BOOKS: NATURAL HISTORY

Adapt or Perish? Zoos Must Choose

Michael H. Robinson

The publisher's device of subtitling gives an immediate insight into the content of *A Different Nature*. For many of us who have been profoundly influenced by zoos, and a smaller number who have tried to influence their development, the existence of zoos is paradoxical and their future is indeed uncertain. Confronted by the environmental and biodiversity crises that are upon us, the context in which nearly all present-day zoos were founded and have evolved has ceased to exist.

A Different Nature
The Paradoxical World of Zoos and Their Uncertain Future
by David Hancocks
University of California Press, Berkeley, 2001. 302 pp. $35, £19.95. ISBN 0-520-21879-5.

David Hancocks, currently the director of Australia's Open Range Zoo at Werribee, establishes this point of view in a preface that fizzes and crackles with perception and provocation. This introduction demonstrates why the book should interest scientists and not just zoo buffs and cognoscenti. The author uses a lyrical personal account of his youthful addiction to natural history and the subsequent origins of his interest in zoos to examine the present status of these institutions. His architect's eye, sharpened by biophilia, sees the good, the bad, and the downright ugly. The simple conclusion: "we should not accept zoos as they currently are." Hancocks calls for a reinvention of the zoo. He sees it within the spectrum of bioexhibit institutions—museums, parks, gardens and aquariums— and argues that, of all these, zoos have the greatest capacity to adapt, absorb new functions, and promote holism.

Advocates have long claimed that zoos promote recreation, education, research, and conservation. (The U.S. National Zoo was established in 1889 for "the advancement of science and the instruction and recreation of the people"; only conservation was missing from that magniloquent declaration.) In his pithy preface, Hancocks critically examines the present state of each of these claimed functions. Although the remainder of the book does not quite sustain this promising start, it comes closer to excellence than anything I've read on the subject.

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Hancocks follows the well-worn path of setting the present against the past, but he does so with more wit, panache, and purpose than most of his predecessors. He shows that human attitudes to the animate world, and animals in particular, have passed through many stages, yet still remain ambivalent for most people. Animal-rights philosophers have reached similar conclusions. Attitudes of exploitation and dominance stretch from Imperial Rome to Victorian England and into the present. Exhibition of living animals in zoos and menageries followed the social and political mores of their times, as did exhibitions of animals in natural history museums and of nondominant humans in anthropological exhibits. Zoos evolved from pure spectacle, to lip-service dedication to science, and finally, in the best cases, to research and conservation. Their audiences moved from the privileged to the democratic.

Illusion of wilderness. Little separates the javelina at the Arizona-Sonora Desert Museum from the visitors.

CREDIT: KENNETH STOCKTON/ARIZONA-SONORA DESERT MUSEUM

The author is particularly adept in dealing with architecture and design. He traces the progression in style from penitentiary or public urinal, to pseudo-historical, then to habitats with concealed containment, and finally to "realism" and the immersion experience in which visitors are surrounded by the exhibit. Variations on a theme have included taxonomic "stamp-collections" of huge assemblies of related species, geographic multispecies exhibits, and the creation of complex habitats using Hollywood-like artifices. Hancocks meticulously and entertainingly documents these changes. Largely missing from his analysis (and seldom noted elsewhere) is the fact that when the efflorescence of zoos occurred during the early and middle stages of the Industrial Revolution, human welfare was abysmally low for large numbers of the poor underclasses. Considerations of animal welfare, in practice, required affluence and the repair of the human condition. This is still the case in the less-developed world.

An important part of the recent evolution of zoos has been in the field of animal husbandry, which affects and is affected by zoo design and architecture. Veterinary science, nutrition studies, and ethology have all contributed to better animal care. In the last fifty years, many zoos have become increasingly aware of the need to enrich the environments of the animals in their care. With pragmatic tinkering by dedicated staff, they aimed to increase animal welfare and to enhance education and entertainment by providing outlets for the natural behaviors of a wide variety of animals. Fascinating creatures doing exciting things became the stuff of slogans.

Hancocks discusses his favorite zoos: the good and beautiful. My list would be almost the same, and I share his enthusiasm for the remarkable Amsterdam Zoo, Artis, which combines so many elements of museology with a broad spectrum of exhibits of living organisms (including a stellar aquarium). Other examples are also described in depth and with sensitivity.

Throughout his historical review and, in particular, his survey of contemporary examples, Hancocks assesses the efficacy of zoos in achieving their four putative roles. For recreation and entertainment, education, and research, he concludes that all but the very best zoos fail to realize their potential. His reasoning needs a full reading of the text to be appreciated.

On zoos' role in conservation, Hancocks is particularly devastating. One line captures his conclusions: "zoos can immediately stop degrading the word 'conservation' by employing it so irresponsibly." Although I have to declare myself as possibly biased, I am totally in agreement. Coming from a background in tropical research, I find that all the zoos I know are inexcusably vertebratocentric. The teeming millions of invertebrates that energize tropical forest ecosystems and coral reefs cannot be saved from extinction by ex situ breeding programs in zoos. It is laudable that some zoos have devoted considerable resources, and great skill and dedication, to breeding a relative handful of usually charismatic species. But Hancocks joins the many zoo biologists who argue and act for saving habitats.

Although *A Different Nature* is worth reading for its discussion of function alone, its core rests in projections for the uncertain future of zoos. Here it is somewhat disappoint-

ing because it lacks an imaginative summation of the once and future zoo. Scattered throughout the book are insights into what might be, what could be, and what should be. For instance, Hancocks provides a delightful section on an exhibit of otters that shows how public perceptions of what animals perceive and need are frequently erroneous. There is an urgent need for zoos to educate for biological literacy and to combat naïve anthropomorphisms about the animal's world. The world of animals varies greatly from species to species. Zoos, however, recreate habitats on a human scale and in our range of color vision. They could instead give exciting impressions through animal eyes, ears, or noses. Portable interactive video devices (CD-ROM and beyond) could replace those awful audio wands and could supplement zoo tours with instant information banks. The author notes that the world of the small and very small impinges on all our lives, and confrontation with living bacteria and viruses could also be made part of the zoo experience. He highlights interactions between plants and animals in a section on pollinators, and he repeatedly stresses the need for cross references among bioexhibits institutions.

Hancocks ends *A Different Nature* with a beautiful philosophical epilogue, but the book calls for something more: for his explicit vision of the reinvented zoo (whatever it could be called) set forth in imaginative detail. There the author's wisdom, life experience, and enthusiasm could be brought together for the benefit of us all.

BOOKS: ANTHROPOLOGY

Complexities of a Controversial Practice

Carla Makhlouf Obermeyer

About four years ago, after an exhaustive review of the female circumcision (*2*) literature, I wrote an article in which I deplored the state of our knowledge and advocated better research as a prerequisite to interventions. When I shared a draft with a colleague, he commented: "So, you don't think we should send the marines?" His wry response captures the then-prevalent assumption that any writing on female circumcision would be militant. As the two books reviewed here demonstrate, today the presumption is even less valid.

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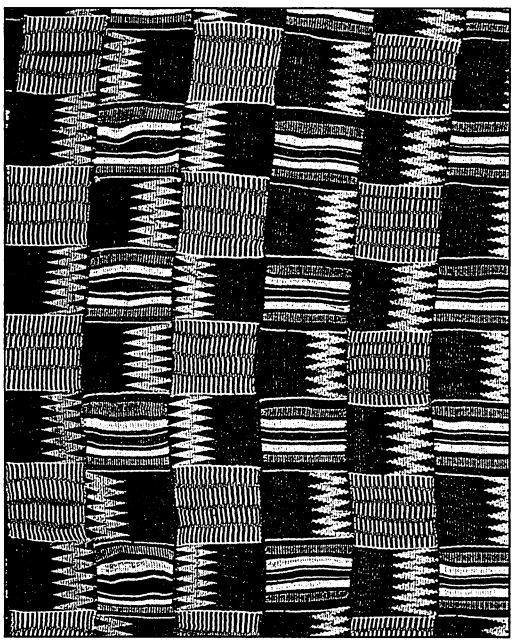

CREDIT: THE NEWARK MUSEUM/ART RESOURCES, NY

One perceptible shift in the large literature on the subject concerns empirical research. Although published accounts are still dominated by advocacy writings, research is slowly gaining in importance. We now have estimates of the prevalence of female circumcision in most of the 29 countries where it is found (*3*), and we are accumulating evidence on its health consequences. A second shift concerns the perspectives from which the topic is considered. While outright condemnation and activist calls for eradication continue to prevail, recent discussions are characterized by a greater diversity in viewpoints and have begun to include more women from the countries where the practices are found.

Both books exemplify these trends, though they differ considerably in scope, format, and the sort of evidence on which they are based. Ellen Gruenbaum's monograph presents the recollections of an anthropologist who is, in her own words, "grappling with the female circumcision controversy." Gruenbaum (dean of social sciences at California State University, Fresno) makes it clear that she has never worked specifically on female circumcision. She recognizes that her data are patchy, that her linguistic skills in Arabic are limited, and that the practice strained her ability to make sense of it. She does, however, have considerable field experience in Sudan, where infibulation (the most extensive operation) is the norm. The fact that she encountered the practice in the course of researching other subjects allows her to put it in context. She considers it in relation to other aspects of the culture, including economic development, ethnic identity, the zar (spirit possession rituals), marriage and sex roles, and societal values.

Those uninformed about circumcision will benefit from Gruenbaum's summaries of topics ranging from terminology, sexual response, and ways of "getting involved," to more complicated issues like cultural relativism, colonialism, or patriarchy. Although some aspects of these discussions are simplistic, the author's manifest concern for the welfare of the people she studied shines through. And she does touch on the "questions at the heart" of the debates.

Those already knowledgeable about female circumcision will probably be most interested in the concrete descriptions Gruenbaum offers: life conditions in Khartoum and rural areas; the social interactions surrounding the ceremony; vignettes about people; and conversations with Sudanese informants about family, work, notions of the female body, and sexual fulfillment. Such firsthand information compensates for the book's shortcomings and makes *The Female Circumcision Controversy* a valuable introduction to the human context of the practice.

Although similarly concerned with the controversies, the volume edited by Bettina Shell-Duncan and Ylva Hernlund (anthropologists at the University of Washington) takes a different approach. The fourteen chapters deal with eight of the countries where female circumcision is found. The authors, who include three women from these countries, use methods from anthropology, demography, history, political science, and public health. In their thorough overview, the editors discuss terminology, typologies, and prevalence, as well as the medical and sexual consequences of the practice. They also introduce the major questions surrounding female circumcision, in particular those that emerge from the medicalization of the practice and the mobilization of international efforts to eradicate it.

Female "Circumcision" in Africa
Culture, Controversy, and Change
Bettina Shell-Duncan and Ylva Hernlund, Eds.
Lynne Rienner, Boulder, CO, 2000. $59.95. ISBN 1-55587-871-7. Paper, $22.50. ISBN 1-55587-995-0.

Three chapters touch directly on the prevalence of female circumcision: Mairo Usman Mandara finds considerable variations among ethnic groups in northern Nigeria. I. O. Orubuloye *et al.* argue that among the Yoruba of southwestern Nigeria, the practice, once universal, is decreasing. And Lori Leonard documents the recent diffusion of female circumcision into Chad. These varied results underscore the dynam-