“Whenever I give a conservation-oriented talk,” a senior colleague once told me, “regardless of where I am, when I ask who in the audience has had firsthand experience with extinction, virtually everyone who raises their hand winds up talking about Hawai‘i.” What happened to the *po‘ouli* is a particularly dramatic example of one such Hawaiian extinction story. This stocky, secretive, sparrow-sized honeycreeper was discovered in 1973 by three University of Hawai‘i students in a remote high-elevation rain forest on East Maui. The *po‘ouli*’s appearance and behavior were so unique that it was eventually placed into its own taxonomic category. Among other things, it was the only Hawaiian bird known to heavily forage on native tree snails, yet another formerly diverse and abundant group of species that is now mostly on the edge of extinction or already extinct. At the time of its discovery, scientists estimated there were fewer than two hundred *po‘ouli* left; a few years later it was formally listed under the newly created US Endangered Species Act.
The po‘ouli’s numbers subsequently declined due to a laundry list of factors that are all too familiar to those who work in Hawai‘i: habitat loss and degradation; noxious alien species; introduced predators; exotic diseases. By the mid-1990s, only one male and two females were left, and the po‘ouli was dubbed the “world’s rarest bird.” In a last desperate attempt to save it, scientists tried to capture and artificially breed those last three birds. Unfortunately, they managed to catch only the male, which they brought to the Maui Bird Conservation Center in September 2004. This old bird was missing an eye and had recently contracted avian malaria, an exotic disease spread by nonnative mosquitoes.

After a series of increasingly aggressive interventions by veterinarians failed, what was probably the last of the po‘ouli (the two females had not been spotted in nearly a year) died in captivity on Friday, December 26, 2004. “I don’t think it was a mistake,” Eric VanderWerf, the US Fish and Wildlife Service’s Hawaiian bird recovery coordinator, said at the time. “If we had left the birds where they were, the species would certainly [have] gone extinct. It may anyway, but I think that was really the only option we had at the time.” VanderWerf appears to have been right on both counts: captive breeding probably was their only viable option, but because no po‘ouli have ever been seen or heard again, it almost certainly went extinct anyway.

I first landed in Hawai‘i in 1996 on a postdoctoral fellowship at the National Tropical Botanical Garden on Kaua‘i. Throughout this fellowship, and then later as a research ecologist for the US Forest Service based on the island of Hawai‘i, I was immersed in the scientific and conservation communities’ efforts to better understand, preserve, and restore Hawai‘i’s native species and ecosystems.

At first, I thought Hawai‘i was a hopeless ecological disaster. In the beginning, it often felt as if Hawaiian conservation was largely a matter of documenting the steady deterioration of the native fauna and flora and bracing for the next po‘ouli-like disaster. But I gradually came to see that there was much more to this story. For instance, despite all the extinctions, there are still about twelve thousand extant Hawaiian species that are unique to this archipelago, and more new and intriguing species are discovered every year. Perhaps even more importantly, I eventually discovered that numerous individuals and
organizations were quietly implementing successful and inspiring on-the-ground conservation projects across the islands.

For example, the Plant Extinction Prevention Program focuses on rescuing Hawaiian species with fewer than fifty remaining individuals (so-called PEP species). In 2010 alone, this program protected 116 PEP species, 101 of which were federally endangered. Protection efforts include managing threats from nonnative species such as feral pigs and rats, propagating and replanting PEP plants in the wild, and surveying new areas for additional populations of PEP species. “We are the arms and legs of the Endangered Species Act,” Joan Yoshioka, PEP’s coordinator, told me. “Our staff routinely prevents extinctions and even rediscover s and saves species that were presumed already extinct. Their dedication and often heroic efforts in the field also build trust, goodwill, and critically important partnerships with landowners, local communities, and a wide variety of other organizations.”

I have chosen to devote the majority of this book to a handful of these kinds of more hopeful stories for three reasons. First, the depressing ones are already relatively well known; the press seems to love the “death of the last po‘ouli” stories far more than stories such as, “PEP saves another species.” Second, because these success stories demon start that at least some of Hawai‘i’s remaining native biodiversity can be preserved and restored, I hope they will help inspire us to do more before it really does become too late. Finally, I believe these stories are actually far more compelling and important than the sad ones and that they can teach us even more about ourselves and our complex and changing relationship with nature.

After telling a few of these tales, I delve more explicitly into the intellectual and philosophical issues associated with designing and implementing real-world conservation projects. I am well aware that some members of the Hawaiian conservation community in particular and the larger environmental movement in general tend to be impatient with and even hostile toward the academics, whom they perceive as whiling away their time pondering esoteric topics such as the nature of nature. Indeed, after spending more time in the Hawaiian conservation trenches, I went through a period in which I felt like shaking some of these people by their smug collars and yelling, “Wake
up! While you have been enjoying your little intellectual adventures, we just lost another irreplaceable native forest that provided crucial habitat to several critically endangered species. How ’bout grabbing a rifle and a shovel and doing some real work for a change?"

However, as more time passed, I found myself becoming less sure about exactly what we could and should be doing to save Hawai‘i. Given our often pathetically limited knowledge and resources, which species and ecosystems should we focus on? What should we do to them, and who gets to decide? What role should science play in on-the-ground conservation? Why do so many seemingly like-minded people within the conservation and scientific communities often disagree with each other so passionately? How do we get more of the general public to care about ecology and conservation?

Trying to resolve these kinds of questions ultimately became at least as important to me as the “real work” of shooting feral pigs and saving endangered native species. The evolution of my thinking was well encapsulated by a contemporary environmental historian who noted, “At a time when threats to the environment have never been greater, it may be tempting to believe that people need to be mounting the barricades rather than asking abstract questions about the human place in nature. Yet without confronting such questions, it will be hard to know which barricades to mount, and harder still to persuade large numbers of people to mount them with us. To protect the nature that is all around us, we must think long and hard about the nature we carry inside our heads.”

Thus in addition to grappling with the more concrete and physical world of resource management, modern conservationists must also navigate their way through the seemingly more esoteric labyrinth of topics such as humanity’s relationship to nature. In other words, not only do we have to figure out how to, say, shoot animals a and b, poison plants c and d, and reintroduce species e and f back into the wild, but we must also develop and defend a coherent intellectual rationale for why we want to do these often costly and controversial things in the first place.

Hawai‘i’s many paradoxes provide a fascinating microcosm in which to examine both the practical and intellectual dimensions of applied conservation. Despite representing a mere 0.2 percent of the
US land area, this archipelago contains all of the Earth’s climates, most of its ecosystems, and some of its most culturally and racially diverse human communities. Despite their relatively low overall biological diversity, three-quarters of all of America’s bird and plant extinctions have occurred within these islands. Despite the fact that portions of this paradise have become high-end cosmopolitan playgrounds for the ultrarich and famous, much of Hawai‘i remains poor, insular, and at best unresponsive to the relatively affluent and often foreign environmentalists trying to save its unique species and ecosystems. Finally, despite Hawai‘i’s many severe ecological and socioeconomic challenges, if we Americans truly believe in preserving our remaining biological diversity, we cannot afford to practice ecological triage and give up on our Fiftieth State. This is because all four of its counties now rank in the top five US counties for federally endangered plants and animals, and forty-eight of the fifty-nine endangered species listed by the Obama administration in the past two years have been Hawaiian plants and birds. In fact, these islands now contain more endangered species per square mile than anywhere else in the world.

The Hawaiian Islands consist of a long chain of mostly extinct volcanoes that stretches about 1,500 miles from the island of Hawai‘i to Kure Atoll. Beyond Kure, the chain continues in a northwesterly direction for perhaps another 2,500 miles as a series of submerged volcanoes, or seamounts. Each Hawaiian island was created by a stationary “hot spot” that pushes magma up through the Pacific Plate. This tectonic plate drifts in a northwesterly direction at an annual rate of about 3.5 inches and has slowly rafted away each of the new volcanoes that formed over this hot spot. Thus as one moves up the chain in a northwesterly direction, each volcano (or “island” while it lies above the ocean and “seamount” when it sinks below) is progressively older and more weathered. The oldest known seamount, near the Aleutian Islands, is about 80 million years old, while the actively erupting Lō‘ihi Seamount, eighteen miles off the island of Hawai‘i’s southeast coast, is predicted to emerge as the newest Hawaiian island within the next 200,000 years.

The dynamic history of this archipelago may be divided into three periods: prehuman (before the first humans reached these islands fifteen hundred to eight hundred years ago), prehistoric (from
the time the first people landed in Hawai‘i until westerners arrived in 1778), and modern (1778 to the present). The ecology of these islands during the vast prehuman period was quite different than what followed in the prehistoric and modern eras: islands rose out of the sea; living creatures colonized them and evolved into strange and beautiful species; islands eroded and sank back into the sea. While many of the details of these processes remain shrouded in mystery, we do know that at one point several species of giant flightless birds dominated these islands and catalyzed a cascade of ecological and evolutionary interactions that almost certainly never occurred before and will never happen again.

It is tempting to view this prehuman period as a kind of golden age in which a rainbow of delicate species and pristine ecosystems coexisted harmoniously in a perfect and unchanging Garden of Eden. However, modern ecologists tend to view the prehuman world of Hawai‘i and everywhere else as being neither harmonious nor unchanging. On the contrary, since the mid-twentieth century they have increasingly viewed nature as a complex, ever-evolving entity whose species and ecosystems change in unpredictable and often drastic ways whether or not humans are around. For instance, natural “disasters” such as volcanic eruptions, hurricanes, and tsunamis must have caused enormous physical and biological changes throughout Hawai‘i’s prehuman period. New “alien” species occasionally arrived, displaced the existing “native” species, and directly and indirectly caused them to go extinct. Over time, rain forests morphed into dry forests and then back into rain forests again as local and regional climates changed. Thus what the primeval, “real” Hawai‘i looked like depends on when and where we look.

Hawai‘i’s prehistoric period began about a thousand years before Columbus landed in North America, when Polynesian navigators reached these islands in their double-hulled sailing canoes. We still don’t know exactly why they sailed from their ancestral islands across thousands of miles of open ocean without modern navigational instruments and ultimately discovered the most isolated islands in the world. Was it escape from overcrowding, oppression, or war at home? Or simply the sheer adventure of it?

After such a long and difficult journey, these spectacularly
beautiful and benign islands must have seemed like paradise. Ironically, however, these sailors would have quickly discovered that this paradise contained few if any plants worth eating: due to their extreme geographic isolation, none of Polynesia’s familiar and staple food plants were present, and none of the native species provided much edible vegetable carbohydrate. But they did find substantial sources of marine animal protein, such as mollusks, fishes, and sea turtles, and unimaginably abundant flocks of birds. Some of these birds were enormous, and because there had been nothing around to eat them throughout the prehuman period, over evolutionary time they lost the ability to fly and the need to be wary of predators. In other words, they were quite literally giant sitting ducks.

Over the next several hundred years, these first human settlers made numerous back-and-forth journeys between Hawai‘i and their ancestral Polynesian islands. On the return voyages they brought back their most important animals, such as dogs, pigs, and chickens (some argue that rather than being an unintentional stowaway, the Polynesian rat was also deliberately brought over as a source of protein for the dogs, sport hunting, or simply as a reminder of home, as apparently was the case for several nonutilitarian tree species). They also brought many of the food plants we think of today as quintessentially “Hawaiian,” such as banana, breadfruit, and coconut. But some time after AD 1200, these two-way voyages mysteriously ceased, and Hawai‘i once again became isolated from the rest of the world.

Some have suggested that the end of these ancient back-and-forth journeys was at least partially caused by the overharvesting of the massive native koa trees the Hawaiians needed to construct their large voyaging canoes. Proponents of this theory point out that when Captain Cook reached the island of Hawai‘i in 1779, his officers spotted thousands of koa canoes in Kealakekua Bay alone. It is unclear how many of the giant koa “canoe trees” still remained in Hawai‘i’s forests at that time, but their complete absence became painfully obvious near the end of the twentieth century when the Polynesian Voyaging Society decided to reenact those original sailing journeys. Although this group strived to use as many traditional materials as possible to construct their famous Hawai‘iloa canoe, after an extensive search failed to find a single koa tree that was sufficiently healthy and large
enough for their canoe’s hulls, they ultimately used two Sitka spruce trees from Alaska.

Others believe the cessation of those round-trip sailing voyages was more likely due to the massive reduction of birds in Hawai‘i and throughout Polynesia that occurred during that period. Millions of seabirds once lived in the Pacific, and many of these birds regularly migrated from archipelago to archipelago across vast stretches of open ocean. Archeological and fossil evidence strongly suggests the Hawaiians eventually decimated these birds by eating them in large quantities and altering much of their coastal habitat. Even if they had strictly enforced a kapu (taboo) on killing these birds once they noticed their increasing scarcity, predation from their introduced pigs, dogs, and rats most likely would have continued to devastate them. Some scholars have concluded that the ancient sailors depended on those migrating flocks for crucial navigational assistance, and it is therefore no coincidence that their round-trip voyages stopped around the same time that they wiped out their seabirds.

Whether or not this hypothesis is correct, it highlights the tragic fate of birds in the Pacific in general and within the Hawaiian Islands in particular. In addition to the drastic reduction of their primordial abundance, paleontologists estimate that more than two thousand species of land birds (about 20 percent of all the bird species described for the entire planet!) have become extinct since humans colonized the Pacific Islands. When the Polynesians first reached Hawai‘i, there were at least 140 species of birds within these islands. The majority of these, including all 80 land bird species, were found nowhere else in the world. In the one thousand or so years since the Polynesians arrived, 71 of the islands’ 113 unique bird species have gone extinct, and 33 of the surviving 42 species are endangered. Ten of these 42 species have not been seen in over forty years; like the po‘ouli, they are almost certainly already extinct.

The Polynesians ultimately created a remarkably sophisticated and thriving civilization in Hawai‘i. Living literally in the middle of nowhere, with no alphabet, Arabic number system, wheels, metals, clays for pottery, or draft animals, they were by necessity intensely practical and observant people. Beyond these kinds of basic facts, however, much of Hawai‘i’s prehistoric human and natural ecology remains unclear.
Hawai‘i’s modern period abruptly began in 1778 when Captain James Cook became the first white man to reach the islands when he accidentally discovered them while searching for a northwest passage between England and the Orient. Cook and his successors deliberately and unintentionally brought many new species to the islands that turned out to be notorious ecological wrecking machines, including cattle, goats, rodents, mosquitoes, ants, and a world-class collection of noxious weeds.

Captain James King, who sailed on Cook’s voyage to Hawai‘i in 1778–1779, estimated that there were 400,000 people living within the entire archipelago at that time. Credible contemporary estimates of Hawai‘i’s total prehistoric population range from 150,000 to more than 1.5 million people. According to the US Census, the total population of the State of Hawai‘i in 2010 was 1,360,301. Thus it is conceivable that there were about as many people living within these islands before the arrival of the first westerners as there are today. However, the decline of the indigenous population after Cook’s arrival is tragically clear: the 1831–1832 census reported 130,000 total Native Hawaiians; by 1876 this population fell to an all-time low of only 54,000. Some scholars also believe that Hawai‘i’s prehistoric population had peaked well before the eighteenth century and was thus already in decline before Cook’s arrival due to widespread environmental degradation. They support this argument in part by citing archaeological evidence that suggests human settlements in some of the islands’ ecologically marginal areas were abandoned before the eighteenth century.

Until relatively recently, most modern, “civilized” people have grossly underestimated the sophistication of indigenous cultures and their ability to profoundly alter their environments. For example, many of Hawai‘i’s first Western explorers were struck by the treeless and barren character of the islands’ coastal lowlands. Cook and his officers commented on the “woods that so remarkably surround this island [the island of Hawai‘i] at a uniform distance of four to five miles from the shore.” Twenty years later, Captain George Vancouver similarly noted that on Kaua‘i, “the sides of the hills extending from these [taro] plantations to the commencement of the forest, a space comprehending at least one half of the island, appeared to produce
nothing but a coarse spiry grass from an argillaceous soil, which had the appearance of having undergone the action of fire.”

Some of these westerners concocted elaborate theories to explain how phenomena such as this absence of coastal trees had naturally occurred in Hawai‘i. Yet we now know that throughout much of the pre-human period, most of these islands were densely forested all the way down to their shores. These early Europeans were apparently unable to imagine that throughout the prehistoric period (and continuing right under their noses well after Western contact), the Hawaiians, like indigenous peoples throughout the tropics, had cleared and burned their lowland forests and converted them into cultivated grasslands, agricultural plantations, and thickly settled villages. In fact, we now know that some of the world’s most biologically diverse and “pristine” tropical rain forests are literally growing out of the ruins of once extensive and sophisticated pre-European civilizations.

Thus for most of the modern era, if they thought about it at all, westerners have assumed that the ecological impact of the Native Hawaiians was trivial. However, a wealth of evidence gathered over the past several decades has increasingly challenged this “noble savage” view of prehistoric cultures in Hawai‘i and throughout the rest of the world. Indeed, some scholars now believe that humans have caused waves of environmental destruction and species extinctions virtually every time we settled in a new place for the last fifty thousand years. Quantifying the overall environmental impact of prehistoric people is a difficult and often contentious task, but at least for relatively well studied species such as Hawaiian birds, most scientists are now convinced that the majority of these extinctions occurred during the prehistoric period. (Although the ancient Polynesians must have also consumed large amounts of ocean animal protein, their effects on the native marine fauna appear to have been quite modest, probably because of this ecosystem’s greater size and resiliency.)

Not surprisingly, some have angrily denounced and contested these kinds of conclusions. Like the descendants of other indigenous peoples, some contemporary Native Hawaiians view such “accusations” as yet another wave of haole (foreign) oppression and racism and a self-serving attempt to justify the past and ongoing ecological sins of Western civilizations. Perhaps due to a combination of guilt
over their ancestor’s horrendous treatment of native peoples and their lands, a desire to support today’s indigenous peoples, and an overly romantic vision of the prehistoric past, some nonindigenous people also vehemently reject these claims.

Nevertheless, there now appears to be a growing acceptance among indigenous cultures that their ancestors did significantly alter their environments and drive other species into extinction, although their interpretations of this history often differ substantially from those of nonindigenous people. For instance, when I asked a prominent leader within the Native Hawaiian community about these prehistoric bird extinctions, I received the following response:

It’s important to remember that the lens through which this history is being viewed is an external lens—the same people that brought us all those devastating alien species and caused and are causing so much environmental and cultural destruction are now saying, “You fools! Look what you did, and what you’re doing today!” So if there’s a defensiveness among my people, that’s one of the places where it’s coming from. But if that defensiveness expands to say that we lived in harmony always, that’s ignorance. If we as Native Hawaiians think like that, we’re not being introspective; we’re not being confident enough of our place in the landscape.

I believe the kapu system was put into place by my ancestors in part because they saw diminishing returns from the land around them. We can look at some of the Hawaiian creation epics and find descriptions that to me are quite in keeping with people who are keen observers of their world and the causes and effects of some of the events that are occurring on the landscape. I can only imagine what the food and fuel and building material needs were for the folks of old! But if we don’t recognize our impact as people of Hawaiian descent, we’re not learning the lesson of colonialism that we’re so busy getting on our soapboxes and decrying. Whoever we are, if we cannot be introspective and make corrections of ourselves, we’re just doomed to bitterness and finger-wagging.
I know that the Indians on the US mainland had long been tinkering with the landscapes that the Europeans thought were “expansive wildernesses.” They deliberately created environments that were suitable for the species they desired. I have no doubt that we were doing the same thing here in Hawai‘i, and on a first-name basis! These various plants and birds and fish were the body forms of our ancestors, who were elevated to the deity status. So, all those bird extinctions . . . yeah, we did it! But in the same way that we can’t judge our ancestor’s activities with twenty-first-century eyes, neither can we in the twenty-first century necessarily assume their values as our own today. That lens-looking works both ways.

Modern environmentalists must often consciously choose the lens through which they view the natural world. For example, in Hawai‘i we could decide to consider the prehistoric Polynesians as being entirely separate from and outside of nature. Viewed through this lens, these people and everything they brought with them were the first alien species to reach these islands. Because their arrival and subsequent ecological impacts were therefore unnatural, if our goal is to preserve and restore these islands to their natural condition, we should strive to erase as much of their environmental footprint as possible.

On the other hand, we could choose to think of those first humans as being as much a part of nature as the birds and turtles and spiders that colonized these islands before them. Viewed through this lens, the species these people brought with them in their canoes and all the ways they subsequently modified the islands to suit their needs were entirely natural phenomena. Consequently, attempting to erase their footprints would be as misguided as trying to remove a native bird and all of the myriad ways in which it has altered the islands’ ecology (the plants it originally brought to Hawai‘i as seeds embedded in its muddy webbed feet, the disturbances created by its nest making and seed dispersal activities, and so on).

Through what lens should we view Captain Cook and all of the people who followed him to Hawai‘i in the modern age? If we see
them as being just another part of nature, then all of the species and materials and technologies they brought to the islands are, too, and we should think of Honolulu’s skyscrapers and traffic jams as being just as natural as the patches of remnant “native” forests that still haunt portions of this island today. If we choose to view these modern people as being entirely unnatural, does that mean we necessarily have to view the prehistoric Hawaiians as separate from nature as well, or can we legitimately classify different groups of people differently?

Or would it be wiser to employ a more nuanced and piecemeal approach? We could decide that, say, based on their present ecological effects, some of the species brought to the islands by prehistoric and modern peoples are natural and others are unnatural aliens that should be removed. However, if we rigidly employed this model, we would at least occasionally find ourselves in the awkward position of eradicating some beloved and long-established Polynesian species while preserving other species that recently arrived from ecologically and culturally distant places such as Europe and South America.

Because different people and organizations view the world through radically different lenses, they often wind up with radically different ideas for how we should interact with and manage the natural world today. Yet at least in Hawai’i, one thing we can all agree on is that these islands’ prehuman and prehistoric ecosystems have been fundamentally and irreversibly altered by both “natural” and human forces. We will never see those vast flocks of flightless birds and swarms of brightly colored tree snails again.

What can and should we do about this? Humanity’s perception of and reaction to its transformation of nature has varied considerably across different cultures, races, social classes, places, and times. For example, throughout New England’s precolonial period, most Europeans were proud of the ways in which their culture “tamed” what they perceived as an unruly and evil landscape. As early as 1653, one historian approvingly viewed the transformation of a “remote, rocky, barren, busy, wild-woody wilderness” into a “second England for fertilness” as a product of divine guidance and inspiration. As more time passed, however, some of the descendants of those early Europeans began to see the ecological changes they had wrought more as a fall from the Garden than the planting of one. Writing in
Massachusetts in 1855, Henry David Thoreau passionately expressed this sentiment:

> When I consider that the nobler animals have been exterminated here,—the cougar, panther, lynx, wolverine, wolf, bear, moose, deer, the beaver, the turkey, etc., etc.,—I cannot but feel as if I lived in a tamed, and, as it were, emasculated country. . . . I take infinite pains to know all the phenomena of the spring, for instance, thinking that I have here the entire poem, and then, to my chagrin, I hear that it is but an imperfect copy that I possess and have read, that my ancestors have torn out many of the first leaves and grandest passages, and mutilated it in many places. I should not like to think that some demigod had come before me and picked out some of the best of the stars. I wish to know an entire heaven and an entire earth.

Today we know that the ecological situation in Thoreau’s New England was far more complex than he realized. Many of the components of the entire poem that Thoreau lamented had been torn out by his ancestors had been created and maintained by the extensive activities of the Native Americans who preceded them, and we can only guess at how those indigenous peoples may have tamed and emasculated the “pristine wilderness” they first encountered.

Since our emergence as a populous species, we have apparently always directly and indirectly affected the ecology of at least our local environments. However, it does not follow that vast ecological destruction is an inevitable by-product of all human cultures, or that one kind of ecological change is necessarily no better or worse than another. Some people found ways to live on this Earth for far longer than others without significantly degrading their own ecosystems or subjugating someone else’s. Given the increasingly global and detrimental environmental effects of our modern civilizations, a major challenge for today’s conservationists is to develop more sustainable yet feasible ways of interacting with nature.

American environmentalists once focused most of their conservation efforts on creating more wilderness, a term poetically defined
by the US Wilderness Act of 1964 as “an area where the earth and community of life are untrammeled by man, where man himself is a visitor who does not remain.” Like it or not, that era is gone—we can no longer literally or figuratively put a fence around an area and walk away for three reasons. First, there are no untrammeled areas left to preserve (and we seem determined these days to trammel our existing natural areas as fast as possible). Second, even our wildest remaining species and ecosystems are now directly affected by humans because our footprints are no longer confined to our cities and farms—the average polar bear must now contend with human-created problems such as DDT and PCBs, hunting, alien species, and of course all those melting icebergs. Finally, some scholars now argue that the very idea of wilderness is a misguided abstraction based on a Garden of Eden–type myth. They point out that the 9 million acres of land that were instantaneously “preserved” by the Wilderness Act had long been (and in some cases were still being) intentionally managed by indigenous people. To paraphrase one contemporary Native American writer, wilderness is what you call a place when you don’t know its stories.

Nevertheless, despite all the intellectual, physical, ecological, and socioeconomic challenges associated with modern conservation, some people have concluded that doing something is surely better than doing nothing. As different as these individuals and their institutions may be, they are all more or less united by their desire to consciously and proactively manage the Earth, both to preserve its biological diversity and to create more meaningful and sustainable relationships between people and nature. In other words, they are committed to the emerging paradigm of ecological restoration.

An extraordinarily broad array of people is now designing and implementing ecological restoration programs all over the world. This group includes natural and social scientists, philosophers, indigenous peoples, landscape architects, natural resource managers, engineers, farmers, and community activists. A similarly broad array of institutions is also actively involved in ecological restoration. For example, one of my main research and restoration sites in Hawai‘i was managed by a working group comprised of representatives from more than twenty-five organizations that included government agencies, botanic gardens, private industries, nonprofit environmental groups,
and academic institutions. Like so many other restoration programs, we also depended on the critical support of volunteers who ranged from local elementary schoolkids and Native Hawaiian teenagers to real estate agents.

Consequently, the conservation success stories I tell in this book revolve around these kinds of complex ecological restoration programs. In part 1, I tell the in-depth story of the Hakalau Forest National Wildlife Refuge’s ongoing efforts to restore thousands of acres of degraded pastures on the island of Hawai‘i back to the diverse native rain forests that once dominated this area and sheltered a suite of native birds now on the brink of extinction. Along the way, I provide an overview of Hawaiian natural and cultural history, biogeography, and evolutionary biology.

To offer a flavor of the diversity of restoration projects and approaches across the state, in part 2 I tell three shorter stories from three different islands. “Kill and Restore” highlights the US Park Service’s efforts to control alien species and reestablish native species and ecosystems within their vast Hawai‘i Volcanoes National Park on the island of Hawai‘i. “The Pū‘olé‘olē Blows” follows one charismatic scientist’s efforts to restore an ecologically and culturally important forest on the island of Maui that most experts believed was unrestorable. “Turning Hands” tells the story of the biocultural restoration of a thousand-year-old taro plantation at the Limahuli branch of the National Tropical Botanical Garden on the island of Kaua‘i.

To more explicitly investigate the diverse and often conflicting motivations, philosophies, and on-the-ground strategies of the people involved in these kinds of ecological restoration programs, part 3 begins with excerpts from my interviews of a broad swath of the larger Hawaiian environmental community. Finally, I use these interviews and the previously presented restoration stories as springboards for a more general discussion of the human/nature relationship, the power and limitations of science, and the future of conservation within and beyond the Hawaiian Islands.