

the Independence I, Independence II, and Thule cultures. Further analysis is provided by Christyann Darwent in a series of appendices that provide important additional information on Knuth's faunal finds.

*The Northernmost Ruins of the Globe* is a generously illustrated and well-documented publication that succeeds in presenting previously unpublished original data. Encyclopedic in format, the volume presents a wealth of detailed site-level information on Knuth's Arctic research. Grønnow and Jensen do a very good job in providing a systematic description of each site and bringing together Knuth's findings in a comprehensive approach that addresses broad themes in Arctic prehistory. In so doing, the authors present Knuth's findings from Knuth's perspective—which is both the point of this book and one which satisfies Knuth's wish to see his work published.

In terms of editing, there are a few minor inconsistencies in the mapping relative to site location and nomenclature. In addition, the reader's ability to locate sites on the accompanying mapping could have been improved if site numbers were included in the table of contents. It is also somewhat curious why some of the re-drawn sketches and new graphic materials are not as well reproduced as Knuth's original sketches and drawings. Despite these few inconsistencies in editing and reproduction, the volume's overall design and production values are excellent. Of additional note is the handsome dust jacket that provides Eigil's goggle-clad figure a view from its place on one's bookshelf.

This well-illustrated publication accomplishes its aim—to compile and present Knuth's 60 years of High Arctic research—and does so in a manner that provides the basis for facilitating new approaches to the archaeology of northern Greenland. In view of the largely descriptive and technical nature of this book, it will be of primary interest to researchers of Arctic prehistory and the history of research in Arctic regions. Future archaeological investigations in Peary Land will be founded on Knuth's lifetime of research, and as a summary of his work, this book and the database are of utmost significance to that task.

#### REFERENCE

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*John C. Erwin*  
*Department of Anthropology*  
*Archaeology Unit*  
*Queen's College*  
*Memorial University of Newfoundland*  
*St. John's, Newfoundland, Canada*  
*A1C 5S7*

**WOLVES: BEHAVIOR, ECOLOGY, AND CONSERVATION.** Edited by L. DAVID MECH and LUIGI BOITANI. Chicago: University of Chicago Press, 2003. ISBN 0-226-63763-8. 448 p., maps, b&w illus., color photos, appendix, indexes, bib. Hardbound. US\$49.00.

My first encounter with a wolf (*Canis lupus*) occurred on a canoe trip in northern Ontario. The animal trotted across the road as we neared our put-in. We were surprised to see it and stopped for another look. The wolf was standing in the bush watching us watch it. I clearly remember thinking, "what is that dog doing way out here?" Since that first meeting, I have worked with wolves throughout western North America and my understanding of them has grown.

Likewise, science's understanding of wolves has grown in the past 60 years, so that the wolf is one of the best-studied wild animals on the planet. In *Wolves: Behavior, Ecology, and Conservation*, editor-authors L. David Mech and Luigi Boitani, together with 21 chapter authors, attempt to synthesize accurately what we know of wolves. They do so in 13 chapters on topics of wolf behavior, ecology, conservation, and the interfaces between them. The book includes 16 glossy pages with 50 color photographs of wild wolves that depict aspects of the chapter topics.

The introduction states that the book aims to provide a compendium of basic wolf knowledge. This objective is achieved as the chapter authors address a large portion of the vast literature on wolves (56 pages of references). As with most books of this style, some chapters stand out for their quality and accessibility to a varied audience. Chapter 1, *Wolf Social Ecology*, co-authored by Mech and Boitani, is a thorough summary of wolf pack structure, dynamics, and associated aspects of wolf sociality. It is written in a style accessible to researchers, wildlife managers, and wolf enthusiasts alike. Chapters 10 (*Wolf Interactions with Non-Prey*), 12 (*Wolves and Humans*), and 13 (*Wolf Conservation and Recovery*) share this style. Chapter 11 (*Restoration of the Red Wolf*) is the most complete scientific review of the red wolf reintroduction that I am aware of. The inclusion of excerpts from field notebooks of project biologists is enjoyable and informative. Unfortunately, the authors present results only through 1994, leaving out the last 10 years of the recovery effort. During these years, the program has had to remove wolves from one recovery area and has faced issues of genetic swamping by coyotes in another. Including these details would have been helpful to planners of future reintroductions. Additionally, it would have demonstrated the challenges that remain for red wolf recovery. As it stands, we are presented with an unfair sense of the success of red wolf "restoration."

The chapter *Wolf Evolution and Taxonomy* (9) gives a comprehensive overview of the evolution of the wolf. However, it is a view based almost entirely on skull measurements, which does not incorporate many of the new findings from molecular biology. The author does

refer to some DNA analyses (p. 253), but then compares the findings back to morphology, thus reducing their scientific merit. One question raised by this chapter is the subspecific designation of North American wolves. Although I am not a taxonomist by training, I have observed and handled numerous wolves in Minnesota (*C. l. nubilus*), the Rocky Mountains (*C. l. occidentalis*), and the Barrenlands of the Northwest Territories. Tundra wolves differ substantially in appearance (Gipson et al., 2002) and behavior (Walton et al., 2001) from Minnesota and Rocky Mountain wolves. It is odd, therefore, that the range map in chapter 9 (p. 243) places them in one of these two subspecies. In that the taxonomy of any species can be controversial, the author gives a fair representation of the literature on the subject. As more and better molecular, morphologic, and behavioral data become available, the information in chapter 9 will most likely be the earliest in *Wolves* to become obsolete.

I found chapter 2 (*Wolf Behavior: Reproductive, Social, and Intelligent*), to be the least accessible and most difficult to read of the book. While the discussion on courtship and reproduction is valuable, the writing is jargon-laden and unfocused. It seems much of the information in this chapter could have been included in those on social ecology, communication, and physiology.

Along with chapters 1, 12, and 13, chapters 3 to 8 (3, *Wolf Communication*; 4, *The Wolf as a Carnivore*; 5, *Wolf-Prey Relations*; 6, *Wolf Population Dynamics*; 7, *The Internal Wolf: Physiology, Pathology, and Pharmacology*; and 8, *Molecular Genetic Studies of Wolves*), will likely stand for many years as the authoritative word on these aspects of wolf ecology. In addition to presenting a summary on the wolf as a carnivore, the authors of chapter 4 use data from the literature to calculate the basal metabolic rate (energy requirements) of wolves, which has not been reported previously. These types of syntheses and contributions occur throughout the book. At the end of each chapter, the authors point to gaps in our knowledge and future research needed to address them.

*Wolves: Behavior, Ecology, and Conservation* will be a prominent addition to the library of anyone interested in this animal. Most of the chapters are written in language and style that non-biologists will follow and enjoy. This book is a “must have” for wildlife managers in wolf range. The activities of wolves are important to ecosystem dynamics; therefore, the content of this book can guide informed management decisions. Likewise, those doing research on wolves or wolf-prey interactions will be served well by this book. If the text does not directly answer a question, it will provide a reference to a source that does.

If I had been able to read *Wolves* before that Ontario canoe trip, my response to the wolf trotting across the road would have been different. I still would have stopped for a second look, but I would have been able to identify the animal as a wolf and known this was a likely place for one to be. I would have known that its neighbors just south of the border occupied the last stronghold of the species in the

lower 48 United States. I also would have known about the steps being taken to recover this and other wolf populations throughout the Northern Hemisphere—and known that, given our current course, the prognosis for species survival into the future is good.

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Paul Frame  
 Department of Biological Sciences  
 University of Alberta  
 Edmonton, Alberta, Canada  
 T6G 2E9  
 pframe@ualberta.ca

QULIRAT QANEMCIT-LLU KINGUVARCIMALRIIT/STORIES FOR FUTURE GENERATIONS: THE ORATORY OF YUP'IK ELDER PAUL JOHN. By PAUL JOHN, translated by SOPHIE SHIELD, edited by ANN FIENUP-RIORDAN. Seattle and London: University of Washington Press, in cooperation with the Calista Elders Council, Bethel, Alaska, 2003. 856 p. in Yup'ik and English, map, b&w illus., glossary, notes, bib. Softbound. US\$35.00.

Over a period of two weeks in February 1977 Yup'ik leader Paul John guest lectured at the new Nelson Island High School in the village of Toksook Bay in Alaska's Yukon-Kuskowkim Delta. His oratory, in Yup'ik, was attended and tape-recorded by this volume's editor, Ann Fienup-Riordan, who was then a young graduate student in anthropology. Lack of funds, illness, and other obligations of the editor and the translator delayed publication. Now transcribed and translated, Paul John's lessons for the youth of Nelson Island nearly three decades ago are the substance of this book.

Those lessons consist overwhelmingly of traditional Yup'ik tales, *qulirat* (legends) and *qanemcit* (historical narratives). The stories are the intangible substance of Yup'ik culture, stories that previous generations of Yup'ik heard in the *qasgi* or communal men's house and assimilated as part of a life spent hunting, travelling, dancing, socializing, preparing food, repairing tools, and surviving from one season to the next.

Although Fienup-Riordan reports that during Paul John's ten-day stint at the high school she “never heard him repeat a tale” (p. xiv), the topics and themes of the 58 stories