

THE ANTHROPOLOGY OF AMAZONIA

William T. Vickers
Florida International University

IN FAVOR OF DECEIT: A STUDY OF TRICKSTERS IN AN AMAZONIAN SOCIETY. By Ellen B. Basso. (Tucson: University of Arizona Press, 1987. Pp. 377. \$40.00.)

TO SQUARE WITH GENESIS: CAUSAL STATEMENTS AND SHAMANIC IDEAS IN WAYĀPI. By Alan Tormaid Campbell. (Iowa City: University of Iowa Press, 1989. Pp. 198. \$27.50.)

ANATOMY OF THE AMAZON GOLD RUSH. By David Cleary. (Iowa City: University of Iowa Press, 1990. Pp. 245. \$17.95 paper.)

RESOURCE MANAGEMENT IN AMAZONIA: INDIGENOUS AND FOLK STRATEGIES. Edited by Darrell A. Posey and William Balée. *Advances in Economic Botany*, volume 7. (Bronx, N.Y.: New York Botanical Garden, 1989. Pp. 287. \$59.00 paper.)

NATIVES AND NEIGHBORS IN SOUTH AMERICA: ANTHROPOLOGICAL ESSAYS. Edited by Harald O. Skar and Frank Salomon. *Etnologiska Studier* no. 38. (Gothenburg, Sweden: Göteborgs Etnografiska Museum, 1987. Pp. 488.)

During my first year as a graduate student in anthropology in 1970, a young assistant professor commented to me, "It's too bad you're interested in Latin America. Relatively little important work has been done there." He had recently completed his dissertation on a Polynesian topic, and I assumed he was thinking of anthropological classics such as Bronislaw Malinowski's *Argonauts of the Western Pacific* (1922) and Margaret Mead's *Coming of Age in Samoa* (1928). But I did not accept his premise. For me, many works of Latin American ethnology equaled the best from Africa, Asia, and the Pacific. My early favorites included the monumental *Handbook of South American Indians* under the editorship of Julian Steward (1946–1959), Alan Holmberg's *Nomads of the Longbow* (1950), Charles Wagley's *Amazon Town* (1953), Irving Goldman's *The Cubeo* (1963), and Oscar Lewis's *Five Families* (1959). Although fairly eclectic, this list revealed my proclivity toward Amazonian materials, an area into which my own research soon gravitated.

It has become a cliché to note that research on the Amazon has expanded dramatically in recent years (for reviews of the literature, see

Clay 1988; Moran 1982; Sponsel 1986). It is also clear that current anthropological studies in Amazonia reflect the range of interests found within the parent discipline. No single theory or research method enjoys universal acceptance. The case materials from Amazonia have figured prominently in debates among proponents of such diverse "schools" as French structuralism, British structural-functionalism, cultural materialism, and neo-Darwinian evolutionary ecology. Amazonia has also become a key arena for applied anthropology, especially regarding concerns about the land and civil rights of native peoples and rural peasantries, processes of colonization, conservation and development policy, and appropriate technology.

My own orientation is that of ecological anthropology, which I believe offers powerful tools for understanding many aspects of cultural behavior, organization, and variation.¹ A basic assumption of ecological anthropology is that culture provides means by which humans adapt to and use their environment in order to survive and reproduce. The concerns of ecological anthropologists include natural resources and environmental conditions, productive technologies and strategies, nutrition, health, and reproduction (see Vayda and Rappaport 1968). Ecological anthropologists also focus on how cultures function as ecological and economic systems and how they evolve over time. Although my theoretical orientation influences my perceptions and judgments, I often find more grounds for debate with fellow ecological anthropologists because of our shared interests and vocabulary. Theoretical diversity and debate is healthy, but analysts must eventually make choices concerning the merit of the arguments.

The Study of Myth

Ellen Basso's *In Favor of Deceit: A Study of Tricksters in an Amazonian Society* analyzes the trickster motif in the myths of the Kalapalo Indians of central Brazil. Basso criticizes the recent comparative literature on tricksters for emphasizing "sensational themes and shocking images" (p. 5). She claims that her analysis is unique because she shows "the connections between the content of trickster stories, their tellings, and lives actually lived; each is an inseparable dimension of a single process during which meaning, at once personal and social, is constructed" (p. 4).

1. Prominent theorist Marvin Harris makes similar claims for his approach to ecological anthropology, which he terms *cultural materialism* (1979). I find much of value in Harris's theory, which is informed by the earlier work of such pioneers of economic and ecological analysis as Karl Marx (Marx and Engels 1976, written in 1846), Leslie White (1949), and Julian Steward (1955). But Harris and I place different emphases on certain factors in our interpretations of Amazonian human ecology (Hames and Vickers 1983; Harris 1984; Vickers 1984, 1988, 1991).

Basso provides excellent introductions to the myths that appear in her book. She explains the methods used to collect the stories and her decisions as to how the myths should be translated and formatted on the printed page. Basso's choices are good ones: both the myths and her interpretations will hold the reader's interest.

The most important Kalapalo trickster is Taugi, the main protagonist in many Kalapalo myths.² Basso explains, "As his name Taugi (from *taugiñe*, 'lies about himself') implies, Taugi acts mainly through concealment and deception, through verbal and visual subterfuges" (p. 183). He is also the origin of "all that is difficult and troubling about human life" (p. 175).

The oral literature on Taugi's world and his deeds and misdeeds is wonderfully rich and entertaining. Basso argues, however, that readers should focus on how things are described rather than on the fantastic events of the stories. She calls for applying an analytical method that pays more attention to the social contexts of the discourse and the storyteller's performance rather than adopting the "classical structuralist" emphasis on the patterning of the myth itself (p. 228). Even this approach can get fairly dense for nonspecialists, as in the following sentence: "The discursive structure of a narrative (the 'how') highlights what happens to particular characters, contrasts the settings in which events occur, marks events as distinctive, and links events together in hierarchically ordered segments" (p. 227).

At the beginning of the final chapter, Basso states, "The conclusion is that the Kalapalo understand deception to be a fundamental mode of insight and understanding in human thought" (p. 351). The telling of a myth is a "verbalized representation of the operations of thinking, a model of thinking as action" (p. 352). Basso notes that the audience perceives the deceptions in myths from various perspectives: from that of the trickster himself as well as from the perspectives of the victims of the deception and those who thwart the trickster. Characters in myths must be agile to avoid the consequences of tricks, and Basso argues that the Kalapalo are similarly skeptical of peoples' intentions and authority in general (p. 355).

Basso attributes great significance to cognitive dynamics. She proposes that "'Illusion' thus achieves its greatest substance by contributing to ways of thinking about how human beings experience and learn to comprehend and create a set of meanings about the sensory world, and how these understandings in turn are shaped by the distinctively human ability to invent, to communicate, indeed, to experience at all, through language" (p. 356).

To be sure, *In Favor of Deceit* reflects the mentalist agenda. Explana-

2. Many anthropologists use the term *culture hero* when referring to such key mythical figures.

tion comes via recourse to analysis of semantic and cognitive processes and to the psychology of the individual. Although a link between mental processes and the "sensory world" is hinted at, Basso's work does not interpret mental life primarily as a reflection of the material conditions of existence.

My own approach to subject matter of this kind is more comparative and materialist. Myths are found in all cultures, and thus Basso is correct in asserting that this mythmaking is a distinctively human phenomenon. But in many traditional societies, myths lie at the core of their religion and cosmology. In complex state-level societies, the myths are often codified into the sacred documents of ecclesiastical religions (such as the *Bible*) or are viewed as legends or fables or fairy tales. Much of the modern worldview and cosmology is now derived from science.

One key point to remember is that simpler foraging and horticultural societies like the Kalapalo are essentially egalitarian. They lack strong authority figures and hierarchical class divisions. Their mythical heroes or "tricksters" display all the frailties and base emotions of ordinary people. Although mythical figures may have exceptional powers, they do not adhere to a higher religious principle or code of morality.

As agricultural production increases, societies tend to evolve into class-stratified systems with concentrations of wealth and power in the elite sectors. Occupational specialization occurs, including the development of priestly hierarchies who codify and regulate religious expression. Certain myths are approved while others are branded as "pagan." Capricious tricksters evolve into virtuous gods. The result is that individuals have less freedom and greater need to demonstrate their adherence to accepted dogmas.

Overall, Basso's *In Favor of Deceit* makes a major contribution on the oral literature of South American Indians. The original myths are engaging and sometimes hilarious, and her analysis is insightful. The book is also rich in texture and well produced. Although I am neither a structuralist nor a mentalist, I found Basso's book far more rewarding than most in this genre.

The Scandinavian School of Latin Americanists

Harald Skar and Frank Salomon's edited volume *Natives and Neighbors in South America* pays tribute to the great Swedish ethnographer Baron Nils Erland Herbert Nordenskiöld. The first professor of anthropology at the University of Gothenburg, Nordenskiöld is recognized as the founder of the "Scandinavian school" of Latin Americanists. This group of scholars, who were either Scandinavian or had close Scandinavian ties, included Nimuendajú (Curt Unkel), Alfred Métraux, and Henry Wassén. The collection presents fifteen essays by thirteen scholars, which were initially

presented to a graduate seminar on South American ethnology at Gothenburg. The editors state that the primary goal of the volume is "to exemplify Scandinavian scholars' current South Americanist interests" (p. i).

Natives and Neighbors in South America begins with an introductory essay on Nordenskiöld and the Scandinavian school by Salomon and Skar, followed by Nordenskiöld's bibliography and an interpretive essay on the role of Indians in Latin American history by Magnus Mörner. The rest of the book is subdivided into four major sections of essays based on "geographical regions" of South America (the Northern Region, the Andes, southwest Amazonia, and Brazilian Amazonia). The volume ends with a critique by Andrew Gray on the ethics and responsibilities of anthropologists who study indigenous peoples.

Mörner's essay on Indians as "objects" and "actors" in Latin American history offers a helpful overview. It deals with topics ranging from the early contact period to messianic movements like that of Juan Santos Atahualpa in the eighteenth century and then on to the ecological basis of the Sendero Luminoso revolutionary movement in present-day Peru.

The section on the "Northern Region" contains papers by Sven Erik Isacson on Emberá (Chocó) leadership during the colonial period in what is now Colombia, Kaj Århem on Makuna (Tukanoan) marriage exchange in northwest Amazonia, and Peter Rivière on why different manioc-processing patterns exist among Tukanoan and Trio women in Colombia and French Guiana.

The Andes section contains two of the strongest contributions in the volume. Frank Salomon's charming essay offers an interpretation of how the Cañari Indians of Ecuador came to think of themselves as descendants of the Incas when in fact their ancestors were the Inca's mortal enemies. He notes that Andean peoples viewed themselves as members of specific local groups descended from remote and holy ancestors. In the aftermath of the conquest, the Spanish looted the deep shaft tombs of the Cañari and "disposed of their bodies as garbage" (p. 226). Salomon argues that this desecration engendered among the Indians a sense of *wajcha*, or orphanhood. As previously discrete ethnic groups became lumped together in the generic category of "Indians" and with colonial oppression and the passage of time, "supralocal concepts such as 'Inca' may have gained greater ideological salience even as their political potency waned" (p. 227).

Salomon's essay is brilliant, but his argument concerning the impact of the desecration of Cañari tombs on present-day ethnicity is perhaps a more complex line of reasoning than is necessary to account for modern Cañari claims of Inca descent. "Inca" has become an almost generic label for native Andean civilization and as such connotes high cultural achievement and resistance to Spanish domination. Further, the Cañari today speak Quechua, the language of the Incas. As Salomon himself

notes, the pillaging of Cañari tombs in the sixteenth and seventeenth centuries was but one aspect of a profound transformation of Andean reality.

Harald Skar contributes a fascinating piece on the Israelita messianistic sect in Peru, whose thousands of followers are primarily Quechua-speaking migrants to coastal cities and the eastern jungles. Skar's detailed analysis considers the history of millenarian and nativistic movements in the Andes and contrasts Israelita precepts and practices with those of Sendero Luminoso. Sara Lund Skar completes the Andean section with an essay on the role of urine in Andean cosmology and ethnomedicine.

The section on southwest Amazonia contains contributions by Andrew Gray on Amarakaeri history, Dan Rosengren on Matsigenka social organization, and Graham Townsley on the contact-induced decline of Yaminahua dual organization. The following section on Brazilian Amazonia features selections by Kennet Pederson on the early contact period, Lars Løvold on the shared creation myth of the Gavião and Zoró Indians, and a treatise by David Maybury-Lewis that interprets Gê and Bororo dual organization as a "native form of equilibrium theory" (p. 464).

The current generation of Scandinavian Latin Americanists is well represented in this volume, although *Natives and Neighbors in South America* has no consistent theme or theoretical focus. As in many large edited works, the quality of the contributions varies, but nearly all offer information and analyses that will be helpful to area specialists. A few are exceptional in their originality and style.

Ecological Studies of Amazonia

Another large edited collection is *Resource Management in Amazonia: Indigenous and Folk Strategies*, edited by Darrell Posey and William Balée. But these sixteen pieces by nineteen individuals are organized around a central theme. The volume is divided somewhat artificially into two sections. The first includes four contributions under the heading "Theoretical Approaches to Resource Management," and the second consists of twelve more under "Use, Perception, and Manipulation of Resources."

Posey and Balée state in their brief introduction, "Although numerous studies exist about indigenous and folk societies and their adaptations to Amazonia, few seem to examine closely *their* perceptions of the natural environment and *their* strategies to utilize and manage it. This collection unites some of the most recent studies of conservation and management, emphasizing how indigenous and folk peoples actually mould the natural landscape to suit their needs and desires" (p. vi, emphasis in the original).

The theoretical set piece of the volume is Balée's essay entitled "The Culture of Amazonian Forests." He presents evidence that supports human activities as shapers of the environment, including anthropogenic plant

communities involving palms, forest islands in the midst of *campo cerrado* (scrub savanna) vegetation, and bamboo, Brazil nut, and liana forests. Balée also discusses human management of soils, including raised field agriculture, the influences of burning on forest regeneration, and the anthropogenic formation of black soil that is known in Brazil as *terra preta do índio*. He estimates that some 12 percent of the Amazon forest is anthropogenic (affected by aboriginal influence).

Balée argues that other scholars have overlooked or minimized the significance of human activities as shapers of the Amazon environment. Specifically, he squares off against “adaptationist theories [that] ignore the capacity of indigenous Amazonians to manage and manipulate critical resources rather than adapt . . . to limits” (p. 3). Balée argues that there is a “naturalistic bias in adaptationist theories” and goes so far as to reject the dichotomy between nature and culture “as employed . . . to date” (p. 2). In effect, Balée views all use of Amazonian resources by natives as husbandry. Hunters are not really hunting wild animals, they are “managing” herds and populations. Foragers are not collecting “wild plant” products because their activities influence the occurrence of the plants.

Balée’s contribution is both useful and provocative. He criticizes the “adaptationists” for being biased toward nature and also the concept of environmental limiting factors that are presumed to have constrained cultural evolution in Amazonia. In part, this argument is a critique of *Adaptive Responses of Native Amazonians*, an earlier volume that Raymond Hames and I coedited (Hames and Vickers, eds., 1983). Yet it is clear that Balée is equally guilty of anthropocentric bias. Although he presents interesting evidence of anthropogenic forest associations, he uncritically grabs at any straw that supports his basic premise. For example, he says that Amazonians capture individual white-lipped peccaries and use them as decoys to attract herds of peccaries. The implication is that these herds are managed rather than wild. But Balée does not provide information on how common this practice is, nor does he provide a convincing argument as to how the use of decoys qualifies as “herd management” or domestication.

Emilio Moran’s essay offers a threefold typology to describe native and folk adaptation in the Amazon. The first pattern is that of the fertile floodplains, where alluvial soils and abundant resources supported large settlements. The second pattern he labels “manioc-dependent swidden cultivation in uplands,” which is typified by small and impermanent villages. Moran’s third type consists of “seasonal trekking in transitional environments.” It includes groups like the Xavante and Kayapó, who practice horticulture but also emphasize seasonal trekking in “savanna-like” habitats (*cerradão* and *cerrado*).

Moran’s overview contains certain assertions that are debatable. For example, he states, “Current evidence is that tropical forest populations in the uplands choose their settlement sites with little regard to the quality of

agricultural land near the village" (p. 25). According to Moran, most ethnographies mention other criteria for site selection, including game, water supply, the availability of raw materials for rituals, and defense against attack. I would argue that settlement location typically involves consideration of multiple factors as well as the trade-offs among them. Ethnographies that give detailed attention to the site-selection process are rare, however, notwithstanding the essay by Susanna Hecht and Posey yet to be discussed.

In recent years, Anna Roosevelt has been presenting arguments and evidence that offer a revolutionary reinterpretation of lowland South American archaeology (Roosevelt 1980; Roosevelt et al. 1991). For Roosevelt, Amazonia is a hearth of cultural innovation and complexity rather than a backwater. Her contribution to *Resource Management in Amazonia* argues that Amazonian prehistory cannot be understood by extrapolating backward in time from studies of existing native societies. For Roosevelt, present-day Amazonian cultures resemble most the evidence from early archaeological periods and do not show the cultural complexity suggested by the remains of the late prehistoric chiefdoms of the *várzea* (floodplain).

A key point made by Roosevelt is that the Amazon contains much archaeological material and that this material is recoverable through modern research techniques. Comparatively little archaeological research has been done in Amazonia thus far because many scholars have assumed that tropical conditions prevent preservation of artifacts or that the prehistoric cultures were not very advanced and offer little of interest. Some archaeologists may also have been reluctant to face the difficult working conditions characteristic of remote areas in Amazonia.

Roosevelt proposes four fundamental stages of Amazonian prehistory: "Early Hunter-Gatherers" (earlier than 10,000 years ago), "Early Sedentary Adaptations" (8,000–3,000 years ago), "Early Horticultural Villagers" (beginning some 3,000 years ago), and "Agricultural Chiefdoms" (about 1,000 years ago up to European contact). Roosevelt emphasizes the achievements of the last period, when large earthworks were constructed in the floodplains and some sites, like those on Marajó Island and at Santarém, became "urban in scale" (p. 45). Concerning the political organization, Roosevelt states, "Paramount chiefs ruled over large domains, some extending over 20,000 km², and art styles spread rapidly over large areas, apparently linked to systems of alliances and warfare in the expansion of the chiefdoms. . . . Images of deities, ancestors, and the mummified bodies of chiefs were objects of worship. . . . Social organization . . . was . . . ranked . . . with differential prestige and access to resources within communities" (p. 31).

Roosevelt is not the first scholar to recognize prehistoric chiefdoms in Amazonia (see Denevan 1966; Lathrap 1970; Meggers 1971; Steward and Faron 1959). But she is conducting important new field research into their archaeology and is advancing understanding of their significance.

From a comparative perspective, it must be recognized that chiefdoms with territories of twenty thousand square kilometers are still one or two orders of magnitude smaller than the Andean empire of the Incas, which covered about one million square kilometers in 1530. Such comparisons do not denigrate Amazonian cultural achievement but throw light on the productive capacities of different human ecological systems and the degrees of cultural complexity that they support.

A chapter by Janis Alcorn compares the “agricultural ideologies” of the Bora Indians in northwest Amazonia with those of the Huastec in northeastern Mexico. This contribution reflects the “ethnoscience” approach, which emphasizes native models of cognition and understanding. Alcorn asserts that Bora and Huastec agricultural practices can be viewed as “scripts” or internalized plans that guide routine activities. These need not be optimal but “have been good enough for the community’s survival . . .” (p. 71). She stresses the adaptedness of traditional agricultural systems in the tropics, especially when compared with imported practices that are often promoted as “superior.”

Brian Boom contributes a chapter on the ethnobotany of the Chácobo Indians of eastern Bolivia. He found that the Chácobo used 82 percent of the tree species in a one-hectare study site, thus demonstrating this people’s detailed knowledge of forest resources. Another essay by Berta Ribeiro and Tolamã Kenhíri, a Desâna Indian, describes a sophisticated astronomical and economic calendar and contains beautiful illustrations of native constellations.

William Smole’s chapter on Yanoama horticulture is largely excerpted from his book, *The Yanoama Indians: A Cultural Geography* (1976). It discusses native modifications of the vegetation of the Parima highlands and therefore supports Balée’s point about anthropogenic landscapes in Amazonia. Yet the very complex Parima mosaic of savannas and forests in various stages of succession is partly due to natural factors like altitude, relief, and drainage patterns as well as to human activities. Hence the Parima region has a rather distinctive appearance that is not representative of much of the Amazon Basin.

A contribution by Anthony Anderson and Darrell Posey details how the Gorotire Kayapó of Brazil plant, compost, and otherwise modify islands of woody vegetation in a scrub savanna habitat (campo cerrado). Another essay by Susanna Hecht and Posey focuses on Kayapó soil management techniques. Whereas Moran asserts that *terra firme* Indians do not pay much attention to agricultural factors when selecting settlement sites, Hecht and Posey document that the Kayapó have a complex soil taxonomy and prefer to locate in areas that are environmentally heterogeneous.

Jan Salick’s essay on the Amuesha provides a standard description of an Amazonian horticultural system except for its unusual graphics.

Figure 4, called "Polar Ordination of fields by similarity of species occurrence," seems cryptic to me. Both the x and y axes are labelled "ecological distance" with a scale of "0–100," yet this concept or unit of measure is not defined. Most readers will have difficulty interpreting this figure.

The most contrarian contribution to this volume is Allen Johnson's piece on the Machiguenga of eastern Peru. He argues that three conditions are critical if a resource-management strategy is to have meaning: population must be pressuring resources; individuals must be able to reap the rewards of their management activities; and a situation of "circumscription" must exist (that is, residents are not free to move away from their home ranges or territories for environmental or political reasons).

Johnson argues that the low population density of the Machiguenga is the key to their "relatively small destructive impact on the environment," rather than any management activities. He points out that the Machiguenga are opportunistic in their use of resources, feel superior to other organisms, and even enjoy torturing captured animals. Put simply, Johnson does not romanticize the natives. In his view, the Machiguenga possess deep knowledge of their forest habitat but lack a grand strategy for managing it. Johnson argues that Machiguenga welfare would not benefit appreciably by investing energy in such management because their situation does not meet the theoretical criteria he proposes.

Dominique Irvine studies managed and unmanaged fallow plots of lowland Quichua Indians in eastern Ecuador. She finds that unmanaged fallows are dominated by a uniform *Cecropia* canopy (a fast-growing, soft-wooded, secondary-growth tree) whereas managed fallows are more open and have greater diversity due to planting and protection of certain species. Irvine believes that the low density of the human population in her study area places little pressure on the members to intensify their management of forest succession, thus she echoes Johnson's point about the significance of population density. Her contribution is refreshing in its straightforward and balanced analysis, which avoids extravagant claims about native manipulation of natural resources.

Janet Chernela describes the blackwater ecosystem of the Uaupés River in northwest Brazil and concludes that Tukano Indians protect the forest along the water's edge because this zone provides the food supply for the fish that are essential to native subsistence. Eugene Parker's essay presents historical data as to why the *caboclos* of the Brazilian Amazon, who are often described as "backwoodsmen" or "peasants," should be viewed as a native population that employs indigenous subsistence strategies for survival. He proposes that studies of native adaptation should include this category.

A contribution coauthored by John Frechione, Darrell Posey, and Luiz Francelino da Silva provides a marvelously detailed ethno-ecological description of the habitat and resources of Lake Coari, an eighty-kilo-

meter water course on the south side of the Amazon River.³ This study documents the ecological sophistication of da Silva, a former caboclo.

When I first read “resource management” in the title of *Resource Management in Amazonia*, I assumed that Posey and Balée were referring to conscious activities directed toward specific outcomes. But a chapter by Balée and Anne Gély on “managed forest succession” among the Ka’apor provides a significantly different definition: “‘Forest management’ refers here to the manipulating of species and vegetational zones on a given plot of land, by which new vegetational zones and ecotones subsequently emerge. . . . The management of forest succession appears to occur not as a result of conscious planning for future generations, but rather as an unintended, even if useful, artifact of settlement evolution . . .” (p. 130).

I find this approach to “management” rather slippery, but a quick glance at a standard dictionary (*Webster’s Seventh New Collegiate Dictionary*, 1970) reveals several possible shadings. The second definition given for “management” is “judicious use of means to accomplish an end,” a meaning consistent with my prior understanding of the word. Another meaning of “manage,” however, is “to alter by manipulation.” Balée and Gély’s approach fits with this definition. Despite my qualms about their definition of “forest management,” the contribution by Balée and Gély is an excellent ecological analysis of vegetational zones and Ka’apor ethnobotany. The linguistic aspects are superb.

Taken as a whole, *Resource Management in Amazonia* reflects the approach of human ecology, with the emphasis on “human.” The collection is rich in data and will be viewed as a landmark work in Amazon studies. Its one weakness is a tendency to overemphasize Amazonian natives’ manipulation and mastery of nature. Allen Johnson’s caveats about the human tendency to be opportunistic and the significance of population density are well taken. Humans will appear to be excellent managers of natural resources when their population densities are relatively low and their technologies are low in intensity.

An Iconoclastic Ethnography

The next to last book considered here is Alan Tormaid Campbell’s *To Square with Genesis: Causal Statements and Shamanic Ideas in Wayāpí*. Its jacket promises “an unusual, iconoclastic ethnography . . . and a strong appeal for less distant, more humanistic anthropological writing.” Is this promise met? Certainly, *To Square with Genesis* is not a run-of-the-mill ethnography. Campbell writes, “I am sure some readers will say it does not qualify as an ‘ethnography’ at all” (p. 2). He astounded this reader by

3. There are few true lakes in the Amazon Basin. The term *lake* is often used to refer to parts of rivers or old river courses that are broad, or otherwise resemble lakes.

saying, "I would be ashamed if they [Wayāpí] became a name in anthropological debate" (p. 168). Most anthropologists are delighted (and anticipate career advancement) when "their people" are "put on the map." Instead, Campbell presents a collection of essays that constitute a critique of anthropological fieldwork and theory. The resulting work is profoundly literate, insightful, and disturbing.

Campbell criticizes social science jargon as "a lazy vocabulary" (pp. 3, 6). Among the many words he promises not to use are *analysis*, *model*, *structure*, *system*, *transformation*, *opposition*, *conjunction*, *inversion*, *metaphor/metonym*, *hypothesis*, *method*, and *informant*. He further charges that the theoretical stances of anthropologists rest more on their personal tastes and temperaments than on objective science (p. 7).

Campbell asserts, perhaps foolishly, that his book is guided by "no theory" and "no method" (p. 21). Instead, he emphasizes the relational nature of knowledge and fieldwork: "looking for systems is an attempt to tame congeries of unruly phenomena by simplifying them, reducing them, and bringing them into clusters of principles which are expressed in ever more formal, abstract, statements . . . instead of diagnosis. . . . I want to look at the relation between us and them . . . , at the possibilities and difficulties of mutual comprehension . . ." (p. 11).

Campbell forthrightly reveals his initial self-doubts about the quality of his fieldwork and whether he had anything to say about a group of Indians who might not be "particularly interesting" to study: "What I found was a people who had lost an appalling number of their community . . . and who talked sadly and anxiously about the prospect of their extinction. . . . The material culture was crude and rather shabby when compared with similar artifacts . . . in museums. . . . The myths I heard . . . were . . . no more than fragments of similar stories . . . in other ethnographic documents" (p. 5). This conflict is resolved when Campbell concludes that the anthropologist's desire to study an "uncontaminated" culture reflects his or her preconceptions and needs, rather than a search for the social reality of the people being studied. Campbell is critical of those who "guard their 'material' like the sulky dragon in Beowulf sitting on its treasure horde, protecting some ethnographic baubles which will be cashed in to make a reputation" (p. 5).

To Square with Genesis contains significant contradictions, for many of Campbell's criticisms of modern anthropology can be applied to his own work. Although he claims to eschew jargon in the interest of clarity, his book is full of obscure literary references and untranslated French expressions (he does translate Greek, Spanish, and Portuguese expressions). Moreover, his discourses on the meanings of "cause" and the "peculiarities of causal reasoning" are theoretical despite his disclaimers to the contrary.

By his own design and admission, Campbell does not provide a

complete ethnography of the Wayãpí. Nevertheless, he offers extensive material on their history, kinship, and shamanism. More important, he gives us one of the most original and thought-provoking anthropological essays in recent years.

Gold Fever

The final book considered here is David Cleary's *Anatomy of the Amazon Gold Rush*. Cleary went to Brazil in 1984 with a grant to conduct research on rural-urban migration in the state of Maranhão. Fortunately for his readers, he soon decided to switch topics and study the gold rush that was then gripping eastern Amazonia. For several months, Cleary did archival research on the history of mining in Maranhão, interviewed politicians and officials of mining agencies and corporations, and attempted to get permission to do fieldwork at Serra Pelada, the most spectacular and notorious mining camp. The approval process was repeatedly delayed due to bureaucratic instability at this federally administered mine, so Cleary shifted his focus to the Gurupí goldfield in western Maranhão.

Much of the detailed ethnographic material in this book is based on Cleary's five months of fieldwork at Gurupí in 1985. The overall work, however, is informed by his archival research and extensive interviews conducted in Imperatriz, Belém, São Luis, Brasília, and Marabá, combined with a follow-up visit to Brazil in 1988. What emerges, therefore, is not merely an account of one of the smaller goldfields but a rich anthropological study of the subculture of the *garimpo* (goldfield), its regional variations, and its relationships to the formal mining sector and Brazilian society in general.

The Brazilian gold rush is a large-scale phenomenon. It involves hundreds of thousands of freelance *garimpeiros* (prospectors) who compete vigorously with the major corporations of the formal mining sector. The rising price of gold, along with hard economic times in Brazil, have led individuals of diverse social backgrounds to try their luck in the *garimpos*. Gold production in this informal mining sector exceeds one billion dollars in value annually and has become a significant factor in Brazil's attempts to cope with its trade and credit imbalances.

Anatomy of the Amazon Gold Rush reveals the internal workings and social organization of the *garimpo*. The basic technologies and strategies of small-scale mining are described in detail. Even the "informal mining sector" has several forms of labor organization and capitalization. These range from independent prospectors to partnerships in which risks and profits are shared and to low-status laborers who are paid a daily wage. In addition, Cleary covers the social infrastructure of investors, gold buyers, storekeepers, pilots, truckers, prostitutes, and others linked to *garimpo* communities.

The book also describes the peculiar developmental trajectories and evolving social structures of goldfields from their exciting first strikes through their booms and busts. Cleary makes the important point that the garimpeiros, like members of other subcultures and occupational groups, have a well-defined system of values and norms of behavior. They place great emphasis on equality of opportunity in the goldfields and respect for the rights of others. Antisocial types are subjected to a variety of formal and informal sanctions, based on a consensus of garimpo members.

Separate chapters focus on three topics: the remarkable case of Serra Pelada; the relationships among *garimpagem* (prospecting for gold), formal mining, and the state; and the broader social implications of the gold rush. While many observers of *garimpagem* have viewed it as a backward, uncontrolled, violent, and ecologically disastrous phenomenon, Cleary is more generous in his assessment. He argues that the informal mining sector provides flexible employment opportunities that are sorely needed in a country like Brazil and that the efficiency of garimpo mining equals that of the formal mining sector. He also views the garimpeiros as individuals who enjoy more freedom than other rural workers, who are enmeshed in traditional patron-client and debt-peonage relationships. Cleary acknowledges that garimpo mining can result in ravaged and mercury-polluted landscapes and that miners sometimes invade Indian lands and introduce epidemic diseases to remote native populations. His overall thrust, however, is to portray the garimpo as a flexible and reasonably democratic labor opportunity for thousands of disadvantaged Brazilians. According to Cleary, the primary victim of the garimpo is the corporate mining sector.

Overall, Cleary has provided a fine pioneering study of the Amazon gold rush. As he acknowledges, the subject is so large that no single book can cover all of its aspects and variations. Regardless, readers of *Anatomy of the Amazon Gold Rush* will find an excellent foundation for understanding the human and economic basis of a phenomenon that many have viewed as dangerous and destructive.

Conclusion

Taken as a group, these five books show that anthropological study of the Amazon is thriving. Although no one theory or research method enjoys universal acceptance, there is much of value. Of these books, Cleary's *Anatomy of the Amazon Gold Rush* is the most straightforward and readable. It is an absolutely solid piece of work without obvious theoretical pretensions, yet it is clearly a fine-grained study of labor and economic relations.

The studies by Basso and Campbell differ greatly from one another, yet both have high value for the literature. While Campbell claims to have no theoretical position, his emphasis on the relational nature of fieldwork

and his introspective musings suggest the self-critical style of “post-modernism.” Basso’s myth analysis combines aspects of discourse analysis and psychology, but her approach is not heavy-handed. Both books are learned and entertaining, and they should be appreciated by wide audiences.

Skar and Salomon’s edited volume, *Natives and Neighbors in South America*, is an important historical document on the contributions of Scandinavian anthropology. It contains some excellent essays, despite its lack of a consistent theoretical focus. Descriptions and interpretations of the lives of intellectual pioneers and founders of academic traditions are needed. As one born and educated in the United States, I often sense that my exposure to the anthropological literature has a strong American and English bias. I therefore appreciate works like this one that enhance my understanding of the contributions of a wider group of scholars.

Posey and Balée’s *Resource Management in Amazonia* has a well-defined theme and theoretical orientation and represents a major contribution to Amazonian human ecology. It emphasizes that native Amazonians are intelligent beings with sophisticated knowledge of their environment, which they use in ingenious ways. But while Posey and Balée react to the presumed “naturalistic bias” of the “adaptationists,” they do not set the debate into its proper comparative context. Early culture-area approaches to the ethnology of native South Americans attempted to identify patterns of cultural similarities associated with large geographic regions. The classic *Handbook of South American Indians*, edited by Julian Steward and published from 1946 to 1959, divided the continent into four basic culture areas: Andean Civilizations, Circum-Caribbean Chiefdoms, Tropical Forest Tribes, and Marginal Tribes. In this typology, Andean cultures like the Inca were described as having achieved a high degree of political integration and civilization, with an economy based on intensive agriculture. Tropical forest groups were characterized as village-level societies, with subsistence economies based on slash-and-burn cultivation and the exploitation of wild resources through hunting, fishing, and collecting. The marginal peoples were said to be small bands of nomadic hunters and gatherers who practiced no cultivation. Today we know that Steward’s culture-area scheme contained some incorrect assumptions. Strong evidence suggests that some Amazonian societies were organized at the level of chiefdoms rather than as politically autonomous villages, as emphasized by Anna Roosevelt. Further, we now know that many of the supposedly “marginal” groups practice horticulture in addition to their foraging activities. Despite the flaws in Steward’s model, he and his predecessors such as Clark Wissler (1917), David Stout (1937), and John Cooper (1942) recognized some salient variations in cultural complexity throughout South America.

It is this contrast between the human adaptations of the Andes and the Amazon that is the basis for many of the characterizations about the

Amazon that Posey and Balée perceive as negative stereotypes. They attempt to counter the stereotypes by showing the richness of human knowledge and "management" of resources in Amazonia. I agree with Posey and Balée that the natives of lowland South America are intelligent people with sophisticated knowledge of their environments and that they "manage" their resources to some extent. I also agree that some lowland societies were organized as chiefdoms uniting multiple settlements into regional polities. But as yet there is no convincing evidence that Amazonian societies ever achieved the population densities, degrees of territorial control, or levels of political integration that characterized central Andean civilizations like the Wari and the Inca. And the micromanagement of habitat and resources was far more intensive in the Andes, where dense populations practicing irrigation agriculture transformed the landscape to a far greater degree than was the case in Amazonia.

Ultimately, the idea that humans manage nature at all is an anthropocentric illusion that is severely bounded in time and space. Nature includes everything from the simplest elements and subatomic particles to the grand forces of cosmic evolution. Native Amazonians, Andeans, and Westerners alike are all just along for the briefest of rides.

REFERENCES CITED

- CLAY, JASON W.
1988 *Indigenous Peoples and Tropical Forests: Models of Land Use and Management from Latin America*. Cambridge, Mass.: Cultural Survival.
- COOPER, JOHN M.
1942 "Areal and Temporal Aspects of Aboriginal South American Culture." *Primitive Man* 15:1-38.
- DENEVAN, WILLIAM M.
1966 *The Aboriginal Cultural Geography of the Llanos de Mojos of Bolivia*. Berkeley and Los Angeles: University of California Press.
- GOLDMAN, IRVING
1963 *The Cubeo: Indians of the Northwest Amazon*. Urbana: University of Illinois Press.
- HAMES, RAYMOND B., AND WILLIAM T. VICKERS
1983 "Introduction." In HAMES AND VICKERS, EDs., 1983, 1-26.
- HAMES, RAYMOND B., AND WILLIAM T. VICKERS, EDs.
1983 *Adaptive Responses of Native Amazonians*. New York: Academic Press.
- HARRIS, MARVIN
1979 *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.
1984 "Animal Capture and Yanomamo Warfare: Retrospect and New Evidence." *Journal of Anthropological Research* 40, no. 1:183-201.
- HOLMBERG, ALLAN R.
1950 *Nomads of the Longbow: The Siriono of Eastern Bolivia*. Washington, D.C.: Smithsonian Institution.
- LATHRAP, DONALD W.
1970 *The Upper Amazon*. New York: Praeger.
- LEWIS, OSCAR
1959 *Five Families: Mexican Case Studies in the Culture of Poverty*. New York: Basic Books.
- MALINOWSKI, BRONISLAW
1922 *Argonauts of the Western Pacific*. New York: E. P. Dutton.

- MARX, KARL, AND FREDERICK ENGELS
 1976 *The German Ideology*. In *Collected Works of Marx and Engels*, 5:19–92. New York: International Publishers (written in 1846).
- MEAD, MARGARET
 1928 *Coming of Age in Samoa*. New York: Morrow.
- MEGGERS, BETTY J.
 1971 *Amazonia: Man and Culture in a Counterfeit Paradise*. Chicago: Aldine-Atherton.
- MORAN, EMILIO
 1982 "Ecological, Anthropological, and Agronomic Research in the Amazon Basin." *LARR* 17, no. 1:3–41.
- ROOSEVELT, ANNA CURTENIUS
 1980 *Parmana: Prehistoric Maize and Manioc Subsistence along the Amazon and Orinoco*. New York: Academic Press.
- ROOSEVELT, ANNA CURTENIUS, R. A. HOUSLEY, M. IMAZIO DA SILVEIRA, S. MARANCA, AND R. JOHNSON
 1991 "Eighth Millennium Pottery from a Prehistoric Shell Midden in the Brazilian Amazon." *Science*, no. 254:1621–24.
- SMOLE, WILLIAM J.
 1976 *The Yanoama Indians: A Cultural Geography*. Austin: University of Texas Press.
- SPONSEL, LESLIE E.
 1986 "Amazon Ecology and Adaptation." *Annual Review of Anthropology* 15:67–97.
- STEWARD, JULIAN H.
 1955 *Theory of Culture Change: The Methodology of Multilinear Evolution*. Urbana: University of Illinois Press.
- STEWARD, JULIAN H., ED.
 1946–
 1959 *Handbook of South American Indians*. 7 vols. Bureau of American Ethnology, Bulletin 143. Washington, D.C.: U.S. Government Printing Office.
- STEWARD, JULIAN H., AND LOUIS C. FARON
 1959 *Native Peoples of South America*. New York: McGraw-Hill.
- STOUT, DAVID B.
 1937 "Culture Types and Culture Areas in South America." *Michigan Academy of Science, Arts, and Letters* 23:73–86.
- VAYDA, ANDREW, AND ROY RAPPAPORT
 1968 "Ecology, Cultural and Noncultural." In *Introduction to Cultural Anthropology*, edited by J. Clifton, 477–97. Boston, Mass.: Houghton-Mifflin.
- VICKERS, WILLIAM T.
 1984 "The Faunal Components of Lowland South American Hunting Kills." *Interciencia* 9, no. 6:366–76.
 1988 "Game Depletion Hypothesis of Amazonian Adaptation: Data from a Native Community." *Science*, no. 239:1521–22.
 1991 "Hunting Yields and Game Composition over Ten Years in an Amazon Indian Territory." In *Neotropical Wildlife Use and Conservation*, edited by John G. Robinson and Kent H. Redford, 53–81. Chicago, Ill.: University of Chicago Press.
- WAGLEY, CHARLES
 1953 *Amazon Town: A Study of Man in the Tropics*. New York: Macmillan.
- WHITE, LESLIE
 1949 *The Science of Culture*. New York: Grove.
- WISSELER, CLARK
 1917 *The American Indian: An Introduction to the Anthropology of the New World*. New York: D. C. McMurtrie.