

denen Handlungen vollzogen werden. Während es den Mitgliedern der Initiative gelingt, sich ihrer Unsicherheiten im Umgang mit den Fremden zu entledigen, indem sie für diese Verantwortung übernehmen und deren Raum mitstrukturieren, wenden sie ein Verhaltensrepertoire an, das über die Integrationsstrategien der 1970er und 1980er Jahre nicht hinauskommt. Migranten haben Defizite und bedürfen der Unterstützung zum Abbau dieser Defizite, wobei es vor allem an ihnen liegt, inwieweit dies gelingt, was wiederum Rückschlüsse zulässt, in welchem Maße sie sich um Integration bemühen. Genau hierin zeigt sich für Dünwald die Präsenz eines pädagogischen Habitus, der aus Mangel an geregelten Akzeptanzmodellen für die gleichberechtigte Anerkennung von Migranten und den ungeklärten Fragen nationaler Identität Integration unter ausschließlicher Betonung des Einzelfalls wahrnehmen kann. Kohärenten allgemeinen Regeln, die ja im Miteinander der deutschen Bevölkerung gelten, wird im Fall der Migranten mit Misstrauen wenn nicht gar Ablehnung begegnet, da nicht beweisbar ist, ob sie wirklich greifen und zur Anwendung kommen.

Mit Hilfe der von Clyde Mitchell in den 1960er Jahren entwickelten Situationsanalyse in Verbindung mit Pierre Bourdieus Habitusbegriff gelingt es Dünwald, die verfahrenere Situation zwischen Migranten und ihnen gegenüber positiv eingestellter einheimischer Bevölkerung zumindest zu durchdringen. Hierdurch wird deutlich wieviel Arbeit letztlich noch zu leisten ist, um eine gelingende Integration, die auf Respekt und Wertschätzung basiert, zu ermöglichen. Roland Drubig

**Ellen, Roy** (ed.): *Ethnobiology and the Science of Humankind*. Oxford: Blackwell Publishing, 2006. 202 pp. ISBN 978-1-4051-4589-7. (*Journal of the Royal Anthropological Institute*, Special Issue, 1) Price: £ 19.99

How to discuss on a mere 200 pages an interdisciplinary area where anthropology gets in touch with botany, ecology, archaeology, linguistics, agronomy, history, medicine, and pharmacology? In his reader about "Ethnobiology and the Science of Humankind," Roy Ellen manages to assemble a series of articles, most of them written by internationally renowned scholars, which comprise an astonishing variety of themes and theories. Obviously, his choice can not be exhaustive, but it still gives us a good insight into what has been done in ethnobiology during the last decades, and what is being done now. The book is more about the theory and aims of ethnobiology than about methods or practical field experience, though some of the contributors draw on their own, often extensive field research for reference. It should certainly encourage further reading.

In his introduction (1–27), the editor attempts to present under seven headings, corresponding to the choice of the following seven articles, "an empirical account of the kinds of theories which ethnobiologists employ" (4).

First, there is the Linnean botanical and zoological system (4–6), indispensable for giving the tangible reference of a scientific definition, "translating" folk names into the international categories of scientific Latin. More-

over, numerous ethnobiologists have been following the Linnean scheme in the organization of their research, or have used it as a paradigm, trying to prove the existence of corresponding classificatory systems in other cultures. This directly leads us to the problematics of language use and knowledge translation (6–8). If we regard language as a classificatory device, we might miss much of its social and cultural implications. Also, one should acknowledge that language has its limits, and that knowledge often is transferred nonlinguistically.

Cognitive anthropology (8–10), beginning in the late 1960s with the works of Berlin et al., or earlier still with the dissertation of Harold Conklin in 1954, has been trying to establish universal rules on how humans perceive, and organize their knowledge of, their natural environment. Whereas this field has been largely discussed, there is much less attention being paid on the social postulates of knowledge distribution and knowledge transmission (10–12). Medical ethnobiology is one of the most prominent and also most challenging domains of ethnobiology (12–14). Although numerous monographs on ethnomedicine and inventories of medicinal plants have been written all over the world, the editor states that medical anthropologists often neglect the importance of thorough ethnobotanical fieldwork, while natural scientists working on folk remedies do not pay the necessary attention to the ethnographic context. Here, ethnobiology, as an interdisciplinary subject, should certainly be building "intellectual bridges" (13).

Even more challenging, perhaps, is the partaking of ethnobiology in applied anthropology (14–15). Here lies a real opportunity for "bottom-up" instead of the usual "top-down" development projects and a possible response to the urgent ecological problems of our time. The biocultural synthesis and the concept of co-evolution (15–18) is an approach to demonstrate how culture and biology, man and his environment influence each other and which are the links that connect ecological and cultural history. Emphasizing the centrality of ethnobiology to anthropology (18–20), the editor expresses his conviction that ethnobiology may lead anthropology on its way to "concern itself once again with the 'big' issues: with the relationship between naturalism and humanism, with the renegotiation of relations between biology, social life, and culture" (18–19).

In the opening article, "The First Congress of Ethnozoological Nomenclature" (29–54), Brent Berlin takes a close look on how people might decide on the names they give to animals. If those names are neither descriptive, nor referring to the use of the animals or imitating their calls, are they given in an arbitrary way? Berlin attempts to prove, by comparing examples from various American languages, as well as experiments he conducted with two different groups of students, that the principle governing here is phonaesthesia, that certain sounds, consonants or vowels, be cross-culturally associated with distinctive properties. While highly theoretic, this article still offers good reading due to perceptive examples and a clear writing style.

The following contributor, Steven Mithen, makes it

obvious he is a disciple of Berlin's school, but his article about "Ethnobiology and the Evolution of the Human Mind" (55–75) is neither as convincing nor as instructive as Berlin's. Mithen speculates about the nature of early humans', or hominins' knowledge about the natural world. He rejects the concept of human thought being inextricably linked to language, but rather than referring to not language-dependent sensory perceptions, as Hunn does later in this volume, he views the human (or prehuman) mind in a rather mechanistic way, being a processor of information, divided into interacting mental modules and isolated cognitive domains, like the well-organised harddisk of a computer (62). He takes it as given that hominins have already classified the natural world in a "pre-linguistic mode" (70). But how, I am asking myself, will one make up a taxonomic scheme for things one is not even able to name? The vision of a speechless hominin, who has just learned how to walk on two legs, splitting the vegetational or animal kingdom into families, genera, and species, and thus gaining "reproductive success" (59), seems amusing – if not absurd.

David R. Harris's article about "The Interplay of Ethnographic and Archaeological Knowledge in the Study of Past Human Subsistence in the Tropics" (77–95) is definitely more pragmatic. The author presents us with new archaeobotanical techniques which allow to give evidence of ancient root and tuber cultivation in the tropics, namely the parenchyma, the phytolith, and the starch-grain analyses. They promise to give insight into the domestication process of these staples and to verify the ethnohistorical hypothesis that roots and tubers may have been cultivated earlier than cereals, pulses, or tree crops. The second part of the article deals with the author's research concerning tropical forager subsistence in north Queensland and on the western Torres Strait Islands, by which example he demonstrates how the combination of archaeological findings, historical evidence, and ethnobiological fieldwork might render "great gains in our understanding of the myriad ways in which humans have procured and produced food from plants, in the tropics and elsewhere" (91).

The closely related field of historical ecology is laid out by Laura Rival in her essay "Amazonian Historical Ecologies" (97–115). Discussing the so-called cultural decline when settlers turned nomadic after the European invasion of Amazonia, Rival shows how the holistic approach of historical ecology helps to our understanding of how nature and human societies interact. In the particular case of Amazonia, it could prove that what seems a pristine forest at first sight, might actually be a human-shaped environment, and also give evidence against the culture-evolutionary paradigm of man evolving from hunter and gatherer via trekker to settler. Thus, the writing of the history of landscapes concerns not only the past but present and future the like.

Anna Waldstein's and Cameron Adams's article, with its promising title "The Interface between Medical Anthropology and Medical Ethnobiology" (117–145), leaves the reader somewhat deceived. It is written as a kind of annotated bibliography, and it would have gained

much, had the authors paid just a little more consideration to not American and not English written sources. When Waldstein and Adams refer to the presumption that ethnomedicine is largely based on witchcraft and has just a symbolic effect, and argue that traditional herbal medicine is empirical and can be judged efficient according to biomedical standards, they certainly run in open doors.

If I had to choose the most interesting article in the volume, it would be Paul Sillitoe's contribution about "Ethnobiology and Applied Anthropology: *Rapprochement* of the Academic with the Practical" (147–175). He indicates how ethnobiology can play a key role in development work, providing a "bottom-up" disposition to encourage sustainable agricultural development and to avoid dependency from the chemical and biotechnical industries. An ethnobiological view on natural conservation will open perspectives on how to preserve natural environments without fencing people off. An exchange, between indigenous societies, of ethnobiological knowledge, on soil management for example, might prove very helpful. Applying ethnobiology inevitably also means confronting political issues. Sillitoe briefly, but pointedly introduces the reader to the problematics of intellectual property rights, of alternative development, and of self-determination. After reading his article, one really wonders why there aren't more ethnobiologists leaving the purely academic to get involved with some of the major challenges of our time.

Eugene Hunn's "Meeting of Minds: How Do We Share Our Appreciation of Traditional Environmental Knowledge" (177–196) is the one article in the book that is mainly about methods. The author proposes that, to make ethnobiological texts attractive to a larger public, who would be alienated by latin and vernacular plant names and ethnographic details, we might write "two or three books in one" (186), organizing the text in different layers, the "master narrative," the "technical narrative," and the "monographic narrative." Pointing to the limitations of language in describing the natural world, he suggests to include drawings, photographs, or even sounds, on multimedia editions. Finally, he emphasizes that ethnobiological writing is, and has been for decades, an excellent opportunity to let "the . . . voice of the Other . . . be heard" (192). I would like to close this review with what he writes about the ethnobiologist's task: "When we speak of 'folk' biologies and of 'traditional' environmental knowledge, we self-consciously set our modern urban existence in opposition to a way of life that has endured far longer than ours and which I hope may continue, in some form or other, in the face of globalization. I see no reason to apologize for upholding this dichotomy nor for taking sides. I reject the notion that it is either romantic or patronizing to affirm the value of a way of life that has as its primary goal the continuation of that way of life through the generations – that is my definition of sustainability – and that is confined in space and through time to an intensely familiar landscape, one sufficient for the continued existence of an established community" (178).

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