

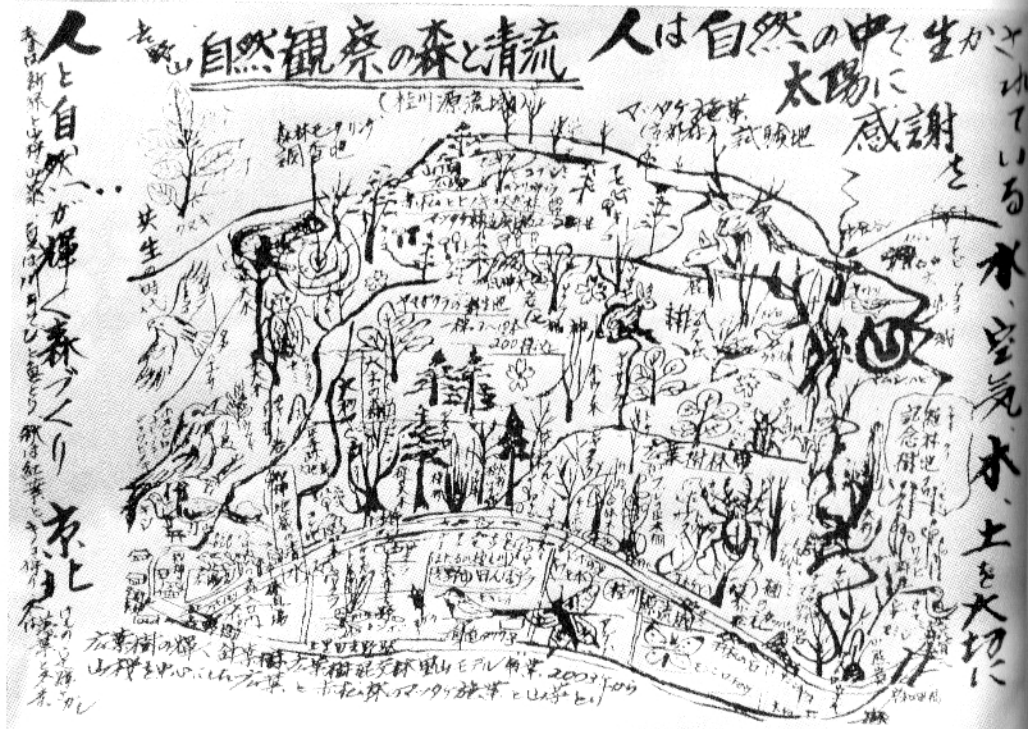
ANNA LOWENHAUPT TSING



*The
Mushroom
at the
End
of the
World*

ON THE
POSSIBILITY
OF LIFE IN
CAPITALIST
RUINS

Conjuring time,
Kyoto Prefecture.
Mr. Imoto's map of
revitalizing. This is his
matsutake mountain:
a time machine of
multiple seasons,
histories, and hopes.



1 Arts of Noticing

I am not proposing a return to the Stone Age. My intent is not reactionary, nor even conservative, but simply subversive. It seems that the utopian imagination is trapped, like capitalism and industrialism and the human population, in a one-way future consisting only of growth. All I'm trying to do is figure out how to put a pig on the tracks.

—Ursula K. Le Guin

IN 1908 AND 1909 TWO RAILROAD ENTREPRENEURS raced each other to build track along Oregon's Deschutes River.¹ The goal of each was to be the first to create an industrial connection between the towering ponderosas of the eastern Cascades and the stacked lumberyards of Portland. In 1910, the thrill of competition yielded to an agreement for joint service. Pine logs poured out of the region, bound for distant markets. Lumber mills brought new settlers; towns sprung

up as millworkers multiplied. By the 1930s, Oregon had become the nation's largest producer of timber.

This is a story we know. It is the story of pioneers, progress, and the transformation of "empty" spaces into industrial resource fields.

In 1989, a plastic spotted owl was hung in effigy on an Oregon logging truck.² Environmentalists had shown that unsustainable logging was destroying Pacific Northwest forests. "The spotted owl was like the canary in the coal mine," explained one advocate. "It was . . . symbolic of an ecosystem on the verge of collapse."³ When a federal judge blocked old-growth logging to save owl habitat, loggers were furious; but how many loggers were there? Logging jobs had dwindled as timber companies mechanized—and as prime timber disappeared. By 1989, many mills had already closed; logging companies were moving to other regions.⁴ The eastern Cascades, once a hub of timber wealth, were now cutover forests and former mill towns overgrown by brush.

This is a story we need to know. Industrial transformation turned out to be a bubble of promise followed by lost livelihoods and damaged landscapes. And yet: such documents are not enough. If we end the story with decay, we abandon all hope—or turn our attention to other sites of promise and ruin, promise and ruin.

What emerges in damaged landscapes, beyond the call of industrial promise and ruin? By 1989, something else had begun in Oregon's cutover forests: the wild mushroom trade. From the first it was linked to worldwide ruination: The 1986 Chernobyl disaster had contaminated Europe's mushrooms, and traders had come to the Pacific Northwest for supplies. When Japan began importing matsutake at high prices—just as jobless Indochinese refugees were settling in California—the trade went wild. Thousands rushed to Pacific Northwest forests for the new "white gold." This was in the middle of a "jobs versus the environment" battle over the forests, yet neither side noticed the mushroomers. Job advocates imagined only wage contracts for healthy white men; the foragers—disabled white veterans, Asian refugees, Native Americans, and undocumented Latinos—were invisible interlopers. Conservationists were fighting to keep human disturbance out of the forests; the entry of thousands of people, had it been noticed, would hardly have been welcome. But the mushroom hunters were mainly not noticed. At

most, the Asian presence sparked local fears of invasion: journalists worried about violence.⁵

A few years into the new century, the idea of a trade-off between jobs and the environment seemed less convincing. With or without conservation, there were fewer "jobs" in the twentieth-century sense in the United States; besides, it seemed much more likely that environmental damage would kill all of us off, jobs or no jobs. We are stuck with the problem of living despite economic and ecological ruination. Neither tales of progress nor of ruin tell us how to think about collaborative survival. It is time to pay attention to mushroom picking. Not that this will save us—but it might open our imaginations.



Geologists have begun to call our time the Anthropocene, the epoch in which human disturbance outranks other geological forces. As I write, the term is still new—and still full of promising contradictions. Thus, although some interpreters see the name as implying the triumph of humans, the opposite seems more accurate: without planning or intention, humans have made a mess of our planet.⁶ Furthermore, despite the prefix "anthropo-," that is, human, the mess is not a result of our species biology. The most convincing Anthropocene time line begins not with our species but rather with the advent of modern capitalism, which has directed long-distance destruction of landscapes and ecologies. This time line, however, makes the "anthropo-" even more of a problem. Imagining the human since the rise of capitalism entangles us with ideas of progress and with the spread of techniques of alienation that turn both humans and other beings into resources. Such techniques have segregated humans and policed identities, obscuring collaborative survival. The concept of the Anthropocene both evokes this bundle of aspirations, which one might call the modern human conceit, and raises the hope that we might muddle beyond it. Can we live inside this regime of the human and still exceed it?

This is the predicament that makes me pause before offering a description of mushrooms and mushroom pickers. The modern human conceit won't let a description be anything more than a decorative

footnote. This “anthropo-” blocks attention to patchy landscapes, multiple temporalities, and shifting assemblages of humans and nonhumans: the very stuff of collaborative survival. In order to make mushroom picking a worthwhile tale, then, I must first chart the work of this “anthropo-” and explore the terrain it refuses to acknowledge.

Consider, indeed, the question of what’s left. Given the effectiveness of state and capitalist devastation of natural landscapes, we might ask why anything outside their plans is alive today. To address this, we will need to watch unruly edges. What brings Mien and matsutake together in Oregon? Such seemingly trivial queries might turn everything around to put unpredictable encounters at the center of things.

We hear about precarity in the news every day. People lose their jobs or get angry because they never had them. Gorillas and river porpoises hover at the edge of extinction. Rising seas swamp whole Pacific islands. But most of the time we imagine such precarity to be an exception to how the world works. It’s what “drops out” from the system. What if, as I’m suggesting, precarity *is* the condition of our time—or, to put it another way, what if our time is ripe for sensing precarity? What if precarity, indeterminacy, and what we imagine as trivial are the center of the systematicity we seek?

Precarity is the condition of being vulnerable to others. Unpredictable encounters transform us; we are not in control, even of ourselves. Unable to rely on a stable structure of community, we are thrown into shifting assemblages, which remake us as well as our others. We can’t rely on the status quo; everything is in flux, including our ability to survive. Thinking through precarity changes social analysis. A precarious world is a world without teleology. Indeterminacy, the unplanned nature of time, is frightening, but thinking through precarity makes it evident that indeterminacy also makes life possible.

The only reason all this sounds odd is that most of us were raised on dreams of modernization and progress. These frames sort out those parts of the present that might lead to the future. The rest are trivial; they “drop out” of history. I imagine you talking back: “Progress? That’s an idea from the nineteenth century.” The term “progress,” referring to a general state, has become rare; even twentieth-century modernization has begun to feel archaic. But their categories and assumptions of improvement are with us everywhere. We imagine their objects every day:

democracy, growth, science, hope. Why would we expect economies to grow and sciences to advance? Even without explicit reference to development, our theories of history are embroiled in these categories. So, too, are our personal dreams. I’ll admit it’s hard for me to even say this: there might not be a collective happy ending. Then why bother getting up in the morning?

Progress is embedded, too, in widely accepted assumptions about what it means to be human. Even when disguised through other terms, such as “agency,” “consciousness,” and “intention,” we learn over and over that humans are different from the rest of the living world because we look forward—while other species, which live day to day, are thus dependent on us. As long as we imagine that humans are *made* through progress, nonhumans are stuck within this imaginative framework too.

Progress is a forward march, drawing other kinds of time into its rhythms. Without that driving beat, we might notice other temporal patterns. Each living thing remakes the world through seasonal pulses of growth, lifetime reproductive patterns, and geographies of expansion. Within a given species, too, there are multiple time-making projects, as organisms enlist each other and coordinate in making landscapes. (The regrowth of the cutover Cascades and Hiroshima’s radioecology each show us multispecies time making.) The curiosity I advocate follows such multiple temporalities, revitalizing description and imagination. This is not a simple empiricism, in which the world invents its own categories. Instead, agnostic about where we are going, we might look for what has been ignored because it never fit the time line of progress.

Consider again the snippets of Oregon history with which I began this chapter. The first, about railroads, tells of progress. It led to the future: railroads reshaped our destiny. The second is already an interruption, a history in which the destruction of forests matters. What it shares with the first, however, is the assumption that the trope of progress is sufficient to know the world, both in success and failure. The story of decline offers no leftovers, no excess, nothing that escapes progress. Progress still controls us even in tales of ruination.

Yet the modern human conceit is not the only plan for making worlds: we are surrounded by many world-making projects, human and not human.⁷ World-making projects emerge from practical activities of

making lives; in the process these projects alter our planet. To see them, in the shadow of the Anthropocene's "anthropo-," we must reorient our attention. Many preindustrial livelihoods, from foraging to stealing, persist today, and new ones (including commercial mushroom picking) emerge, but we neglect them because they are not a part of progress. These livelihoods make worlds too—and they show us how to look around rather than ahead.

Making worlds is not limited to humans. We know that beavers reshape streams as they make dams, canals, and lodges; in fact, all organisms make ecological living places, altering earth, air, and water. Without the ability to make workable living arrangements, species would die out. In the process, each organism changes everyone's world. Bacteria made our oxygen atmosphere, and plants help maintain it. Plants live on land because fungi made soil by digesting rocks. As these examples suggest, world-making projects can overlap, allowing room for more than one species. Humans, too, have always been involved in multispecies world making. Fire was a tool for early humans not just to cook but also to burn the landscape, encouraging edible bulbs and grasses that attracted animals for hunting. Humans shape multispecies worlds when our living arrangements make room for other species. This is not just a matter of crops, livestock, and pets. Pines, with their associated fungal partners, often flourish in landscapes burned by humans; pines and fungi work together to take advantage of bright open spaces and exposed mineral soils. Humans, pines, and fungi make living arrangements simultaneously for themselves and for others: multispecies worlds.

Twentieth-century scholarship, advancing the modern human conceit, conspired against our ability to notice the divergent, layered, and conjoined projects that make up worlds. Entranced by the expansion of certain ways of life over others, scholars ignored questions of what else was going on. As progress tales lose traction, however, it becomes possible to look differently.

The concept of *assemblage* is helpful. Ecologists turned to assemblages to get around the sometimes fixed and bounded connotations of ecological "community." The question of how the varied species in a species assemblage influence each other—if at all—is never settled: some thwart (or eat) each other; others work together to make life possible; still others just happen to find themselves in the same place. As-

semblages are open-ended gatherings. They allow us to ask about communal effects without assuming them. They show us potential histories in the making. For my purposes, however, I need something other than organisms as the elements that gather. I need to see lifeways—and non-living ways of being as well—coming together. Nonhuman ways of being, like human ones, shift historically. For living things, species identities are a place to begin, but they are not enough: ways of being are emergent effects of encounters. Thinking about humans makes this clear. Foraging for mushrooms is a way of life—but not a common characteristic of all humans. The issue is the same for other species. Pines find mushrooms to help them use human-made open spaces. Assemblages don't just gather lifeways; they make them. Thinking through assemblage urges us to ask: How do gatherings sometimes become "happenings," that is, greater than the sum of their parts? If history without progress is indeterminate and multidirectional, might assemblages show us its possibilities?

Patterns of unintentional coordination develop in assemblages. To notice such patterns means watching the interplay of temporal rhythms and scales in the divergent lifeways that gather. Surprisingly, this turns out to be a method that might revitalize political economy as well as environmental studies. Assemblages drag political economy inside them, and not just for humans. Plantation crops have lives different from those of their free-living siblings; cart horses and hunter steeds share species but not lifeways. Assemblages cannot hide from capital and the state; they are sites for watching how political economy works. If capitalism has no teleology, we need to see what comes together—not just by prefabrication, but also by juxtaposition.

Other authors use "assemblage" with other meanings.⁸ The qualifier "polyphonic" may help explain my variant. Polyphony is music in which autonomous melodies intertwine. In Western music, the madrigal and the fugue are examples of polyphony. These forms seem archaic and strange to many modern listeners because they were superseded by music in which a unified rhythm and melody holds the composition together. In the classical music that displaced baroque, unity was the goal; this was "progress" in just the meaning I have been discussing: a unified coordination of time. In twentieth-century rock-and-roll, this unity takes the form of a strong beat, suggestive of the listener's heart;

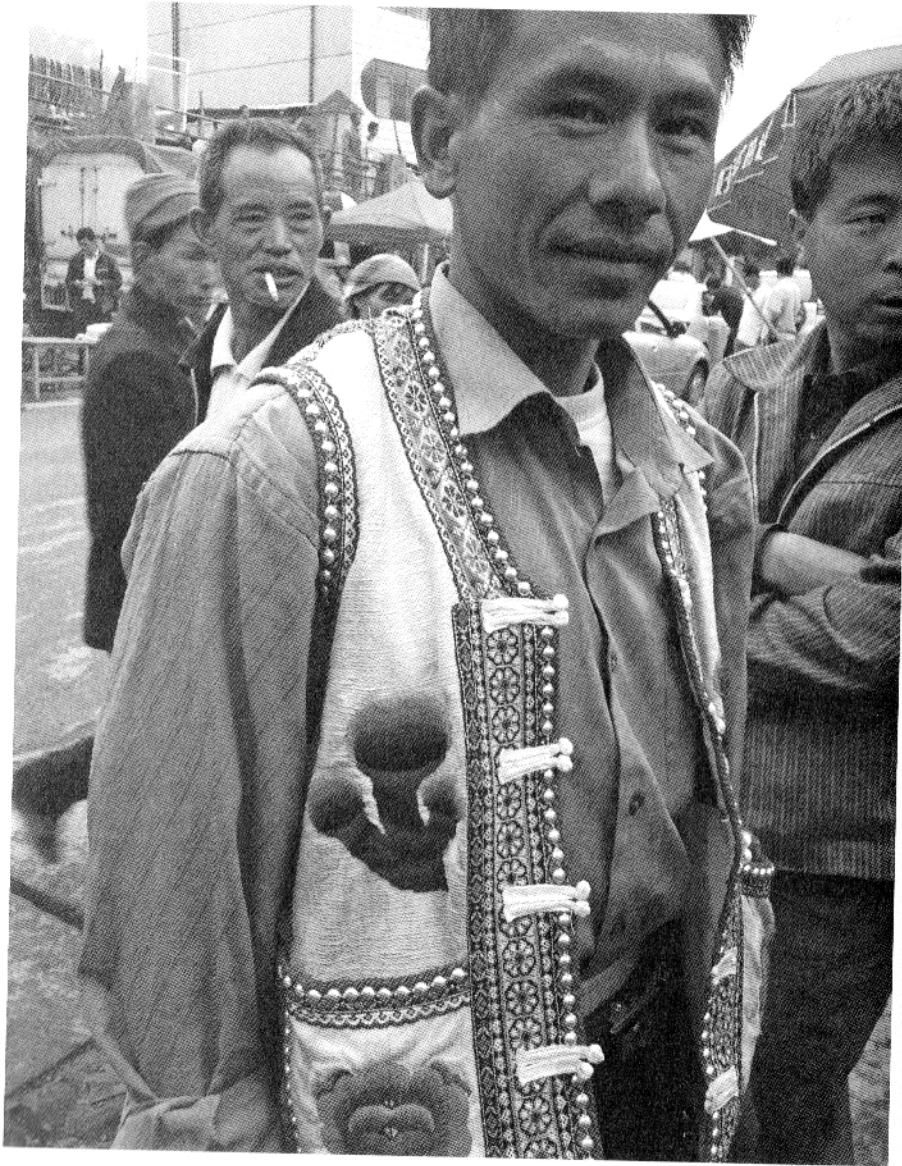
we are used to hearing music with a single perspective. When I first learned polyphony, it was a revelation in listening; I was forced to pick out separate, simultaneous melodies *and* to listen for the moments of harmony and dissonance they created together. This kind of noticing is just what is needed to appreciate the multiple temporal rhythms and trajectories of the assemblage.

For those not musically inclined, it may be useful to imagine the polyphonic assemblage in relation to agriculture. Since the time of the plantation, commercial agriculture has aimed to segregate a single crop and work toward its simultaneous ripening for a coordinated harvest. But other kinds of farming have multiple rhythms. In the shifting cultivation I studied in Indonesian Borneo, many crops grew together in the same field, and they had quite different schedules. Rice, bananas, taro, sweet potatoes, sugarcane, palms, and fruit trees mingled; farmers needed to attend to the varied schedules of maturation of each of these crops. These rhythms were their relation to human harvests; if we add other relations, for example, to pollinators or other plants, rhythms multiply. The polyphonic assemblage is the gathering of these rhythms, as they result from world-making projects, human and not human.

The polyphonic assemblage also moves us into the unexplored territory of the modern political economy. Factory labor is an exemplar of coordinated progress time. Yet the supply chain is infused with polyphonic rhythms. Consider the tiny Chinese garment factory studied by Nellie Chu; like its many competitors, it served multiple supply lines, constantly switching among orders for local boutique brands, knock-off international brands, and generic to-be-branded-later production.⁹ Each required different standards, materials, and kinds of labor. The factory's job was to match industrial coordination to the complex rhythms of supply chains. Rhythms further multiply when we move out of factories to watch foraging for an unpredictable wild product. The farther we stray into the peripheries of capitalist production, the more coordination between polyphonic assemblages and industrial processes becomes central to making a profit.

As the last examples suggest, abandoning progress rhythms to watch polyphonic assemblages is not a matter of virtuous desire. Progress felt great; there was always something better ahead. Progress gave us the "progressive" political causes with which I grew up. I hardly know how

to think about justice without progress. The problem is that progress stopped making sense. More and more of us looked up one day and realized that the emperor had no clothes. It is in this dilemma that new tools for noticing seem so important.¹⁰ Indeed, life on earth seems at stake. Chapter 2 turns to dilemmas of collaborative survival.



Conjuring time,
Yunnan. The matsutake
embroidered on this Yi
market goer's vest
performs the promise of
wealth and well-being.
The vest codifies (Yi)
ethnicity and (fungal)
species, making these
units available for a
moment of action within
shifting histories of
encounter.

2 Contamination as Collaboration

I wanted someone to tell me things were going to be
fine, but no one did.

—Mai Neng Moua, *Along the Way to the Mekong*

HOW DOES A GATHERING BECOME A “HAPPENING,” that is, greater than a sum of its parts? One answer is contamination. We are contaminated by our encounters; they change who we are as we make way for others. As contamination changes world-making projects, mutual worlds—and new directions—may emerge.¹ Everyone carries a history of contamination; purity is not an option. One value of keeping precarity in mind is that it makes us remember that changing with circumstances is the stuff of survival.

But what is survival? In popular American fantasies, survival is all about saving oneself by fighting off others. The “survival” featured in U.S. television shows or alien-planet stories is a synonym for conquest and expansion. I will not use the term that way. Please open yourself to

another usage. This book argues that staying alive—for every species—requires livable collaborations. Collaboration means working across difference, which leads to contamination. Without collaborations, we all die.

Popular fantasies are hardly the whole problem: one-against-all survival has also engaged scholars. Scholars have imagined survival as the advancement of individual interests—whether “individuals” are species, populations, organisms, or genes—human or otherwise. Consider the twin master sciences of the twentieth century, neoclassical economics and population genetics. Each of these disciplines came to power in the early twentieth century with formulations bold enough to redefine modern knowledge. Population genetics stimulated the “modern synthesis” in biology, uniting evolutionary theory and genetics. Neoclassical economics reshaped economic policy, creating the modern economy of its imagination. While practitioners of each have had little to do with each other, the twins set up similar frames. At the heart of each is the self-contained individual actor, out to maximize personal interests, whether for reproduction or wealth. Richard Dawkins’s “selfish gene” gets across the idea, useful at many life scales: It is the ability of genes (or organisms, or populations) to look out for their own interests that fuels evolution.² Similarly, the life of *Homo economicus*, economic man, is a series of choices to follow his best interests.

The assumption of self-containment made an explosion of new knowledge possible. Thinking through self-containment and thus the self-interest of individuals (at whatever scale) made it possible to ignore contamination, that is, transformation through encounter. Self-contained individuals are not transformed by encounter. Maximizing their interests, they use encounters—but remain unchanged in them. *Noticing* is unnecessary to track these unchanging individuals. A “standard” individual can stand in for all as a unit of analysis. It becomes possible to organize knowledge through logic alone. Without the possibility of transformative encounters, mathematics can replace natural history and ethnography. It was the productiveness of this simplification that made the twins so powerful, and the obvious falsity of the original premise was increasingly forgotten.³ Economy and ecology thus each became sites for algorithms of progress-as-expansion.

The problem of precarious survival helps us see what is wrong. Precarity is a state of acknowledgment of our vulnerability to others. In order to survive, we need help, and help is always the service of another, with or without intent. When I sprain my ankle, a stout stick may help me walk, and I enlist its assistance. I am now an encounter in motion, a woman-and-stick. It is hard for me to think of any challenge I might face without soliciting the assistance of others, human and not human. It is unselfconscious privilege that allows us to fantasize—counterfactually—that we each survive alone.

If survival always involves others, it is also necessarily subject to the indeterminacy of self-and-other transformations. We change through our collaborations both within and across species. The important stuff for life on earth happens in those transformations, not in the decision trees of self-contained individuals. Rather than seeing only the expansion-and-conquest strategies of relentless individuals, we must look for histories that develop through contamination. Thus, how might a gathering become a “happening”?

Collaboration is work across difference, yet this is not the innocent diversity of self-contained evolutionary tracks. The evolution of our “selves” is already polluted by histories of encounter; we are mixed up with others before we even begin any new collaboration. Worse yet, we are mixed up in the projects that do us the most harm. The diversity that allows us to enter collaborations emerges from histories of extermination, imperialism, and all the rest. Contamination makes diversity.

This changes the work we imagine for names, including ethnicities and species. If categories are unstable, we must watch them emerge within encounters. To use category names should be a commitment to tracing the assemblages in which these categories gain a momentary hold.⁴ Only from here can I return to meeting Mien and matsutake in a Cascades forest. What does it mean to be “Mien” or to be “forest”? These identities entered our meeting from histories of transformative ruin, even as new collaborations changed them.

Oregon’s national forests are managed by the U.S. Forest Service, which aims to conserve forests as a national resource. Yet the conservation status of the landscape has been hopelessly confused by a hundred-year history of logging and fire suppression. Contamination creates forests,

transforming them in the process. Because of this, noticing as well as counting is required to know the landscape.

Oregon's forests played a key role in the U.S. Forest Service's early-twentieth-century formation, during which foresters worked to find kinds of conservation that timber barons would support.⁵ Fire suppression was the biggest result: Loggers and foresters could agree on it. Meanwhile, loggers were eager to take out the ponderosa pines that so impressed white pioneers in the eastern Cascades. The great ponderosa stands were logged out by the 1980s. It turned out that they could not reproduce without the periodic fires the Forest Service had stopped. But firs and spindly lodgepole pines were flourishing with fire exclusion—at least if flourishing means spreading in ever denser and more flammable thickets of live, dead, and dying trees.⁶ For several decades, Forest Service management has meant, on the one hand, trying to make the ponderosas come back, and, on the other, trying to thin, cut, or otherwise control flammable fir and lodgepole thickets. Ponderosa, fir, and lodgepole, each finding life through human disturbance, are now creatures of contaminated diversity.

Surprisingly, in this ruined industrial landscape, new value emerged: matsutake. Matsutake fruit especially well under mature lodgepole, and mature lodgepole exists in prodigious numbers in the eastern Cascades because of fire exclusion. With the logging of ponderosa pines and fire exclusion, lodgepoles have spread, and despite their flammability, fire exclusion allows them a long maturity. Oregon matsutake fruit only after forty to fifty years of lodgepole growth, made possible by excluding fire.⁷ The abundance of matsutake is a recent historical creation: contaminated diversity.

And what are Southeast Asian hill people doing in Oregon? Once I realized that almost everyone in the forest was there for explicitly "ethnic" reasons, finding out what these ethnicities implied became urgent. I needed to know what created communal agendas that included mushroom hunting; thus I followed the ethnicities they named for me. The pickers, like the forests, must be appreciated in becoming, not just counted. Yet almost all U.S. scholarship on Southeast Asian refugees ignores ethnic formation in Southeast Asia. To counteract this omission, allow me an extended story. Despite their specificity, Mien stand in here

for all the pickers—and the rest of us too. Transformation through collaboration, ugly and otherwise, is the human condition.

The distant ancestors of Kao's Mien community are imagined as emerging already in contradiction and on the run. Moving through the hills of southern China to hide from imperial power, they also treasured imperial documents exempting them from taxation and corvée. A little more than a hundred years ago, some moved farther out of the way—into the northern hills of what are now Laos, Thailand, and Vietnam. They brought a distinctive script, based on Chinese characters and used for writing to spirits.⁸ As both refusal and acceptance of Chinese authority, the script is a neat expression of contaminated diversity: Mien are Chinese, and not Chinese. Later they would learn to be Lao/Thai, but not Lao/Thai, and then American, and not American.

Mien are not known for their respect for national boundaries; communities have repeatedly crossed back and forth, especially when armies threaten. (Kao's uncle learned Chinese and Lao from cross-border movement.) Yet, despite this mobility, Mien are hardly an autonomous tribe, free from the control of the state. Hjørleifur Jonsson has shown how Mien lifeways have repeatedly changed in relation to state agendas. In the first half of the twentieth century, for example, Mien in Thailand organized their communities around the opium trade. Only large, polygynous households controlled by powerful senior men could keep hold of the opium contracts. Some households had one hundred members. The Thai state did not mandate this family organization; it arose from the Mien encounter with opium. In a similarly unplanned process in the late twentieth century, Mien in Thailand came to identify as an "ethnic group" with distinctive customs; Thai policy toward minorities made this identity possible. Meanwhile, along the Laos/Thailand border, Mien slipped back and forth, evading state policy on both sides even while being shaped by it.⁹

Those cross-boundary Asian hills have known many peoples, and Mien sensibilities have developed in engagement with these shifting groups as all have negotiated imperial governance and rebellion, licit and illicit trade, and millennial mobilization. To understand how Mien came to be matsutake pickers requires considering their relationship with another group now in the Oregon forests, Hmong. Hmong are

like Mien in many ways. They also ran south from China; they also crossed borders and occupied the high altitudes suited to commercial opium farming; they also value their distinctive dialects and traditions. A mid-twentieth-century millennial movement started by an illiterate farmer produced a completely original Hmong script. This was the time of the U.S.-Indochina War, and Hmong were in the thick of it. As linguist William Smalley points out, discarded military ordnance in the area would have exposed this inspired farmer to English, Russian, and Chinese writing, and he might also have seen Lao and Thai.¹⁰ Emerging from the trash of war, this distinctive and multiply derivative Hmong script, like that of the Mien, is a wonderful icon for contaminated diversity.

Hmong are proud of their patrilineal clan organization, and, according to ethnographer William Geddes, clans have been key to forming long-distance ties among men.¹¹ Clan relations allowed military leaders to recruit outside their face-to-face networks. This proved relevant when the United States took over imperial oversight after the French defeat by Vietnamese nationalists in 1954, thus inheriting the loyalty of French-trained Hmong soldiers. One of those soldiers became General Vang Pao, who mobilized Hmong in Laos to fight in behalf of the United States, becoming what 1970s CIA director William Colby called "the biggest hero of the Vietnam War."¹² Vang Pao recruited not just individuals but villages and clans into the war. Although his claims to represent Hmong disguised the fact that Hmong also fought for the communist Pathet Lao, Vang Pao made his cause simultaneously a Hmong cause and a U.S. anticommunist cause. Through his control over opium transport, bombing targets, and CIA rice drops, as well as his charisma, Vang Pao generated enormous ethnic loyalty, consolidating one kind of "Hmong."¹³ It is hard to think of a better example of contaminated diversity.

Some Mien fought in Vang Pao's army. Some followed Hmong to the Ban Vinai refugee camp Vang Pao helped to have established in Thailand after he fled Laos following the U.S. withdrawal in 1975. But the war did not give Mien the sense of ethnic-political unity it gave Hmong. Some Mien fought for other political leaders, including Chao La, a Mien general. Some left Laos for Thailand long before the communist victory in Laos. Jonsson's oral histories of Mien in the United States suggest that what are often imagined as innocent "regional"

groupings of Laotian Mien—northern Mien, southern Mien—refer to divergent histories of forced resettlement by Vang Pao and Chao La, respectively.¹⁴ War, he argues, creates ethnic identities.¹⁵ War forces people to move but also cements ties to reimagined ancestral cultures. Hmong helped to stimulate the mix, and Mien came to participate.

In the 1980s, Mien who had crossed from Laos to Thailand joined U.S. programs to bring anticommunists from Southeast Asia to the United States and allow them, through refugee status, to become citizens. The refugees arrived in the United States just as welfare was being cut; they were offered few resources for livelihood or assimilation. Most of those from Laos and Cambodia had neither money nor Western education; they moved into off-the-grid jobs such as matsutake picking. In the Oregon woods, they use skills honed in Indochinese wars. Those experienced in jungle fighting rarely get lost, since they know how to find their way in unfamiliar forests. Yet the forest has not stimulated a generic Indochinese—or American—identity. Mimicking the structure of Thai refugee camps, Mien, Hmong, Lao, and Khmer keep their places separate. Yet white Oregonians sometimes call them all "Cambodians," or, with even more confusion, "Hong Kongs." Negotiating multiple forms of prejudice and dispossession, contaminated diversity proliferates.

I hope that at this point you are saying, "This is hardly news! I can think of plenty of similar examples from the landscape and people around me." I agree; contaminated diversity is everywhere. If such stories are so widespread and so well known, the question becomes: Why don't we use these stories in how we know the world? One reason is that contaminated diversity is complicated, often ugly, and humbling. Contaminated diversity implicates survivors in histories of greed, violence, and environmental destruction. The tangled landscape grown up from corporate logging reminds us of the irreplaceable graceful giants that came before. The survivors of war remind us of the bodies they climbed over—or shot—to get to us. We don't know whether to love or hate these survivors. Simple moral judgments don't come to hand.

Worse yet, contaminated diversity is recalcitrant to the kind of "summing up" that has become the hallmark of modern knowledge. Contaminated diversity is not only particular and historical, ever changing, but also relational. It has no self-contained units; its units

are encounter-based collaborations. Without self-contained units, it is impossible to compute costs and benefits, or functionality, to any “one” involved. No self-contained individuals or groups assure their self-interests oblivious to the encounter. Without algorithms based on self-containment, scholars and policymakers might have to learn something about the cultural and natural histories at stake. That takes time, and too much time, perhaps, for those who dream of grasping the whole in an equation. But who put them in charge? If a rush of troubled stories is the best way to tell about contaminated diversity, then it’s time to make that rush part of our knowledge practices. Perhaps, like the war survivors themselves, we need to tell and tell until all our stories of death and near-death and gratuitous life are standing with us to face the challenges of the present. It is in listening to that cacophony of troubled stories that we might encounter our best hopes for precarious survival.

This book tells a few such stories, which take me not only to the Cascades but also to Tokyo auctions, Finnish Lapland, and a scientist’s lunchroom, where I am so excited I spill my tea. Following all these stories at once is as challenging—or, once one gets the hang of it, as simple—as singing a madrigal in which each singer’s melody courses in and out of the others. Such interwoven rhythms perform a still lively temporal alternative to the unified progress-time we still long to obey.