

The Anthropology of Climate Change

An Historical Reader

Edited by Michael R. Dove



WILEY Blackwell

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About the Editor

Michael R. Dove is the Margaret K. Musser Professor of Social Ecology in the School of Forestry and Environmental Studies, Professor in the Department of Anthropology, Director of the Tropical resources Institute, and Curator of Anthropology at the Peabody Museum, Yale University. His interests include the cultural and political aspects of natural hazards and disasters; political dimensions of resource degradation; indigenous environmental knowledge; and the study of developmental and environmental institutions, discourses, and movements. He is author of *The Banana Tree at the Gate: The History of Marginal Peoples and Global Markets in Borneo* (2011), co-editor of *Complicating Conservation: Beyond the Sacred Forest* (2011) and *Environmental Anthropology: A Historical Reader* (Wiley Blackwell, 2008), and editor of *Southeast Asian Grasslands: Understanding a Folk Landscape* (2008).

Preface

The purpose of this volume is to illustrate the contributions that anthropology can make to contemporary research and policy regarding climate change through reprinting, discussing, and putting into conversation with one another a number of key, canonical works in the history of the anthropological study of climate and society. I have evenly divided my selections among early anthropological works, recent ones, and those in between. I have selected papers that are, or will become, classics, by prominent scholars, which make important contributions to academic and policy discussions concerning climate change and, often, to wider theoretical and policy debates as well. I have selected works that are still not only readable but interesting and relevant. I have tried to select “memorable” works, which deliver an argument in such a way that a reader will still recall it five or ten years hence. I have selected works that are neither strictly theoretical essays nor derivative critiques of the works of others, in favor of original, ethnographic, case studies. I have selected works that have a clear, central theme, which relates to one of the four major sections of the book. This approach stems in part from my decision to organize this volume not around historic eras or schools of climate research, but around a number of persistent, cross-cutting, and inter-linked themes, which span eras. I have selected papers that can be thematically linked to multiple other papers in the volume, thereby constituting a sort of intra-volume “dialogue” that reflects the larger one that has characterized the development of the field of climate studies itself. To further this dialogue, I have organized the volume into a series of paired papers, each one of which speaks to the other in a way that is hopefully stimulating for the reader. In some cases, this “conversation” extends

across decades, centuries, or millennia, which makes it all the more powerful. I have selected works with balanced, global coverage. I have restricted my selection of papers to those written by anthropologists, defined as scholars either trained as anthropologists or whose work came to focus to such a degree on anthropological topics as to give them a professional identity as anthropologists, with the exception of a number of pre-twentieth-century scholars whose work marks them as the intellectual ancestors of modern anthropologists. Inevitably, there are gaps in the coverage afforded by the papers selected. I have sought to remedy this with a comprehensive Introduction, which reviews the wider literature on the topics taken up in each reading and on the four wider themes of the book.

I selected papers that could be reprinted in their entirety, without abbreviation or other amendment, so that they can serve as authoritative sources for students and scholars, without the need for recourse to the original publications. For reasons of space, however, I had to violate this rule in a minority of cases, as follows:

Chapter 1 Hippocrates. 5th century B.C. *Airs, Waters, Places*

This work comprises two distinct parts: following an Introductory Chapter I, Chapters II–XI deal with the effects of local climate upon health, and Chapters XII–XXIV deal with the effects of regional climate upon character. For reasons of space, I reprinted here only Chapters I and XII–XXIV, which focus most directly on Hippocrates' comparative analysis of climate and society, although Chapters II–XI also are relevant to this volume. Also, I deleted notes from the translator concerned solely with questions of translation from Greek to English.

Chapter 2 Charles de Secondat Montesquieu. 1748. *On the Laws in Their Relation to the Nature of the Climate*
Montesquieu's "The Spirit of the Laws" is a large and

wide-ranging work on law and society, comprising six “Parts” and thirty-one “Books.” Montesquieu’s thoughts on climate and society extend through Books 14–17 in Part 3, but the material of greatest theoretical interest to this volume’s study of climate and society is in Book 14, titled as above, which contains 15 chapters, of which I have reprinted 1–6 and 13–15 as being of most direct relevance.

Chapter 3 Ibn Khaldûn. 1370. The Muqaddimah: An Introduction to History

This is a sweeping study of history, geography, ethnography, and political science. The material on climate and society is concentrated in one of its six chapters: Chapter I: Human Civilization in General, which is in turn divided into six “Prefatory Discussions.” The Second, Third, Fourth, and Fifth Prefatory Discussions are most relevant to this volume and are reprinted here in their entirety, except for the Second, of which only the “Supplementary Note to the Second Prefatory Discussion” is included, the remainder being largely a detailed exegesis of the map reprinted as [Figure 3.1](#).

Chapter 5 Theophrastus. 4th century B.C. Concerning Weather Signs

The text used here is part of a two-volume edition of Theophrastus, “Enquiry Into Plants,” the most extensive botanical treatise of the classical era. “Concerning Weather Signs,” and another work published alongside it, “Concerning Odours,” are not properly part of “Enquiry Into Plants,” but are separate “minor works” dealing largely with non-botanical topics. “Concerning Weather Signs” comprises five sections: “Introductory: General Principles,” “The Signs of Rain,” “The Signs of Wind,” “The Signs of Fair Weather,” and “Miscellaneous Signs.” For reasons of space, only the first two sections are reprinted, although all are relevant to the subject of this volume.

Chapter 20 Todd Sanders. 2008. The Making and Unmaking of Rains and Reigns

This is Chapter 2 of Sanders' book *Beyond Bodies: Rainmaking and Sense Making in Tanzania*. The remainder of the book is an ethnography of an African society, focusing on issues of gender and religion. For reasons of space, some of the extensive notes to Chapter 2, many of them dealing with historical matters, were either deleted or abbreviated, retaining just the references to works cited.

The following chapters were not abridged in any way but are part of larger works.

Chapter 4 Francis Zimmermann . 1988. The Jungle and the Aroma of Meats: An Ecological Theme in Hindu Medicine

This is a synopsis of Zimmermann's 1987 book of the same title, much of which - dealing with the ecological/climatic dimensions of the ancient Vedic teachings - is relevant to the themes of this volume.

Chapter 7 Ratzel, Friedrich. 1896-1898. Nature, Rise, and Spread of Civilization

Ratzel's three-volume 1885-1888 *Völkerkunde*, a sweeping study of humankind and civilization, was translated and published in English as the six-volume *The History of Mankind*. "Nature, Rise, and the Spread of Civilization" is Chapter 4 in Book I, "Principles of Ethnography," of Division/Volume I of this work. This chapter contains Ratzel's clearest statements regarding environmental/climatic determinism, but relevant material is also found elsewhere in the six volumes.

Chapter 11 James Spillius. 1957. Natural Disaster and Political Crisis in a Polynesian Society: An Exploration of Operational Research II

This is the second of a two-part article published on this topic by Spillius. The first part is a detailed ethnographic

account of the involvement of him and Raymond Firth in disaster relief efforts. This too is relevant to the subject of this volume, but the second part was chosen for reprinting because it succinctly pulls out of the ethnography the ethical issues of scholarly engagement with climate-related disasters.

Chapter 13 Elizabeth Colson. 1957. Rain-Shrines of the Plateau Tonga of Northern Rhodesia

This is Chapter 3 of Colson's monograph, *The Plateau Tonga of Northern Rhodesia (Zambia)*. Its subject is the means - one of which is the rain-shrines - by which this "stateless" society is held together.

Michael R. Dove
Killingworth, Connecticut
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Earlier versions of the text for this volume were presented and discussed in my advanced seminar in Yale's School of Forestry and Environmental Studies, "Disaster, Degradation, Dystopia: Social Science Approaches to Environmental Perturbation and Change" (Spring 2010 and Spring 2011), and in an undergraduate class in Yale College's Environmental Studies major, "Anthropology of Climate Change" (Fall 2012). The students in these classes, and especially my Associate in Teaching Catherine (Annie) Claus in the last-mentioned class, were wonderful interlocutors for my efforts to develop the themes in this book. I have also been ably assisted in my library research for this volume by several research interns, Katie Hawkes, Julia Fogerite, and Emily Schosid. With administrative and financial matters, I have relied upon the industry of two administrative assistants, Laurie Bozzuto and Julie Cohen.

None of the aforementioned people or organizations necessarily agrees with anything said in this volume, however, for which I am alone responsible.

Introduction: The Anthropology of Climate Change

Six Millennia of Study of the Relationship between Climate and Society

Michael R. Dove

Background

Clarence J. Glacken writes, in his magisterial 1967 (p. vii) *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*, that Western thinking about humans and the earth has been dominated by three persistent questions:

Is the earth, which is obviously a fit environment for man and other organic life, a purposefully made creation? Have its climates, its relief, the configuration of its continents influenced the moral and social nature of individuals, and have they had an influence in molding the character and nature of human culture? In his long tenure of the earth, in what manner has man changed it from its hypothetical pristine condition?

Glacken further asserts that these questions have been central not just to thinking about the environment, but also to the development of critical thought itself: "In exploring the history of these ideas from the fifth century B.C. to the

end of the eighteenth century, it is a striking fact that virtually every great thinker who lived within this 2,300-year period had something to say about one of the ideas, and many had something to say about all of them” (Glacken 1967: 711). That is to say, pondering on the relationship between nature and culture was a key project in the development of civilization in the West (and indeed, throughout the world). However unique modern anthropogenic climate change may be, therefore, a discourse of climate and culture has been prominent within human society for millennia. Indeed, it might be said to have been an integral part of *the* discourse of civilization itself.

Anthropology has played a central role in this discourse. Thinking of the intellectual forebears of the discipline from the classical era to modern times, as well as anthropology proper over the past two centuries, theorizing regarding the relationship between nature and culture, between environment and society, has been central to the development of anthropology as a field. Consider as an example what is known as “climate theory,” referring to the idea that climate determines human character, culture, and the rise and fall of civilizations. One of its earliest known developments was in the Hippocratic school 2,400 years ago. After it had been periodically reiterated over the succeeding two millennia, a remarkably similar theory was promulgated by two modern scholars who are often claimed as belonging to contemporary anthropology: the French enlightenment political thinker Montesquieu in the eighteenth century and the German geographer and ethnographer Ratzel in the nineteenth. A reaction against simplistic environmental determinism then set in, leading to what Rayner (2003: 286) has called an eighty-year gap in social science studies of climate. By the mid-twentieth century, explicit anthropological studies of climate were

limited to very modest analyses of correlations between climate and human biology (Mills 1942; Gladwin 1947; Whiting 1964).

This perceived move by anthropology away from climate was more apparent than real, however. Throughout the twentieth century, anthropologists were very much concerned with climate through their studies of subsistence practices of hunting and gathering, fishing, herding, and agriculture (e.g., Evans-Pritchard 1940; Richards 1948). Classic studies in environmental anthropology by the likes of Steward (1955), Mauss (1979 [1950]), and Conklin (1957) delved deeply into emic or native views of climate. Anthropologists built on this experience when, later in the twentieth century, more explicitly climatic topics emerged, like degradation and desertification (Spooner and Mann 1982; Little and Horowitz 1987). The questions being debated in these studies are as theoretically robust as any that have ever concerned anthropology. More recent, and with more immediate relevance to contemporary concerns about climate change research and policy, has been the contribution of anthropology to a new generation of disaster studies (Vayda and McCay 1975; Oliver-Smith 1996). Rejecting an earlier focus on individual ability or inability to cope with disaster, and the view of disaster as a “break” in the normal (Wallace 1956), the new studies ask how coping ability is affected by the dynamics of the wider society and, further, the role that society plays in determining who does or does not become a disaster victim in the first place (Hewitt 1983; Wisner 1993). As the social dimension of disasters became clear, anthropologists realized that there is a politics of knowledge associated with them (Harwell 2000; Mathews 2005), which historical studies show to have roots in the colonial era (Grove 1995; Davis 2001; Endfield and Nash 2002).

Margaret Mead (1977) is reputed to have been the first anthropologist to talk about climate change. For the past two decades, anthropologists have been involved in a significant way with research on climate change (Crate 2011), whether the involvement is measured by meetings and conferences, or grants and publications, including some noteworthy edited collections (Strauss and Orlove 2003; Casimir 2008; Crate and Nuttall 2009). Initially, this involvement built on traditional anthropological expertise with small, local communities, for example studying issues of risk and vulnerability (Ribot, Magalhães, and Panagides 1995) and the reality or prospects for adaptation (Berkes and Jolly 2001; Finan and Nelson 2001; Eakin 2006). From there anthropologists moved to related topics such as REDD (Reduced Emissions from Deforestation and Degradation), drawing on the field's expertise on indigenous, forest-dwelling peoples in the tropics (Schwartzman and Moutinho 2008).

A separate and important subgenre of the anthropological study of climate is the emerging field of the history and especially prehistory of human society and climate change. Some anthropologists have drawn on novel oral historical materials to contribute to this study (McIntosh 2000; Cruikshank 2001); but most work has come from archaeology. A long-established interest in the impact of climate change on ancient societies has been greatly reinvigorated by contemporary climate change debates (Bawden and Reycraft 2000), with special interest in the El Niño–Southern Oscillation (ENSO) phenomenon as a proxy for climate change (see Chapter 14, this volume).

From these beginnings in familiar ground, anthropologists have moved to such non-traditional topics as the international institutions involved in climate change research and policy, for example the IPCC (O'Reilly 2012), the meetings at which the global climate change community

attempts to hammer out policy (Doolittle 2010), and thorny issues of communication and public skepticism (Diemberger et al. 2012). Beyond anthropology, there is a voluminous literature on climate change. Of special interest is apposite scholarship in the humanities on climate beliefs embedded in literature and the arts (Mentz 2010), and collections on global governance and climate change (Jasanoff and Martello 2004; Roberts and Parks 2007; Hulme 2009).

These new directions notwithstanding, anthropologists insist that their work on climate change – which some have called “climate anthropology” (Nelson and Finan 2000) or “climate ethnography” (Crate 2011) – takes advantage of the traditional strengths of the field, which Roncoli, Crane, and Orlove (2009) refer to as “being there” and the capacity to provide insight into perceptions, knowledge, valuation, and response. There are a number of dimensions to contemporary climate change that require these sorts of insights: (i) climate change has a reality at the local level; (ii) global debates about climate change policy are affected by North–South post-colonial histories; (iii) climate change has likely been imbricated in the evolution of human society; and (iv) the knowledge, science, and understanding of climate change is itself a social phenomenon, which affects the prospects for mitigation and adaptation. No other discipline matches the capacity to illuminate such issues of anthropology, which thus has something unique to offer to contemporary debates about climate change research and policy (Magistro and Roncoli 2001).

The aim of the current volume is to illustrate the scope and relevance of anthropological work on climate change, and in particular its intellectual roots and historic development. In none of the contemporary work has there been any effort to examine the history of anthropological work on climate and society, much less earlier apposite traditions of scholarly work on this topic. This is a serious