

Cattle Bring Us to Our Enemies

*Turkana Ecology,
Politics, and Raiding in a
Disequilibrium System*



J. TERRENCE McCABE

THE UNIVERSITY OF MICHIGAN PRESS

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TO JIM ELLIS, IN MEMORIAM,

*intellectual leader in the
development of theory on nonequilibrium ecosystems,
mentor, colleague, and friend.*

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Series Editor's Introduction

The Human-Environment Interactions series is designed to publish the best scholarship on the reciprocal interactions between human populations and the biophysical environment. Inherently multidisciplinary, combining the physical, biological, and social sciences, this scholarship focuses on "the human dimensions of global environmental change." A measure of its importance is the existence over the past decade of a standing committee at the National Research Council/National Academy of Sciences that has identified and provided direction to research on the human dimensions of global change. The U.S. Global Change Research Program has been funded at significant levels by the National Science Foundation (NSF), the National Institutes of Health (NIH), the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), the Department of Energy (DOE), the Environmental Protection Agency (EPA), and many other U.S. agencies. This effort is also international, with notable funding from the European Union and many other nations, such as Japan, Russia, and Brazil.

As the importance of human interactions with the earth system began to be recognized, a large community of scholars undertook a vigorous research agenda, combining methods from the biophysical and the social sciences to understand these interactions. Human-environment interactions research has addressed such concerns as tropical deforestation; the societal impacts of climate change; the reciprocal interactions of population-environment-consumption; and mega-urbanization dynamics; it has also provided large-scale monitoring of changes in vegetation and historical reconstructions of human interactions at local and regional scales. Topics such as these give scope and structure to the series. This is an integrated science agenda developed in multidisciplinary fashion because of the complex nature of the problems being tackled, and the books in the series will reflect this

multidisciplinary complexity. Over the coming decade, this research will only grow.

The book that is before you reflects just such research. The South Turkana Ecosystem Project is one of the earliest and best exemplars of this marriage of first-rate ecosystem ecology research and sophisticated social science methods. Over the past decade, scientists working on the Turkana project have published a very large and comprehensive set of articles that address grassland ecosystem ecology, plant-animal interactions, and human dimensions (social organization, settlement patterns, nutrition, and politics). A particularly important contribution of the Turkana Ecosystem Project is the painstaking documentation of the behavior of these systems over time. While in the past these systems were viewed as systems in equilibrium, the scientists have shown that grassland ecology in these semiarid lands of East Africa is characterized, rather, by disequilibrium conditions. This has changed the way we think about pastoral behavior and about its role in sustaining these wildly fluctuating systems.

This book makes important contributions to several areas. It addresses the human dimensions of global change and ecological anthropology through its careful documentation over very long periods of time of the migration patterns of the Turkana and the Turkana's herd management and land use. The author examines climate factors and counterintuitive findings about reducing environmental risk by saving the most productive areas for last, rather than accessing them in the early stages of herd movement. The role of political factors, particularly violence and raiding, in pastoral decision making is studied, and it is shown that the path chosen for migration is not always the optimal one environmentally but instead is a path selected to reduce risk and to avoid predictable violence. In its investigation of violence and politics, subjects overlooked by many scholars, this book stands out as a major contribution.

Also somewhat unique as a contribution to pastoral ecology is the opportunity the author gives us to get to know several individuals and to appreciate the difficulties and challenges these persons face each day. This is fairly rare in ecology and environmental anthropology, which have in the past tended to provide aggregate statistics rather than careful life histories of individuals struggling to make life and death decisions in an uncertain environment. We see the numerous methods the Turkana use to cope with their complex social and

physical situations. Each story is unique, yet from them the author is able to distill broad theoretical principles. The migration data also are unusually detailed. Although the sample is small, it provides a much richer understanding of the movements of herds and people than would have been the case with an aggregate account.

I am delighted to introduce this fine book to our readers. Books such as this are valuable because they raise issues that are timely and urgent in nature, speaking to our future and also to our past. Pastoral people have often been misunderstood and fenced out of their needed grasslands. We learn how sophisticated their management is and how much countries with pastoral peoples would gain from allowing them to move as needed. Through its examination of the interactions of population and environment, this book provides a nuanced understanding, solidly backed by quantitative science, of the feedback between the biophysical environment and human choice making in social and political contexts.

It is my hope that this book will inspire readers to commit themselves to better understanding and to acting to ensure the sustainability of ecosystems such as this one. We invite readers to send to the editor, or to members of the editorial board, proposals for books that seek to advance our knowledge of human-environment interactions.

Emilio F. Moran, Series Editor

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Preface and Acknowledgments

I begin this book by recalling a memory that will be forever etched in my mind. It is March 1980, and I am making my first journey into Turkana District in northwest Kenya. I had read all of Philip Gulliver's work on the Turkana and was struck by how much difficulty he had in working with this group of pastoral people. In addition, while I was in Nairobi waiting for research permission and purchasing equipment, a story appeared in the *Daily Nation* about a group making a circumnavigation of Lake Turkana. When they were in southern Turkana, the place where I was to conduct my research, the headline read: "The Suguta Valley—A land where even the flies have fled." The article described the extremely harsh climate and the dangers posed by intertribal raiding and bandits. To say I was apprehensive is certainly an understatement.

I encountered no Turkana people as I was driving down the sand road between Lokichar and Lokori that day, and I stopped and looked out over the sand and gravel plains to the distant mountains. I remember thinking, Somewhere out there are Turkana families. Somehow I have to meet them and convince them that I should be allowed to live with them and to study their livestock management practices. This was how I began a period of sixteen years of research as part of the South Turkana Ecosystem Project.

Being part of the South Turkana Ecosystem Project allowed me to work closely with some of the most respected ecologists and anthropologists specializing in the study of pastoralist peoples and arid lands. It also allowed me to come to know and become friends with many Turkana people, especially the members of four families, upon which much of my research is based. All have influenced the way that I think about human ecology and the way I have conducted my work. I hope that in some small way this book will make a contribution to the study of human-environmental relations, and a contribution to the literature on pastoral peoples.

It is impossible to thank all the people who contributed to the production of this book over the last twenty-three years. Hundreds, if not thousands, of people during this time have helped me refine my thoughts, debated issues, offered hospitality, taken care of me when I was sick, fixed my vehicle, and so on. I cannot list them all. Please forgive any omissions and realize that this is only a partial list of those who should be acknowledged.

Financial support for my research was secured from the National Science Foundation, the Norwegian Agency for International Development, the Social Science Research Council, and internal funds from the Binghamton University, the University of Georgia, and the University of Colorado. The Centre for African Area Studies at the University of Kyoto provided me with a summer fellowship which gave me the time and support to finalize the manuscript. I want to especially thank Dr. Masayoshi Shigeta for all his help in arranging this. Research permission was granted by the Office of the President of the Republic of Kenya. Without this support none of this research would have been possible.

Of course the people who really made this work possible were the Turkana people who let me into their lives and shared their joys and tragedies with me—made me feel welcome, and, at least to some extent, a part of their families. I cannot thank enough Angorot, Lorimet, Atot, Lopericho, and their families. It is also impossible to think of field research in Ngisonyoka without the help of Elliud Achwe and Lopeyon.

All members of the South Turkana Ecosystem Project contributed in some way to my research. Neville Dyson-Hudson helped conceptualize the project and included me in the early funding cycles. Both Neville and Rada Dyson-Hudson shared their wealth of knowledge of East African pastoralist people with me, and Rada and I shared research results and coauthored a book published by the Human Area Research Files in 1985. Mike Little provided intellectual and emotional support at times when I most needed it. Paul Leslie became a friend, colleague, and mentor in such diverse fields as human demography and behavioral ecology, as well as in motorcycle riding and repair. Layne Coppock, Kathy Galvin, Robin Reid, and Jan Wienpahl shared camp life, good conversation, and the trials and tribulations of conducting dissertation research with me. Jan Wienpahl shared the early days in South Turkana, as well as our breaks away from the field. The

list of friends and colleagues who offered friendship and hospitality over the years is long, but Peggy Fry, Trevor Dixon, Peter Little, Dave Caddis, Diane Perlove, Randy Lintz, Jeanine Finnell, and the ever-changing complement of characters at Kuny Kastle stand out.

The late Jim Ellis was a friend and mentor in the field of arid land and range ecology. He influenced much of my thinking, and we continued to work together until his untimely death in 2002. Other ecologists, in particular Dave Swift and Mike Coughenour, shared time in the field and their understanding of ecosystem ecology and modeling.

Finally, I have to thank my family. My daughter, Kate, has had to accept that her father was often "in Africa." She has done this graciously and on two recent trips to Tanzania has become somewhat of a field-worker herself. Last, but certainly not least, I want to thank my wife, Judith. She is my emotional and intellectual partner. She has encouraged and shared aspects of my field research, and contributed in more ways than I can name in the production of this book.