

# Chapter 2

## Ritual Ecologies and the Reconstruction of Economic and Environmental Histories in West Africa

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### **ABSTRACT**

*Organic remains from archaeological research in the Mouhoun Bend of western Burkina Faso have primarily been recovered from discrete pits and concavities associated with diverse material culture and architectural remnants within mounds. Recent research at the site of Kirikongo indicates that these contexts are generally derived from funerary, veneration or foundation rituals connected to ancestors. Contents were highly structured in nature, and as the result of highly ritualized practices are not direct reflections of the general economy or environmental setting. This paper explores the challenges inherent in interpretation and the deep insights that can be made through recognition of the choices involved in deposition. It examines the broader implications of Kirikongo's site formation processes for earlier sites in the region, suggesting that ritualized deposition processes may have deeper histories, and explores the potential impacts on reconstructions of agricultural origins in the region.*

DOI: 10.4018/978-1-6684-7801-1.ch002

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## INTRODUCTION

Reconstructing environmental and agricultural histories from archaeological deposits is complicated by numerous factors. It requires recognition that samples do not directly reflect local or regional settings, but rather that they represent cultural choices made in dialogue with dynamic ecological relationships. Over the past two decades, scholars worldwide have emphasized relational approaches to archaeological assemblages, examining how new interpretations can be discerned through looking at the intersections between different data classes in archaeological contexts (Antczak & Beaudry, 2019; Chapman & Gaydarska, 2007; Dueppen, 2022; Gavua, 2015; Hodder, 2012; Malafouris, 2013; Robb, 2015; Watts, 2013).

Significant research over the past few decades on faunal and botanical assemblages has enhanced our understanding of general patterns of environmental change and subsistence systems in West Africa (see recent examples and overviews in Cerasoni et al., 2023; Dueppen, 2022; Orijemie, 2018, 2022; Champion et al. 2023; Gallagher et al. 2016; Höhn & Neumann, 2012; Dunne et al. 2022). However, recent attempts (see Kay, et al. 2019) to construct regional-level economic histories based upon taxonomic presence and assemblage diversity have resulted in models that are hampered by their basic assumption that assemblages are directly comparable (e.g., middens) and reflect the range and ratios of economic resources used. This has resulted in a particularly significant underestimation of agriculture and food production in the forest and savanna zones where yams are difficult to identify. However, the impacts are widespread. For example, the proportions of wild and domestic resources present in a deposit may reflect differences in use at a site, but may also be an artifact of processing and preparation (e.g., sorghum is less likely to be carbonized when used primarily for beer) or of the formation process of the assemblage (e.g., a ritual deposit can contain symbolically important resources in proportions that may or may not align with their economic importance). For this reason, we argue that large synthetic (big data) studies must be closely attentive to the variability in and comparability of contexts included.

In this paper we focus on faunal and macrobotanical remains to examine the implications of depositional patterns rooted in ritualized ecologies for reconstructions of environments, economic practices, and political statuses. Recent research in the Mouhoun Bend of Burkina Faso (Figure 1) has explored ritualized formation processes for archaeological tells from the first millennium BCE to the mid second millennium CE, in particular calling into question the common interpretation of ashy, material culture and animal bone-rich pits and depositions as middens (Dueppen, 2022; Dueppen & Gallagher, 2021, 2023a, 2023b). Contextual analyses of faunal and botanical remains from the site of Kirikongo indicate that these deposits derive from highly structured ritualized activities and provide deep insights into the divine

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