

## PREFACE

It is a pleasure to write these words of introduction to the book that Dr. Rebecca Miller has produced from her doctoral dissertation. An academic advisor always feels great satisfaction when his student successfully completes a dissertation. In the case of Becky Miller, I have the additional satisfaction of having followed her development as a professional prehistoric archaeologist first hand for many years and nearly from the beginning of her career. Becky came to us at the University of New Mexico from my *alma mater*, the University of Chicago, where she had obtained a Bachelors degree in Anthropology and a Masters in Education. A member of my field crew in Belgium almost from the start, Becky quickly "learned the trade" and became one of my most valued assistants, both in the excavations of le Trou Magrite, Huccorgne, l'Abri du Pape and Bois Laiterie and in the analyses and publication thereof. Becky stayed on in Belgium, hired as a research assistant by my good friend and colleague, Professor Marcel Otte, who made her an integral member of his dynamic research team at l'Université de Liège.

Dr. Miller's dissertation, which has been revised and converted into the present book, is the fruit of several long years of analysis and writing – not to mention considerable personal sacrifice. The key data used in this work (from le Trou Magrite and Huccorgne) are derived from the excavations of the South Belgium Prehistoric Project, co-directed by Otte and me and supported by various grants from American and Belgian institutions and agencies (U.S. National Science Foundation, National Geographic Society, L.S.B. Leakey Foundation, University of New Mexico, Université de Liège, Regional Government of Wallonia, Belgian Science Foundation). In addition, Dr. Miller analyzed collections from the modern excavations of the Institut royal des Sciences naturelles de Belgique at Maisières-Canal, from the recent but limited excavations of l'Université de Liège at Couvin, and from old excavations at a number of classic cave sites in Wallonia (Spy, Goyet, etc.). She also took good comparative advantage of the just-published lithic studies from the Mousterian site of Scladina Cave (Sclayn), whose ongoing excavations are directed by Dominique Bonjean under the overall supervision of Otte.

The subject of Dr. Miller's work goes to the heart of the debate over the behavioral differences and changes across the transition from the Middle to the Upper Paleolithic. The study of lithic economy (sources, procurement, transport, transformation, reuse, final discard) has already been shown to be of great importance in the unraveling of this complex problem (I refer especially to the work of Wil Roebroeks and colleagues in Leiden and of Jehanne Féblot-Augustins working under the direction of Catherine Perlès in Nanterre). Becky has applied this methodology (combining geological sourcing information with lithic reduction sequence analysis) in the context of an anthropological appreciation of hunter-gatherer mobility theory in order to use the Wallonian record as a case study of the evolution of human planning, scheduling and movements during the critical millennia that witnessed the "replacement" (or transformation) of the Neandertal form by the Cro-Magnon form of *Homo sapiens* in Western Europe.

The South Belgian case is an interesting one because of the geographical juxtaposition of an upland area (the Ardennes Massif) with caves and deep, sheltered valleys but no good flint adjacent to a lowland area (the loess-covered plains of Middle Belgium north of the Sambre-Meuse axis) without much shelter but with abundant sources of excellent Upper Cretaceous chalk flint. This fundamental, geologically determined regional structure conditioned the adaptive possibilities of humans who lived by foraging during the different interglacial or interstadial episodes of human occupation of this northerly region. Whether Mousterian Neandertals or Aurignacian, Gravettian or Magdalenian Cro-Magnons, humans could either use both areas in coordinated fashion, or separately, or just use one of them exclusively; What Miller found is that the organized transport of good-quality flint from the Hesbaye of Hainaut sources does not seem to have existed either in the Middle Paleolithic *or* in the earliest Aurignacian. This rational inter-regional system of procurement developed only later in the Aurignacian and continued in the Gravettian. Most interestingly, after the human abandonment of Belgium (and the rest of NW Europe) during the Last Glacial Maximum (between 24-13 kya), the human re-colonizers in Upper Magdalenian times re-learned how to integrate the flint, food and shelter resources of Wallonia by means of an organized system of mobility and transport (probably on a

seasonal schedule: warm season on the plains; winter in the uplands, as hinted at by preliminary dental analyses). The fact that this system was developed *after* the typological transition from Mousterian to Aurignacian (at le Trou Magrite, some time before about 38-41,000 radiocarbon years ago) and possibly after the appearance of *Homo sapiens sapiens* suggests a significant degree of initial behavioral continuity between the two adaptations and a lack of strict connection between behavior and anatomy. Miller's work is one more piece of evidence that begs the deconstruction or decoupling of the diverse elements (e.g., technology, artifact typology, subsistence, symbolism, artistic activity, social organization, functional morphology) that, over many millennia, made up the processual mosaic of bio-cultural changes that constituted the so-called "Middle to Upper Paleolithic transition", so oversimplified and converted into a brief "punctuation event" by many paleoanthropologists. As I see it, these are some of the implications of Miller's work, but even if I am wrong, along the way she has compiled and synthesized a substantial body of data, elucidating fascinating patterns both within and among sites, and made a significant contribution to the prehistory of Belgium.

Miller has profited from the extensive experience and lithic comparative collections of Professor Pierre Vermeersch (and colleagues) at the Katholieke Universiteit Leuven and Dr. Marjorie De Grooth at the Bonnefanten Museum in Maastricht, as well as the long-term, firsthand lithic characterization and sourcing knowledge of numerous fieldworkers (notably Jean-Marc Léotard, Eric Teheux and other members of the Liège team).Otte (along with Professor Paul Haesaerts of the IRSNB) has made it possible for Miller to reopen the classic early Gravettian site of Maisières-Canal. It is my hope that this new excavation will shed further light on the strategies employed by humans to survive in the worsening climatic conditions of early isotope stage 2 on the northern frontier of settlement in Western Europe. As her professor, advisor and now colleague, I wish to congratulate Dr. Rebecca Miller on a job well done!

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