



## Reviews of Web Sites, CD ROMs, Books

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Source: Mountain Research and Development, 22(4) : 402-410

Published By: International Mountain Society

URL: [https://doi.org/10.1659/0276-4741\(2002\)022\[0402:ROWSCR\]2.0.CO;2](https://doi.org/10.1659/0276-4741(2002)022[0402:ROWSCR]2.0.CO;2)

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### **Web sites on conflict prevention and resolution**

The following Web sites do not all focus specifically on conflict in mountain regions, but they illustrate the variety of sources currently available in relation to the problems touched upon in this issue of MRD.

#### **Institutions**

##### **Initiative on Conflict Resolution and Ethnicity**

[www.incore.ulst.ac.uk](http://www.incore.ulst.ac.uk)

Initiative on Conflict Resolution and Ethnicity (INCORE) was set up in 1993 by the University of Ulster and the United Nations University (UNU) to undertake research and policy work that is useful for resolution of ethnic, political, and religious conflicts. Currently, INCORE's research focuses mainly on postconflict issues, issues of governance and diversity, and research methodology in violent societies. INCORE has a Policy and Evaluation Unit to ensure more effective utilization of conflict research by policy makers and practitioners. The unit also addresses the issue of best practices in evaluating conflict interventions. INCORE also produces a web-based Conflict Data Service that provides current and historical information on all major ongoing conflicts, theme sites on a variety of issues relevant to conflict, and information on conflict resolution institutions throughout the world.

##### **Accord Programme**

[www.c-r.org/accord/index.htm](http://www.c-r.org/accord/index.htm)

The Conciliation Resources Accord Programme aims to respond to the ongoing challenge of informing and enhancing peace processes around the world. Working collaboratively with locally based organizations, the Accord Programme provides documentation and analysis of past and comparable peace processes to support the efforts of those directly involved in transforming armed

conflict into opportunities for sustainable human development. The program aims (1) to document peace processes and initiatives, and the sources and dynamics of particular conflicts; (2) to increase public access, both locally and internationally, to the understanding of peace processes and peace agreements; (3) to promote learning, domestically and internationally, from past and comparable peace-making experiences; and (4) to work in such a way as to model conflict-sensitive international relationships, enhancing local capacities and engaging in a timely way. The Accord Programme also produces an International Review of Peace Initiatives available online.

##### **International Development Research Centre, Conflict**

[www.idrc.ca/conflict](http://www.idrc.ca/conflict)

Canada's International Development Research Centre (IDRC) has created a Web site that focuses on conflict over natural resources. The site addresses questions such as, Why do conflicts arise over natural resources in Canada and elsewhere in the world? It explores the socioeconomic, cultural, and political factors that contribute to this problem and examines various ways of managing it. In-depth articles present the heart of the issue and debunk myths surrounding conflicts over natural resources. This site also includes information about specific projects supported by IDRC in this area, publications written on the subject, as well as links to other sites of the kind.

#### **Papers**

##### **Mediation Efforts in the Karabakh Conflict: Summary**

[www.colorado.edu/conflict/peace/example/moor6318.htm](http://www.colorado.edu/conflict/peace/example/moor6318.htm)

This summary by Mariya Yevsyukova discusses an article by Moorad

Mooradian, "Mediation Efforts in the Karabakh Conflict." In the article, Mooradian examines efforts to mediate conflict in mountainous Karabakh between the Armenians and the Azerbaijanis. Publisher: University of Colorado-Boulder, Conflict Research Consortium, 1994.

##### **Power, Equity, Gender, and Conflicts in Common Property Resources in the Hindu Kush-Himalayas**

[www.icimod.org/publications/imd/issu7.htm](http://www.icimod.org/publications/imd/issu7.htm)

Presenting the historical perspective and political economy of the management of common property resources and associated issues, the author concludes that the last decade has seen increased commitment by the state to community-oriented resource management. The current issues in the context of power, equity, gender, and conflicts are then analyzed with some interesting examples. The urgency of mainstream conflict resolution in policy, laws, procedures, operational guidelines, and human resource development is emphasized.

##### **Community Forestry in Nepal: An Overview of Conflicts**

[www.icimod.org/focus/cpr/mnr96-2.htm](http://www.icimod.org/focus/cpr/mnr96-2.htm)

This useful overview, entitled "Nepal Madhyasthata Samuha," was prepared by K. B. Shrestha for the ICIMOD Discussion Paper Series; it was published in 1996.

##### **The Road to Peace in Sudan**

[www.usip.org/events/sudan-consult/alex-de-waal.pdf](http://www.usip.org/events/sudan-consult/alex-de-waal.pdf)

Subtitled "Prospects for Pluralism in Northern Sudan," this 1997 paper by Alex de Waal focuses on 2 issues that must be resolved if there is to be a comprehensive settlement in Sudan. The first is the marginalized areas in the North and in par-

ticular the Nuba Mountains. The Nuba is the sole issue in northern Sudan over which the international community has clear responsibilities and some political leverage. The second issue is political pluralism in northern Sudan. This is more complicated and is an area over which there is little international leverage. The paper concludes with an examination of options for the international community.

### **Cultivating Peace: Conflict and Collaboration in Natural Resource Management**

[www.idrc.ca/acb/showdetl.cfm?DS\\_ID=2&Product\\_ID=389&DID=6](http://www.idrc.ca/acb/showdetl.cfm?DS_ID=2&Product_ID=389&DID=6)

In this e-book edited by Daniel Buckles and published by the IDRC–World Bank in 1999, Chapter 10 focuses on “The Nuba Mountains of Sudan: Resource Access, Violent Conflict, and Identity.” The whole book is also available in French and Spanish translations.

### **Gender, Religion, and Ethnicity in the Context of Armed Conflict and Political Violence in India**

[www.worldbank.org/gender/events/butalia.doc](http://www.worldbank.org/gender/events/butalia.doc)

A briefing note by Urvashi Butalia published by the World Bank in 1999.

### **Links**

#### **Development and Peace Foundation, Germany**

[www.sef-bonn.org/sef/sef\\_links\\_engl.html](http://www.sef-bonn.org/sef/sef_links_engl.html)

The English-language links page offered by the German Development and Peace Foundation (SEF) is a useful resource for those interested in development-related conflict resolution issues. One of the categories listed is “Geographical Regions,” which makes it possible to search specifically for material on

mountainous areas. SEF also organizes events (policy forums on Regional Conflict Management) that focus on mountain areas such as the Caucasus and the Horn of Africa.

#### **Asian Studies World Wide Web Virtual Library**

[www.clas.ufl.edu/users/gthursby/kashmir/disputed.htm](http://www.clas.ufl.edu/users/gthursby/kashmir/disputed.htm)

This page lists resources on “Kashmir as De Facto Disputed Territory.”

#### **Fani Kakridi Enz**

Development & Environment Info Service, Centre for Development and Environment, University of Berne, Steigerhübelstrasse 3, 3008 Berne, Switzerland. [cde\\_info@giub.unibe.ch](mailto:cde_info@giub.unibe.ch)

### **CD ROMs**

#### **Himalayan Sediments: Issues and Guidelines**

By V. Galay, H. Schreier, R. Bestbier, S. Brown and W. Chan. Vancouver, Canada: Institute for Resources and Environment (© Canadian International Development Agency and Canadian International Water and Energy Consultants), 2001. Multimedia CD ROM. Can\$25.00 or US\$17.00.

Young, high mountain chains are probably the most dynamic of all terrestrial environments. Rapid uplift is almost always accompanied by high rates of erosion, principally through mass wasting processes, which release sediment into the channel system. However, this release of material does not occur evenly over time, even allowing for seasonal variations. Recent, large earthquakes in Papua New Guinea and Taiwan have triggered widespread landsliding—in Taiwan more than 22,000 landslides occurred during 35 seconds of the 1999 Chi-Chi earthquake, with volumes from a few cubic meters to 100 million m<sup>3</sup>. In the subsequent typhoon

events, many of these slides have been reactivated, and hundreds of new failures have been triggered as a result of the weakening of the surficial materials by the seismic shaking. As a result, large volumes of sediment are now entering the river systems, triggering change along their whole length. This is causing serious problems to the maintenance of infrastructure. It appears likely that these problems will continue for years or even decades to come.

Unfortunately, the dynamic nature of young mountain chains is poorly understood outside the geomorphological community. Consequently, there are numerous instances of infrastructure projects being damaged and destroyed as a result of the failure to consider adequately the magnitude of the sediment flux with which the engineering structure will have to cope. Examples can be found around the world. For example, White (2001) has estimated that globally 1% of available reservoir volume is lost to sedimentation each year. This is starkly illustrated by the Kulekhani hydroelectric project in Nepal, which lost half of its reservoir to a single episode of rapid sedimentation in July 1993.

These problems are particularly serious in the Himalayas, which currently have the highest recorded sediment yields and where considerable effort is going into infrastructure development. Within Nepal, for example, the US Energy Information Administration estimates that there are currently about 300 foreign investment projects underway, worth nearly \$1 billion. Many more are under consideration or being planned, including some of the largest hydroelectric power schemes ever proposed. Clearly, these projects need to be designed in the context of these high sediment yields, but all too often they are not, with serious consequences.

The *Himalayan Sediments* multimedia CD ROM, produced by a

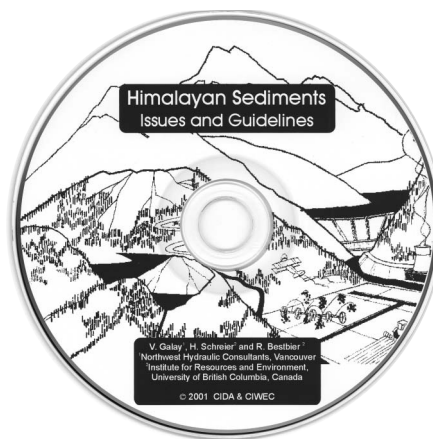
consortium from the Northwest Hydraulic Consultants in Vancouver and the Institute for Resources and Environment at the University of British Columbia, is therefore welcome. The aims of the package are listed as being:

- To provide basic information on sediment producing processes to agencies and consultants dealing with infrastructure development in the Himalayan region.
- To provide resource managers with approaches to determine sediment yields with specific geologic and physiographic zones, and to present information on sediment-related problems at various infrastructure sites.
- To provide guidelines on how to address sediment issues and processes at new project sites.

Clearly these are laudable aims, and the system is to be welcomed, especially in light of the very reasonable cost.

The package was easy to load and runs perfectly on my standard PC, taking up about 110 MB on the hard drive. Upon loading, the package opens up to a straightforward menu from which navigation is simple. Major sections concentrate upon Himalayan geology; climate; sediment measurement, sources, transportation and deposition; and a set of guidelines for infrastructure development. In each case, the user is taken through the contents on a step-by-step basis, starting with quite basic material but working through to quite advanced techniques and concepts. The authors have tried to make use of the range of functions available in the multimedia format, including overlays, animated diagrams, and interactive text.

Using the package is enjoyable and straightforward, and there is a great deal of useful information. It is perhaps a shame that only 1 video has been embedded within the package—and even that has a most uninspiring commentary. The avail-



ability of video is one of the great strengths of this medium, and the package would have been stronger for its increased use.

The actual intellectual content is good, with some excellent explanations of the nature of erosion and sediment transport, for example. The material mostly concentrates upon Nepal, although reference is made to much of the rest of the Himalayas. The introduction to the geology of the Hindu Kush, for example, is excellent: clear, concise, and informative.

However, I regret that no more has been made of the seismic aspect to sediment delivery. This is probably understandable given the long (but very worrying) seismic gap along much of the Himalayan arc beneath Nepal. The probability of a large seismic event in this area is not insubstantial. Such an event would liberate considerable volumes of sediment with which the infrastructure would have to cope. All too often, seismic shaking is considered during project design but not the inevitable sediment delivery problems—with ruinous consequences. It is a great shame that this is not emphasized in the package.

I also found that the guidelines drawn up by the design team were a little too vague and general. One guideline, for example, is “Provide protection from scour at bridge pier and at outside of river bends.” This is good advice, but very basic, to the point of probably adding little to existing knowledge and practice. More detail about types of protection available, and how to design protective structures, would have been invaluable.

In all multimedia packages, the key question is whether it actually works as a system. Although the desktop environment has many advantages over conventional publishing methods, it suffers from a lack of convenience, in that flicking through—as one does with a book—is difficult and the extraction of, for example, an equation can be awkward. In addition, anyone who has taught undergraduates with multimedia packages will have experienced “desktop glaze,” when the individual ceases to take in information presented to him/her on the screen, instead just clicking from one page to the next. Ironically, although the presence of many interactive diagrams might be considered as a way to mitigate such problems, in my experience it often just makes it worse. I have a sense that the same will occur with this package. The presence of so much interactive material tends to lead one to err into random clicking without absorbing the contents. It is very difficult to avoid such problems, but real care is needed in the design of the package to keep the user interested. I am not sure that this has really been successfully dealt with in this CD; and it is sometimes not helped by a somewhat labored writing style.

Overall, this package is to be welcomed, especially given the low cost. I found some material of real interest—the illustrated section on glacial lake outburst floods, for example, is first class. However, I am not convinced that it will find widespread application amongst the target audience of agencies and consultants dealing with infrastructure development in the Himalayas.

#### REFERENCE

**White WR.** 2001. *Evacuation of Sediments from Reservoirs*. London: Thomas Telford.

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## Books

**Nordic Mountain Birch Ecosystems.**

By F.E. Wielgolaski. *Man and the Biosphere Series 27*. Lancaster: Parthenon, 2001. xx + 390 pp. US\$92.95, £61.95. ISBN 1-84214-054-X.

The United Nations' Educational, Scientific and Cultural Organization's *Man and the Biosphere* program (UNESCO-MAB) aims to improve scientific understanding of the natural and social processes relating to human interactions with the environment. The information feeds into decision making concerned with optimizing the use of natural resources, to satisfy economic, social and conservation issues. The program has brought together scientists, policy makers, and local people, and this particular book emulates the listed objectives to the full—especially the chapter dealing with the aboriginal Sami, immigrant Scandinavian and Finnish settlers. To these people, maintaining a balance between management, development, “modernization,” and sustainability is critical. The book provides an excellent compendium on which to draw up a management plan for these Nordic ecosystems where a significant area is dominated by mountain birch.

This volume will be of interest to all who live in and around the Nordic subarctic–subalpine birch forest belt. In essence a collection of scientific research papers, without exception they have been written with an openness and accessibility that will appeal to those with an interest in ecology but without a scientific background. They are well written, clear and readable, and provide complete and up-to-date coverage of the relevant and key research in the areas covered. The authors have not been parochial but rather have drawn on relevant

and fundamental research on the periphery of their chosen subjects to provide well-balanced observations. If I have one criticism, it is the absence of good quality diagrams and photographs—especially because this book should be appealing to a wider, nonscientific readership and policy makers. In some chapters, readability could have been improved by the use of flow diagrams. For readers who are unfamiliar with the ecosystems, the book would have benefited greatly from the inclusion of more photographs.

The 31 chapters are grouped into sections. The first 6 chapters cover the history, distribution, floristics, and condition of mountain birch. Additional detail includes information on pollen analysis, geology, soil characteristics, meteorology and accompanying vegetation. The largest section deals with birch itself, starting with the ecology of its lichen epiphytes, their growth patterns and net assimilation rates in relation to species-specific adaptations that enable these lichens to dominate specific niches. Effects of fertilizer additions on leaf size, color, and hairiness are reported together with coppicing and growth responses of different provenances to nutrients and water. Different adaptations of southern provenances with respect to nitrogen and its effect on shoot length and numbers of side shoot are discussed. The observation that multistemms proliferate on dry infertile sites has been investigated in a container experiment with various provenances. Differences between the responses of northern compared with southern provenances are reported. A greatly improved understanding of the underpinning interactions between shoot growth, fertilization and water availability is now available. Other topics covered in detail include the carbon economy of both birch and associated vascular plants and cryptogams, with some very useful information on seasonal impacts on carbohydrate

status in relation to phenology. Carbon use and partitioning are discussed in relation to ecology and environmental demands, drawing on the well-known and highly respected work of Chapin. Allometric relationships within stand structure are reported for a polycormic stand in Northern Sweden.

The significance of resource partitioning and management is used to explain why provenances occupy particular niches. This summary provides an excellent foundation for predicting how these ecosystems will respond in the future, together with explaining why they were historically so successful. Carbon and nitrogen turnover are also addressed in detail, although belowground activities are somewhat neglected, except for some mention of the possible importance of mycorrhizas. Responses to soil conditions and temperature are dealt with in considerable detail. A large proportion of the data in this section is unique; making it available in an ecosystem context greatly adds to its value. In addition, compiling it in book form makes it more accessible within the general European literature. A pilot study to examine the effects of water stress on photosystem II is reported, based on measurements of chlorophyll fluorescence. This technique is rapidly gaining scientific credibility, which is good to see, because it uses a field-friendly machine. Overall, this section provides a very comprehensive account of why specific provenances grow and succeed where they do.

The section covering natural predators—insect herbivores, birds, and rodents—makes absorbing reading. Again, the whole ecology is covered, ranging from the different pests and their predators, to factors controlling their population crashes. One chapter deals with a successful experiment using remote sensing to detect caterpillar outbreaks. The importance of food webs is demonstrated by these stud-

ies, which provide a timely reminder of how a change in one tiny part of an ecosystem can have long-term implications for the functioning and stability of the whole ecosystem.

There is an interesting chapter on reindeer showing how too high a population density, leading to overgrazing of the birch, can increase seedling mortality and retard growth, especially where the birch is already weakened by pest attacks. The importance of birch in mitigating degradation and soil erosion is discussed for Iceland, together with an evaluation of different establishment techniques. Experiments using willow plants to improve establishment of birch in Iceland are discussed in relation to the importance of mycorrhizas.

The consequences of pests and human intervention, management, and exploitation of these ecosystems are also dealt with in detail. The depth of coverage of the whole ecosystem with all its facets makes this book a "bible" for those wanting to understand how the ecosystem has evolved and the potential consequences of climate change. It provides an excellent coverage of ecosystem responses. The questions posed by most authors in the discussion are very valuable in prompting the reader to think carefully about the interdependence of all the components within the ecosystem. Most chapters also contain anecdotes where the authors share their wealth of experience and personal knowledge with the reader.

The final chapter is deservedly named "Nordic mountain birch ecosystems: a conceptual overview." It recapitulates historical changes in distribution in response to climate, the significance of herbivory, grazing, and human traffic, the formative role of the autumnal moths influencing the dynamics of these ecosystems and their periodicity, and finally the significance of nitrogen limitations on growth. All in all, this book provides a very well-

rounded compilation of data, describing and explaining how this ecosystem sustains itself and continues to function in a changing environment.

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### Ten Million Trees Later: Land Use Change in the West Usambara Mountains. The Soil Erosion Control and Agroforestry Project in Lushoto District 1981–2000

By Lars Johansson. Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), 2001. 163 pp. Distributed free of charge.

Writing for a popular audience is a skill not possessed by many professional scientists, and this is particularly marked in works concerning the environment. Unusually, this work manages to combine a relaxed and fluid writing style while maintaining a strong sense of the scientific and political issues involved. The study is set in the Usambara Mountains in Tanzania and features an analysis of nearly 100 years of attempts to change land-use practices, with particular reference to more recent programs established by the German Gesellschaft für Technische Zusammenarbeit (GTZ). A combination of narrative and personal anecdotes linked to more formal analytical presentations provides a highly readable account of the way in which the landscape of the region has been molded as much by the vicissitudes of policy as by natural processes and "traditional farming."

The Usambara Mountains lie in northeast Tanzania and are renowned today for their biodiversi-

ty. They are inhabited by the Sambia, Mbugu, and Pare peoples who have occupied the region for a long time. Much of the historical evidence derives from oral accounts and includes a rich series of stories about the precolonial past. It is generally believed that the landscape was heavily forested, with settlement in some valleys and a largely self-sufficient agrarian structure. Early European visitors in the 19th century reported a farming system using a wide range of local species as food, medicines, and raw materials. Land at several different altitudinal levels was used to minimize risk, and by the 1890s about 80% of the land was allocated to bananas, which were grown under irrigation. Interestingly, a study by Mersmann (1993) argues that this intensive system did not evolve from shifting cultivation, as is commonly assumed for such areas, but that the land had always been farmed at a high intensity, with species being continuously replaced in the system according to their efficacy. However, other indigenous plants were also preserved in the full knowledge that biodiversity was a key asset of the area.

More detail is known about the agrarian landscape since the 19th century. Internal unrest and later colonial pressures led to the disruption of the production system. First the Germans, and then the British, assumed that the lush vegetation of the mountains indicated highly fertile soils. Coffee estates were created along with plantations growing a wide range of crops such as tea, cardamom, oil palm, pears, and apples. Forest reserves were established and timber cut to provide material for various construction products. From the 1930s, the British administration began to examine the problem of land degradation and initiated a Rehabilitation Scheme for the Mlalo Basin in 1945. This followed a time-honored tradition in colonial territories where overt objectives dealing with soil management were mixed with less obvious motives

including the reduction of the number of subsistence farmers and the encouragement of a more market-orientated agriculture. A later scheme extended this program to all the Usambara highlands. Such schemes, with land reorganization, enforced destocking, and afforestation, inevitably led to resistance, sometimes fueled by additional problems associated with drought. When independence came in 1961, this approach became politically unacceptable.

While the historical context is crucial, the bulk of this monograph is concerned with the evaluation of the Soil Erosion Control and Agroforestry Project (SECAP), launched in 1981 and funded by GTZ. Despite a series of development projects in the region after independence, the problems associated with land degradation and rural poverty had not disappeared. SECAP was inspired by 2 converging themes: the increasing realization, first, that the “Green Revolution” model was not particularly useful in highland economies and, second, that the existing smallholder farming was already dynamic. The monograph details the various stages of the program, emphasizing the tensions within the management as well as the successes in certain areas. In particular, the increasing use of “participatory techniques” led to greater involvement of both men and women as well as to intensive debate as to appropriate institutional structures. By the 1990s, it was clear that SECAP’s original objectives, including concentrating aspects of afforestation on limited zones, were not really cost-effective, leading to encouragement to develop a more appropriate agroforestry program where trees were planted on existing farmland rather than just on degraded hillsides.

By the withdrawal of GTZ funding in 2000, many changes had taken place, some a direct consequence of this project, others reflecting broader socioeconomic

change. After 40 years of independence, there is some consensus on how the mountains should best be farmed and on the most effective direction of agricultural extension efforts. Key catchment areas are protected and degradation is reduced. Farmers now produce much more for the market and grow more trees, and large areas are terraced. However, social stratification has increased and households have lower levels of food security: the region now imports large quantities of maize.

As set out so far, the account is all that one would expect of a typical monograph on such a topic. But this is different, for alongside the narrative are specific accounts of the experience of individuals and communities. Through the highly personal accounts of villagers, both rich and poor, we gain an important insight into how projects of this kind impinge on the experience of a community. Even the planting of 1 tree can gain considerable significance for some households, and its successful cultivation can mean much more than just an “agroforestry” fact. Consequently the book—which contains some beautiful photographs of people and landscape—provides the reader with a very interesting description and analysis of a project in mountain areas. By combining a formal account with the personal narratives, the text gives much more depth to our understanding of the processes of landscape management. The degree of project success obtained is quite heartening and offers useful insights for projects elsewhere.

#### REFERENCE

**Mersmann, C.** 1993. *Umweltwissen und Landnutzung im afrikanischen Dorf: Zur Frage des bäuerlichen Engagements in der Gestaltung der Kulturlandschaft der Usambara-Berge Tansanias*. Hamburg: Institut für Afrika-Kunde.

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## Bosques nublados del neotrópico

Edited by Maarten Kappelle and Alejandro D. Brown. Santo Domingo de Heredia, Costa Rica: INBio, 2001. 698 pp. US\$22.00. ISBN 9968-702-50-1.

Cloud forests (*bosques nublados*) have received much international attention during the past decade, partly because of the realization of their importance for studies of biodiversity and partly because of the attainment of a “critical mass” of researchers in North America, Europe, and Latin America. This volume is issued under the auspices of the Instituto Nacional de Biodiversidad (INBio, Costa Rica) in collaboration with Argentinean organizations, IUCN–The World Conservation Union, and the University of Amsterdam. It represents the collaboration of 32 authors, following their interactions at symposia in Bolivia (1995), Ecuador (1998), and other meetings.

This is the third collaborative volume during the past decade to address biological investigations of cloud forests, following Churchill et al (1995) and Hamilton et al (1995). The former includes broad botanical surveys of biodiversity, endemism, and conservation of neotropical cloud forests, whereas the latter was based on a symposium that covered animals as well as plants worldwide. The present volume, although covering some similar topics for the neotropics, is more conservation-oriented and has a more extensive and representative participation by Latin American authors.

The chapters are grouped into 2 major sections: general reviews of the factors determining the distribution of rainforests and a country-by-country survey. In the Introduction, Brown and Kappelle review the basic characteristics of cloud forests, with special emphasis on

conservation problems such as fires, deforestation, and the introduction of exotics. This sets the tone for the approach in the remainder of the book: Hamilton addresses mainly the conservation issues, and most authors in the country surveys pay particular attention to factors that cause loss of cloud forests. Bubb addresses the challenge of establishing an effective database for neotropical cloud forests, following guidelines established in 1998. Van der Hammen and Hooghiemstra provide their classic review of the paleoecological history of Andean vegetation, which is similar to their presentation at the New York Botanical Garden symposium in 1993 (Churchill et al 1995). Gentry's chapter on biodiversity is a verbatim Spanish translation of the paper he presented to the same symposium.

The second section of the book consists of 13 chapters that cover neotropical cloud forests country by country (with the West Indies lumped together). The chief country omitted is Brazil, which has limited cloud forest areas, but it was covered by Falkenberg and Voltolini in Hamilton et al (1995). In the chapter on "El Caribe," Silver, Marín-Spiotta, and Lugo mainly discuss Puerto Rico and Jamaica. They do not provide quantitative estimates of the original and remaining extents of most West Indian cloud forests, though it is clear that the extent of intact forests is very limited. Their rather limited statistics indicate that there is higher endemism but lower local diversity than in comparable mainland areas.

For Mexico, Luna, A. Velázquez, and E. Velázquez provide a detailed map showing the location of 106 sites of *bosque mesófilo de montaña*—not all of which appear to be cloud forests in the strict sense. These forests are well known for their mixture of boreal (holarctic) floristic elements (eg, *Acer*, *Liquidambar*, *Magnolia*), as indicated in an informative table of 21 selected sites. It is encouraging to

learn that more than 150,000 ha of montane forest are protected in biosphere reserves. The review of Guatemalan forests by Islebe and Véliz Pérez offers a transect diagram of cloud forest similar to that in Chiapas. The detailed review of Honduras by Mejía Valdívieso focuses attention on cloud forests dominated by *Quercus* and provides discussions and a table of protected areas. For Nicaragua, Walsh reports 38 areas with cloud forest, of which the best studied is the Macizo de Kilambé, covering 11,000 ha. It is evident, however, that the protected areas in Nicaragua exist mainly on maps in Managua (and according to Walsh, there are no adequate maps available).

Costa Rica, as Kappelle points out in his detailed survey, offers the prize exhibit of cloud forest study and protection in North America. The best-known neotropical cloud forest is undoubtedly Monteverde, studied by many investigators, with a recent synthesis by Nadkarni and Wheelwright (2000). Kappelle's review, including data on forest structure and floristic composition, with a table and a map of protected areas, could serve as a paradigm for the rest of the book. The chapter on Panama by Samudio is unusual in providing more information on faunistic diversity than on plant diversity.

For Venezuela, Ataroff gives detailed floristic and ecological information about the cloud forests in protected areas of more than 500,000 ha (although it is not clear what percentage of the cover is intact cloud forest) and considerable information on the avifauna. Cavellier, Lizcaíno, and Pulido offer several analyses of floristic diversity in Colombia: floristic elements, species diversity in major plant families, distribution of community types, etc. They cite approximately 10,000 km<sup>2</sup> for montane-forested areas in the national parks, of which less than one third is protected, as well as a number of regional reserves.

Sarmiento's coverage of Ecuador treats climatic and ecological factors in considerable detail but has little information on plant diversity except for a list of trees from the Guandera Reserve. His discussion of conservation issues is quite detailed, however. He cites a list of protected areas covering more than 3 million ha (but without an indication of what percentage of it includes cloud forest).

Young classifies Peru's *bosques húmedos de montaña* into 3 biogeographic regions: the northern region near Ecuador, the *alto andino* along the spine of the Andes, and the Amazon-facing slopes. There is a detailed discussion on floristic diversity and an extended consideration of conservation issues, including 4 recommendations: to study traditional Andean agroecosystems, to evaluate ways to increase the efficiency of the system of protected areas, to analyze effects of climatic changes and human colonization, and to establish formal programs of interaction with local human communities. These are praiseworthy but are longer on philosophy than on implementation.

Kessler and Beck provide 2 maps of Bolivia that place the cloud forest areas (*yungas*) in geographic perspective in relation to other vegetation types. The discussion on structural and floristic features of the forests is detailed. There is also an informative map and table outlining areas of conservation, including useful comments on the actual state of the ecosystems.

Finally, Argentina is reviewed by Brown, H. Grau, Malizia, and A. Grau. Their maps indicate the strategic position of the *selva Paranaense* in northern Argentina between the Andean forests and the *selva Atlántica* of Brazil. The contrast between the floristic composition of the Argentinian *yungas* and the Mexican *bosques mesófilos de montaña* is striking. The table showing the areas of forest preserves is also informative: of 276,000 ha, cloud forests occur in



about 19%. Although there appear to be problems in protection—as elsewhere in Latin America—the conservation outlook in Argentina seems promising.

Kappelle and Brown are to be commended for their laborious efforts in editing this extensive work. It will prove to be a valuable reference work for botanists, ecologists, and conservationists working in neotropical montane forests. It also demonstrates that a generation of Latin American tropical botanists has now reached an impressive stage of professional maturity. The colored maps and photographs of vegetation are invaluable in making the pages of enumerations and tables come alive and should entice many of us to visit these citadels of botanical diversity.

#### REFERENCES

- Churchill SP, Balslev H, Forero E, Luteyn JL, editors.** 1995. *Biodiversity and Conservation of Neotropical Montane Forests*. Bronx, NY: New York Botanical Garden.
- Hamilton LS, Juvik JO, Scatena FN, editors.** 1995. *Tropical Montane Cloud Forests*. Ecological Studies 110. New York: Springer.
- Nadkarni NM, Wheelwright NT.** 2000. *Monteverde: Ecology and Conservation of a Tropical Cloud Forest*. New York: Oxford University Press.

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### In the Image of Tibet: Tibetan Painting After 1959

By Clare Harris. London: Reaktion Books, 1999. 219 pp. US\$29.95. ISBN 1-86189039-7.

Clare Harris has written a groundbreaking and enormously edifying book. The great contribution of her study is her insightful attention to the politics and production of material culture, explored across contexts that have traditionally been considered separately. This is particularly important in Tibetan studies

because until recently in the West, Tibetan art has largely been subjected to a process of “museological fixing” (p 18), in which objects are presented as unproblematic exemplars of an idealized “traditional” Tibetan culture before Chinese intervention. By contrast, Harris brings the perspective of an anthropologically minded art historian to her analysis. She sets out to analyze images by avoiding “the unhappy separation between the aesthetic, the social, and the political” (p 10) that has characterized much of art history and anthropology. To this end, she argues that Tibetan culture after the Dalai Lama’s escape to India in 1959 is not extinct and therefore in need of “salvaging.” Instead, she sees it as vitally renewed in the imaginations of artists and their interpreters.

The book is well organized and accessible. The chapters encourage readers to understand the production of “Tibet” as a contentious process by taking us through the dominant “representational fields” (p 9) in which Tibet is imagined through images. Ninety-one illustrations, half in beautifully reproduced color, accompany the text. The book begins with chapters on “The Image of Tibet” in the West and in exile and then moves on to examine images of Tibet produced in China, including “The Chinese Image of Tibet” and “The Tibetan Image of the Tibetan Autonomous Region (TAR).” The concluding chapter, “Tibets’ in Collision,” nicely ties the book together by considering these realms and interests in relation to each other. For the most part, Harris’ writing is impressively artful. Her prose is well crafted and engaging, and in addition to keeping technical terms to a minimum, she is skillful at conveying complicated ideas in accessible ways.

Harris’ forte in the burgeoning field of visual anthropology is the exegesis of objects. Her analyses at times dance gleefully on the surface of objects, examining forms and

their configurations within complex networks of styles, artistic circles, and historical contexts. For example, in the first chapter, her exegesis of British print and museum arrangements of Tibetan objects counters their attempts to fix Tibetans in a timeless past and reveals the controlling “visualism” (p 25) of western colonial interests in the late 19th and early 20th centuries. The chapter thus sets the stage for the rest of the book and demonstrates the rigid legacy of such orientalist representations in Tibetan studies.

In this approach, we glimpse one of the great promises of a recently reinvigorated visual anthropology. This perspective combats the widespread and deeply held assumption in this media age of the fixity or objectivity of the visual. Harris instead takes “visuality” to be a referential practice akin to writing, so that, for example, contemporary buildings in Dharamsala or the TAR “quote” traditional Tibetan architecture to particular ends and painting styles are considered as interpretive genres existing in constant reference to other historically situated styles. From this angle, we can more readily understand how various claims to an ethnic “purity” of style are actually particular reinventions of Tibetanness within a ceaseless artistic “hybridity” (p 69). Thus in the second and third chapters, we come to understand the multifaceted process of “self-essentialization” (p 70) by which Tibetan officialdom in Dharamsala privileged artists born before the Chinese takeover and a particular style of painting as representing “traditional,” pre-1959 Tibetanness. In this way, visual anthropologists like Harris demonstrate the difficulties inherent in interpreting visible symbols—what we see is not necessarily what we get. In actuality, such theorists argue that the meanings of images are constantly negotiated by makers and users alike.

However, for several important

reasons, Harris' study ultimately falls short of her analytic goal. For one, the structure of the book itself, a neat organizational gambit, also has the unfortunate effect of encouraging easy interpretations of images attributed to monolithic agencies and intentions; chapter titles are singular after all: *The Image of Tibet*, *The Chinese Image of Tibet*, *The Tibetan Image*,... Harris is well aware that these categories are part and parcel of Sino-Tibetan politics since the Chinese takeover, and she explicitly works against the artificial boundaries they construct. But where supporting ethnographic evidence for certain interpretations is thin, the chapter structure seems to facilitate less nuanced readings that, as in Chapters 4 and 5, tend to take for granted the motives of "Chinese" artists and state officials versus those of all "Tibetans": "...the image of Tibet conjured up by Chinese artists has little to recommend it to exiled Tibetans and very probably is equally objectionable to the four million Tibetans who remain in the TAR" (p 150).

Harris' study raises the question of what defines the distinct contribution of visual anthropology. What differentiates it from art history or cultural studies? The danger of her approach is that the pleasure of artful critique can overwhelm the need to present evidence for those interpretations, a tendency that haunts contemporary cultural studies. Her readings are often phrased in a language of definiteness: "this benevolent vision of the PLA was clearly not shared by Tibetans" (p 122), "clearly ... the two Sherabs had embraced the Maoist revision

of Tibetan history" (p 156). Such assertions need to be supported by more than a chronological connection of images to a sociopolitical context. Harris tells us that she undertook 6 years of fieldwork for this project, including interviews with many Tibetan artists, yet evidence of that ethnography is very thin. The first direct quote of a Tibetan artist she interviewed does not occur until page 64. We learn precious little about particular artists' own changing reflections on the meanings of their works, and it seems that Harris did not interview ordinary Tibetans about their responses to important images in the community. The unintended consequence of this is that she does not allow for tension between alternative readings of images to surface in her own text. Tibetans' (not to mention Chinese!) voices are submerged under the strength and virtuosity of her interpretive voice.

By the last 2 chapters, this dynamic allows for a certain teleology to emerge in Harris' arguments. Her dismissal of Tibetan painters working in "Sino-Tibetan socialist realism" nicely sets the stage for her subsequent elevation of a new modern Tibetan hero: Gongkar Gyatso, the painter born in the TAR whom Harris presents as an exemplary representative of a Tibetan avant-garde in Lhasa in the 1980s. For Harris, earlier Tibetan efforts to inject "modernity into the images of Tibet" (p 119) were cut off by Maoism. Thus Gongkar Gyatso takes up the gauntlet, and his heroic move to more "independent" art, described under the subtitle "Moving Towards Modernism," is effected when he

eschews realism for western modernist-inspired abstract painting. After the 1987 military crackdown on Tibetan demonstrations in Lhasa, the artist "retrenches" into realism but bravely returns to modernism after the 1989 crackdown "shocked him into action again" (p 187). This tradition-to-(western)modernity narrative of the liberation of consciousness seems to mirror that assumed by the 19th–20th century orientalist Harris critiques, something she would not endorse.

All in all, these difficulties do not diminish the importance of this work to the fields of Tibetan studies, anthropology, and art history. This kind of study is extremely welcome. Harris' main empathic points come off brilliantly: that Tibetans *are* coparticipants in this contemporary time and that they *are* innovative and *are* creatively drawing on available cultural resources and historical legacies to create anew a vital Tibetan culture and community. Like most groundbreaking works, this is a call to further research. Her first-stage focus on the highpoints of Tibetan contemporary art circles and Tibet's exceptional men raises questions for further inquiry: what can an anthropological analysis of the visual bring to an understanding of more pervasive and subtle cultural changes in the stuff of everyday life for ordinary people, women as well as men? I hope many others will rise to the challenge Harris' study offers.

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