchaeology and archaeology more generally.

## Book details

Biagetti, S

*Ethnoarchaeology of the Kel Tadrart Tuareg: Pastoralism and Resilience in Central Sahara*. Springer; 2014. Publisher location: Cham, Heidelberg, New York, Dordrecht, London. 164 pages. 65 illustrations, 56 in colour. ISBN: 978-3-319-08529-6 (Print) 978-3-319-08530-2 (Online)

**Keywords:** Pastoralism; Resilience; Ethnoarchaeology; Prehistory; Archaeology; Nomadism; Tuareg; Africa; Sahara

## Main text

Our knowledge of present and past human lifeways and food security in hyperarid lands is deepened by a study of the Kel Tadrart Tuareg of the central Sahara, of significance for current issues relating to food production and resilience in the face of expanding global populations and changing regional climates. In this context, it is of clear importance to better understand pastoralist adaptations to desert environments.

The Tuareg traditionally live as nomadic or semi-nomadic pastoralists in the central Sahara and parts of the Sahel in North Africa. Biagetti's study focuses on the Kel Tadrart, a small Tuareg community living in the Tadrart Acacus massif in the central Sahara (south-west Libya). This well-illustrated volume is an ethnoarchaeological study, which aims to provide ethnographic insights into the archaeological study of the past through exploring modern behaviours within the same functional and ecological domains.

Ethnoarchaeology is a rich and most valuable research tool for understanding the past, but must be conducted with the full understanding of its limitations and caveats, in that past and present conditions are not completely analogous (Agorsah 1990). For example, as the author discusses, certain differences exist such as the modern use of cars, which clearly affect present-day mobility patterns and access to resources.

The full understanding of past Saharan pastoral societies is of major regional significance due to the role these groups played in the origin and spread of animal husbandry in prehistoric northern Africa. In this volume, Biagetti sets out to explore and understand a whole host of human behaviours and physical traces within the Tadrart Acacus. This includes, for example, how pastoralist groups adapt their behaviour to the desert, how they select settlement locations (in relationship to water and grazing resources, for example) and how they structure these settlements.

The environment of the Tadrart Acacus is briefly outlined in the volume, including discussion of its climate, landscape, geomorphology and vegetation. It is a mountain

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range rising to peaks varying between 800 and 1,300 m above sea level, and running some 150 km from north to south and 50 km east to west. Today, the climate is hyperarid, with mean annual precipitation of 0–20 mm (although rain is erratic and does not occur every year). Despite this low and erratic precipitation, vegetation is still present year-round in certain places, such as along the *wadi* floors—the *wadis* being one of the main ecosystems in the desert. Management of water resources is clearly of central significance for the pastoralists. Water is mainly sourced from wells (both artificial and natural) and ponds where rainfall accumulates (known as *gueltas*).

The volume also briefly reviews literature on Tuareg ethnicity, lifestyle and social structure. It gives ethnohistorical and ethnographic accounts of the Kel Tadrart Tuareg, focusing on the people and their livestock. Historically recent data, from the 1930s, for Tuareg groups in the wider region show interesting variation in terms of numbers of animals owned by different social and ethnic groups. For example, cattle and horses, animals with greater water requirements, were kept in small numbers and were almost exclusively owned by *Ihaggàren* (so-called nobles) rather than *Imgàd* (vassals).

Current data (from 2007) on Kel Tadrart population structure and density really emphasise the low population density of the Acacus (about ~0.008 persons per km<sup>2</sup>). Also of interest is the increase in number of livestock owned by Kel Tadrart Tuareg groups today compared to the 1930s census data. This section provides some fascinating insights, although more could perhaps have been made of the data presented here.

Biagetti examines the Kel Tadrart regional settlement patterns in their wider context, assessing their locations in relation to natural resources, status and kinship links. Settlement location is identified as being influenced by accessibility to reliable water sources (animals can normally reach the *gueltas* on their own). In discussing the patterns of residential mobility amongst the Kel Tadrart, Biagetti prefers to use the term ‘alternative’ campsites, as opposed to ‘seasonal’, as the majority of the households do not follow a regular seasonal mobility pattern. Rather, the use of these sites is irregular and opportunistic (perhaps due in part to the erratic rains). Biagetti identifies how movements (distances between sites) do tend to be relatively short distance (10–40 km) compared to the longer distance movements of other pastoral groups in the Sahel (e.g. Barral 1967). He also notes that fodder can be bought at the regional market, with some households stating they occasionally buy fodder when needed in very dry years, helping to buffer the naturally available resources to maintain higher herd sizes (as noted above, larger herds are kept today than in the 1930s).

The internal patterns of Kel Tadrart settlements are also considered in great detail, which will be of wide

interest to researchers interested in the archaeological signatures of past pastoral societies. This analysis focuses primarily on the ‘main’ campsites and includes consideration of their locations, structures and fixtures. Biagetti found that the concept of a ‘site’ as used in archaeology did not cope well with the loose and dispersed structures and features of the settlements. The overall area covered by a single Kel Tadrart household camp can be extensive with structures loosely dispersed over areas up to 2 ha in extent. The study provides a thorough analysis of structure types, including their size, shape and use, and also settlement discard practices (disposal of ashes, charcoal and rubbish). Of particular relevance for archaeological research is that dung areas (sheep and goat droppings), often mixed with some fodder and other occasional small waste, are amongst the most visible features of the Kel Tadrart campsites.

The volume will be of broad interest to practitioners and researchers engaged with both the past and present of pastoralist lifeways. It will be of particular interest to those working in ethnoarchaeology and archaeology more generally, and not just those interested in the Saharan record. The data on Kel Tadrart hut construction, for example, identified that the fully sedentary households tended to feature plant material structures, rather than stone, as was seen in the more mobile households. As Biagetti points out, this finding challenges the more common archaeological interpretation, applied across different geographical regions and time periods (e.g. in the Neolithic Near East: Mortensen 2014), that mobility is associated more with ‘lighter’ structures and sedentism with ‘heavier’ structures. There are numerous other valuable perspectives for archaeologists looking for and defining the extent and composition of early pastoralist sites.

The volume finishes with a brief perspective on how the ethnoarchaeological data brought together in this project casts new light on the archaeological record of the Tadrart Acacus. Biagetti rightly stresses that he is not attempting to map the present onto the past; rather, in systematically documenting cultural and environmental factors, he hopes to construct a ‘working model’ to aid in the interpretations of the patterns and variability of past pastoral landscapes. In this he is successful, as he moves away from the dangers of ethnographic analogy constraining archaeological interpretation, towards it providing examples of possible behaviours, strategies and processes within defined contexts.

Criticisms of the volume are few and only minor. There are a small number of occasional typographic and editing errors, and a few tables (3.6 and 3.8) and figures (3.3 and 3.4) appear to be duplicated in Chapter 3. In a few areas, a little more could have been made of data and interpretations. Further discussion, for example,

could perhaps have addressed the use and role of camels and donkeys and how they influence current mobility and herding practices. These points, however, do not significantly detract from what is a thoughtful, accessible and very useful study.

This volume underlines the significant contribution that ethnoarchaeological studies can have to archaeological research. It adds a valuable study to help understand and contextualise the adaptation and responses of past human groups to the central Saharan environment. In particular, it offers micro-level understanding of adaptations of pastoral groups to the arid Sahara that can be added to the range of multi-scalar approaches to the study of the past, such as the (macro-level) demographic response to the oscillations in the climate (Manning and Timpson 2014).

Biagetti correctly points out that past human occupation in the region has been underestimated and undervalued, in part perhaps linked with assumptions about the resilience of groups living in hyperarid areas. In addition, the Saharan desert has been a marginal focus for ethnoarchaeological research on pastoralism, especially in relation to other areas, and this study makes a major contribution to reducing this deficit. The volume is a significant achievement and presents a very useful and insightful study on the adaptability and resilience of the Tuareg pastoral community to this harsh and arid environment. It successfully meets Biagetti's objective of enabling the present to inform the study of the past.

#### Competing interests

The author declares that he has no competing interests.

Received: 17 May 2015 Accepted: 28 May 2015

Published online: 22 June 2015

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