

## **Continuity and Change in Cultural Adaptation to Mountain Environments: From Prehistory to Contemporary Threats**

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## Continuity and Change in Cultural Adaptation to Mountain Environments: From Prehistory to Contemporary Threats

Edited by Ludomir R. Lozny. New York, NY: Springer, 2013. 410 pp. US\$ 129.00. ISBN 978-1-4614-5702-2.

Tom Waits once said, “The large print giveth and the small print taketh away.” This volume is quite the reverse: Only the subtitle hints at the extraordinary range of the articles it contains. Chronologically, the 15 articles (not including the introduction and epilogue) begin with evidence from pollen grains from 10,000 years before the present and end with contemporary ethnographic studies; spatially, there are discussions of montane adaptation in Africa, Asia, Oceania, the Americas, and Europe. Yet it is the disciplinary breadth that makes this book remarkable. The articles range from meticulous archaeological and geographic site inventories, through political ecology and ethnobiology, to ruminations on prejudice and environmental justice.

Such breadth is in itself an eloquent argument for the interdisciplinary approach to understanding social–environmental relations in mountain areas. It also requires a certain deliberation from the reader; unfamiliar terminology or styles of argument in a certain chapter may well put off a hasty reader accustomed to a different disciplinary rhetoric. Each chapter, however, is well written, carefully argued within its discipline, and addresses the question of mountain adaptation. Thus the volume as a whole acts as an intelligent sampler of the wide range of methods and theoretical frameworks needed to document and analyze ecosocial change in mountain areas. This is especially so when one considers the wide range of meanings

assigned to “adaptation” across the various chapters—occupational shifts or environmental circumstances through which early humans colonized montane environments, strategies for preserving existing livelihoods under contemporary political pressure, the interplay between religious and material knowledge as economic adaptation occurs, or cultural responses to systemic environmental change.

The book falls into two broad parts. Chapters 2 through 7 are located in Europe (3 through 7 in the Pyrenees) and take an archaeological approach, while the remaining chapters vary in their setting and discipline. Chapters 2 and 3 open this main part of the volume with an instructive conversation around the use of pollen data. First, David undertakes a precise analysis of pollen data, taking into account local ecological features, to improve the interpretation of existing pollen records as evidence for forest cover or land use in the Alps; then Galop et al use the pollen record together with other archaeological evidence to build a comprehensive sketch of long-term land use shifts in the Pyrenees. Chopin, Roux, and Bilon set out a brief but careful consideration of natural salt availability as a factor encouraging early pastoralism on the Bénou Plateau. Guédon offers a meticulous and exhaustive reference catalogue of archaeological sites in the upper Lavedan region. Lévêque follows this with a typology of high-altitude shelters in the Campan and Lesponne valleys of the Haut Adour that integrates physical site data with a range of other evidence (tenure records, census data, and archive) to build a picture of summer shelters as dynamic features in a contested landscape. In an extraordinarily rich and wide-ranging chapter, Lozny outlines a theoretical framework for archaeological ethnography, offers a detailed catalogue of the Labas Valley that extends and completes work by Guédon, and then assembles a careful

interpretation of the site data that uses (among other tools) Ostrom’s theory of the commons to illuminate the diachronic interplay between social and natural elements.

In Chapter 8, Diggs and Brunswig report on an ambitious and innovative project combining several kinds of mapping—including participatory mapping, oral histories, archival study, methodical GIS work, and situated experience of viewsapes—to predict the location of lost sacred Native American sacred sites in the Rocky Mountain National Park.

Although chapters 9 through 11 are all set in South America, they take different perspectives and are set in very different landscapes. Postigo uses a political ecology framework to consider the ways a Peruvian alpine pastoralist community, Quelcaya, adapts to rapidly experienced climate change. Ladio, using ethnobotanical methods, compares the correlation between Mapuche traditional plant knowledge, the survival of practices around transhumance, and the collection of *Auracana* seeds; traditional knowledge correlates more strongly with seed-gathering than with transhumant pastoralism, although both involve grounded travel and environmental awareness. Thomas, working with the Bolivian Quechua community of Apillapampa, presents a subtle and insightful account of their ethnomedical knowledge of local flora that challenges simplistic narratives of adaptation.

The next 4 chapters are set in Asia. Kassam, in an essay that alternates between free reflection based on long experience and close analysis, documents the adaptive capacities emerging from the asymmetrical relations between the highland Shugni and transhumant Pashtuns who come to their Pamir landscape each year. Spoon gives a sympathetic and well-researched history of Sherpa adaptation in the first part of this millennium. As the Sherpa themselves took up and mastered

tourism, and in so doing achieved a rare degree of prosperity and autonomy, their intricate knowledge of sacred landscapes and medicinal plants became unevenly distributed across the community—traditional yak herders retain this knowledge, but tourism entrepreneurs and their children tend not to know the land in the very way that tourists expect them to. Schoenhals studies the Nuosu in Yunnan, who observe strict endogamy rules that forbid any marriage with Han outsiders, as well as equally strict divisions between higher and lower castes. These hierarchical barriers are, perversely, a successful adaptation that preserves traditional Nuosu knowledge and culture even in a Han-controlled education system. Kwiatkowski draws on political ecology to assess how environmental change affected gender and class relations among Ifugao as they were drawn into negotiations with the modern Philippine state after 1948.

The final chapter, Domínguez's study of customary seasonal closure laws in the Moroccan Atlas, argues that this indigenous agro-pastoral system is an integrated adaptive system fully suited to modern

challenges such as climate change and the demands of international development planning.

The centerpiece of this work is the Pyrenean studies—the chapters by Guédon and Lozny together make up a quarter of the book's total length—but that does not detract from the quality of the other chapters. Although the editing of each chapter is very good and there are very few errors, the book as a whole might have been improved by bringing the articles into conversation with each other. Within the Pyrenean chapters, it is clear from the webwork of citations that the authors are well aware of each other's work; yet key topics, such as the structure and function of a *leyté*—a rough milking shelter—are repeated in each chapter. Further, variants in spelling (so in Chapter 7 the term is spelled *lyeté* in the text, but *leyté* in the tables) recur in the index: On page 403, *lyeté* and *leyté* are indexed separately. Indeed, the index is the one conspicuously weak element of this volume, and key terms such as governance, sacred, or traditional knowledge that might unite the volume are indexed only for individual chapters.

Bates and Lozny do provide a rapid overview in the introduction, but the disciplinary breadth of the volume means that each reader will find their own favorite chapters. For this reviewer, Lozny's own chapter was a delightfully ambitious essay braiding together theory and data through attention to a specific place; Thomas's essay was a remarkably sophisticated and incisive reflection on ethnomedicine and montane adaptation; Diggs and Brunswig's work sets a remarkable standard for participatory archaeology of sacred landscapes; and Spoon's study unfolds the complex interplay between sacred, medicinal, and economic social landscapes at a time of rapid political transition. Other readers will find their own gems, but this substantial and wide-ranging collection is a valuable contribution to the field.

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