IN FORMATION Series

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Wild Profusion

BIODIVERSITY CONSERVATION IN AN INDONESIAN ARCHIPELAGO

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PART ONE

Diversity as Milieu

Akuna Pongkat *Dan pergilah masyarakat Bajau ke laut, jauh. . . . Kehadiran ikan paus merupakan tertanda datangnya musim ikan.*

Kuda Laut *Eksotisitas Indonesia di mata dunia sebagian terpenting adalah pada lautnya.*

Paka Lele dan Sawi *Kehidupan mereka masih di warnai oleh corak tradisional. Mereka telah mengikatkan diri pada ikatan sosial yang menonjol pada tindakan kolektif dalam satu komunitas.*

Ilmu Bajau *Sebuah kampung Bajau terhambur di atas barisan karang. Di tengah birunya kepulauan Kaledupa. Kampung ini adalah tempat terakhir untuk menikuti kehidupan dan 'misteri' orang Bajau.*

Koin Etnik *Hasil laut sejak dulu jadi komoditas orang Bajau. Hasil laut itu kemudian mereka tukarkan dengan 'nilai' yang telah disepakati oleh kedua pihak.*

Rajah Bajau *Ungkapkan bahasa rupa dari reka hias Bajau. Sebuah simbol rupa runggu tradisional.*

I Pongkat And go ahead Bajau people to the sea, far away. . . . The presence of whales is a sign that the season of fish has come.

Sea Horse The exoticness of Indonesia in the eyes of the world for the most part is related to the sea.

Paka Lele and Sawi Their lifestyle is still colored by a traditional patterns. They are already connected by social ties conspicuous for collective action in the community.

Bajau Knowledge A Bajau village scattered atop a row of coral. In the middle of the blue, the Kaledupa Islands. This is the last place for finding the lifestyle and 'mystery' of the Bajau people.

Ethnic Coin Sea products since early times have been a commodity for Bajau people. They trade these products with a 'value' that is already agreed upon by the other party.

Bajau King Speaking their language is one form of Bajau creativity. A symbol of their tradition.

—Sopandi, Jelajah Etnik

In retrospect, Indonesians were rethinking diversity in relation to both nature and nation during the waning Suharto years. On the one hand, national norms for nature and its uses were being called into question. Were Indonesia's trees and minerals to be a resource for logging and mining and other forms of elite national development, or was Indonesian nature a resource for "the people" (*rakyat*) to create a healthy subsistence? Parameters of social inclusion and exclusion in the nation were likewise under revision. Would acceptable cultural difference continue to be narrowly defined by the modernist state, or might new forms of identity be folded into the nation's understanding of itself? This national conversation on diversity is the milieu within which scientists' species inventories and their study of indigenous knowledge in the Togean Islands can be understood.

The working through of the problems of ethnic and natural diversity can be seen in two different gallery exhibitions for which Sama people (who are called "Bajau" in these works) provided the raw material. Sama were fit simultaneously into the twin configurations of ethnic teleology and nationalist history in the 1990s. First, they were considered an "alien ethnic group" (*suku terasing*) at a moment when hemispheric divides were constructed between Indonesian margins and centers at the intersection of ethnicity and a particular New Order framing of acceptable cultural difference. Second, Sama were considered a "marine ethnicity" (*suku laut*) at a time when Indonesia was beginning to reconsider its maritime heritage. These contingencies explain the "discovery" and "display" of Sama people as a resource for a national conversation on nature and identity.

The first of the exhibitions, *Bajau*, was scientific, ethnographic, and educational in nature, and was an outcome of a scholarly conference on Bajau/Sama communities held at the Indonesian Institute of Science (LIPI) in Jakarta in November 1993. The three-day conference, "addressed the re-introduction of Indonesia's cultural and ecological diversity as national assets" (Sejati 1994:34). The scientists in attendance all were scholars of Sama peoples' "ecological adaptation, nautical skills, resource management, maritime wisdom, and particular sea lore." The exhibition itself was constructed around a replica of a Sama village set in a water reservoir and filled with floating canoes brought from Sulawesi. Around this centerpiece were placed displays explaining the distribution of Sama communities around Southeast Asia; Sama origin stories and tales of life on the sea; terminologies and lexicons in Sama language; a description of the Sama environment; a story called "A Day in the Life of the Bajau"; a description of sea cucumber collecting; and an explanation of Sama medical practice and belief.

I was not in Indonesia in 1993 for *Bajau* and know it only through conversations with its curators and through its catalogue. In June of 1997 I was fortunate to witness a second exhibition however, in which Sama ethnic identity was invoked as a national resource. This exhibition, *Jelajah Etnik [Ethnic Explorations]: A Journey Through Wallacea*, held in the lobby of the Jakarta World Trade Center, presented a series of paintings by the artist Sopandi on the theme of Sama life in the Wallacea region. Sopandi's paintings were a bricolage of hornbills, wild orchids, buffalo, dragons, tuna, boats, sea shells, and spirits, set in fields of abstract shapes. Each painting was overlain with intricate pen and ink line drawings and filled in with watercolors. Bursts of *mega mendung* cloud patterns, inspired by Javanese batik, formed the backdrop for the wild activity in the foreground. The finished canvases were framed with carved hardwoods described by the artist as "ordinary firewood."

The *Jelajah Etnik* exhibition catalogue presented the artist in baggy khaki hiking pants, T-shirt, and canvas hat carrying a large backpack and bedroll. Looking like a nineteenth-century explorer, his image is superimposed upon a reproduction of Alfred Russel Wallace's 1868 map of the Netherlands East Indies. Treking across the map below Sopandi are eight nearly naked Papuan people carrying machetes and wicker backpacks, seemingly on their way home from tending a garden. The catalogue is filled with descriptions of the paintings and of the artist's adventures traveling in Southeast Sulawesi.

Whether as science or art, the exhibitionary imagination is always political.[1] The "native village" display, like that in *Bajau*, is a trope of ethnic exhibition deriving from late-nineteenth and early-twentieth-century universal expositions and world fairs. By presenting "native villages" and "native peoples" as *tableax vivant* spectacles, ethnic exhibitions educated EuroAmericans in racial and cultural superiority (Barkan and Bush 1995:25). Designed with the best evolutionary science of the time, one famous example, the Philippine exposition at the 1904 World's Fair in St. Louis, aimed to re-enforce U.S. imperialism after the Spanish-American War. This display brought to life the notion that the Philippine people were civilizationally inferior and incapable of governing themselves without help from the more "advanced" United States.

Bajau, likewise, was a spectacle of elite Indonesian progress and superiority, and the evolutionary preoccupation familiar from the universal exposition is reflected in this description from the exhibition: "Today, the seafaring culture of the Bajau remains an example of these early maritime communities. Indeed their present day practices are direct links to Indonesia's maritime past" (Sejati 1994:3). Similarly, the museum's "archaeolo-

gists," those in charge of Indonesian prehistory, oversaw the exhibition's installation. Indonesian and international scholars alike pursued "ecological adaptation" as the modality for describing Sama peoples' lives, a conceptual approach that fit well with the internal colonialism of the Suharto state.[2] In *Bajau*, Sama people are a living anachronism.

Like the paintings of Picasso, Sopandi's style belongs to the twentieth-century tradition known as "primitivism," and represents a romantic encounter with the exotic, unfamiliar, and anachronistic. The figures who walk across the pages of the *Jelajah Etnik* catalogue are racially Papuan, not Malay like Sama people, reflecting an Indonesian racial formation that associates darker Papuan features with primitiveness. Similarly, the Javanese batik Sopandi employs in the background of his paintings are iconic representations of ethnic difference in Indonesia. Sopandi presents his expedition to Wallacea as cultural time travel and his imagination is haunted by nineteenth-century colonial exploration.

Here is the question though. Must we read both of these exhibitions merely in the context of turn-of-the-twentieth-century European evolutionary thinking, or can we also understand these Indonesian scientists and artists as attempting to remedy problems other than those solved by earlier native village displays and primitivist art? What if we were to read *Bajau* and *Jelajah Etnik* against the grain, as thought that searches for new solutions to the problem of Indonesian modernity, albeit steeped in familiar modes of representation? In such a symptomatic reading, the place of ethnic and natural diversity within the nation appears, not merely as determined ideology, but as a problem to solve. While the two exhibitions each propose Sama inclusion into the nation on elite terms, more radical possibilities for the meaning of inclusion work to subvert the obvious exclusionary readings.

For example, programmatic activities during *Bajau* describe the fully modern political and environmental problems experienced by Sama people as citizens of the national polity. In a section of the exhibition catalogue titled "Issues Affecting the Bajau Today" the curators wrote:

> In collaboration with local Bajau researchers, LIPI and Sejati research presents the ecological and social-cultural issues affecting the Bajau today. Contributors such as the Asia Wetlands Bureau, UNESCO, and other institutions also provide books and articles on marine resources. In this room, the visitor can learn about how changes in marine ecology influence the whole of Bajau society. The visitor could study how marine (traditional) resource management would be applied to wider development projects. Equally, the collected research would show the commercial potential of marine resources, and this includes marine tourism, for Indonesia's national development. Most importantly, the main hosts of the exhibition, two Bajau representatives from North Sulawesi, would always be present to answer questions from the public and to recount their immediate experience. (Sejati 1994:38)

Public programming for *Bajau* included a discussion with Abdurrahman Wahid (leader of the Muslim organization Nahdlatul Ulama, who would later become Indonesia's fourth president) on the importance of cultural diversity in Indonesia; a visit by fishermen from Jakarta Bay to discuss issues they shared in common with Sama representatives; and special events for business leaders and school children. Despite its anachronistic representational form, *Bajau* contains a sub- or parallel text that challenges the thinking of Indonesian elites, "creating something new within the most traditional political forms" (Rose 1999:280).

Similarly, while Sopandi's style belongs to the early twentieth-century tradition in painting and sculpture called "primitivism," the context for his work is not early twentieth-century Europe. In his paintings and catalogue descriptions, Sopandi presents a picture of Sama life that is very different from the Indonesian state's own evolutionary representations of Indonesian life outside of Java, Sumatra, and Bali. For example, he describes his painting *Bajau King* with the caption, "Speaking their language is one form of Bajau creativity. A symbol of their tradition." Clearly encompassed by a German Romantic theory of language, the caption nevertheless might also be interpreted as contesting state language policy that promotes the national language, Bahasa Indonesia, over regional ethnic languages. The value Sopandi places on Sama language confronts the state's rationalist desire for Indonesians to speak formal "good and correct" Indonesian (*bahasa Indonesia baik dan benar*). In calling Sama language a form of "creativity," Sopandi cracks open the universalist logics of governmental reason.

In order to understand how Indonesian scientists produced Togean Island nature and culture, we need to understand something about the milieu of diversity they were working within at the time. In this context, I propose we will learn more about Indonesians' scientists and their work by taking them seriously as honest brokers struggling with what diversity can and will mean in the context of late-twentieth-century Indonesia. Although we cannot fail to recognize the power elite Indonesians have to represent, and while we can read both rational evolutionism and imaginative Romanticism into these exhibitions, *Bajau* and *Jelajah Etnik* were attempting to solve other problems than were turn-of-the-twentieth-century European expositions or exhibitions. Barkan and Bush, in their exploration of primitivism as a particular form of modernism, claim: "As

primitivism reappeared in text after text, each new ideological mix proved unpredictable" (1995:13).

In part 1, IFABS scientists can be seen grappling with questions of how to represent Togean biodiversity and Sama identity. Questions about Togean species emerged from within transnational conversations on conservation biology and national discussions on science and nation. Questions about Sama peoples' "indigenous knowledge" arose from within the milieu of *Bajau* and *Jelajah Etnik* where the meaning of diversity within the nation was at stake. These active practices of thinking produced such objects as "nature" or "culture" that should be understood outcomes, not starting points, for Indonesians' science in the Togean Islands. From within this milieu we can hear scientists ask: What will count as the value of natural diversity for the Indonesian people?; What will constitute acceptable norms of cultural difference within the nation?; and, How can these values and norms be represented?

Chapter One

MAKING THE MONKEY

> The [Togean] animal kingdom is, as cannot be expected otherwise, poor in representatives. It is said that the only mammals living here are bats, rats, and the *babi rusa* [deer pig]. Of birds, we find many of the species living along the main coast [of Celebes]. On our walk through the main village I saw *Trichoglossus ornatus*, *Tanygnathus megalorhynchus*, and *Nectarinia lepida*. There are few snakes and few crocodiles, and turtles are only found near Poeloe Sendiri. The sea between and around the islands is also poor in fish, a phenomena certainly worth mentioning. On the other hand, the sea surrounding the islands is rich in holothurians [sea cucumber], the most important article of trade and export in these islands. Finally, we noticed on our walk the most beautiful land snail, a Nadina, which we had not yet seen on the main coast.
>
> —C.B.H. von Rosenburg, *Travels in the Region of Gorontalo*

TOGEAN ISLAND biodiversity was not at all self-evident in the beginning of the 1990s. Nor was the archipelago's appropriateness as a new national park. In order for the Togean landscape to move from "poor in representatives" (as it was in 1865) to "rich in biodiversity" (which, by the mid-1990s, it had become), the "facts" of Togean biodiversity awaited their empirical demonstration and social emergence (Latour and Woolgar 1986; Shapin and Schaffer 1985). Such a representation of Togean nature was encompassed by the work of species inventory in the emergent field of conservation biology. Key to the appearance of biodiverse nature in the Togean Island was the Togean macaque, *Macaca togeanus*, a primate living in the upland forest of Malenge Island. Nonhuman primates have always held a fascination for biologists due to their role in the history of human evolution. The reason of the moment proposed that if biologists were able to stabilize the species status of *M. togeanus*—if they could prove it to be unique and endemic—a protected-area initiative would be justified.

My familiarity with the Togean monkey and the question of its species status developed through my friendship with Jatna Supriatna. Dr. Supriatna, a conservation biologist from the University of Indonesia (UI), is the world's leading expert on the evolutionary biology and systematics of

Sulawesi macaques. In the mid-1990s, *M. togeanus* became a focal point for both Supriatna's research, and for the establishment of a more encompassing conservation program in the Togean Islands. As Dr. Supriatna observed in his discussions with me on species diversity, the species concept (rather than ideas of ecosystem, ecoregion, or environmental justice, to name just a few other possibilities) was crucial, both in biological and social terms, for saving nature. "Species are the key," he argued, "But there is a flexible concept of species. For example, think of the Javan rhino. Without species conservation, maybe Ujung Kulon [a park in Java] would never be visited by people, there would be no donor that likes to give money, there would be no government attention. Charismatic animals allow people to want to save the environment. People don't just say 'I want to save biodiversity.' Species are attractive."

In order to put together a Togean conservation project, Dr. Supriatna would use species to attract an Indonesian and international public, a foreign donor, and government agents and agencies. The existence of a unique Togean flora and fauna would entice domestic and international tourists, would create political support for a park among regional and national bureaucrats, and it was also necessary to secure investment from Conservation International (CI). In the process of making the monkey, "*M. togeanus*" would evolve from "new form" to "dubious name," and then reverse its course to become the "endemic species" the project required.

In cultural studies of science and technology we always insist that inquiries into the ways science is thoroughly imbricated with, and productive of, both nature and society is not about "good" and "bad" science. As a science studies scholar, I argue that Indonesians' science, like any other science, can show us how those bio-objects we want to call "natural" are immanently social and cultural as well as biological and physical. I am interested in the many positivities of the Togean macaque research, including the ability of a new and endemic species to form social relations and subjectivities within biological research and conservation. While the making, unmaking, and remaking of *M. togeanus* helps us to understand "sameness" and "difference" in Indonesians' biological science, my analysis should not be read as any kind of a commentary on the "quality" of the science as such. The monkey is, rather, an entry point for examining the intersection of science and nation within biodiversity conservation.

A New Form

The first hint of a distinct Togean primate species appeared in 1949 in an article by H.J.V. Sody, "Notes on Some Primates, Carnivora, and the

Babirusa from the Indo-Malayan and Indo-Australian Regions." Sody, a naturalist from Amsterdam who was trapped in Java by the Japanese occupation in World War II, used his time to make studies of the Bogor Museum's natural history collections, including Sulawesi macaques. He had available to him 17 skins, 15 skulls, and 1 stuffed specimen of unknown provenance. Sody combined an analysis of these specimens with the literature on 40 other skulls including a Malenge Island series collected by J. J. Menden in the Togean Islands in 1939. In October 1949, not long after Indonesian independence, Sody published his synthesis in the journal of the Royal Botanic Gardens at Buitenzorg (Bogor). He found that the skull index for macaque males was larger than for females and was the greatest in Menden's Malenge series. On the basis of its larger size, Sody proposed a "new form," which he named *Cynopithecus togeanus* (Sody 1949).

The macaque next appeared in 1969 in *Taxonomy and Evolution of the Monkeys of Celebes*, an account of Sulawesi primates by Jack Fooden. Fooden acknowledged that the Malenge monkey was morphologically larger and paler than the Tonkean (not Togean) macaque (*Macaca tonkeana*). The data did not convince him, however, that the Togean primate was a unique species. Rather, Fooden believed that the difference between the macaques of Malenge and the mainland population was probably caused by "relatively recent evolution in isolation," and he found "no characters that warrant allocation of the insular form to a separate species, or even sub-species" (Fooden 1969:114).

In the divergence between Fooden and Sody's opinions the species status of the Togean macaque became amenable to further study and empirical verification. In 1988 Dr. Supriatna was conducting a field study of hybridization between the Moor macaque (*M. maurus*) and the Tonkean macaque using behavioral and morphological analyses, for his doctoral degree in biological anthropology at the University of New Mexico. During his research travels with the "Sulawesi Primate Project," a name he had given to a team of Indonesian and EuroAmerican primatologists including several of his own biology students, he heard a rumor of a macaque population living in the Togean Islands. This inspired his first trip to the archipelago and resulted in an encounter with the Togean monkeys.

Coincident with the opportunity to define a unique macaque species, the emerging paradigm of biodiversity was beginning to open up new programmatic opportunities for conservation around the species concept. The Togean Islands had been identified as a potential conservation area by the UNDP Food and Agricultural Organization (Salm et al. 1982), the Asian Development Bank (1992), USAID (Soekarno 1989), and the World Wildlife Fund (Djohani 1989), among others. At the same time, Supriatna had developed ties to Conservation International through connections he

had made in the world of primate studies. In order to interest CI in a Togean Island project, his interests and his science would need to align with those of his funder.

Dr. Supriatna first began to sponsor his students to work in the Togean Islands on the macaque question in 1992 and 1993. During this period, Budi, along with several other students from the University of Indonesia, went to Malenge Island to study the macaques' behavioral patterns as well as Togean forest ecology. With Supriatna's backing, Firman, an undergraduate student from As-Syafi'iyah Islamic University, surveyed the size and constitution of the Togean macaque population. Firman not only found fourteen groups of macaques and some lone males, but he also determined that the monkeys were eating a mixture of fruits (mostly figs), leaves, flowers, grains, and seeds (Firman 1994). This early research led to the formation of the Indonesian Foundation for the Advancement of Biological Sciences (IFABS), an independent biologically focused NGO. Supriatna would be able to use the Togean project, not only for Indonesian nature conservation, but to develop an internationally recognized program of biological research. IFABS built its research station, Camp Uemata, to facilitate the primate research and to further their national scientific agenda (Surjadi and Supriatna 1998).

International interest in the Togean macaque research developed at the fifteenth International Primatological Society meetings held in Bali in August 1994. At the conference, the project to "clarify the taxonomic position of the Togean Island macaque" became a "priority action" (Bynum 1994). Immediately after the conference ended, Russell Mittermeier, president of CI and a primatologist himself, visited the Togean archipelago with Supriatna and other IFABS staff. This visit brought Indonesian scientists and their project together with a funder under the banner of preserving what CI began to refer to as the "endemic Togean macaque" (Mackie 1994).[1] CI then granted preliminary funding to support the new IFABS organization and the Uemata field station.[2]

While the IFABS biologists continued to study the Togean macaque in the field, Supriatna worked with his former advisor, Jeffrey Froehlich, on analyzing museum specimens. In 1996 they published their first scientific article on the species status of *M. togeanus* (Froehlich and Supriatna 1996). Employing dermatoglyphics, a technique of determining relatedness through fingerprints pioneered by Froehlich, and by examining the bathymetric contours of the Gulf of Tomini to determine that the conditions necessary to produce a species isolate could have existed, they elaborated three possibilities for the primate's taxonomic status: (1) *M. togeanus* is a third subspecies of *M. maurus*, (2) the Togean monkey is not subspecifically distinct from *M. tonkeana* (Fooden's hypothesis), or (3) the primate deserves separate species status (Sody's hypothesis).

On the strength of characteristics distinguishing *M. togeanus* from *M. maurus*—a larger cranium and diminished body size, longer tail, greater sexual dimorphism, unique pelage (coat), and varying dermatoglyphic patterning—the authors made an incipient case for separate species status. They argued, "comparably diagnosable pelage patterns, distinct alterations in body shape, and greater dermatoglyphic differences suggest that *M. togeanus* may be a valid species" (Froehlich and Supriatna 1996:65). Emphasizing the interpretation that supported separate species status, they proposed further research on the primate and an urgent conservation agenda. The "nonexistent protection and the tenuous status of the only known population of *M. togeanus* on Malenge Island lends urgency to the confirmation of these predictions and the formulation of adequate conservation initiatives" (66). As the facticity of *M. togeanus* was beginning to "harden" (Latour 1987), the monkey was increasingly able to support a conservation agenda.

Honor in the Eyes of the World

Science has always been articulated at a national as well as universal scale. This is true in a particular way for postcolonial nations where the hemispheric divide has produced an urgency in the pursuit of universal scientific knowledge. As a political prisoner on Buru Island, Pramoedya Anata Toer, Indonesia's most famous author, once wrote in a letter to his daughter Nen,

> Teilhard de Chardin is the greatest scientist of this century. . . . At a given moment in the seventeenth century, the light into the darkness of the preceding era was brought by Johann Kepler, namely in the field of astronomy; but, at present, into the darkness of the preceding era, the light is brought by Teilhard de Chardin, in the field of human evolution. . . . This is not a philosophy, this is almost a hundred percent science through which the truth is being proved. (Pramoedya Ananta Toer, cited in Mrazek 2002)

To understand how "the work of reason" is a "measure of things" in Indonesians' conservation biology, or how "a hundred percent science" is differentiated from a "philosophy," we must move beyond the articulation of interests (scientists, tourists, funders, and bureaucrats) brought together in the act of making the monkey.[3] How is conservation science productive of the Indonesian nation? And how does Indonesians' science constitute national subjectivities? In order to formulate the specificity of "Indonesian" as a modifier for conservation biology, or to think of the emergence of Togean nature as particular at the scale of the nation, we need to explore relations between science and nation in Indonesia in more general terms.

Recent anthropological work on national difference has proposed that something called "modernity" has alternative versions.[4] While maintaining a focus on difference within the modern world, I agree with those postcolonial and subaltern studies scholars who successfully avoid the sense that modernity's variations are a matter of citizens or nations choosing from among sets of "alternatives." For example, Partha Chatterjee (1993) has argued that the form of the postcolonial nation was never Benedict Anderson's Euro-"imagined community." Rather, as a national form, it was dependent on its status as successor to the nation imagined in Europe and the identitarian and conceptual struggles which that entailed. Similarly, Gyan Prakash (1999) describes India's "different" modernity as a "desire to institute a culturally specific community," yet he writes, "while successfully projecting the nation as an autonomous community, its imagination was overwhelmed by the history of the modern state." In other words, while the nation's affective attachments were formed in opposition to Europe, the state's own technologies of rule could not escape patterns established elsewhere.

Employing this postcolonial frame, both Gyan Prakash and Itty Abraham describe science in India as intimately articulated with the making of Indian modernities. Prakash (1999) describes how colonial science was "staged" as a sign of modernity, while Abraham (1998) reveals how the making of the Indian atomic bomb was part of India's struggle for national recognition. In each case, the work of these scholars emphasizes relations of science as forms of difference producing the postcolonial subject. It is impossible to distinguish Indian or EuroAmerican science from legacies of the nation-state, and this is no less true for Indonesian science.[5]

In Toer's novel, *This Earth of Mankind* (1996), we can see how science was present at the nation's birth. Pramoedya's story is structured around a narrator named Minke and his experiences in school. Minke's admiration for European science and technology leads him to make an unfavorable comparison between his tradition-bound father and his learned teachers. Yet Pramoedya's tale also questions the use and function of all this learnedness for colonizer and colonized alike. The Dutch in Indonesia are caught in a canonical colonial dilemma, namely what good is all that learning if in the end Europeans prove themselves uncivilized? Likewise, of what use is it for Indies natives to study the newfound science if, in the end, they are not allowed to apply their knowledge?[6] Only somewhere late in the story does Minke discover that the nickname he was given by his first Dutch primary school teacher had been his own mispronunciation of the word "monkey!"

While science and politics are inseparable, many scientists wish to see them divided on the basis of an idealized notion that good science is devoid of sentiment or opinion. Scientists in postcolonial Indonesia are forced to separate science from political sentiment for other reasons, as well. A biologist I knew in Indonesia once told me a story of how he learned to avoid politics. In 1965, when he was just a boy, his father was in the army. This was the year when the Indonesian army enflamed its citizens to brutally rid the countryside of suspected members of the Communist Party (*Partai Komunis Indonesia*, or PKI). His father was in the West Java battalion and he witnessed his father's compatriots round up suspected PKI members and gun them down in the open-air movie theater on the army base.[7] This history still informs the silent subjectivities of many Indonesians today and, as the mass killings progressed, my biologist friend witnessed the murders of his own school teachers. Between five hundred thousand and one million people died across Indonesia during this episode of recent Indonesian history (Cribb 1990).

Kalimantan, 1955. Classroom poster reads: "*Memperlindungi Alam Berarti Mendapat Penghormatan Dimata Dunia* (Protecting Nature Means to Receive Honor in the Eyes of the World)." J. Roberts/National Geographic Image Collection.

With Suharto's rise to power in 1966 following on the heels of this violence, the nation was asked to reject the active political life that had existed under Sukarno; in place of "politics," the country would now pursue "development." Science, during the Suharto period, would come to carry the legitimacy of "progress" and "modernity" rather than the stigma of politics. Under these historical conditions, the seemingly apolitical nature of scientific inquiry was not an abstract philosophical position

on scientific objectivity. Educated Indonesian citizens were guided toward engineering, biology, and other fields in science and technology as ways to advance the nation through "apolitical" means. Although this does not indicate that Indonesian scientists might not also share a passion for the forms and mechanisms of biological nature, the appeal of biological science and species inventory must also be understood in the context of national trauma.

In the case of India, Prakash observes, science has been asked to "anchor the entire edifice of modern culture, identity, politics, and economy." The semiotic possibilities of science in Indonesia also include this "edifice" of modernity. While the Suharto government sought development as a panacea for politics, science was asked to complete the project of modernity by initiating the new Indonesian subjectivity governmental rationality proposed. We can see the way science and technology brought together the dream of technology and nation in mid-1990s Indonesia in the efforts of Dr. Bacharuddin Jusuf Habibie, Suharto's Minister of Technology. Habibie, who had been director of a German aerospace company in the 1970s, returned home at the invitation of Suharto to develop a "high-technology" economy in Indonesia, and Suharto granted Habibie unlimited resources to follow their mutual ambition of a scientifically modern nation. Out of this effort developed, most famously, the Airplane Industry of the Archipelago (*P.T. Industri Pesawat Terbang Nusantara*).

Habibie's idea of a high-tech economy was intended to create not only products for elite consumption but also new national subjects. Science and technology were imagined as central to an idealized Indonesian subjectivity that would transform the citizenry from top to bottom. Habibie once said: "The basis of any modern economy is in their capability of using their renewable human resources. The best renewable human resources are those human resources which are in a position to contribute to a product which uses a mixture of high-tech" (Head 1998). In the 1990s, the idea of "human resources" (*sumber daya manusia*) was a common, though of course indefinitely deferrable, way of describing the position of citizens within the nation.

While one might presume that this discussion of human resources would be limited to the elite center of Indonesia, marginalized peoples on Indonesia's periphery comprised the "other" in this national conversation. I encountered the term in the Togean Islands, for example, when a trader once explained to me, "the problem with these Togean people is their low human resource quality." While this rhetoric was surprising to me, a discourse of "human quality" was often used to distinguish Indonesia's cosmopolitan classes from its agrarian and fishing peoples. Togean Islanders were imagined, from an urban perspective, as backward, and

the "low-tech" technologies they used in their daily lives informed this representation.[8]

Biodiversity science in the Togean Islands shared with the industrial development of a "national airplane" and a "national car" (*mobil nasional*, or *mobnas*) the sense that its desired outcome was a technoscientific product belonging to the nation. Conservation biology in the Togean Islands was the science that would produce a "national park," although the sense of national patrimony always had to contend with the rhetoric of biodiversity's universal value. IFABS' conservation biology sutured international science literally onto the national landscape. It did so, however, within a set of transnational social relations still haunted by the "spectre of comparisons" (Anderson 1998) from Indonesia's colonial past. As a project of modernity-in-the-making, Indonesians' science entered upon territory the terms of which were known in advance and set somewhere else. As such, there was always the danger that Indonesians' science would be received as "repetition rather than re-presenting" (Bhabha 1994:88).

Beginning in the 1980s, new forms of activism in Indonesia mobilized the political neutrality of biological science and incorporated it into agendas of social and environmental transformation. For example, the Indonesian Forum for the Environment (Walhi), Indonesia's most prominent environmental organization, was able to advocate for land reform and worker's rights under the rubric of "environment" through the concept's affiliation with natural science. Walhi activists also occasionally employed the rubric of "biodiversity" during this period, although biodiversity was as much a means to legitimate their work with marginalized peoples as it was an expression of an abstract interest in extinction or systematics.[9] Both "environment" and "biodiversity" were deemed apolitical during the late Suharto period conveying a scientific valence both domestically and internationally.

While Walhi represents the environmental justice side of Suharto-era activism, IFABS, with its goal of advancing biological science, represented a somewhat more biocentric mode of social engagement. Togean primatology and conservation biology entangled Indonesian biologists in transnational scientific practices in which biology's distance from politics was explicit within scientific discourse itself. Rather than posit contentious political communities within the nation, or a variety of commitments to nature based on different and often conflicting sets of identities or rights (as Walhi sometimes did during this period), Togean conservation biology was conceived of—by Indonesian and EuroAmerican scientists alike—as producing politically uncontroversial outcomes.[10] While Togean nature emerged as locally specific through species inventory, Indonesian scientists gained generality as transnational and universal subjects who did not polit-

ically threaten the state. Moreover, IFABS scientists could be recognized for developing the nation's modern "human resources" at an unmarked cosmopolitan and universal scale, rather than for the localized "ethnoscience" through which foreign scientists and anthropologists had heretofore represented "Indonesian" ideas of nature.

The Social Life of Transnational Collaboration

That Indonesian conservation biology is now controlled by Indonesian scientists has everything to do with the existence of the Indonesian state. Unlike colonial-era natural historians, EuroAmerican scientists must receive research permits, work with scholarly counterparts, and demonstrate collegial respect in order to ply their trade in Indonesia. Many Indonesian scientists still choose to collaborate with foreign scientists in their research. The process of collaboration, though, is always haunted by the spectre of Indonesian scientific subalternity and the struggle for Indonesian scientists to "speak" (Spivak 1998) in transnational scholarly settings. In my work in Indonesia as a foreign scholar, I began to sense that tensions over EuroAmerican scientific hegemony often rested just beneath the surface.

My research began with my entrance into Indonesia through Jakarta and a visit to the offices of IFABS located near the campus of the University of Indonesia. Upon my arrival, Yakup startled me with the question: "Will you be working under your own name or under the name of Conservation International?" I answered that this was my own research project. "But why?" He told me that CI was claiming *they* had been doing biological research for several years in the Togeans, while the work was actually done by Yakup and his colleagues. The IFABS biologists were upset at their funder's failure to recognize them for their work. Because I had been initially introduced to the Togean project through a contact at CI, Yakup was concerned that I might share CI's outlook.

In addition to the sense that foreign scholars could easily overlook the work of their Indonesian colleagues, foreign scientists frequently caused difficulties for their Indonesian counterparts by not understanding local politics or cultural norms. Dr. Supriatna explained to me some of the problems he had experienced working with foreign experts. Once he was called from Jakarta by the local Sulawesi government to straighten out a disagreement among some of the foreign researchers he was sponsoring in a nature reserve. "This is not appropriate," he complained. And in a cautionary tale, he informed me that when some scholars did not turn in research reports to him, he had withheld their requests for visa extensions. He also warned me not to have any romantic affairs in the field, recounting the story of a woman anthropologist who had taken an Irianese lover, causing a scandal for her research sponsor.

Whereas in a U.S. academic setting difference among scholars is often understood as paradigm conflict, between Indonesian scientists and their foreign collaborators theoretical disagreements often produced tensions over the neocolonial relations of scientific collaboration itself. During one conversation at IFABS about my research, I described my project of comparing conservationist and Sama "ideas of nature." Yakup said what he wanted to know from me, however, was more about the "social structure" of the Togean people. He said: "In Java there is a social structure, which is strong and cannot be changed. Because Sama are used to being nomads, they are not used to being concentrated in such a tight group. This concentration is very dense. Therefore, there can be fighting and problems. These people will need to be dispersed."

Behind Yakup's invocation of "Javanese social structure" and the potential for "fighting and problems" among Togean people lay perspectives gained from his studies of biological anthropology and sociobiology. Behind my own interest in political rights and cultural representations of Togean people lay my training in political ecology and poststructuralist anthropology. As I was not willing to put my research to ends that this training had taught me to perceive as unjust or coercive, I explained to Yakup that I could only work to understand the perspectives of all sides. In this encounter, Yakup and I each were suspicious that our differences might lie at the level of nationality, not theory, however. In the context of transnational collaboration within the Togean project, North/South aspects of conflict were frequently emphasized over the abstraction of intellectual difference, and many tensions among foreign and Indonesian scientists were readily (and often mistakenly) viewed as "national" difference.[11]

Perhaps nothing caused more discomfort between Indonesian and foreign scholars than the question of research visas. Foreign scientists are required to have an official research permit before they do any studies in Indonesia. From the perspective of foreign scholars, the research visa can take months or years to get, sometimes requiring an expensive special trip to Indonesia to arrange. Since the visa can only be acquired in Jakarta, the process embeds the researcher in an endless network of bureaucracy from the capital to the village, and most importantly, once one is in Indonesia on a research visa it is impossible to leave without the written permission of the research sponsor. An American biologist I met once spent several days strapped to a board with a broken back waiting for permission from his sponsor before he could be airlifted to a hospital in Singapore.[12]

For their part, Indonesian scientists tend to believe that foreign scientists avoid collaborating with Indonesian scholars by entering their country on tourist visas. They are aware that EuroAmericans benefit professionally from their Indonesian research and believe foreign scholars will not share in these profits unless required to do so. By requiring foreign scientists to secure permissions through the Indonesian Institute of Sciences, the state attempts to ensure that foreign scientists share their knowledge and results with domestic scholars. In the 1990s the visa process was also a way for the national security bureaucracy to determine that foreign researchers were not engaging in politically sensitive research, or research understood as insulting to Indonesian sensibilities. Dr. Supriatna regularly confronted the issue of how to persuade foreign scientists to train students and field assistants, to share their research results, and to give due credit to Indonesian scientific contributions.[13]

In *Primate Visions*, Donna Haraway (1989) explores North-South scientific relations through the collaboration in 1975 of American primatologist Alison Jolly and Etienne Rakotomaria, Director of Scientific and Technical Research in the Malagasy Republic, as evidence of the decolonizing process occurring in transnational science. This process is especially salient for conservation biology, which requires the literal space of postcolonial nations to carry out its work.[14] Haraway cites Rakotomaria, "Scientists will only be allowed to work here if they arrange reciprocal benefits for Malagasy colleagues. The people in this room know that Malagasy nature is a world heritage. We are not sure that others realize it is our heritage." Haraway identifies this as a beginning of "Malagasy-controlled reconstruction of what nature and conservation must mean for national, ecological, and cultural survival," and she asks a question equally salient for Indonesia: "What might a postcolonial reinvention of nature be like?" (Haraway 1989:207).

Camp Uemata

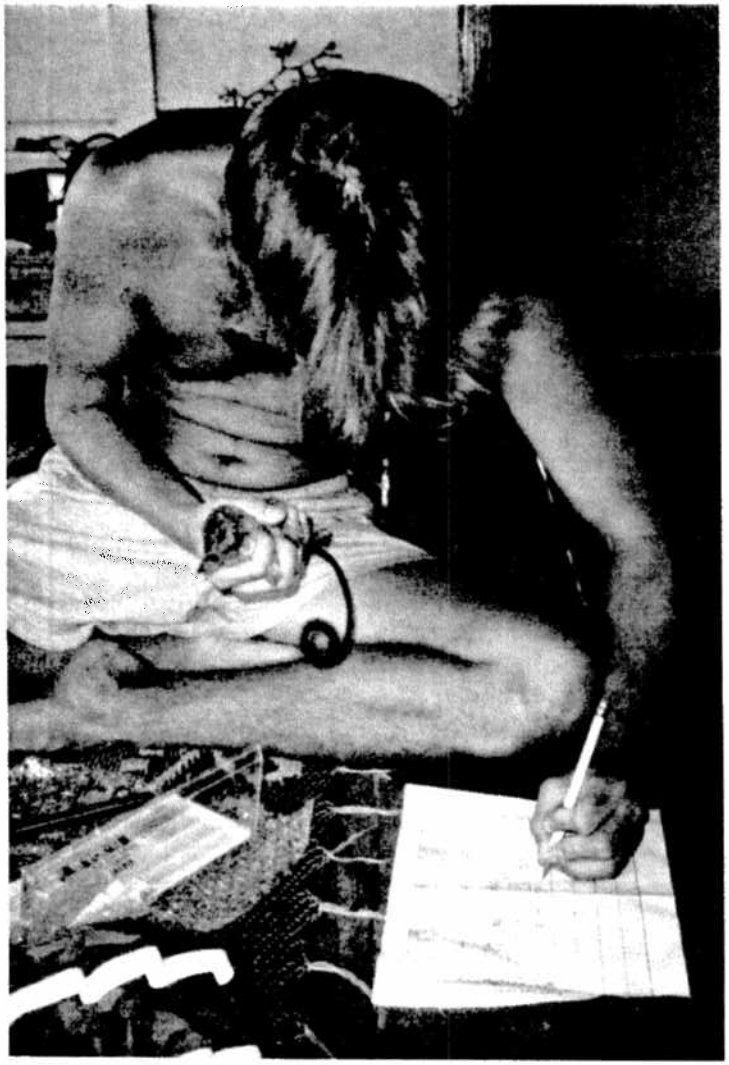
At Camp Uemata, I experienced biological field science with the IFABS scientists firsthand. In 1996 and 1997, Uemata was a busy "center of calculation" where data on Togean nature was not only compiled but also made mobile, stable, and combinable (Latour 1987). During the course of the year I met many Indonesian scientists, including several primatologists, a marine biologist, a forest ecologist, a geographer, an economist, and an ornithologist. I also met foreign researchers, including an expert on the coconut palm, a graduate student studying public health policy, a political ecologist, a biological anthropologist, and the members of two Earthwatch expeditions. Another cadre of Indonesian experts on tourism and development worked to translate biological mandates into social programs. And finally, Togean Island people assisted scientists with conservation and research activities. Both experts and expertise were outcomes of Togean field science.

One night I went into the forest with an American primatologist who was conducting a study of the Togean tarsier. The tarsier is one of the world's smallest primates and the species status of the Togean Island tarsier, like that of the Togean macaque, also hung in the balance. Participating in capturing the tarsiers that day were Dr. Supriatna, Pak Arif (a field assistant to the American scientist), and several American volunteers from an organization named Earthwatch. We climbed up to a dead ficus, which the scientists suspected was the sleeping tree of a family of tarsiers. Arif had previously set up mist nets surrounding the tree to catch the nocturnal tarsiers when they came out at dusk. I sat near a volunteer who took my photograph saying: "Anthropologist at work in the jungle!"

Suddenly, we heard a chirp. Then, immediately, a whistle. This was the duet call of a male-female pair that the American primatologist was recording to use in a behavioral analysis of tarsier speciation. It didn't take long before, zip!, I saw the dim outline of a tarsier leap from one leaf clump to another and it was caught in our mist net. Looking into the net with our flashlights, Dr. Supriatna asked the volunteers if they had ever seen a tarsier before. He believed this was a new species and the largest kind of tarsier, weighing 150 grams. He explained, "There are four species of tarsiers in Kalimantan and others in Sulawesi each having color variations. The tarsier won't live in captivity. They don't eat because of stress," he added. "Are they endangered?" the volunteer with the camera asked him. "No, not endangered, but protected," Supriatna replied.

Dr. Supriatna had recommended Arif to the American scientist as an expert on Sulawesi primates and on the techniques of primatological field work. Pak Arif lived near Tangkoko National Park in North Sulawesi, which has populations of both macaques and tarsiers. He had made his career working with both Indonesian and foreign scientists, and he attributed his entry into the scientific and conservation worlds to the wide variety of primate researchers he had met there. Arif assisted them with building traps, setting nets, taking blood samples, and taking care of the physical aspects of primate field study that scientists generally find difficult. Arif also had a detailed understanding of primate behavior. Although he had only an elementary school education, this was not an obstacle to demonstrating his knowledge, and he was well regarded in the world of Indonesian primate research.

Dr. Supriatna promoted all his Indonesian staff, whether scientist or assistant, into positions of authority at Camp Uemata. He explained to me, "Arif is the best tarsier man in the country." Another time he invited



Measuring a Tarsier at Camp Uemata, by Celia Lowe.

Pak Ahmad, the Ranger, to explain to some camp visitors his experience working with the biologists. Ahmad described how he had assisted Budi with his study of Malenge's trees: "In 1992, Budi first came to build a camp here. We built a trail through the forest and we made a 'bell' and then a 'plot.' A plot is an area 50 meters square where we counted the number and size of trees. We also counted the six types of fruits and the seven types of leaves. This is what is called 'analysis.' "

While Dr. Supriatna attempted to situate his Indonesian colleagues as experts, sometimes his efforts would fail dramatically. On one occasion, a EuroAmerican scientist complained loudly about his food saying, "It seems whenever I'm eating with a group of Europeans and a bunch of foreigners, I can't make them understand not to use so much chili pepper." Budi got up and left the table abruptly: who, after all, was foreign here? Or once, when an Indonesian biologist showed up late for a field excursion, I heard a white scientist proclaim, "that's why they're still beating on drums." Most frustrating for this group of elite Indonesians was that foreign visitors to the camp were sometimes unable to make a distinction between Indonesian scientists and Togean villagers. The distinction between cosmopolitan scientists and rural Togean people, however, was one of the important social distinctions at stake for Indonesian experts in their scientific production of nature, and the field station was a place where "modern" and "traditional" identities were continually reinscribed.

At Uemata, Indonesian scientists were also, at times, susceptible to representing Togean people as "unknowing," and Togean knowledges could be overlooked in the scientific effort to reveal biological nature. My Sama friend Isra once asked me if I believed we are descended from monkeys. I was a bit noncommittal on the subject. The 35 million years that separates me from the Togean macaque *does* seem rather a long time to recon kinship and, as Franklin and McKinnon (2001:5) write, "Kinship provides a useful example of naturalization as knowledge because of the way in which kin ties are seen to be constituted out of primordial natural facts."[15] Isra asked me about primate kinship because he himself had been brought to the camp by IFABS in the hopes that he would internalize their conservation values. He learned many things about the conservation project while he was there, including the urgency of preserving the Togean monkey. One explanation he was given of its value was that it is our "ancestor." But, he told me, he did not believe humans are related to animals at all. "God looks at humans differently than animals," Isra said.

Biologists' desires to revise Togean peoples' views of nature were reflected in the way they had reworked physical space at Camp Uemata. Uemata was built on an uninhabited beach, but the reef in front of it had previously been a sea cucumber collecting and fishing ground for Sama people from nearby Pulo Papan. Indeed, the hill behind the camp was somebody's garden plot. Uemata itself was named after the tiny spring—not much bigger than tears—that had flowed onto the sand at the end of the beach before it was turned into the camp's shower facility. A garbage pit at one end of the beach now gathered trash and flies. The biologists' idealist supplanting of Togean peoples' natures was physically replicated in their appropriation of the land- and marine-scapes of the campsite.

Pak Ahmad, who was positioned as a culture broker between the scientists and his Malenge Island neighbors, knew that the Togean macaque competed with Malenge people who needed the space to grow coconuts on the island. One day, as I was speaking to some women who were coring coconuts, Ahmad teasingly called them "monkeys." I joined in the play by asking if they were a "protected" species. Ahmad responded, "These are more protected than the ones in the forest." From his perspective, if you own coconuts, even if you are sick or old, you have something of value. If you want to go to the store and ask for credit, the owner will give it to you. He will pay your taxes for you, he will do almost anything to help. For Ahmad, the scientists and their idea of biodiverse nature threatened this livelihood and promised to make Togean monkeys more significant than Togean people.

Scientists and Togean people disputed the identity and meaning of Togean nature and, even as the scientists hoped that Togean people would come to appreciate their biodiversity perspective, biological and Togean cultures of nature could not always be reconciled. Isra claimed the monkeys did not even *come* from Malenge Island. He told me how they had arrived on a Portuguese ship that had anchored near Malenge a long time ago. The ship's crew put down a board to the island and the monkeys escaped. So while the scientists were searching for the origins of the monkey in evolutionary time, Malenge people described equally exotic origins of the monkey from historical memory.

M. Togeanus Becomes a Dubious Name

At the end of Supriatna and Froehlich's 1996 article suggesting the likelihood of the Togean macaque's species status, the authors mentioned a story similar to the one I had heard from Isra: "Recent fieldwork supports local traditions that the monkeys of Malenge Island were artificially transported there about 1920 from near Tanjung Api . . . they occur nowhere else in the Togian archipelago." This story of the historical origins of the Togean macaque sits uneasily in the same article alongside the authors' invocation of island biogeography, which was intended to indicate the possibility of the monkey's arrival by a prehistoric land bridge.

Nonetheless, Isra's "local knowledge" could not overwhelm the momentum of the primate research or the conservation effort. Dr. Supriatna and his students sent blood samples of the Togean macaque to Columbia University in New York for analysis, and he and Froehlich conducted field research on the mainland to look for related monkeys. Over nineteen days in June 1995, and twelve days in January 1996, they sampled ninety wild and pet "Togean-like" monkeys from around the Balantak

peninsula. They sedated the monkeys by injecting them with Ketamine HCl using hand-held syringes or blow-guns and injection darts, and they gathered fingerprints on clear tape covered with graphite powder. The macaques were examined for blood, dermatoglyphic volar prints from both hands and feet, and morphometric and pelage data. In order to assess the health of the Togean macaque population, they took bilateral cheek tooth measurements from the 1939 Menden collection and assessed asymmetry scores to look for signs of stress on the Togean monkeys (Froehlich et al. 1998).

In August of 1997 Supriatna, Froehlich, and three colleagues submitted their reanalysis for publication in the journal *Tropical Biodiversity.* This time there was no mention of prehistoric Togean biogeography, and the story of the Togean macaque's historical arrival on Malenge Island was covered in specific detail:

> Oral traditions on Malenge and the mainland tell of a few animals being transported to this island in the 1920s, supposedly by a Swiss man named Sibley in charge of German copra plantations between Tanjung Api and Bunta starting in 1918 (Pak A.Ex: Palali [Luwuk Historian], pers. comm.). As an amateur naturalist, Sibley sailed often around Teluk Tomini in his orange boat. Residents of Malenge also tell of more recent, but failed attempts to establish their monkeys on neighboring islands of the Togeans. (1998:168)

In their new article, the scientists conclude that the Malenge population from Menden's collection includes genes from female *M. tonkeana* and male Balantak monkeys. "This hypothesis is supported by the emphatic testimony of Pak Amir, a very knowledgeable forest guide on Malenge Island," they wrote (177), since Amir had never seen traits indicative of the Balantak female. At the same time, the allure of taxonomic discovery remained alive, and they determined that the Balantak peninsula was home to a different, previously undescribed, species of macaque that they nicknamed "the Balan of Balantak" in the title of their article.

At this point, the scientific research findings failed to sustain the independent species status of *M. togeanus*, and the macaque was concluded to be a "bottle-necked hybrid swarm" or, as another primatologist described it to me, "feral." Their new work reversed the suppositions of the 1996 article with the following description, "The small Togean population represents an unnatural hybrid swarm, bottlenecked and inbred after its founding mostly by female Tonkean and male Balantak genes." Furthermore, "The Togean sample is . . . not representative metrically, genetically, or historically of the Balantak monkey on the Sulawesi peninsula." The new field data do support the idea that the Balantak primate is a valid

new species, while "*M. togeanus* is a *nomen dubium* for the population on the mainland peninsula" (180).

So what would become of this monkey as a raison d'etre for Togean biodiversity conservation?

From Dubious Name to Endemic Species

The status "dubious name" might have been the end of things for *M. togeanus*, but it was not. In the Balantak article, the authors argued again for the conservation value of the Togean primates: "It would seem advisable to declare the name *Macaca togeanus* a *nomen dubium*, or perhaps to reserve the name for a unique hybrid subspecies of *M. tonkeana* in order to facilitate its protection for the great potential it offers in the study of inbreeding and of hybridization between primate species" (Froehlich et al. 1998:180).

By 1997, although the Togean macaque had come full circle from its recognition as a "new form" to a "dubious name," the existence of an "endemic" primate species still had utility for Togean Island conservation. As Supriatna had explained, "charismatic animals allow people to want to save the environment." At the International Tropical Marine Ecosystems Management Symposium (ITMEMS) held in Port Townsend, Australia in 1998, well after *M. togeanus* had become a "bottlenecked hybrid swarm," Dr. Supriatna and an Indonesian colleague presented a paper in which they argued: "Almost sixty percent of the land area of the Togeans is covered in tropical forest that supports an impressive array of local and Sulawesi endemic species including: the Togean macaque (*Macaca togeanus*)—a primate only recently described in 1996 (Froehlich and Supriatna 1996); the Togean lizard (*Varanus salvator togeanus*); the babirusa or 'pig deer' (*Babyrousa babyrussa togeanus*); and the Togean Tarsier (*Tarsius togeanus*) (Surjadi and Supriatna 1998:281)."

In referring only to his co-authored 1996 article where Dr. Supriatna had argued for the macaque's endemic status, it is clear that the outcomes of conservation biology and primatology alone were not a sufficient basis upon which the project might reverse its course. "Science in action" (Latour 1987), in this case, contained the momentum of the scientists' investments and interests in the Togean Islands as a protected area and a biodiverse locale. Already they had committed too much to reverse the project's course based on scientific findings alone.

The status of the Togean macaque as "endemic" was a strategic essentialism constituting a means to several ends. First, the science of "making the monkey" established a way to legitimate the Togean conservation project within the larger sphere of Indonesian state control. It also had

secured a place for Indonesian science within transnational field biology and primatology in which the *presence* of scientific practice was as least as important as its outcomes.[16] Third, it committed CI to funding Togean Island conservation. And finally it had succeeded in transforming IFABS into a new institution able to promote biological science in Indonesia.

These social facts were sufficient to secure the status of *M. togeanus* as unique and worth conserving more solidly than dermatoglyphics or pelage data could, and it would not prove possible to return Malenge Island over to Togean peoples' coconut farming or to local meanings of nature on the basis of any scientific results. Once a "species" has entered into the realm of biodiversity calculation, it hardly ever emerges again as unworthy of protection; transnational biodiversity ideologies inhibit such reversals. This, of course, has implications for the people who live in proximity to biodiverse nature without sharing its logics. As Ahmad had said to me: "We can't run to the land; we can't run to the sea; where can we run?"

But this is a world only partially constituted by Indonesian scientists and their own social and scientific initiatives. In her keynote address at ITMEMS, Nancy Foster (1998) of the United States National Oceanic and Atmospheric Association, argued for moving away from species-driven biodiversity conservation. Instead she proposed "an ecosystems approach to management" as the appropriate scale for both scientific analysis and political advocacy. This was a moment when conservation was beginning to shift its rationale from "species" to "ecoregions." Dr. Supriatna's doubly anachronistic promotion of the endemic macaque at the same conference reflects postcolonial relations of knowledge and knowledge-making in which those at the margins of scientific production are allowed to contribute data, while those in centers provide the theories through which scientific reason will be known. We can see this in Supriatna's own primatology where his advisor, Jeffrey Froehlich, is recognized for his invention of the techniques for dermatoglyphic analysis, while Supriatna's research into speciation and hybridity constitutes a case analysis.

In this sense, the creations of Indonesian scientists, like the Indian scientists described by subaltern studies scholars, are recognized only through struggle and insistence. To imagine "nonderivative" thought within Supriatna's scientific project, however, we need only look at his scholarship. Specifically, his insistence on recognition of Indonesians' contributions to the scientific project encompasses its own theory of standpoint. Supriatna's scholarly writings contain continual reference to the knowledge of Sulawesi and Togean peoples, and he makes their perspectives significant for understanding the facticity of the Togean macaque itself. From the first he includes the story of the macaque's arrival

on Malenge by ship. In his later article he cites Pak A., "a Luwuk historian," and Pak Amir, "a very knowledgeable forest guide," for their knowledge of the macaque. His citational practices consistently allow for Indonesians to speak as experts—be they undergraduate students or local oral historians—in situations where EuroAmericans might otherwise overlook these contributions.

M. Togeanus as Keystone Species

The Togean macaque, "*M. togeanus*," was a metaphorical "keystone species" for Togean conservation biology. In its biological sense, a keystone species holds together an ecosystem and, in the Togean Islands, the macaque held together the social life of biodiverse nature. The monkey drew together threads connecting Indonesian biologists to the ideas of biodiversity extending across nations in the 1990s, while the scientists were also positioned within domestic ideas of nature and nation. In this way, Indonesian biologists became subjects of a universalizing project of scientific inquiry while simultaneously participating in the making of an Indonesian modernity that was historically and geographically distinct. In this double move, Indonesian modernity is not an "alternative" to something more central or originary. Indonesian conservation biology produces scientific reason in a manner that should be familiar from the many projects of knowledge production described by science studies scholars, while it is no less entangled with those issues of origin and identity outlined by theorists of postcoloniality.

Indonesians' conservation biology gave the IFABS biologists an elite location within the nation, and this social position, in turn, gave them a strong voice in relation to Togean Island peoples who could assist scientists in the production of biodiverse nature but could not overturn the biodiversity paradigm. By imagining Budi, Yakup, Dr. Supriatna, and the other Indonesian biologists as occupying that space of the middle—between, on the one hand, international conservation and science and, on the other, Togean Island people—the postcolonial status of Indonesians' science becomes apparent. The story of making the monkey indicates the complexities of living in a postcolonial world where Indonesian scientists are both elite (within the nation) and subaltern (within transnational science) at precisely the same moments.

Chapter Two

THE SOCIAL TURN

> A growing number of international organizations have chosen to focus on Indonesia including ODA, USAID, JICA, WWF, Birdlife International, Wetlands International, WCS, FFI, WPTI, CI. In their hearts glow two effective combinations of approaches: site based (e.g., adopt a park), and empowerment of local communities and development of small enterprises. . . . IFABS endeavors in Togean were started in 1992 by Dr. Jatna Supriatna who focused on ecology and conservation of the Togean Macaque. In 1993 a greater effort was spent to make inventories of Togean's marine and terrestrial biodiversity. Needless to say, maybe, inventory is the base foundation on which biological management is built. IFABS, under the leadership of all IFABS Directors, realized that encouraging local community participation is the next prerequisite for successful conservation and has accordingly to strive to turn the local communities to be the main beneficiary of conservation. The wheel has turned and begun to run now.
>
> —Didi M. Indrawan, *Notes on Togean Conservation*

At Camp Uemata I met a scientist named Laksmi, an IFABS biologist who maintained a strong interest in Togean people and who was concerned with how regimes of conservation and development could become coercive. Similar to the way many anthropologists have been attracted to their field, Laksmi's interest in Indonesia's fishers and farmers developed through an early encounter with representations of Native Americans.[1] When she was young, Laksmi had read the works of German novelist Karl May translated into Indonesian. Unlike the depictions of the valiant cowboy and treacherous Indian of American film and literature, May painted a picture of a "noble" Indian under siege by the savage cowboy.

Laksmi sympathized with Winnetou, the native protagonist in May's books, and she began to compare him in her mind with Indonesia's many marginalized ethnic groups. Her desire to equate a fictional representation of Native Americans with an equally imagined understanding of Indonesia's marginal peoples was facilitated by the Indonesian state's own framing of permissible forms of ethnic difference of the "song and dance variety" (Li 1999). Many scholars of Indonesia have written about the state's