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Celia Lowe: Wild Profusion

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Introduction

BETWEEN THE HUMAN AND THE WILD PROFUSION

[The naturalist] looks upon every species of animal and plant now living as the individual letters which go to make up one of the volumes of our earth's history; and, as a few lost letters may make a sentence unintelligible, so the extinction of the numerous forms of life which the progress of cultivation invariably entails will necessarily obscure this invaluable record of the past. It is, therefore, an important object, which governments and scientific institutions should immediately take steps to secure, that in all tropical countries colonized by Europeans the most perfect collections possible in every branch of natural history should be made and deposited in national museums, where they may be available for study and interpretation.

—Alfred Russel Wallace, “On the Physical Geography of the Malay Archipelago”

IN APRIL OF 1996, I hiked through the upland forest that runs along the narrow central crest of Malenge Island with two biologists from Jakarta, Yakup and Budi, and with Pak Ahmad, a local ranger hired by the scientists to work at their research station, Camp Uemata.¹ We were there to collect new forms of herpefauna: lizards, snakes, and frogs. Together we scrambled up muddy slopes, grabbing hold of verdant branches and shrubs to pull us up, breathing hard. We scanned the trees for pythons and the ground for lizards. In the clearings we stopped to gaze at the vistas of the coast, and we rested against the architecturally fabulous buttress roots of the forest's huge dipterocarps. When we began to be bitten by red ants, which never seemed to take very long, we would move again, eyes fixed on the trail and underbrush, poking through bogs with sticks, constantly on the lookout for tiny eyes peering back at us.

Species uniqueness and endemism were the salient features of place delimiting a Togeian nature the biologists wanted to claim as “biodiverse.” To do this they needed to observe, record, and document species that were only found in the Togeian Islands. Yakup spotted some lizards with blue tails that he suspected were “new to science.” We dove with our hands out—to the left and to the right of the trail—trying to grasp the elusive electric-blue tails. We placed the lizards in plastic bags with air holes to

let them breathe, although later they would end up in a formaldehyde bath, and Budi would send them traveling to the Smithsonian Institution for confirmation of their uniqueness. Laboratories in Washington, D.C., and other EuroAmerican scientific institutions were important for determining the specificity of this place and for confirming Yakup and Budi's acts of discovery and nature-making.

We passed through Budi's plots marked off with strings, where he had kept track of three thousand trees of various sizes for the past several years. Through his marking, measuring, and counting, he was developing a scientific record of the trees in the forest. He knew their species names, when they would flower, and how fast they were growing. Further on down the trail, we descended into a cave that Yakup had found. The ceiling was lined with hanging bats awakened by our movements, and the floor was layered in guano. Yakup reminded me that it is not only human agency that is capable of transforming a place—bats are important for pollinating the trees of the Malenge forest. When we continued on Budi noticed a striped spider, ten centimeters long, hanging in its web between some leaves and vines. He took a photograph, a close-up still life that would later trigger memories of the walk, coding this place as nature and reminding us of its aesthetic perfection down to its smallest details.

In our movements through the Togeian landscape, scientists' stories of species endemism vied with the narratives of plants and animals Togeian people wanted to tell. Whereas biologists were most cognizant of the fig trees that provide food for the Togeian macaque, an unusual monkey living on the island, Pak Ahmad was aware that the dipterocarps scientists value as signs of a "wild" forest are excellent trees for canoe-building. Walking along the path, Ahmad, who was born on Malenge Island, told us of snakes. Togeian pythons have been known to eat deer, pigs, and even small children. Sliding his hand rapidly through the air, he showed us how a snake strikes. He and several others had once rescued a boy in a garden. A python had wrapped itself around the child and was beginning to take his breath away when they discovered him. They unwound the snake, tail first, before attacking it with their machetes.

Ahmad's ways of knowing Togeian flora and fauna called biodiverse nature into question. Bees will pollinate and snakes will wind, yet what is deemed important in a landscape depends on who is looking. Biologists found monkeys and lizards intellectually gratifying, while Sama people found the monthly flowering of the sea grasses—an event overlooked by Togeian biologists—to be aesthetically alluring. Natures are "made" at the intersection of humans with their particular social histories, and plants and animals with their unique evolutionary and ecological histories. Neither "science" nor "society" will tell us all the interesting things one might want to know about these natures. To proceed further, one

must travel along a path *between* the human and the wild profusion. This is the path we will follow here.

The Togeian Islands and Biodiversity

The Togeian Islands² a small archipelago in the middle of the eastward facing Gulf of Tomini, harbor a volcano, which erupted as recently as 1983, and six raised limestone islands.³ Small, craggy, thinly soiled islets bordering the shores of the main islands create anchorages, mangrove-lined boat passages, and resource collecting sites for Togeian Island peoples. Small settlements intermittently punctuate the shoreline; houses built from cement, wood, and other forest materials lie at the edges of the land, or on stilts over the fringing coral substrate. There are no telephones or newspapers, and the only road is in Wakai town on Batu Daka Island. Coconut palm and vegetable gardens spread from coasts into the interiors. Forests in the midst of these encroaching cultivations supply Togeian people with canoe timber, sago palm, medicinal plants, and other useful vegetation. Togeian forests are also home to many insects, herpetofauna, and mammals of interest to biologists, who are concerned by evidence of forest clearing. Upon first glance, many signs of habitation in the landscape are hidden, however. One tends to notice only the overwhelming verdancy.

Surrounding Togeian waters reflecting a violent equatorial sun contain coral reefs, sand banks, sea grass beds, and azure depths. Togeian people collect subsistence and market-oriented marine goods in these waters, of which fish and sea cucumber (*trepan*, *S:bale**) are the most important. Beyond the reef, in deeper waters, pelagic fish school, drawing local fishers and commercial boats from the mainlands of North and Central Sulawesi. Ferry boats make irregularly scheduled rounds between the islands and the mainland towns of Gorontalo, Poso, and Ampana. To the south of the islands, the mountains of Central Sulawesi are visible. To the north, only the waters of the Gulf of Tomini are in view. Biologists are concerned with the health of Togeian reefs and waters. People have fished the surrounding reefs with both dynamite and cyanide, and several kinds of sea creatures, like the Napoleon wrasse fish, are threatened with local extirpation. But when one looks out at the expanse of Togeian waters, coral reefs, ferry routes, and fishing sites are obscured. One notices, at first, only various shades of blue.

* "S" represents a Sama language term throughout the book. The other terms in parentheses are Bahasa Indonesia, the Indonesian national language.

What do these expanses of primary colors interspersed with rare habitations offer us as a site for understanding biodiversity and its conservation? The term “biodiversity” emerged as a new mode of biological and social organization in the United States in the mid-1980s.⁴ Coming, as it did, after several decades of heightened attention to environmental risk, biodiversity, as a particular framing of nature and culture,⁵ began to reorganize earlier notions of natural history, wilderness, taxonomy, ecology, natural variety, species, and the like. Biodiversity was not so much a solution to the problem of environmental risk, however, as its problematization. It instigated a new form of critical inquiry into the relationship between entities conceived of as “nature” and “the human.” Thrust into the light was, on the one hand, nature, understood as the linkages between genetic variation, species populations, communities and ecosystems, and land and marinescapes and, on the other hand, humanity, with its ability to instigate what biologist Michael Soulé has termed the “sixth great extinction.”

Simultaneously, biological science itself was restructured around the biodiversity problematic. The task of protecting and restoring biodiversity was articulated with the sciences of population genetics, evolutionary biology, systematics, landscape ecology, and the study of ecosystems to form the new field of conservation biology. Unlike nineteenth-century natural history, or twentieth-century wildlife biology, conservation biology is self-consciously “mission-oriented” and sees itself as comparable to medical research in its goal of intervening in ailing systems.⁶ Conservation biology is unusual among the natural science disciplines in that its value orientation—identified in terms of biodiversity’s utilitarian and inherent worth—is explicit. This new science sees its object of study as threatened, and describes the state of plants and animals in terms of crisis. As a scientific practice, it is focused on intervention and is self-consciously directed toward solving its urgencies.

Biodiversity also encompasses an important geographic dimension. Conceptualized through the variety and uniqueness of species, diverse life is not uniformly distributed. Rather, regions with large numbers of species, where many unique life forms are found, tend to be concentrated in the tropics. Conservation biologists recognize roughly twenty-five “hotspots” as having this hyperdiversity. Since most hotspots are located in the rainforests and on the coral reefs of the global South, the peoples of tropical nations—both non-EuroAmerican biologists, and those who live in close proximity to tropical flora and fauna—have taken on a particular significance within the biodiversity problematic.

Several elements have made this particular assemblage of nature and culture under the sign of biodiversity possible. First, biologists observe an exponential reduction in the diversity of species forms across the globe.

They identify habitat loss, degradation, fragmentation, the introduction of non-native species, and over harvesting as metacauses of a new rate of extinction. While a conservative estimate of the current rate of species loss is 27,000 species per year, far more species are considered endangered, vulnerable, or rare (Wilson 1992:280). Conservation biologists use the language of apocalypse, hemorrhaging, and holocaust to describe the decline in the abundance and variety of life forms.⁷

The emergence of biodiversity as a new form has also coincided with the global rise of the nongovernmental organization (NGO). NGOs are non-state institutions that nevertheless affect policy and aim to transform debates across national borders. Keck and Sikkink (1998) have described the influence of what they call “transnational advocacy networks.” Activists forming these transnational networks (scientists along with women’s, labor, and human rights advocates) are motivated primarily by values rather than economic gain. Networks of scientists and others concerned with the value of biodiversity and its loss link activists across borders; the World Wide Fund for Nature (WWF), Conservation International (CI), and The Nature Conservancy (TNC) are three of the largest advocacy NGOs forming the institutional backbone of this transnational assemblage.

Further, biodiversity has emerged at a contingent moment in postcolonial history. Under the logics of natural history and wildlife conservation (at least until the early 1990s), EuroAmerican experts held the important positions of authority in scientific nature-making projects across the tropical world.⁸ This condition is increasingly rare, however. For example, when I first began working in Indonesia in 1994, the Jakarta offices of WWF, CI, and TNC all had EuroAmerican administrators, while by the time I left in 1997 each organization had hired an Indonesian director to oversee its domestic programs. Positions of leadership and authority in field biology and conservation management are now occupied by scientists and other experts from the South. The conjuncture of biodiversity’s tropical geography, the emergence of indigenous scientific expertise, and increased assertions of domestic bureaucratic authority in the realm of nature conservation, have shaped the particular understanding of biodiversity that this book will explore in detail.

Biodiversity conservation in the 1990s often proposed a particular solution to the problem of nature and the human in the form of the Integrated Conservation and Development Program (ICDP). Noting the ubiquity of conservation failures, the ICDP was premised on an understanding that previous efforts at wildlife conservation had not taken into sufficient consideration the needs of the people who live around conservation areas. These needs were interpreted in rational economic terms (by the biologists and economists who environmental NGOs tend to employ) as the ability

