

Khmer Natural History

This issue of the *Natural History Bulletin* challenges us again to define the limits of natural history as a subject. I must admit to a certain failure. One article by Tyson Roberts in this issue covers what may be loosely characterized as natural history in the ancient Khmer civilization as depicted in some well known bas-reliefs of the Bayon and Angkor Wat temples. However, art historians and epigraphers have never suggested that the scenes depicted nature per se, or that modern natural historians ought to be brought in to help the very difficult task of deciphering their full meaning. Roberts started out with the intention of merely trying to identify all the fishes and other creatures in the bas-reliefs. This would have been a study of natural history as “understood” by the Khmer (or their incredible artists)—a proper study of “historical natural history.” However, the subject of natural history as we define it today in scientific terms was not understood as such then, and the artists certainly did not compartmentalize it. In the Bayon bas-reliefs we find numerous fishes, turtles, crocodiles, monkeys etc. interspersed in the panorama of daily life—their domestic chores, trade, worshipping, recreation, and even wars. Wild animals and plants were clearly important to the Khmers, and their entire civilization was made possible by the bountiful harvest of aquatic animals and rice from the Great Lake.

In the bas-reliefs of Angkor Wat especially, the aquatic parts of many important scenes occupy more than one-third of the whole mural. This seems out of proportion to our understanding of the contents depicted, and to the attention historians have devoted to them. In addition, among the many fishes more-or-less realistically depicted swim various mythological creatures such as the *gajasimha*. Did the Khmers really believe such creatures existed in nature or did they clearly distinguish between nature and myth? “Myth” is a term invented to serve the needs of historical chroniclers and other types of non-participants and non-believers. Most likely, nature was not sharply separated from their spiritual and religious beliefs. It is at this point that the editorial knife is not able to point to the natural history and dissect it from all other aspects of Khmer life, so I have decided to err on the side of moving the boundaries of natural history outward and risk including far too much. In so doing, we have boldly encroached into foreign territory, and would eagerly welcome any attempts by scholars in the encroached fields to reply in the form of letters or commentary.

The story of the nagas (Payanak) also fails to find the distinction between the study of science and the study of culture and spiritual beliefs. This story is more contemporaneous, however, and we have nagas appearing in the news today and on TV. Although we can reliably distinguish a *Regalecus* from Payanak in our world, we are not able to see the distinction in the lives of those who came hundreds of years before, on the basis of the cultural artifacts they have left behind.

There is one area of understanding, however, in which the Khmers were evidently more perceptive about natural history than most of us are today. The art they left behind abundantly shows that they understood well their dependence on the waters and their biological resources. Today, because of our widespread and complicated trade and communication networks, we have lost this understanding. Thai people unknowingly buy tons of fish originating from the Great Lake in Cambodia in their own markets. We don't have a clear idea how many peoples' lives depend on the flows of the Salawin and Mekong Rivers, and plan huge impoundments or canalization projects that will destroy the homes and livelihoods of hundreds of thousands of people. If the proponents of such projects

actually lived on the banks of these rivers we would probably never see such plans. It is doubtful if the quality of anyones' lives, other than the builders, will be significantly improved by such projects.

The study of natural history teaches us about the foundations underlying our basic resources, and the quality of our lives. Our contacts with nature have become too indirect and complicated, and too widely distributed, for most people to understand.

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