

a series of poster presentations put together by Magoun for several national and international neuroscience meetings during the early 1980s. Magoun wrote a twenty-seven-page brochure after receiving much enthusiasm from neuroscientists at these meetings—both students and those more established in the field—and many wanted a publication.

Not surprisingly, given its early beginnings in poster presentations, the book is richly illustrated. The chapters are arranged only loosely chronologically; their sequence is directed more explicitly by investigative themes. The first chapter outlines three basic “postulates” that direct the organization of the rest of the book and act as conceptual threads: phylogeny (the evolutionary line of descent of living beings), the idea of a structural and functional hierarchy in the nervous system, and the notion that function determines structure. The last chapter, by way of discussion, moves into twentieth-century developments in the understanding of certain “integrative” systems in the brain and the recognition by neuroscientists of the need for multidisciplinary approaches that integrate anatomical, physiological, and behavioral perspectives.

The third postulate, the idea that “form follows function,” receives the most emphasis in the book, and most chapters touch on the oscillating relationship between studies of form (anatomy) and studies of function (physiology). The book also illustrates certain historical trends: the anatomical studies of the ancient and Renaissance periods, the more physiological and clinical studies of the nineteenth century, and the instrument-centered approaches of early twentieth-century neurophysiology.

The book has certain strengths and weaknesses related to the authors’ perspective as neuroscientists. As one might expect, elements of presentism arise, as the work of some investigators is described as “anticipating” that of later scientists, and other research—for example, J. L. W. Thudichum’s work on brain chemistry—is deemed “surprisingly modern” (p. 158). However, the book gives wonderfully detailed, precise accounts of scientific developments related to brain and behavior. The authors demonstrate a critical mastery of both primary and secondary sources, with thorough citations, and the book comes with a comprehensive bibliography.

Discoveries in the Human Brain does not place neuroscientific developments within a wider cultural or social context, but the authors had no ambitions to do so. They even point to drawbacks of such historical approaches, argu-

ing that they “create issues where none exist and . . . couch ideas in such convoluted language that the events and concepts become unfamiliar and difficult to fathom” (p. 279). This position reflects their intended audience: neuroscientists interested in the history of their field. While there is certainly room for professional historians of science to tackle the history of neuroscience, this book will be valuable for historians because literature in the history of neuroscience is sparse. However, it is likely to be of greater value to neuroscientists—in the authors’ words, “those workers at the bench who are curious to learn how it all happened.”

TARA H. ABRAHAM

Johannes Fabian. *Out of Our Minds: Reason and Madness in the Exploration of Central Africa*. xvi + 320 pp., illus., app., bibl., index. Berkeley: University of California Press, 2000. \$50 (cloth); \$19.95 (paper).

This book undertakes a voyage back to the colonial heritage of anthropology to investigate the connection between imperial colonialism and ethnographic research. It is a history of explorers’ being “out of our minds” with alcohol, drugs, opiates, fatigue, fear, delusions, and anger in their search for knowledge. In short, it is a story about scientific “travel as tripping” (p. 3).

Nineteenth-century explorers of Africa often fashioned themselves as intrepid, heroic, and courageous seekers and promoters of rational knowledge in a wild and savage territory. It is this myth of science as a progressive conqueror of the unknown and the wild that Johannes Fabian destabilizes through his deconstructive literary analysis of scientists’ travelogues. We learn that explorers were not self-composed heroic solitary individuals with the ability to control others in a hostile environment. On the contrary, explorers gained knowledge when they reached out and embraced the unfamiliar by stepping outside of their preconceived, established, and rationalist framework of exploration. This experience of the *ecstatic* (a key word in this book) proved fertile ground for scientific results.

A fascinating discussion of the role of various ecstatic experiences in the daily life of the explorer makes up most of the book. We learn about the organizational structure of scientific caravans, the character and personal desires of explorers, the role of auxiliaries and intermediaries, and the social implications of engaging unfamiliar tribal networks. Each explorer’s daily struggle to survive such hardships as fever, ma-

laria, and unknown illnesses, often with the use of foreign medicines, serves as one example of ecstasy leading to new knowledge. Opiates and alcohol were in this respect helpful in easing the encounters between locals and the explorers, and sexual and erotic relationships between them allegedly secured intimate knowledge of local cultures. Likewise did the ecstatic experience of beating and even killing Africans in order to gain access to the unknown. Fabian's account of ecstatic ways to research ends with a long chapter about the interest among anthropologists in studying African tribes familiar with cannabis.

There are many valuable aspects of Fabian's critical study of early ethnographic research in Africa, including a rich description of the culture of scientific expeditions and plenty of evidence that the context of ecstatic discovery was different from the logic of explanation in scientific papers and books. Few historians now believe without qualification that imperial scientists were the once-constructed great heroes expanding rational knowledge; Fabian admits that in this respect he is "fighting a straw man" (p. 11). Another problem is that he hardly discusses those travelogues that typify the heroic narrative of modernity's march into central Africa, such as those written by David Livingston and Henry Stanley. Instead, he bases his argument on less studied diaries and material by explorers such as, for example, Jérôme Becker, Leo Frobenius, Paul Pogge, and Hermann von Wissmann. Therefore even well-rehearsed historians of colonial exploration will find something original to enjoy (or to bite on). Yet since the narrative of heroic exploration is mostly known from the writings of explorers such as Livingston and Stanley, it is likely that Fabian could have made his argument stronger if he had scrutinized their journeys to make his point. This is not to say that this book is not a valuable contribution to colonial history of anthropological research—worth both time and attention.

PEDER ANKER

John Woodward; Robert Jütte (Editors). *Coping with Sickness: Medicine, Law, and Human Rights—Historical Perspectives*. (History of Medicine, Health, and Disease, 3.) xii + 211 pp., bibl., index. Sheffield, England: European Association for History of Medicine and Health Publications, 2000. £24.95.

These essays, first presented at a conference, "Coping with Sickness," held in Italy in 1997, address ethical and regulatory medical issues within a historical context. Many of the essays,

while addressing interesting topics, combine policy analysis and critical cultural theory. Critical cultural theory can be intellectually engaging at times but is generally irrelevant to public officials concerned with specific policy issues.

Coping with Sickness is the third and final volume derived from a series of conferences co-sponsored by the European Science Foundation and the Euroconferences Activity of the European Union. The eight essays are organized chronologically and cover a range of disparate topics: medical practitioners and the Spanish Inquisition (José Pardo-Tomás and Alvar Martínez-Vidal), the history of autopsy legislation in German since 1800 (Cay-Rüdiger Prull), the history of "sadism" as a medical term in the nineteenth century (Angus McLaren), folk medicine in Holland in the late nineteenth century (Willem de Blécourt), abortion in Weimar Germany (Cornelie Osborne), drug testing in Africa in the early twentieth century (Helen Power), comparative policies toward STDs (Roger Davidson and Lutz D. H. Sauerteig), and the debate over brain death in Germany (Claudia Wiesemann). As might be expected in an anthology of this sort, the quality varies considerably. Nonetheless, the subjects addressed in this volume are engaging—much to the credit of the editors.

Two pieces in particular represent the range of these collected essays. In "Vacher the Ripper and the Construction of the Nineteenth-Century Sadist," Angus McLaren, one of the best historians writing on the history of sexuality today, explores the "discovery" of sadism in the late nineteenth century by focusing on the dramatic trial of Joseph Vacher, who was charged in 1895 for the brutal sexual murder of a woman in Champuis. He later confessed to the murder and the sexual violation of another seven females and four males. Vacher had a long history of mental illness; indeed, he had been institutionalized in July 1893 following a failed attempt at suicide that left a bullet lodged in his head. At the trial the criminologist Alexandre Lacassagne was brought in as an expert witness to testify that Vacher was not insane but an antisocial sadist, as revealed by his dabbling in anarchism, vagabondism, and homosexuality. As a consequence, Vacher was found guilty and given a death sentence.

McLaren finds in this trial an example of the social construction of a new medical concept, "sadism." The emergence of the concept of sadism, he argues, reflected a "gendered notion" of defining appropriate male and female behavior; physicians at the turn of the century believed that "civilized men were most threatened, not by ex-