

COPYRIGHT NOTICE:

Anna Lowenhaupt Tsing: Friction

is published by Princeton University Press and copyrighted, © 2004, by Princeton University Press. All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher, except for reading and browsing via the World Wide Web. Users are not permitted to mount this file on any network servers.

For COURSE PACK and other PERMISSIONS, refer to entry on previous page. For more information, send e-mail to permissions@pupress.princeton.edu

Introduction

.....

Global connections are everywhere. So how does one study the global?

This book is about aspirations for global connection and how they come to life in “friction,” the grip of worldly encounter. Capitalism, science, and politics all depend on global connections. Each spreads through aspirations to fulfill *universal* dreams and schemes. Yet this is a particular kind of universality: It can only be charged and enacted in the sticky materiality of practical encounters. This book explores this practical, engaged universality as a guide to the yearnings and nightmares of our times.

Post-colonial theory challenges scholars to position our work between the traps of the universal and the culturally specific.¹ Both conceits have been ploys of colonial knowledge, that is, knowledge that legitimates the superiority of the West as defined against its Others. Yet in studying colonial discourse, social scientists and historians have limited themselves to the cultural specificity side of the equation. There has been much less attention to the history of the universal, as it, too, has been produced in the colonial encounter. Here a specific valence for the universal has been produced; the universal is what, as Gayatri Spivak has put it, we cannot not want, even as it so often excludes us.² The universal offers us the chance to participate in the global stream of humanity. We can't turn it down. Yet we also can't replicate previous versions without inserting our own genealogy of commitments and claims. Whether we place ourselves inside or outside the West, we are stuck with universals created in cultural dialogue. It is this kind of post- and neocolonial universal that has enlivened liberal politics as well as economic neoliberalism as they have spread around the world with such animation since the end of the Cold War. Nor is scholarly knowledge exempt; every truth forms in negotiation, however messy, with aspirations to the universal.

This book is not a history of philosophy, but rather an ethnography of global connection. The specificity of global connections is an ever-present reminder that universal claims do not actually make everything everywhere the same. Global connections give *grip* to universal aspirations. Working through global connection, the book is an exploration of ethnographic methods for studying the work of the universal. As soon as we let go of the universal as a self-fulfilling abstract truth, we must become embroiled in

specific situations. And thus it is necessary to begin again, and again, in the middle of things.

.....

Something shocking began to happen in Indonesia's rainforests during the last decades of the twentieth century: Species diversities that had taken millions of years to assemble were cleared, burned, and sacrificed to erosion. The speed of landscape transformation took observers by surprise. No gradual expansion of human populations, needs, or markets could possibly explain it; besides, the products of these forests had been globally marketed for hundreds of years. Corporate growth seemed unaccountably chaotic, inefficient, and violent in destroying its own resources. Stranger yet, it seemed that ordinary people—even those dependent on the forest for their livelihood—were joining distant corporations in creating uninhabitable landscapes.³

Within Indonesia, this ugly situation came to stand for the dangers of imperialism and the misdeeds of a corrupt regime. Opposition to state and corporate destruction of forest-peoples' livelihoods became a key plank of the emergent democratic movement of the 1980s and 1990s. An innovative politics developed linking city and countryside, bringing activists, students, and villagers into conversation across differences in perspective and experience. The insights and vicissitudes of this mobilization have not been much appreciated outside of the country. Yet they speak to central dilemmas of our times: Why is global capitalism so messy? Who speaks for nature? What kinds of social justice make sense in the twenty-first century?

None of these questions can be addressed without an appreciation of global connections. Indonesian forests were not destroyed for local needs; their products were taken for the world. Environmental activism flourished only through the instigation and support of a global movement. Yet popular stories of global cultural formation are of little help in understanding these phenomena. There is no triumph of global integration here; both the chaotic melee of landscape destruction and the searing protests of radical critics are forged in dissension, fragmentation, and regional inequality. We see the unexpectedly persistent effects of particular historical encounters. A villager shows a North American miner some gold; a Japanese model of trade is adopted for plywood; students banned from politics take up hiking; a minister is inspired by a United Nations conference on the environment: These narrowly conceived situations lay down tracks for future "global" developments. Rather than tell of the evolutionary unfolding of a new era, my story inquires into the makeshift links across distance and difference that shape global futures—and ensure their uncertain status.

This book shows how emergent cultural forms—including forest destruction and environmental advocacy—are persistent but unpredictable effects of global encounters across difference. This proposition extends my earlier research, in which I explored how even seemingly isolated cultures, such as rainforest dwellers in Indonesia, are shaped in national and transnational dialogues (Tsing 1993). Scholars once treated such cultures as exemplars of the self-generating nature of culture itself. However, it has become increasingly clear that all human cultures are shaped and transformed in long histories of regional-to-global networks of power, trade, and meaning. With new evidence of these histories entering the academy from every direction, it has become possible for scholars to accept the idea that powerless minorities have accommodated themselves to global forces. But to turn that statement around to argue that global forces are themselves congeries of local/global interaction has been rather more challenging.

The challenges arrive from several directions. Some powerful conventions of thinking get in the way of research on this theme. Most theories of globalization, for example, package all cultural developments into a single program: the emergence of a global era. If globalization can be predicted in advance, there is nothing to learn from research except how the details support the plan. And if world centers provide the dynamic impetus for global change, why even study more peripheral places? Creative studies of the periphery are also hamstrung. Powerful social science directives catalogue and compare developments in the global south under a distancing imperial gaze, keeping us out of the arena where cultural outcomes really matter. If Indonesia is only a scrap of data, it might inform cosmopolitan readers, but its global encounters can never shape that shared space in which Indonesians and non-Indonesians jointly experience fears, tensions, and uncertainties. In this shared space, the contingency of encounters makes a difference. To guide us there, I must clear a theoretical path that extends far beyond Indonesia's forests. Yet can one gain an ethnographic purchase on global connections? Where would one locate the global in order to study it? Even those who are determined to conduct this kind of research still struggle to figure out how it is done.

To address these challenges, this book develops a portfolio of methods to study the productive friction of global connections. What happens when Japanese traders buy Indonesian trees, when army officers make deals with nature lovers, or when university students sit down with village elders? I begin with the idea that the messy and surprising features of such encounters across difference should inform our models of cultural production. In reaction to popular over-enthusiasm for programmatic global predictions, I emphasize the unexpected and unstable aspects of global interaction. To

enrich the single-mindedness of cultural explanation focused only on internal blueprints for reproduction and growth, I stress the importance of cross-cultural and long-distance encounters in forming everything we know as culture (e.g., Clifford 1997). Cultures are continually co-produced in the interactions I call “friction”: the awkward, unequal, unstable, and creative qualities of interconnection across difference. Each chapter of this book develops a method for learning about such aspects of contingent encounters.

While the situation in Indonesia is distinctive, it can also take us to the heart of the liveliest debates and discussions in contemporary scholarship. Thus, scholars of the Left have worried through how best to describe post-Cold War capitalism, with its global pretensions. Humanities scholars and social scientists tend toward opposite poles: Where the former often find the universalizing quality of capitalism its most important trait (e.g., Jameson 2002), the latter look for unevenness and specificity within the cultural production of capitalism (e.g., Yanagisako 2002; Mitchell 2002). Where the former imagine mobilization of the universal as key to effective opposition to exploitation (e.g., Hardt and Negri 2000), the latter look for resistance in place-based struggles (Massey 1995) and unexpected linkages (Gibson-Graham 1996).

The contribution of each of these works is stunning; yet placed in conversation they seem to block each other. There is a cross-disciplinary misunderstanding of terms here; as Jameson (2002: 182) explains, “the universal is [not] something under which you range the particular as a mere type.”⁴ Social scientists have often done just that. But rather than rectify the disciplines, my goal is to grasp the productive moment of this misunderstanding. At this confluence, universals and particulars come together to create the forms of capitalism with which we live. There is no point in studying fully discrete “capitalisms”: Capitalism only spreads as producers, distributors, and consumers strive to universalize categories of capital, money, and commodity fetishism. Such strivings make possible globe-crossing capital and commodity chains. Yet these chains are made up of uneven and awkward links. The cultural specificity of capitalist forms arises from the necessity of bringing capitalist universals into action through worldly encounters. The messiness of capitalism in the Indonesian rainforest exemplifies the encounters in which global capital and commodity chains are formed.

A related set of debates characterizes discussion of the new social movements that arose in the late twentieth century as vehicles of protest: human rights, ethnic identity politics, indigenous rights, feminism, gay rights, and environmentalism. Scholars are divided: Some see these movements as expressions of a frightening new force of global coercion, while others portray

them as carrying hopes for freedom. The split here is not across disciplines but rather across audiences. Those who address themselves to cultural theorists stress the formation of new kinds of disciplinary power (e.g., Rabinow 2002); those who include activists in their audiences stress such movements' potential (e.g., Keck and Sikkink 1998).⁵ The former explain the universalizing logic of liberal sovereignty and biopower; the latter tell us of the urgency of particular cases. Again, these commentators talk right past each other; and, again, their intersection could be more productive. It is essential to note how protest mobilizations—including the Indonesian democratic movement of the 1980s and 1990s—rely on universalizing rhetorics of rights and justice. Through these, they make their case to the world; through these, too, they are shaped by liberal logics. Yet they must make these rhetorics work within the compromises and collaborations of their particular situations. In the process, new meanings and genealogies are added to liberalism. This does not mean people can do anything they want; however, it changes our view of liberal sovereignty—with its universals—to imagine it in concrete purchase on the world.

Both these discussions can benefit from a focused look at global connections. In the historical particularity of global connections, domination and discipline come into their own, but not always in the forms laid out by their proponents. On the one hand, this work can avoid the idea that new forms of empire spring fully formed and armed from the heads of Euro-American fathers. On the other hand, this work avoids too eager a celebration of a southern cultural autonomy capable of absorbing and transforming every imperial mandate. Instead, a study of global connections shows the grip of encounter: friction. A wheel turns because of its encounter with the surface of the road; spinning in the air it goes nowhere. Rubbing two sticks together produces heat and light; one stick alone is just a stick. As a metaphorical image, friction reminds us that heterogeneous and unequal encounters can lead to new arrangements of culture and power.

The metaphor of friction suggested itself because of the popularity of stories of a new era of global motion in the 1990s. The flow of goods, ideas, money, and people would henceforth be pervasive and unimpeded. In this imagined global era, motion would proceed entirely without friction. By getting rid of national barriers and autocratic or protective state policies, everyone would have the freedom to travel everywhere. Indeed, motion itself would be experienced as self-actualization, and self-actualization without restraint would oil the machinery of the economy, science, and society.⁶

In fact, motion does not proceed this way at all. How we run depends on what shoes we have to run in. Insufficient funds, late buses, security searches, and informal lines of segregation hold up our travel; railroad tracks

and regular airline schedules expedite it but guide its routes. Some of the time, we don't want to go at all, and we leave town only when they've bombed our homes. These kinds of "friction" inflect motion, offering it different meanings. Coercion and frustration join freedom as motion is socially informed.

Speaking of friction is a reminder of the importance of interaction in defining movement, cultural form, and agency. Friction is not just about slowing things down. Friction is required to keep global power in motion. It shows us (as one advertising jingle put it) where the rubber meets the road. Roads are a good image for conceptualizing how friction works: Roads create pathways that make motion easier and more efficient, but in doing so they limit where we go. The ease of travel they facilitate is also a structure of confinement. Friction inflects historical trajectories, enabling, excluding, and particularizing.

The effects of encounters across difference can be compromising or empowering. Friction is not a synonym for resistance. Hegemony is made as well as unmade with friction. Consider rubber. Coerced out of indigenous Americans, rubber was stolen and planted around the world by peasants and plantations, mimicked and displaced by chemists and fashioned with or without unions into tires and, eventually, marketed for the latest craze in sports utility vehicles.⁷ Industrial rubber is made possible by the savagery of European conquest, the competitive passions of colonial botany, the resistance strategies of peasants, the confusion of war and technoscience, the struggle over industrial goals and hierarchies, and much more that would not be evident from a teleology of industrial progress. It is these vicissitudes that I am calling friction. Friction makes global connection powerful and effective. Meanwhile, without even trying, friction gets in the way of the smooth operation of global power. Difference can disrupt, causing everyday malfunctions as well as unexpected cataclysms. Friction refuses the lie that global power operates as a well-oiled machine. Furthermore, difference sometimes inspires insurrection. Friction can be the fly in the elephant's nose.

Attention to friction opens the possibility of an *ethnographic* account of global interconnection. Abstract claims about the globe can be studied as they operate in the world. We might thus ask about universals not as truths or lies but as sticky engagements.

Engaging the Universal

It is impossible to get very far in tracing global connections without running into claims about universals. The universal is at the heart of contemporary

humanist projects: Scientists, economic reformers, and social justice advocates all appeal to the universal. Yet universals, taken at their face value, erase the making of global connections. This raises a disturbing question: How can universals be so effective in forging global connections if they posit an already united world in which the work of connection is unnecessary?

Scholars have not much addressed this question because the idea of the universal suggests abstractions, which turn them away from the practical successes and failures of universal claims. Neither those who place their ideas inside the universal nor those who discredit it as false pause to consider how universals work in a practical sense. To move beyond this it is important to see generalization to the universal as an aspiration, an always unfinished achievement, rather than the confirmation of a pre-formed law. Then it is possible to notice that universal aspirations must travel across distances and differences, and we can take this travel as an ethnographic object.

Ethnographers are supposed to study their objects with respect. Yet cultural anthropologists have had a curmudgeonly suspicion of universals. Empowered by the notion of cultural relativism, anthropologists have argued that universals are folk beliefs, like gods or ghosts, with efficacy only within the cultural system that gives them life. I was brought up as a scholar in this creed, and it has taken me a long time—and a lot of frustrating interchanges with nonanthropologists—to decide that it is not a good place to enter the conversation. Universals are indeed local knowledge in the sense that they cannot be understood without the benefit of historically specific cultural assumptions. But to stop here makes dialogue impossible. Furthermore, it misses the point. To turn to universals is to identify knowledge that moves—mobile and mobilizing—across localities and cultures. Whether it is seen as underlying or transcending cultural difference, the mission of the universal is to form bridges, roads, and channels of circulation. Knowledge gained from particular experience percolates into these channels, widening rather than interrupting them. We must step outside the boundaries of locality to ask what's meant by “universal.”⁸

One place to begin is with the accomplishments of the universal. Consider environmental politics. Environmentalists pioneered transboundary approaches in the 1980s and 1990s, drawing recognition to problems—pollution, climate change, species loss—that could not be contained in a single country. Transnational groups of scientists, with a common universalist faith in environmental objects of knowledge, were sometimes—against so much precedent—able to overcome national politics to work together and forge common standards. The most successful transnational mobilizations, it turned out, have been culturally and politically delimited, as when scientists working on transboundary acid rain collaborated with politicians to so-

lidity the European Union (Rotmans 1995a).⁹ They have also been productive in relation to particular historical moments, as environmentalism in Eastern Europe and the former Soviet Union worked to popularize opposition to the state in the late 1980s (Jancar-Webster 1993). The universalism of environmental politics articulated widespread desires for knowledge free from state regulation and for ties with the cultural heritage of Western Europe. Freedom and science augmented each other's universal claims. After the breakup of the Soviet Union, environmental politics all but disappeared as the politics of citizenship rather than universalism took precedence.

Environmental politics in the disintegrating Soviet Union of the late 1980s was interpreted abroad as anti-Communist agitation. This association smoothed the way for Indonesian environmentalists, who had to find their way within a violently anti-Communist state. Where charges of Communism blocked other social movements, environmentalists were able to appeal to universal ideals of science and modernity. As in socialist Europe, universals opened possibilities for reform and even social criticism by articulating a larger frame of reference than state-led patriotism.¹⁰ But, as in Europe, this combination of appeals to science and politics worked best in the shadow of an authoritarian state. When the regime fell, politics took off in multiple new directions.

The universals that mobilize people, then, do not fulfill their own dreams to travel anywhere at any time. But this does not make them wrong-headed and irrelevant. Critical environmental scholars who address the problem have often taken us directly to the local, endorsing local or indigenous knowledge as the counterpart to universalist expertise. This reaction draws attention to cultural specificity but again misses the point. The knowledge that makes a difference in changing the world is knowledge that travels and mobilizes, shifting and creating new forces and agents of history in its path. However, those who claim to be in touch with the universal are notoriously bad at seeing the limits and exclusions of their knowledge. That's where my challenge enters.

Universals are effective within particular historical conjunctures that give them content and force. We might specify this conjunctural feature of universals in practice by speaking of engagement. Engaged universals travel across difference and are charged and changed by their travels. Through friction, universals become practically effective. Yet they can never fulfill their promises of universality. Even in transcending localities, they don't take over the world. They are limited by the practical necessity of mobilizing adherents. Engaged universals must convince us to pay attention to them. *All* universals are engaged when considered as practical projects accomplished in a heterogeneous world.

To study engagement requires turning away from formal abstractions to see how universals are used.¹¹ Universalisms have not been politically neutral. They were deeply implicated in the establishment of European colonial power. In the context of colonial expansion, universalism was the framework for a faith in the traveling power of reason: Only reason could gather up the fragments of knowledge and custom distributed around the world to achieve progress, science, and good government. In the matrix of colonialism, universal reason became the mark of temporally dynamic and spatially expansive forms of knowledge and power. Universal reason, of course, was best articulated by the colonizers. In contrast, the colonized were characterized by particularistic cultures; here, the particular is that which cannot grow. The universal, however, opens the way to constantly improving truths and even, in its utilitarian forms, to a better life for all humanity. These contrasts continue to structure global asymmetries.

At the same time, this history does not encompass the variety of claims of universality that characterize our times. Actually existing universalisms are hybrid, transient, and involved in constant reformulation through dialogue. Liberal universals mix and meld with the universals of science, world religions (especially Christianity and Islam), and emancipatory philosophies including Marxism and feminism. Moreover, the embrace of universals is not limited to just one small section of the globe. The West can make no exclusive claim to doctrines of the universal. Radical thinkers in Europe's colonies long ago expanded Enlightenment universals to argue that the colonized should be free, thus establishing doctrines of universal freedom at the base of Third World nationalisms.¹² The universalism of rights and reason continues to inspire critical post-colonial theory. At the same time, universal claims that justify coercion into internationally mandated standards of progress and order are at the center of neocolonial disciplinary programs—just as they were to colonialism.¹³

This brings to light a deep irony: Universalism is implicated in *both* imperial schemes to control the world and liberatory mobilizations for justice and empowerment. Universalism inspires expansion—for both the powerful and the powerless. Indeed, when those excluded from universal rights protest their exclusion, this protest itself has a twofold effect: It extends the reach of the forms of power they protest, even as it gives voice to their anger and hope. Political theorist Etienne Balibar refers to “normalization” and “insurrection” as equally inspired by universals (2002). This duality brings us back to the facility of universals for travel. Universals beckon to elite and excluded alike.¹⁴

The concept of friction acknowledges this duality and puts it at the heart of our understanding of “modern” global interconnections, that is, those

that have developed under the aegis of Enlightenment universals. Friction gives purchase to universals, allowing them to spread as frameworks for the practice of power. But engaged universals are never fully successful in being everywhere the same because of this same friction. This book tells the story of how some universals work out in particular times and places, through friction.

The book is divided into three parts, and the title of each corresponds to a universalist dream: prosperity, knowledge, and freedom. These labels, however, should not mislead readers to assume that the book tells the story of philosophy or policy. Instead, my tale descends directly into the realm of historical experience. What is prosperity? In Kalimantan, Indonesia, in the 1990s, prosperity ripped up the forest landscape and dispossessed its human inhabitants to offer quick profits to a privileged or tricky few. The first section of the book asks just how aspirations for prosperity and progress produced this situation. What did it mean to be an entrepreneur in this historical landscape? The universals of market rationality are hardly a sheltering guide in entering this zone of robbery, violence, and confusion. Friction is all around.

What is knowledge? It would be easier for everyone if rational deliberations always converged in common understandings. But even those of us who believe that some knowledge claims are better than others have difficulty in denying that even the best ones retain a certain incommensurability. This is because knowledge claims emerge in relation to concrete problems and possibilities for dialogue—the productive features of friction. The second section of the book considers how friction morphs both knowledge of the globe and globally traveling knowledge.

And freedom? Throughout its history, freedom has refused to stick to predictable principles; it has blossomed and set into a multitude of previously unknown fruits. Even during the Enlightenment, the fact that the freedom of property ownership could not be reconciled with the emancipation of the dispossessed kept advocates busy devising contradictory schemes. The environmental politics of the late twentieth century was inspired by many divergent meanings of freedom—and they intrigue me as forms of freedom precisely because they do not jump to mind as its purest forms. Here rights discourse is extended beyond the limits of its humanism. Might not other species—and perhaps even landscapes and ecosystems—have rights with a status above and prior to human social conventions? The jurisdiction of modernity is turned inside out: Indigenous cultures deserve Enlightenment rights and liberties precisely because they have managed so far to do without them. It is within these jumbled and utopian causes that concepts of freedom are invigorated and made worthwhile for our times. My third sec-

tion considers the accumulation of meanings and genealogies of freedom that has placed forest protection at the forefront of causes for making a livable world.

These concerns bring me back to the questions I raised earlier in this introduction: Why is global capitalism so messy? Who speaks for nature? What kinds of social justice make sense in the twenty-first century?

Beyond Globalization

The great insight of the protests against corporate globalization that gathered force at the turn of the twenty-first century was that current forms of capitalist expansion are not inevitable. Despite the reassurances of public oratory, the spread of capitalism has been violent, chaotic, and divisive, rather than smoothly all-encompassing. Observers laughed at protesters for lacking an appreciation of the force of global integration, and, indeed, for not seeing their own “globalization.” Yet the protesters proved more insightful than sophisticated social theorists, who have been caught up in showing the programmatic advance of an integrated globalism of everywhere-flowing money, people, and culture.

To grasp the enormity of global changes in the last decade, social theorists drew a picture of evolutionary change on a planetary scale. Particularly influential were optimistic popular accounts of the spread of the market economy and Western liberal democracy (e.g., Fukuyama 1992; Friedman 2000). However, scholars on both the Left and the Right portrayed globalization as the worldwide advance to a global era.¹⁵ Their stories share a commitment to a coordinated world transition, emerging from global centers and extending—through the technological collapse of distance—across the earth.

After the 2001 Al Qaeda attack on New York’s World Trade Center and the ensuing U.S. leadership in worldwide re-militarization, the story of an inevitable, peaceful transition to global integration has seemed more and more like the dream of a particular historical moment. This is not because the force of global connections has disappeared—but it no longer looks so neat. Ten years ago social analysts were impressed by the size and power of newly emergent global circulations, so they focused on global coherence, for better or worse. Now it is time to turn attention, instead, to discontinuity and awkward connection, as this proves key to emergent sources of fear and hope.

On capitalism: In the last two decades of the twentieth century, capitalism was transformed by the establishment of new international rules of trade that offered tremendous advantages for the world’s most powerful corporations. Capital whizzed around the globe. Free-trade zones and new

technologies of communication encouraged companies to spread their operations to ever-cheaper locations. Transnational specializations—such as currency traders, energy traders—flourished. Privatization initiatives and free-trade regulations dismantled national economies, making once-public resources available for private appropriation.

Social analysts were awed by the scope of this project. Perhaps the most important responses were those that reminded readers that capitalism is a structured social system and not just the amassment of individual desires. Such responses necessarily stressed the internal coherence of capitalism. They showed the dangers not just of excesses of corruption but of basic principles of exploitation. It was this return to basics that made analysts focus on the global replication of new configurations of capital, labor, and technology. Yet now such simplifications seem inadequate. The idiosyncrasies of regional histories and persistent issues of violence and racial stratification have become pressing. War has reemerged as a central force for capitalism. Cultural genealogies no longer seem epiphenomena of economic change.

Most Marxist cultural theory of the late twentieth century focused on those forms—such as postmodernism—imagined at the forefront of the evolution of a monolithic capitalism.¹⁶ Yet, once we abandon this evolutionary view, we can attend to the experiences of those whose stories “fall away” from the official ladder of progress (Tadiar forthcoming). New projects of connection and hegemony are emerging here. We see this for example in the importance of rural areas—completely ignored in evolutionary cultural theories—in key capitalist realignments and anti-globalization struggles. But this is the realm of friction: Unexpected alliances arise, remaking global possibilities.

Rather than assume we know exactly what global capitalism is, even before it arrives, we need to find out how it operates in friction. Chapters 1 and 2 develop this idea. Instead of rushing toward global spatial compression, I examine the links between heterogeneous projects of space and scale making, as these both enable capitalist proliferation and embroil it in moments of chaos. In tracing the connections through which entrepreneurship operates, the cultural work of encounter emerges as formative.

On nature as knowledge: Late twentieth-century excitement about global integration gave new impetus to those who hoped to use advances in scientific knowledge as a force for global progress. This has been nowhere more evident than in the field of environmental conservation. Conservationists have been eager to promote global knowledge and agreement, which might save endangered species and environments before it is too late.

Yet conservationist efforts have been impeded by the rise of other forms of globally circulating knowledge. Transnational political and informational

networks have allowed public criticisms of conservationist projects to circulate widely. Even environmental activists may or may not agree with the established truths of conservation science. Meanwhile, public relations companies have made it possible to counter conservationist campaigns by spreading “alternative” science as well as self-conscious misinformation. As a result, political leaders and courts, as well as ordinary citizens, have been flooded with competing environmental perspectives. Each of these sources of criticism has forced conservationists to recall that global knowledge is neither monolithic nor settled.¹⁷

Many commentators move from this observation to what has been called the “science wars,” the debate over whether science is a privileged form of truth or a political imposition.¹⁸ Yet it seems better to explore just how knowledge moves. For this, it is important to learn about the collaborations through which knowledge is made and maintained. Conservation inspires collaborations among scientists, business, forest dwellers, state regulators, the public, and nonhumans. Through the frictions of such collaborations, global conservation projects—like other forms of traveling knowledge—gain their shape.¹⁹

Collaboration is not a simple sharing of information. There is no reason to assume that collaborators share common goals. In transnational collaborations, overlapping but discrepant forms of cosmopolitanism may inform contributors, allowing them to converse—but across difference.

Attention to collaboration moves discussion beyond the eternal standoff between opposing interest groups (e.g., the south and the north; the rich and the poor), but not because it assumes that compromise is always imminent. Collaborations create *new* interests and identities, but not to everyone’s benefit. In standardizing global knowledge, for example, truths that are incompatible are suppressed. Globally circulating knowledge creates new gaps even as it grows through the frictions of encounter.

Drawing from the insights of science studies and environmental history, chapters 3, 4, and 5 develop these ideas. Here I explore in more depth the relation between collaboration and generalization to the universal.

On social justice: The possibilities of thinking globally have inspired social movements of all kinds to imagine global causes. Yet global politics creates special problems. Social justice goals must be negotiated not only across class, race, gender, nationality, culture, and religion, but also between the global south and the global north, and between the great mega-cities of the world and their rural and provincial hinterlands. Coalition politics is essential. Yet what does it mean to work in coalition? The twentieth-century class-based solidarity model asks coalition allies to line up as parallel equivalents. Allies rarely line up that well. Without even intending to break

the line, they push in new directions. Their friction changes everyone's trajectory.

Furthermore, without the unifying frame of the state, what politics do transnational allies have in common? Post-Cold War social justice movements have tended to solve this problem by invoking the universal language of the Enlightenment, with its concurrence of justice and freedom. Human rights, feminist, and environmental causes have been influential across the world in part because of their language of universal rights. Whatever attempts activists have made at building politically sensitive coalitions have had to take place within this commitment to universal rights.

Yet, does this language offer its own political conditions, neutralizing meaningful coalition? Teaching a language of universal rights can foreclose other trajectories. Participants may be drawn into a framework of global observation and classification in which cultural difference becomes yet another brick of administrative data with which to be walled in. The importance of liberal frameworks in global social justice politics raises a number of issues for research. How do activists use globally circulating political rhetorics to devise and manage coalitions? How do logics of classification order differences among coalition partners even as they make it possible for them to work together? At the same time, how do encounters across difference exceed their disciplined boundaries to make new forms of politics possible? Chapters 6 and 7 explore these features of politics-in-friction.

It Didn't Have to Happen That Way

A bit of history offers a concrete illustration of friction and sets the stage for the chapters that follow. As inevitable as the story of resource exploitation may seem in hindsight, it is important to note that Indonesian tropical rainforests were not harvested as industrial timber until the 1970s. Situated at the confluence of the deep-historical commerce of the Indian Ocean and the China Sea, the Indonesian islands are hardly newcomers to world trade. Products from Indonesia's rainforests have spread around the world for many centuries. Yet the very biological productiveness that made these forests rich sources of commodities also blocked their use for industrial timber. Large-scale loggers prefer forests in which one valuable species predominates; tropical rainforests are just too biologically diverse. While colonial loggers prized Java's semi-tropical teak forests, they pretty much ignored the wetter and more heterogeneous tropical rainforests of the islands of Kalimantan, Sumatra, Sulawesi, and Papua.²⁰

All of this changed rather suddenly in the early 1970s, when Japanese general trading companies, the *sogo shosha*, hooked up with the New Order

regime of President Suharto, which had come to power in the blood of a great massacre. The New Order promised to solve the country's economic problems through the magic of foreign investment and loans.²¹ The government threw its weight into logging; a flood of foreign investment followed.²² State-making soon became entangled with logging as concessions were distributed to political clients, who made "voluntary" contributions to the regime's favored development initiatives.²³ The *sogo shosha*, which aimed to control trade, not production, offered loans and arranged trade agreements. Hungry for large quantities of cheaply produced logs, rather than for quality control, they were comfortable with ecological shortsightedness. In 1971, they cut from the Japanese trade all logs produced by nonmechanized (and ecologically less harmful) logging, thus cementing the new logging regime. By 1973, Indonesia was the world's largest tropical timber exporter (Ascher 1998).

Stories of the disastrous projects of transnational corporations and corrupt politicians have become commonplace, and this encounter perhaps just seems an ordinary link on a global chain. My point, however, is that the specific features of the link have ramifying effects. New trajectories for business practice, natural resource management, and class formation gelled from these specifics. Three features of these trajectories are especially relevant to my story. First, the rainforest was magnified in importance, simplified, and mischaracterized as a sustainable resource in the encounter between Japanese trading companies and Indonesian politicians. Forest simplification became a model for resource management and the organization of business more generally. Industrial tree plantations were later planted in place of natural forests. (Consider in contrast the no better but quite different trope of productive forest conversion, as in Brazilian cattle ranching.) Second, the adoption of the trading company model of amassment and market control accommodated forms of state-making in which public and private became hopelessly confused. (In contrast, the U.S. model of privatization continually converts public goods to private ones.) Third, the complicity of legal and illegal entrepreneurs, working at different scales, displaced indigenous rights and fueled regional boom-and-bust economies. I elaborate briefly.

The link between Japanese trading companies and Indonesian politicians created a new way of seeing the forest. Instead of biodiversity, loggers now saw only one family of trees, the dipterocarps. Dipterocarps are remarkable giants emerging out of the lower canopy to tower over the forest. But dipterocarp species are diverse, and individuals grow among many other families and species; there are no pure stands. Only in the peculiar circumstances of the Japanese-Indonesian connection were loggers able to imagine the rainforest as if it were a pure stand.²⁴ Dipterocarps—remade as disposable

plywood for the Japanese construction industry—all looked alike, and the rest of the trees, herbs, fungi, and fauna became waste products. This change also emptied the forest, conceptually, of human residents, since the fruit orchards, rattans, and other human-tended plants of forest dwellers were now mere waste. Logging companies were free to harvest these newly “uninhabited” forest landscapes.

In the 1980s, Indonesian businessmen turned against the export of profits to Japan, but in a particular way: by mimicking the *sogo shosha*. Indonesia banned the export of raw logs and built its own plywood industry.²⁵ Under the leadership of the President’s close friend, Mohamad “Bob” Hasan, the Indonesian Wood Panel Association, or APKINDO (*Asosiasi Panel Kayu Indonesia*), formed as a national marketing apparatus with control over plywood exports. APKINDO self-consciously adopted the Japanese trading model: forcing particular trading chains; taking over all middleman functions; controlling volume, price, and low-cost finance; and using government backing to maintain dominance. All plywood firms had to participate. From this position of control, APKINDO flooded world markets with low-cost plywood.²⁶ Most dramatically, it broke into the Japanese market, underselling Japanese manufacturers despite protective tariffs. “We’re the only guys in Southeast Asia who fight the *sogo shosha*,” boasted Hasan.²⁷

After the fall of the New Order, APKINDO became a symbol of corruption: Hasan had used his connections to force a whole industry into submission, and he had made a fortune in the process.²⁸ But during the New Order, his success formed a model for building the nation. Other products were organized into similar cartels and monopolies. In his brief moment of glory as Minister of Finance and Trade in 1998, Hasan explained this business-oriented patriotism: “Monopolies are okay. As long as the monopoly serves the interests of many people, it’s okay.”²⁹

As the identity of the nation became entangled with forest destruction, logging concessions became a clear sign of regime connections.³⁰ The state depended more heavily on the off-budget finance obtained from such favors. The forests became even more badly degraded. The encounter between Japanese trading companies and Indonesian politicians had been effective. The *sogo shosha* model held sway even though Indonesian cronies had replaced the Japanese. And the simplification of the forest as an uninhabited dipterocarp stand—the product of that encounter—formed the basis for a national economy based increasingly on what post-New Order Indonesians call “KKN,” that is, corruption, collusion, and nepotism (*korupsi, kolusi, nepotisme*).

By the 1990s, KKN was distributed from top to bottom. As state rhetoric turned from communal development to private entrepreneurship, small businessmen, village leaders, ambitious youth, migrants, thieves, police, and

petty gangsters all got involved in rerouting public resources as private gain. Where resource extraction licenses were not obtained through national channels, they were faked or fixed locally; illegal logging and mining became the systematic adjunct of legal exploitation. Illegal extractions proceeded as scaled-down versions of legal ones. In logging, district officials made arrangements with private operators, obtaining off-budget financing for their projects. Village heads were sometimes brought inside these arrangements, exchanging permission to log village forests for their own off-budget funding.³¹ The 1998 fall of the New Order did not improve the situation. The decentralization of natural resource permits in 2000 spread the possibilities for corruption.³² Illegal resource extraction rocketed out of control.

Ties between illegal and legal enterprise have been close. Most importantly, their collaboration undermines pre-existing property rights and access conventions, making everything free. Either official or unofficial alone could be challenged, but together they overwhelm local residents, who generally have been unable to defend their lands and resources against this combination of legal and illegal, big and small. Together, they transform the countryside into a free-for-all frontier.

The same period I have just reviewed saw the rise of a vigorous national environmental movement.³³ In the 1980s and the early 1990s, a period of serious government repression, environmentalism was essentially the *only* pluralist social justice movement that flourished across Indonesia.³⁴ As such, it drew social reformers of many sorts and became the vehicle for many, sometimes contradictory, hopes. The movement was an amalgam of odd parts: engineers, nature lovers, reformers, technocrats. Modernizing experts and romantic populists rubbed shoulders there. Social justice advocates made plans with sympathetic regime bureaucrats. In the repressive political climate of those years, even the bravest activists were cautious about what they said and did. Still, questions of freedom welled up, and activists argued against the hegemony of centralized development with ideas of human rights, farmers' rights, and indigenous rights.³⁵ In the mid-1990s, the easing of state vigilance allowed other causes to take the public spotlight, including democracy, labor, student activism, freedom of speech. However, environmentalism played a role in articulating dissatisfaction with the state—especially in regard to rural issues—through the decisive mobilizations that led to Suharto's resignation in 1998.³⁶

In the 1980s and 1990s, the movement was organized around difference, within the framework of nationalist advocacy. Rather than build a single centralized policy board, the movement was committed to negotiating among small groups organized by place, issue, or campaign. For most of this time, the movement imagined itself as coordinating already existing but

scattered and disorganized rural complaints. Activists' jobs, as they imagined it, involved translating subaltern demands into the languages of the powerful, including English. They offered themselves to document injustice, meet with ministers, and bring forward court cases. Translating back to let people know their rights—in barefoot legal clinics, meetings, or vernacular versions of international agreements—was equally important on the agenda. In their public representations, activists perhaps underestimated the messiness of the work of translation, but their practices jumped into the middle of it. (The prominence of women in leadership positions was explained to me in relation to women's facility with languages.³⁷) Rural campaigns in particular required engagement across differences not just of language but of multiple registers of life experience.

Within the links of awkwardly transcended difference, the environmental movement has tried to offer an alternative to forest destruction and the erosion of indigenous rights. The second half of this book explores this theme. To get there, I begin in the first part with the social links and cultural practices that made deforestation a destructive “business-as-usual.” I then turn to a wider interplay of transnational, national, and regional forms of knowledge about the forest. When I describe the environmental movement, I place it in relation to two of its persistent interlocutors: student nature lovers and village leaders. I show how the environmental movement came to depend on links with these groups, even while developing its own distinctive perspectives. In the last chapter, I consider a case in which these three groups reached across their differences to reclaim “community forests.” Their collaborations—like those of legal and illegal businessmen—rearrange property. Just as the encounter of Japanese trading companies and Indonesian politicians produced simplified dipterocarp forests, these activist-inspired encounters may yet produce new kinds of forests. This theme—the possibilities of friction—is explored and extended in all the chapters that follow.