

# Chapter 1

## Bilma:

### A Menu for the Central Sahara – Present–Day and Holocene Food Resources and Food Strategies

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#### **ABSTRACT**

*The Bilma-pollen record (NE-Niger)-reaching down to the Late Pleistocene-evidences that up to the 7th millennium BP the Central and a mixed plant cover out of Acacia-dominated savannas and some Sudanian vegetation units around lakes and along rivers. However, these Sudanian elements reached only to 20o N and disappeared around 5000 BP. The Acacia-Panicum –savannas - of various densities - dominated from that time on. Achabs (short time- grass and herb floras) could reach to large extensions and represented the aleatoric component of vegetation – and food resources. Climatically these regions were characterised by an intensive interaction of monsoon and harmattan giving chances for rainfall the year round. Fire was a permanent phenomenon in the various landscapes. People had two main sources for alimentation: As hunter-gatherer they could base on various plant resources and fishing and game. From surveys on the traditional plant use and alimentation in the desert of northern Niger we could estimate the collecting resources for the human population in the Late Pleistocene and Holocene*

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## INTRODUCTION

In recent years, the interest in traditional food, in traditional agricultural products in arid areas has greatly increased (FAO 2011). Especially in the aftermath of the Ukraine war and the resulting wheat crisis, FAO called for greater consideration and promotion of traditional crops (FAO, 1988, 2023a). These plants have long been of interest to science and industry as genetic resources (EBI 2023, FAO 2023 b). Parallel to this, there is an intensive discussion about the nutritional situation in the Holocene of arid regions - especially the Sahara (Bernus 1967, Dunne et al. 2016, Fuller, et al. 2021, Garcea et al. 2004, Gast 1968, Lancelotti & Riegel 2011, Mercuri et al., 2018, Sadig 2009, Schulz and Adamou 1997, Tubbiana 1969, Wasylukowa & Dahlberg 1969) - in which the questions of early agriculture and the subsequent development of cultivated landscapes play a major role.

These questions are discussed on the basis of a pollen diagram from the south-central Sahara (Schulz et al. 1990). The Bilma diagram covers the late Pleistocene and the Holocene, thus the period of transition from hunting and gathering to animal husbandry, i.e. from a pure extraction economy to a production economy and the associated landscape changes. These considerations are based on studies of the vegetation of the Sahara and its present traditional use as a current model of the Holocene situation. Thus, the following questions are raised:

- i. What does the plant cover of the Sahara look like?
- ii. To what extent can current conditions be used as a model for the past?
- iii. What food resources does it provide for the inhabitants?
- iv. How should we imagine the plant cover of the central and southern Sahara?
- v. What food resources can we assume for the inhabitants at that time?
- vi. What about the economic change from hunter-gatherer to nomadic livestock farming and possible cultural landscape developments?

Maps and graphics should explain the essential terms and facts, thus avoiding linguistic and conceptual misunderstandings. In respect to the title this paper is presented as a menu.

So, what are we talking about?

## The Regional Background – The Sahara

The Sahara is a threefold landscape system with the largest desert on Earth within. Vegetation is the best tool to characterise and delimit these regions (see Monod 1964, 1986, Quezel 1965, Schulz 2020). Moreover, it allows a comparison with the past based on the same material. South of the Atlas Mts. and South of Djebel Aktar

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