DIVERSIFYING DIVERSITY

With the publication of E.O. Wilson's influential book *Biodiversity* in 1988, the concept of biological diversity began to occupy an increasingly prominent role in the consciousness and priorities of the environmental community. Within these frameworks, more diversity is usually considered to be better, and native and endemic diversity is considered to be best of all. This type of valuation, in turn, has led to programs that count, list, and rank biodiversity "hot spots" across the globe (Muehlmann, 2012).

While important, the continuing prioritization of this type of biodiversity has caused other forms of diversity to be overlooked. In the case of Madagascar, while the vanilla gardens of Imorona contain a notable degree of diversity of native and endemic tree and plant species, they contain a variety of other important diversities as well. In these managed forests, for example, people cultivate a diversity of food crops. These food crops are harvested at diverse points throughout the year, aiding local food security. Collectively, these crops are able to weather a diversity of environmental disturbances, creating backup options for farmers during events such as drought or cyclones.[108] Additionally, Imorona's agroforestry fields not only contain many different market crops, but these crops each target a different type of market: fruits for the local Mananara market, coffee for the domestic Malagasy market, cloves for the Asian and Southeast Asian markets, and vanilla for the U.S. and European markets. Such market diversity, in turn, provides farmers a buffer against the volatility of global commodity busts and booms. Finally, as illustrated throughout the previous chapters, agroforestry fields are sites of cultural diversity, bringing together varied collections of meanings and memories.

Thus, focusing only on native or endemic species diversity when considering the value of agroforestry fields may miss the other types of important "hybrid diversities" that these landscapes contain (Baker et al., 2013; Robbins & Moore, 2013). Indeed, in many cases, it is the introduced species that serve to promote vital components of economic, nutritional, cultural, and even ecological diversity (Hobbs et al., 2009). For example, walking through the agroforestry fields of Imorona, one notes how clove trees from Southeast Asia provide farmers with income used to support ancestral ceremonies; how vanilla vines from Central America grow entwined with endemic tree species; and how New World sweet potatoes are more likely to survive the cyclones that destroy other subsistence crops. Thus, while as a botanist I become excited when I see a rare endemic tree species growing within agroforestry fields, as an anthropologist I become equally excited to see introduced plants growing among managed forest landscapes. It is these species, after all, which present us with intriguing cultural stories: stories about learning, about exchange, and about cultivating new forms of cultural imagination.

NORMATIVE DIMENSIONS OF SUSTAINABILITY

"Sustainability" is often cited as an overarching goal of projects of environmental conservation and community development. Indeed, sustainability has become a buzzword over the past decades, being applied to ventures as varied as urban design, commodity supply chains, retail clothing outlets, and clean energy generation. And, as with many such buzzwords, the concept of "sustainability" is at risk of losing some of its meaning, as it contorts itself to mean nearly all things to all people (Kuhlman & Farrington, 2010).

In my own work, I consider the agroforestry landscapes of Imorona to be sustainable in the sense that people have sustained them for centuries: people have continued to give attention to them in a way that has largely kept them from disappearing. These managed forest landscapes have survived cyclones and floods, market crashes and market booms, slavery and war, colonialism and independence. They have sustained such challenges because throughout these shifting times, people in Imorona have made the deliberate decision to continue to plant and replant trees, to tend to their fields, to plant and harvest rice, and to add new crops and new knowledge to their existing land-

scapes. While this definition of sustainability is simple, it raises a point often overlooked in projects to enhance sustainability: environments do not often sustain themselves. For systems to be successful, there must be a critical mass of people who care enough about them to sustain them. Even protected areas—landscapes that seem removed from humans—require the dedication of the groups that establish, monitor, and fund them.

This human dimension of environmental sustainability connects with interpretive realms of culture. It leads us not only to ask *what* makes a sustainable system, or *how* such systems function, but also: *why*? Why are people moved to embrace certain landscapes, and perform the hard work to sustain them over time?

While agroforestry development programs often look towards economics to answer such questions, economics in itself does not convey the entire story. For example, as we have seen in Imorona, farmers who are forced to sell land will first try to sell to family members, even if this means they will get a much lower price compared to selling to outsiders. During the severe vanilla crash of the early 2000s, most farmers in Mananara continued to tend to their vanilla vines, despite the low price the crop demanded on the market. And, despite the recent clove boom, Mananara farmers did not begin converting all their land to clove trees, choosing instead to keep a variety of tree crops in production, even though these alternative crops did not come close to commanding the economic return of cloves.

Such examples challenge us to look beyond purely economic or technical definitions of sustainability. They invite us to consider the normative dimensions of sustainability, and to ask the type of questions that have long proved productive for scholars across the humanities and the social sciences: What makes a good life? How do we create meaning in the world around us? What type of world do we hope to leave for our children? These questions draw us together as humans, compel us to act, inspire our best stories. Overall, in expanding our ideas of sustainability to reach into such normative realms, we will begin to recognize that in order for landscapes to be truly sustainable they must not only be ecologically healthy and economically viable, but they also must be culturally meaningful.

III. The Cultivation of Place

Taken together, the landscapes of the Imorona region create a sense of place for the people who live there. Imorona is a place where people belong. It is where they are from—it is where their ancestors are buried. It is where they have spent many of their days, and where most people I spoke with hope that their children will continue to live, and their children's children. Most of all, it is where they themselves hope to be buried—in fact, the greatest fear of many of the people I spoke with in Imorona is not dying, but dying away from home. In such an event, there is no guarantee that one's ancestral spirit will find its way back to the family burial grounds. In such a case, one will be left without a home during the afterlife.

Fostering such an enduring sense of place is hard work, and emerges slowly over time. It requires people to continuously make the decision to invest their time, their energy, and their emotions into a landscape that is fraught with uncertainties and difficulties. Such connections, in turn, engender an underlying loyalty to the landscape. Unlike the experience of working in rural Africa reported by anthropologist James Ferguson, whose research partners repeatedly ask him to help "get them out of here" (2006), my research partners in Imorona are instead always thinking of ways that will get them more "in" their landscapes: How can they buy more land? Where can they plant more rice? How can they assure that their children can continue to farm the same piece of land that they do?

Indeed, when I spoke with people about what they imagined the "good life" would look like, almost everyone described some variation of their life as centered in Imorona—very few pictured a life away from the village. Not sure if this omission was because that is what people actually wanted, or because it was what they figured was possible, I asked some follow-up questions to people when we talked. "What if you could live in the United States, would you want to go?"

People considered the question carefully. Then they would often ask me the same thing: "Is it easy to buy good farm land in the United States?"

"Not really," was my answer.

Then they would usually ask me about burial practices in the United States. "Where do people have burial grounds there, could we get burial grounds?"

This question invariably unsettled me. When the topic came up in the conversation with the children of Papa ny'Armand, I said I didn't really know. "Well, where are your grandparents and great-grand-parents buried?" they asked. I told them truthfully that I didn't know. "But who takes care of the burial grounds then?" they asked, a bit aghast. I explained that cemeteries in the United States had people that took care of the grounds.

"Like a tangalamena?" they asked.

"No—the person takes care of the graves for all of the families, for *karama*—for wages." Even as I spoke, I realized that this concept would shock them—wage labor was reserved in Mananara for people with the least status, who did not have their own land or established networks of reciprocity.

Upon hearing my answer, the room fell quiet, as everyone looked down at their hands, careful not to make eye contact. I had lived in Madagascar long enough to know what this meant—they were embarrassed for me.

Armand's wife Della then gently summed up what everyone else was thinking. "Well, maybe we would like to visit the United States, for a month or so. But then, we would want to come back home."

IV. Fields of Meaning

Collectively, the agroforestry landscapes of the Imorona region present us with intriguing stories—stories that do not follow the usual narratives we hear about smallholder farmers in the tropics. These stories are ones of caring, of commitment, of history, and of the cultivation of place. Understanding the depth of the ideological connections between people and land brings us back to the seemingly simple question that Dan asked during his first visit to the village: Why are there so many *trees* in Imorona?

To answer this question, I argue, we must not only look towards environmental, economic, and political explanations, but must also reach into the realms of culture and history. First, in exploring the agroforestry spaces of Imorona as cultural spaces, we see these fields do not only contain a diversity of materials, but also a diversity of meanings. These meanings are reaffirmed through the everyday practices of agriculture. Working in their fields, individuals are moved to reflect on their relationships with ancestors, their personal identities, and their membership within larger moral communities. Tending to agroforestry fields connects back to the enduring identity of Imorona residents as farmers—especially as farmers of trees—who take great pride in their cultivated landscapes.

Agroforestry fields in Imorona also carry with them the weight of memory and the momentum of history. Working in fields emerges as a work of history, as people turn to their agroforestry fields as a way to both connect with their personal memories and to consider the larger trajectories of history. Walking through their landscapes, clove trees recall the hardships of war, vanilla vines remind people of the battles over colonialism, and tobacco plants evoke stories of forced labor regimes. This historical sense is reinforced by Imorona's rich oral history archive that contains many stories of the landscapes of the past: past hardships, past cycles of market busts and booms, and past triumphs.

Thus, in Imorona the cultivation of fields fundamentally connects with the cultivation of self and the cultivation of history. These dimensions reach into both subsistence and market crop realms, and become reinforced through people's everyday interactions with their fields. These more affective dimensions of cultivating fields, in turn, often come into play as people make choices on how to manage their land. Cutting down a large litchi tree to swidden a field for rice cultivation, for example, may not only be cutting a litchi tree: it may be severing ties with the family member who originally planted it, or removing a site of ancestral sacrifice, or erasing pleasant memories of sitting in the shade and eating sweet litchi fruits together with friends. In the same way, selling a piece of land may not only be selling a piece of land, but may be cutting off options for one's children, in turn jeopardizing one's honored place in the oral history memory of his or her lineage. Overall, both the depth and the particularity of landscape meanings in Imorona cause people to approach changes in land use slowly—to look at decisions on a tree-by-tree basis.

There are of course many other rural communities around the world that share with Imorona deep cultural and historical connections to their local landscapes. Oftentimes, however, these places have not been as successful at keeping control over their natural resources or local food production systems. Which leads us to look closer at what *else* may be unique in Imorona regarding the relationships between people and landscapes. One possibility is the ability of the agroforestry landscapes in Imorona to be profoundly flexible in absorbing new entities, while also maintaining an overall consistency of form. For example, Imorona farmers have used their agroforestry landscapes to produce a changing array of commodities over the centuries, depending on market demands. These products have included timber and honey; wild rubber and black pepper; cacao and cinnamon; sugarcane and coffee; and, most recently, cloves and vanilla. The ability of Imorona farmers to absorb such a changing array of crops within their agroforestry systems illustrates their sophisticated skill and knowledge of how to make finely calibrated adjustments to agroforestry fields—of how to bend these production systems to meet new needs and markets, without breaking them.

Importantly, the flexibility of agroforestry systems extends to ideological realms, as these landscapes incorporate shifting cultural meanings over time. This flexibility of meaning has allowed agroforestry landscapes to remain dynamic and relevant in changing social contexts. For example, a snake encountered when harvesting vanilla beans may begin as the protagonist of an ancestral story, relaying a message of a deceased loved one, but then shift to a protagonist in a conservation story, recognized as an endangered species. Agroforestry fields can hold many meanings simultaneously, allowing people a diversity of ideological options. A clove tree may remind people of family, inspire an ancestral sacrifice, be a source of income, and be an object of a development project, all within the same moment. Overall, by having the ability to constantly rearticulate their relationships with land, people create agroforestry landscapes that—far from being traditional and unchanging—are current, up-to-the-minute spaces that also fundamentally draw from rich local histories and long cultural legacies. These landscapes are therefore neither "modern" nor "traditional," neither "indigenous" nor "global." Instead, these cultivated spaces support a flexible and considered approach to integrating local and extra-local materials, values, knowledge, and ideas.

In his foreword to Kottak's 1980 ethnography of the Betsileo ethnic group of Madagascar, Roy Rappaport makes the following provocative observation: changes can be understood in terms of what they maintain unchanged (1980:ix). My work with Imorona farmers and their agroforestry landscapes lead me to a similar observation. While international markets may change, and cultural ideologies

may shift, what remains consistent in Imorona is the inclination for individuals to look towards their managed forest landscapes as places to articulate and rearticulate changing relationships. In turn, agroforestry landscapes emerge as the "land that lasts", as "the land that endures." Whether planting trees to honor the ancestors, or planting trees to combat climate change, people in Imorona are still planting trees, and infusing the act with moral and personal significance. In this way, the introduction of a new plant, or a new cash crop, or a new idea to the area is not the end of a story, but only the beginning of a story: one of continuous adaptation and improvisation, set within agroforestry landscapes.