Kebara Cave, Mt. Carmel, Israel

The Middle and Upper Paleolithic Archaeology

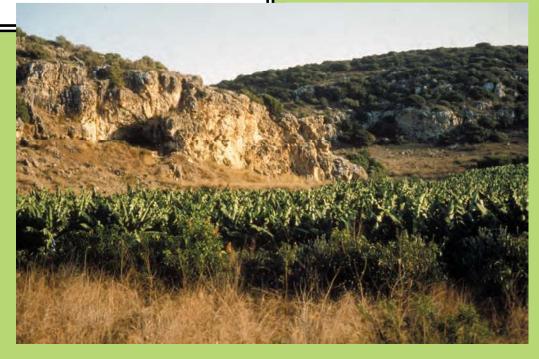
Part II

Edited by Liliane Meignen and Ofer Bar-Yosef

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Peabody Museum of Archaeology and Ethnology Harvard University





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The Kebara volumes are dedicated to the memory of our friends and colleagues Henri Laville (1937–1995) and Eitan Tchernov (1935–2002).

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Preface

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ANY FIELDWORK THAT lasts for almost a decade and involves a large number of participants takes time to be published. The work at Kebara Cave is no different. Of special note about this project was the cooperation and constant interchange among scholars of many different disciplines (Meignen et al. 2014). From these joint studies we succeeded in publishing a large number of papers, including the first synthetic volume, which appeared in 2007. We had hoped to bring to press the second synthetic volume within a few years of the first, but it took longer than we expected. During the intervening period since the first volume went to press, other Middle Paleolithic sites have been excavated and reports published (see chapters 1 and 10). Numerous lithic analyses of other assemblages have also been published, and relevant ones are mentioned in this volume. No less important are a number of faunal studies of Middle Paleolithic sites referred to in chapters 3–5. Thus, the body of knowledge pertaining to the prehistory of the periods uncovered at Kebara has expanded considerably. The radiometric chronology of the Upper Paleolithic of the Levant has improved, as mentioned briefly in chapter 8. Wherever these new data sets and resulting interpretations are relevant to the topics of the different chapters in this volume, we have tried to take them into account.

The first volume was dedicated to the history of excavations at Kebara, and ours was the third project there since inception of work at the site in 1931 by F. Turville-Petre, and later by M. Stekelis (1951–1965). It also provided the reasons for the new project as part of the efforts to respond to several questions related to the Middle Paleolithic period in three Levantine caves, namely, Qafzeh, Kebara, and Hayonim. Therefore the chapters of the first volume were dedicated to the overall stratigraphy of Kebara Cave, taking into account the subsidence that had occurred into an underlying sinkhole. We stressed the contributions of micromorphology for clarifying the nature of the occupations and the Middle Paleolithic hearths as special features. The mineralogical studies of the cave deposits clarified the effects of past diagenesis and the preservation of bones and phytoliths. Perspectives from faunal studies, a few archaeomagnetic studies, and cementum analysis of gazelle teeth contributed to our understanding of the Middle Paleolithic of this site.

The current volume presents a synthetic report on the lithics recovered by our excavations from the Middle Paleolithic period at Kebara (chapter 1, Meignen). The Middle Paleolithic plant remains recovered through flotation are described in detail (chapter 2, Kislev and Lev). A fuller report than previous ones on the fauna from both the Stekelis and our excavations is presented (chapter 3, Speth), with additional analysis of cementum targeted to disclose the hunting season of fallow deer (chapter 4, Rendu and Speth). Seasonality is also the main issue of a reinterpretation of the avian fauna that had been studied many years ago by the late E. Tchernov (chapter 5, Belmaker).

Kebara Cave is known for its human skeletal remains, which include two burials. The first one, a baby, was found in the excavations of M. Stekelis and was reported in the past. The second, of an adult, was discovered in 1983 and has been the subject of various publications. In this volume we present two reports. One is based on field observations made in 1983, along with a suggested interpretation of the burial (chapter 6, Bar-Yosef et al.). The second provides anthropological information on KMH2, the young adult found in the burial, and discusses its placement among Mousterian hominins (chapter 7, Arensburg and Tillier).

The Upper Paleolithic lithic assemblages recovered during our project are the subject of chapter 8 (Bar-Yosef and Belfer-Cohen) and, in addition to the illustrations we provide the full inventory in Appendices 8A and 8B. This chapter is followed by a short report on the shells recovered from our excavations with some of the finds acquired by M. Stekelis, mostly from the Upper Paleolithic deposits (chapter 9, Bar-Yosef Mayer).

The final chapter is an effort to discuss the function of the site during the different times of occupation and its placement within a broader territory (chapter 10, Meignen, Speth, and Bar-Yosef).

Although the series of field seasons was terminated in 1990, we returned to the cave in 2006 to obtain additional dates for the early layers of the Upper Paleolithic exposed in the southern section, as noted in chapter 8. Therefore, different issues concerning the deposits in the cave, as well as the detailed studies of the Middle and Upper Paleolithic deposits, will continue. One example is the study of volcanic ashes sampled by D. White in 2013. Therefore, the scientific investigation did not end, and we hope that the results of the new analyses will be available in the next few years. In this sense, the excavations at Kebara Cave symbolize the progress in archaeological research that benefits from the advancement of different scientific fields.

ACKNOWLEDGMENTS

The excavations at Kebara Cave were conducted with permits from the Israel Antiquities Authority to O. Bar-Yosef. We are grateful to the past directors for their cooperation. The Kebara research team thanks the participants in the fieldwork and the laboratory analysis and especially the students from many different countries who assisted us, always in good spirits during the long field seasons from 1992 to 2000.

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REFERENCE

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CHAPTER ONE

The Mousterian Lithic Assemblages from Kebara Cave

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INTRODUCTION

Over the past thirty years, significant advances have been made in anthropological research on the Middle Paleolithic in the Near East through both extensive fieldwork (excavations), resulting in discoveries of new human remains (Kebara, Amud, Dederiyeh, Hayonim), and interdisciplinary laboratory studies (Amud: Hovers et al. 1995; Hovers 1998; Dederiyeh: Akazawa and Muhesen 2002; Umm El Tlel: Boëda and Muhesen 1993; Tor Faraj/Sabiha: Henry 1995c, 2003; Hayonim: Bar-Yosef et al. 2005; Misliya: Weinstein-Evron et al. 2012; Ein Qashish: Hovers et al. 2008; Hummal: Le Tensorer 2004; Le Tensorer et al. 2011). The most significant contribution of these laboratory studies was the establishment of a more precise chronological framework that opened new perspectives on the question of the origin of modern humans in this region (Bar-Yosef and Meignen 2001; Meignen et al. 2001 and references therein). This work has also focused on understanding the behaviors of humans during this time, including technical and techno-economic behaviors, the organization of lithic production systems, and subsistence strategies. From this perspective, researchers have attempted to deteMct whether significant differences existed between the two morphologically different human groups presently identified in the Near East: Levantine Neanderthals and anatomically modern humans.

In this context, the long Mousterian sequence of Kebara Cave (more than 4 m in depth), situated chronologically at the end of the Middle Paleolithic (60,000–48,000 BP; Valladas et al. 1987) and stratigraphically just before the first occurrences of the Upper Paleolithic in this region (unit IV, Ahmarian, dated to 42,000–43,000 BP; Bar-Yosef et al. 1996; Rebollo et al. 2011), is essential for our understanding of this period, during which great technical and socioeconomic changes occurred.

While many aspects of the cognitive capacities of Upper Paleolithic humans (planning depth, spatial organization of territories and of activities in sites, symbolic behaviors, etc.) are fully recognized by the majority of researchers, the same is not true for the Middle Paleolithic, especially when individuals are morphologically identified as Neanderthals. A skeleton discovered in unit XII of Kebara Cave (Bar-Yosef and Vandermeersch 1991) is seen as *Homo neanderthalensis* by some physical anthropologists (Hublin 2000; Rak 1993) and as within the *Homo sapiens* range of variation thought to be closer to Neanderthals than to other archaic *Homo sapiens* by others (Trinkaus 1995; Vandermeersch 1995;