

WORKS IN PROGRESS: TRADITIONAL KNOWLEDGE, BIOLOGICAL DIVERSITY AND INTELLECTUAL PROPERTY IN A NEOLIBERAL ERA

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I shall begin with that proverbial apologia, that uniquely superior form of special pleading that one participates in when opening with the disclaimer that one's presentation or essay is "a work in progress." What does it mean to represent one's efforts as a "work" that can be situated in some ongoing process one designates as "progress?" What forms of authority do we appeal to and what mediums of legitimation do we evoke when we so casually adopt such phases? In contemporary fields of power and knowledge, I will suggest, particular values are indeed bestowed upon individual and collective labors to the extent that they can be represented as "works" and thus positioned as singular, signed contributions to a particular linear trajectory represented as "progress". In any case, it would be more honest to represent my own intervention here as an effort in regress – a contribution towards an unworking,¹ of some particular anthropological prejudices about "culture" and "tradition" and their political potential in international legal arenas.

As an anthropologist who has only recently begun to do research and fieldwork in international legal arenas, I quickly found myself in a position of some ambivalence. Although anthropologists have been quite hostile to the concept of culture in the past two decades, in other disciplinary fields it has been embraced enthusiastically. In international law, in particular, the concept is very much alive and appears to be performing an ever-greater amount of complex ideological work. As an anthropologist, I was disturbed by rhetorical deployments of culture as a

noun – something which can be recognized, enjoyed, possessed, maintained, disseminated, and preserved, according to the major human rights covenants – but nonetheless found myself intrigued by the political possibilities afforded by affirmations of culture in global struggles for social justice. This optimism did not come easily. Amongst critical legal scholars, as well, emphasis upon "culture" is nearly always seen to represent conservative if not authoritarian tendencies which serve to demonize others, justify local forms of domination and subordination (usually over women), obscure racism, and mask more fundamental forms of social inequality.

Nonetheless, in this period of accelerating globalization and the emergence of a so-called "new world order" based upon the growing hegemony of information capital, we are witnessing renewed attention to "cultural rights" based upon possessive relations to traditions in a number of international fora. "Information capital" it must be said, is something of an oxymoron. Information only becomes capital when it ceases to be information, and becomes commodified – aggregated in some way as an identifiable work of human labor and protected against unauthorized forms of dissemination. This is accomplished legally, through intellectual property protections, which, until quite recently, were understood as cultural rights – to benefit from the fruits of one's creative labors, the moral right to claim one's works, to contribute to and share in the accumulated heritage of humankind – loosely associated, in human rights terms, with rights of cultural identity and cultural integrity. The association between these various cultural rights was rarely articulated; but contemporary economic, political and legal developments are making this task increasingly imperative as neoliberal trade regimes assume every greater hegemony.

Intellectual property is a doctrinal field that relies upon modern European understandings of progress, science, and civilization and the significance of cultural works in developing both national canons and "human heritage." These understandings pose challenges and possibilities for non-Western others (including the West's own internal others – nomads, artisans, and peasants as well as internally colonized nations) who seek to protect alternative forms of creative worldmaking from appropriations and exploitations in Western commodity markets. In a more utopian and normative moment, I have visited the issue of protecting "traditional" or "indigenous"

knowledge as a form of intellectual property through the prism of the major international human rights covenants and their commitment to preserving and maintaining human culture.² In this essay, I will shift position, simultaneously voicing and then interrogating my anthropological ambivalence toward this normative aspiration. I will do so by critically exploring the tropes which so vigorously thrive and proliferate in the rhetorical fields in which claims to indigenous knowledge are made. First, however, some delineation of the international legal contexts in which these rhetorics flourish is appropriate.

The Convention on Biological Diversity (CBD) specifically acknowledges the importance of traditional knowledge in biodiversity preservation and sustainable development. The CBD is a legally binding international framework that requires that those states who are party to it (over 170 as this is written) "respect, preserve, and maintain knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles" (relevant to the preservation of biological diversity). I will simply use the acronym TK – traditional knowledge – to refer to this nexus of practices, innovations, techniques, and knowledges from hereon in. The CBD insists that states "promote the wider application of TK with the approval and involvement of the holders of such knowledge" while encouraging the equitable sharing of benefits from its use. Finding appropriate means of implementing this requirement is an ongoing endeavour. As Arturo Escobar has suggested, "an ethnography of the CBD and related network activities remains to be done" and he points to the need to attend to national, regional, and international meetings leading up to COP meetings, the practice of national delegations, the emergence of new knowledge and policy areas, the proliferation of issues, and the growing role of NGOs and social movements in this process.⁴ I doubt that any singular ethnography of such a global process is possible; nonetheless, my own work is a contribution to this larger project.⁵

The Convention mandates its Parties to use their intellectual property systems to further Convention purposes. From May of 1998, the World Intellectual Property Organization (WIPO) has been working in cooperation with the Convention parties to make international intellectual property agreements supportive of Convention goals. A special ad hoc open-ended inter-sessional

Working Group has been created to establish the implementation of Section 8(J) – the provision dealing with traditional knowledge – and this Group, with a funded indigenous caucus, has been meeting biannually with delegates from all state parties. This is the first instance in which indigenous peoples have been given supported standing in any United Nations forum other than those specifically addressing an autonomous set of indigenous human rights, which makes it a particularly important global political forum and provides an opportunity to put indigenous issues in front of much wider groups of decision-makers.

These negotiations bring together hundreds of indigenous NGOs from around the world (Maori and Aboriginal peoples, as well as First Nations, but also peoples from the Mongolian steppes, the Solomon Islands, descendents of escaped slaves in the Americas — the meaning of the "indigenous" is politically negotiated here), together with traditional healer's associations (from Africa, Asia, and former socialist countries), third world feminist activists, environmental NGOs, representatives from global financial and development institutions, civil servants, government lawyers and scientists. In these negotiations we witness the emergence of incipient forms of governance and governmentality – as networks of citizens, NGOS, governments, and Fourth World governing authorities pressure First World governments and UN institutions to insist upon justice, equity and accountability in the expropriation of genetic resources, in the use of knowledge of economic and social value, and in the international formulation and exercise of intellectual property rights, while simultaneously creating new regimes of access and use at local, regional, and national levels. Lawmaking in this arena is emergent, iterative, and performative – it reproduces like a multisectoral virus as model legislation, contracting practices, database models, protocols and declarations are spread across the internet and adapted, adopted, and proclaimed in local communities, regional networks, national government agencies, and legislatures.⁶ This is a global arena of intense multisectoral legal pluralism as international conventions and global declarations are put into dialogue and articulation with national legislation, regional positionings, local protocols and "customary laws" – both indigenous and international. Like most attempts to fundamentally shift and transform relationships of power, it is

fueled by rhetorical forms and empowering fictions -- in this case, narratives of tragedy, loss, salvation, and potential redemption.

Abstract, amorphous, ambiguous though it often appears in international political discourse, TK is embraced as essential to the preservation of biological diversity, the livelihoods of the poor, and prospects for sustainable development, while integrally related to fundamental cultural difference and endangered identities.⁷ The "world's" greatest concentrations of biological diversity are areas occupied by peoples who have distinctive cultures which are endangered.⁸ Cultures are represented here as more or less synonymous with distinctive languages, and such languages are seen as vanishing. An estimated the preservation of TK, 4 - 5,000 of the 6,000 languages in the world are spoken by indigenous peoples (although the states in which these people reside may not recognize them as such). Those countries which contain peoples speaking the largest numbers of languages are also those that house the greatest biological diversity in terms of species and interspecies variations.⁹ These are also states in which the greatest numbers of indigenous and peoples with "traditional," or near-subsistence livelihoods reside. The numbers of people who live in direct dependence upon their knowledge of and use of local ecosystem resources is substantial. These biologically rich resources are also disappearing at an alarming rate:

through activities such as logging, land clearance and mining, large scale "development" projects threatening... indigenous peoples' whose livelihoods depend on these environments. There is in this sense a direct relationship between biological diversity and cultural diversity; maintenance of the former can help preserve the latter. The reverse is also true, since indigenous peoples are often the custodians and stewards of biological diversity and do so through their culturally specific knowledges of local environments, the maintenance of cultural diversity is an important factor in the conservation of biological diversity.¹⁰

Local and indigenous peoples who speak ancestral languages appear to be severely threatened by loss of sovereignty over land, resources, and cultural traditions and the promotion of linguistic assimilation. As they become increasingly marginalised local people lose local scientific knowledge, innovative capacity, and wisdom about species and ecosystem management and "any reduction of language diversity diminishes the adaptational strength of our species because it lowers the pool of knowledge from which we can draw. The loss of traditional farm communities,

languages, and indigenous cultures all represent the erosion of human intellectual capital on a massive scale."¹¹ As threats to traditional ways of life and threats to biodiversity are twin perils, *in situ* rather than *ex situ* forms of conservation are encouraged, to maintain the ongoing cultural production of biological diversity – local ecosystems are to be maintained as works in progress.

A critical contemporary linguistics, however, might well look askance at the UNESCO estimate that half of the world's languages will disappear within the next century upon which so much of the discourse of TK and biological diversity hinges. The discourse of vanishing languages and its presuppositions adopts, and strategically deploys the tenets of an older form of anthropology in which the mapping of species, cultures, and languages was a museological or taxonomically inspired enterprise. Either it betrays an ignorance of contemporary understandings that the stabilities of languages are ideological constructs emergent from political and economic histories, or, is simply, "evidence of the way such nineteenth century concepts provide resources for twentieth century international social projects."¹² As Michael Silverstein suggests, "the image of 'disappearing' or to use the green metaphor – 'endangered' languages and cultures is really a duplex one, produced as much by the change in the way we go about doing linguistic and sociocultural anthropology as by any forces of globalizing homogenization." I take Silverstein to suggest that languages are always already in a dialectics of formation and dissolution, permeable to one another, and only ever relatively stable. Nonetheless, he does acknowledge that there are increasingly powerful social, political and economic "forces that ever more efficiently and directly interfere with the modes of autonomous 'localization' of language and culture in relatively small-scale groups," which may be recognized as "loss" to the extent that "these nodes of our taxonomic trees of difference do indeed become extinct as autonomous localized language/cultures."¹³ The language of loss, however, fails to acknowledge "microvariation within politicoeconomically larger-scale units – a new and emergent fact of descriptive life somewhat jolting to the taxonomic and museological views."¹⁴

Speciation of languages, like speciations of cultures, are not natural facts, but sociocultural facts relative to which groupness is constituted and transformed and a group's differential identity

relative to others asserted. Still, it is hard to understand how "microvariation" within larger scale-units can substitute for the specificities of knowledge of habitat that uniquely distinguishes autonomous and localized languages. For the environmentalist, ecosystems and their properties are of inestimable and unknown value to humankind in terms of the resources they may hold for future human development and security against the risks posed by excessive reliance upon narrow numbers of crops, animals, and agricultural techniques. Those ecosystems which are most at risk are those which harbour the greatest biological diversity and those peoples who know the most about these habitats and the relationships between their species hold this knowledge in linguistically specific ways.

Because language plays a crucial role in the acquisition, accumulation, maintenance, and transmission of human knowledge concerning the natural environment and ways of interacting with it, the problem of language endangerment raises critical issues about the survival of knowledge that may be of use in the conservation of the world's ecosystems. . . . The knowledge contained in indigenous languages has much to contribute to scientific theories through the uncovering of potentially invaluable perspectives on a variety of problems such as land management, marine technology, plant cultivation, and animal husbandry.¹⁵

Indeed, the enormous intensity of interest in TK in international policy-making circles and the amount of energy expended on the discussion of how to preserve it over the last decade may well have more to do with identifying and tapping into reservoirs of insight, technique, and systemic knowledge that hold promise for future developments in science and technology than it does with the maintenance of local people's livelihoods, the alleviation of their poverty, or the promotion of their political autonomy. Nonetheless, as we shall explore, to the extent that the discourse provides grounds for the recognition and valorization of cultural differences, it also thereby provides a means of making linkages to other human rights associated with cultural specificity.

Global efforts to respect, preserve, and value TK deploy a peculiar discourse of power and persuasion, that braves the perils of primitivism and depoliticizes positions of impoverishment by throwing the more acceptable mantel of "culture" over conditions of degradation and local exploitation, inviting a global "we" to embrace narratives of portending linguistic and biological loss as our own "loss of human capital," so that "we" might embrace impoverished others as

human subjects upon whom we are or might at some future point be dependent – or so it now seems – this political project is itself very much a work in progress.

The work of "culture" here, however, is related in a fundamental way to transformations in capital accumulation that create greater and greater pressures to harness "information" so that it can be aggregated and transformed into privately held "works" of intellectual property.

Globalization refers not only to an integration of markets, but to the minimizing of the time it takes for information to flow and to be acted upon, for information to become capital as well as to be capitalized upon. The production and dissemination of "informational goods" is accelerated with the increase in global networks of electronic communications. Goods which are informational are valuable primarily because of their symbolic components rather than their physical substrate or medium of delivery. Such goods, like music, brands, computer software, choreography, perfume blends, screenplays, pharmaceutical formulas, manufacturing techniques, or integrated circuit designs, are, fundamentally, "public goods." Until they are artificially commodified – protected against unauthorized reproduction by the imposition of legal rights of exclusivity – their value cannot be possessed and exploited once they have been put into the public realm through any kind of reproduction. The process of commodifying cultural forms is a long historical process of extending, expanding, and proliferating intellectual property rights. As technologies provide ever greater means for ever more extensive communication and reproduction of cultural forms and greater opportunities for unauthorized exploitation, greater and greater monopoly rights over these intellectual properties have been created.

The culmination of this process occurred with the passage, largely at the behest of multinational corporate actors, of the TRIPs Agreement (Trade Related Aspects of Intellectual Property Rights, Including Trade In Counterfeit Goods) at the conclusion of the Uruguay Round of the GATT trade deliberations in 1993. As a consequence of this Agreement, passed with next to no public deliberations or participation by any elected officials, states across the planet have obligated themselves (as a precondition to engage in trade and under threat of severe trade retaliation measures) to implement what its proponents hoped to be the most expansive set of

intellectual property protections ever proposed in world history. This legally binding instrument was promoted almost entirely by industry capture of government regulatory agencies and by industries with the most to gain from greater protection for informational goods (the pharmaceutical industry, the entertainment industry, electronics, publishing, and agropetrochemical industries chief amongst them).¹⁶ During the last decade, we have also witnessed an unprecedented increase in legally recognizable patentable subject matter as well as the extension of protection to mere aggregations of data in some jurisdictions. For the purposes of considering biological diversity and traditional knowledge, it is important to understand that technological advances in DNA extraction, identification, and sequencing have turned all elements of nature into "informational goods" subject to commodification:

..what had once been understood as simply a material *resource* – plants, animals, some bark or seeds – had become also, with biotechnology's capacity to access the genetic or biochemical components within it, what could be referred to as *an informational resource*. It is now possible to extract genetic or biochemical information from living organisms, to *process* it by replicating, modifying, or transforming it, and to *produce from it* minor modifications of this information that are themselves able to be utilized as raw materials, commodified as resources. The genetic information embodied within material resources has become, in effect, the *instrument of production, not only for that resource, but also for a range of other potential resources that could be produced by recombining the information in an almost limitless number of ways*.¹⁷

The biotechnology industries, like other industry forces with large investments in informational goods, realized that the best way to maintain "competitive advantage" (or an anti-competitive privilege as some might deem it) was to control the networks through which information could be traded and control the means by which it could be reproduced. The capacity to restrict the circulation of such information was most effectively secured by global recognition of patents in the materials they had extracted, identified, sequenced and modified – ensuring them exclusive rights to market such materials and a share of the profits from any products derived from these informational resources.

The so-called level playing field for international trade ensures that some goods – like genetic resources, materials, design, timber, textiles, techniques, know-how, practices and knowledges that are extracted from the "less developed countries" flow freely, whereas others – genetically modified or industrially developed seeds, fertilizers, pesticides, software, medicines do

not flow freely in trade but are received only as monopolies that command lengthy requirements of rent payments for each and every usage of their informational content. The field is not a level one; those who merely provide resources or information (and resources whose "information" can be extracted through the technologies of others) that they cannot protect as works of intellectual property are at a profound disadvantage. Throughout the world we now see efforts to "indigenize" knowledge so that it might cease to be mere information and pass, instead, as culture. Only then may claims be made to possess, control, preserve, and maintain it; only then will peoples be respected – if only, at first, for what they "know" and its potential value to a global "we" and "our" need for new conceptual resources to further the objective of "sustainable development."

Opposition to the TRIPs Agreement emerged only after the ink was dry. On first glance the Convention on Biological Diversity appears to partake of the same neoliberal logic; it is part of a series of international environmental initiatives in which "nature" is seen to be a "public good" best managed through market mechanisms. Biological resources are represented as goods which are most appropriately dealt with in an open system of flows that need to be efficiently mapped, monitored, and transferred so that information about genetic resources can be globally cumulated, communicated, and, most importantly, capitalized upon. The so-called "common heritage" of biological diversity is replaced by the principle of national sovereignty to ensure their better management, their availability for national development projects, and, it would seem, to ensure the juridical conditions that will enable the security of possession necessary for contractual relations involving their exploitation. The potential profits to be derived from "biotechnology and especially recombinant DNA technology are creating new incentives to inventorize and screen the whole range of known and unknown organisms."¹⁸ The biotechnology industry requires certainty for commercial transactions and a singular uniform or at least multiple similar regulatory regimes which will facilitate access to genetic resources and to local knowledge and expertise that will both price these undervalued resources and create market-based incentive for their trade

The CBD, attempts to establish a reciprocity of both access to and benefits from the use of genetic resources by linking a Northern right to access to resources and knowledge with prior

informed consent and compensation to a Southern right (yet to be realized) to enhanced access to technologies for sustainable development purposes. According to Michael Flitner, "the very functioning of the CBD depends on the restriction of both access to 'raw biodiversity' (and local knowledge thereof) and access to technologies and organisms derived therefrom."¹⁹ To the extent that resources and knowledge thereof, however, flow simply as raw materials and raw data, the benefits to be derived from restricting access to them and/or pricing them as raw goods are limited compared to the benefits to be reaped from restricting access to and pricing derivative technologies that may command monopoly rents through their protection as intellectual properties.

Biodiversity is, as anthropologist Corinne Hayden remarks in a discussion of the practice of "biodiversity prospecting," a distinctive kind of natural resource:

Unlike prospecting for material commodities such as minerals and timber, biodiversity prospecting is not dependent on large-scale harvests of raw material. Rather, its key objects of value are biochemical compounds extracted from plants, microbes, or insects, which biochemists and pharmacologists attempt to synthesize in laboratories for product development. The value of biodiversity thus ultimately lies in its ability to be radically scaled-up: a few milligrams of extract might be all it takes to provide the lead to a useful compound. And if biochemists succeed in synthesizing the compound in question, or in producing a modification thereof (by no means an inevitable outcome), they no longer need access to the raw material in order to mass produce a drug. It is this potential for turning plants into "information," and information into a product, that allows proponents to label bio-prospecting a form of sustainable – or ecologically friendly – economic development.²⁰

Compounds derived from biological resources, isolated and modified, are being accepted in many jurisdictions as patentable innovations, which creates an exclusive right to collect royalties from most other uses of that compound, even if it is independently created from other sources. It also creates a right to prevent others from using the so-called innovation (It is beyond the scope of this paper to make the argument, but there are good arguments to be made that such activities and products do not, in fact, pass the necessary threshold tests for patentability and that patents granted on such products are and should be considered invalid). There are now some "bioprospecting contracts" in place that provide limited compensation for the states in whose jurisdiction the resources were located, and some others that are structured to provide benefit-

sharing with local communities whose knowledge of such resources provides guidance to where potentially valuable medicinal or agricultural properties of plant, animal, or microbial properties might lie. Nonetheless, "indigenous" and "local communities embodying traditional lifestyles" are at the low end of a complicated hierarchy of actors with ascending levels of legal sophistication. As Hayden points out, even those arrangements which do contain "benefit sharing provisions" with local peoples do so by calibrating the degree of "innovation" that goes on at each level:

...even as prospecting helps make visible and produce ever-widening claims over biological resources, the construction of biodiversity as a potential form of intellectual property also is being used as a mechanism to propose and fight for new forms of market-oriented "participation" and rights for disenfranchised communities. That is, the definition of biodiversity's value as informational also opens the way for redistributing particular kinds of claims to rights over resources, by asking, at what part in chains of "innovation," is value added, and by whom?²¹

The drive to represent local peoples' knowledge and practices as innovative works – forms of intangible or intellectual property – integrally related to an indigenous identity or a "traditional lifestyle" emerges from this political economy.

Over the course of its interpretation during the last five years, the Convention on Biological Diversity has become the focus of many third world governments, indigenous peoples, and "civil society organization" energies because it appears to represent the only major international legally binding treaty that has some potential to counter the neoliberal imperatives of the TRIPs Agreement. As indigenous peoples have become more active and sophisticated participants in this policy-making sphere and brought to it expertise honed in other United Nations venues, they have put issues of cultural integrity, democratic decision-making, accountability, and self-determination squarely on the bargaining table. Their capacities to do so are greatly assisted by the rhetorical leverage provided by international human rights bodies.

Most indigenous peoples (and many of those who might be deemed to have "traditional lifestyles") are enclosed by state jurisdictions with whom they have long historical relationships of distrust, betrayal, and violence. Rather than trust state delegates to the CBD to represent their interests they have used the CBD agenda, forums, funding, and publicity opportunities to further global indigenous human rights initiatives towards self-determination. Those who are recognized as indigenous (and those who aspire to be) as well as supportive NGOs have used the CBD

process to further establish legitimacy and support for the Draft Declaration on the Rights of Indigenous Peoples negotiated almost simultaneously with negotiations over the implementation of the CBD. Whether or not the Draft Declaration is adopted by the UN member states in the next few years, it has created a vocabulary of assertions and claims that have reiterated in so many contexts that they may eventually be considered a form of international customary law.

Under international legal principles, only peoples may claim self-determination, and peoples have cultures. Indigenous peoples' rights to their lands, territories, and resources are recognized as deriving from their cultures and spiritual traditions. Peoples are entitled to pursue their cultural development, to revitalize and protect cultural traditions and the right to control their intellectual and cultural properties which includes rights to special measures to control, develop, and protect their sciences, technologies, and cultural manifestations (which includes knowledge of local genetic resources). Respect for indigenous knowledge, cultures and traditional practices are explicitly recognized to contribute to sustainable development. A more recent set of draft principles for the protection of indigenous heritage defines it to include knowledge transmitted intergenerationally and pertaining to a particular people or its territory. All of these nascent indigenous human rights shape the rhetorical of indigenous peoples in the CBD. Since 1998, the CBD has officially emphasized the need for dialogue with representatives of indigenous and local communities (although it stops short of recognizing indigenous groups as peoples due to the opposition most states have to respecting the principle of self-determination). The Open-Ended Inter-sessional Working Group to establish the implementation of Section 8(j) and its indigenous caucus, mentioned earlier, met for the first time in Seville, in March 2000 and national, regional, and international networks of indigenous and local community representatives have been meeting and communicating since then. Significantly, the dynamic nature of traditional knowledge, innovations and practices and their importance in the preservation biological diversity has been continually reiterated.

Meanwhile, the entire TRIPs Agreement is pending review by the Trips Council, and many third world governments are insisting that the forthcoming review must consider the rights of

states to make intellectual property policy in furtherance of their environmental commitments under the CBD. This entails, in their view, an expansion of those technologies and innovations that may be excluded from patentability, including all biological materials and technologies whose "innovation" is based solely on the isolation and synthesis of active properties known to local peoples. The countries deemed by TRIPs to be "developed" (and those that contain the largest commercial biotechnology sectors) are opposed to any amendments that would reduce the scope of patentable subject matter. Many developing countries seek to use the CBD obligations to preserve genetic resources and protect TK as a lever to open the next WTO trade round to environmental considerations, to limit the power of Northern intellectual property holders, and to insist upon more equitable distribution of resources, and forms of technology transfer that meet development needs. In short, the drive to protect TK is one of a series of global initiatives designed, after the fact, to limit the proprietary powers that multinational corporate interests (backed by the coercive powers of the state) gained through the expansion of trade regimes to protect their own intellectual properties.

By focusing upon intellectual property as the legal and cultural means by which global flows of information are commodified, capitalized upon, managed, and policed, I suggest, we can achieve a more critical perspective upon so-called "information economies." This focus also brings into view concrete acts and movements of social resistance to the violence of "informationalization,"²² many of which involve the evocation of culture and insistence upon the integrity of traditions as they deploy the rhetoric of intellectual property against the grain. In *The Cultural Life of Intellectual Properties*,²³ I argued that intellectual properties are politically generative – they have productive as well as prohibitive potential – providing cultural resources (rhetorical forms, signifying vehicles, and authoritative texts) for the construction of contemporary authorities, identities, moral economies, and proprietary ethics. Conceptually this was a preliminary step in developing a theory of the cultural politics of authorship – a term which I provisionally use to refer to the concepts of creativity, genius, innovation, discovery, novelty, and invention that undergird contemporary debates about propriety and proprietorship in global

economies of trade and communication. A theory of the political economy of authorship is necessary to understand the conceptual ideological scaffolding which legitimates the so-called global harmonisation of intellectual property laws and claims made by media, entertainment, agricultural, petrochemical, and pharmaceutical industries with respect to the use of new information technologies and the distribution of benefits they afford.²⁴ Major redistributions of economic and political power will be effected by legal recognitions of authorship in these arenas.

Issues of intellectual property rights and the distributional impact that the allocation of such rights will effect have motivated scholars, activists, nongovernmental organizations (now often nominated civil society organizations), political ecologists, environmentalists, ecofeminists, and ecosystem peoples' movements²⁵ to recognize that representations of culture, knowledge, and information have worldly consequences that threaten to effect major shifts in power and resources. To understand these movements, however, it is necessary to delineate key aspects of the conceptual scaffolding that supports global regimes of intellectual property and, significantly, provides rhetorical opportunities for inverting the entitlements it affords. To the extent that industries consolidate around the management and control of information, it becomes crucial to critically scrutinize the rhetorical tropes – such as invention, discovery, originality, novelty, obviousness, and creation – that legitimate the commodification and privatization of cultural forms (including local ecological knowledges) and their alienation from particular relationships within social communities of human belonging.

Such an inquiry is by necessity an inquiry into the "workings" of capital. Legal anthropologists have been instrumental in exploring the globalization of capital as an historical cultural and material process – insisting that traditional approaches to political economy and cultural perspectives on capitalism will remain both abstract and unconnected until we address the constitutive role of law in creating the cultural fictions through which capital enunciates the form and ensures the force of its entitlements.²⁶ These fictions, moreover, serve to incite and to animate other rhetorical tactics that re-deploy these fictions to other ends and agendas. However, it is important to recognize that "the other" never stands outside of, or beyond the law but is

always already standing "before the law" – phrasing injustice²⁷ in a productive and diacritical relationship with juridical regimes and the objects and identities they countenance.

Let me attempt to illustrate this through a consideration of transnational struggles to redefine "the raw and the cooked" on global terrain. These are struggles of indigenous peoples, subsistence farmers, forest-dwellers, and other marginalized groups to prevent local knowledge and local resources being reduced to mere data freely available to the "information intensive industries" of a postindustrial economy. The cultural logic of intellectual property law entrenches a European colonial worldview in which individuals (including corporations) lay claim to intellectual properties by means of deploying genius and innovation to transform resources, information and ideas into "expressions," "inventions," or the currently trendy "innovations," which can be protected as "works" of intellectual property. Nature is transformed into "culture" by such processes of human creativity and such "works" are encouraged as contributions to "progress" in the arts and sciences (indeed, the U.S. constitution explicitly grants copyright and patent powers for this purpose). In international patent practice, for instance, the idea/expression dichotomy traditionally assumed the form of a global cartography – Northern, Western individuals required unfettered access to the uncultivated resources of the South – glossed as the "common heritage of mankind."²⁸ Whether represented as nature or as ideas, the resources and knowledges of nonwestern others were regarded as merely the means with which Western authors could produce expressive works and technological innovations. Whether the works produced were pharmaceuticals, fertilizers, or textiles, these works contributed to "human" progress. Products of Nature become products of human Culture through Western authorship. As an incentive to promote such creative initiative the Western innovator was given a limited monopoly on the invention to reward him for contributing it to the canon of works that comprise human civilization.

This edifice is maintained by dozens of other modern misrecognitions and legal fictions (about the practices of science for example, corporate research and development, the character of traditional agriculture, plant breeding practices, the conditions under which scientific knowledge is generated and transmitted, the promiscuity of nature and its natural generativity, etc.).

Discounting these fictions is necessary and important work, but that is not my purpose here. In any case, others have done so and doing so has assumed ever greater importance given the increasing size and power of biotechnology industries whose profits have been enabled by the access to Southern resources this discourse legitimates. I am concerned, instead, with particular responses to the sudden awareness on the part of global political players that these resources are disappearing; species and varieties are becoming extinct, genetic diversity is being lost, and something must be done about it and quickly. Over the last decade, this sense of global urgency has provided a major political opportunity for repositioning the South in international legal arenas. It is this repositioning and its rhetorical politics that I shall explore here.

I could nominate this narrative "The Knowledge Rich and the Biologically Poor" but I prefer a formulation suggested by Pat Roy Mooney – "Whether the People who love Panda Bears Can Respect the Genius of the Poor."²⁹ Let me make it clear at the outset that my political sympathies do correspond with the redistributive aspirations that lie behind this political poetics. I am well aware that my characterization of the discourse deployed in the service of this agenda skirts the margins, if it does not run the risk of appearing to ridicule it. Nonetheless, it is a risk I am temporarily prepared to assume, if it helps us to better understand the poetics of international legal politics. The sense of global urgency posed by species loss created an opportunity that has been seized by indigenous peoples, Asian and African farmers rights groups, rainforest inhabitants, and the academics, environmentalists, and NGOs that support them to contest the colonial categorical framework that legitimates the international intellectual property system. Indeed, in international policy circles, United Nations' documents, indigenous declarations, NGO statements, and academic articles during the past decade, this discourse has been turned on its head. Inverting its terms and reversing its valences, "the South" has potentially effected a seachange in global legal discourse, if not yet in practice.

The increased use of the term "biopiracy,"³⁰ following upon the Third World Network's characterization of GATT as a form of "Recolonization,"³¹ and the emergence of the concept of "biocolonialism"³² are indicative of this inversion. Rhetorically, this inversion has been

accomplished through a number of means but arguably the most significant of these is the insistence that indigenous ecosystems are inscribed environments, the qualities of which have been put there by the deliberate development and creative cultivation activities of their inhabitants. Habitats are now represented as social texts, created by the authorial activities of peoples or communities – the result of which is a cultural work of biodiversity.

Local communities, we now learn, nurture and improve natural resources.³³ Jungle habitats are characterized as experimental laboratories in which genetic properties are routinely discovered, synthesized, and honed by tribal peoples. Resources exist in their current form thanks to the applied knowledge of indigenous and traditional communities in monitoring and improving them for specific purposes. Landraces (wild plants or partner species) are the outcome of a continuous and dynamic human development process. They are not stable products, but reflect adaptation to local agroecological production conditions and to the specific production preferences of different socio-economic, gender, and ethnic groupings within farming communities – whose experimental moxy should be both safeguarded and encouraged. Peasant ecological practices comprise active processes of in-situ research and innovation and by shaping genetic flows of biodiversity peasants become "small in-situ biotechnologists."³⁴ Even noncultivated plants found in the environs of traditional farm and indigenous communities are represented as having been nurtured or developed or as an integrated part of farming or forest/farming systems or community innovation systems (depending on the audience appealed to). Local recognition of the value of wild plants is evident, we discover, in the preservation and improvement of the local ecosystems of which they are a part. Such preservation and improvement, it is implied, should be seen as the intentional and innovative activity of unrecognized authors who seek to produce complementarities and synergies between themselves, the flora, and the fauna. I shall quote, at length, one typical representation titled "The Indigenous Regime of Biodiversity" involving peoples in Amazonia:

The indigenous peoples of Pastaza embody traditional ecological practices that shape the conservation, use and transformation of biodiversity in diverse Amazonian ecosystems. They have developed a complex land-use system...Biodiversity is essential for their agroecological practices, their food security, their primary health care, the local ecosystem

resilience, and many cultural values alike. They have developed a whole indigenous agroecology, which is conveyed by both ecological practices and cultural meanings, and whose crucial component is biodiversity. They cultivate more than 50 different plant species...They also manage a wide genetic agrobiodiversity for many of the cultivated plants...fed by their cultural values as demonstrated by a culture-biodiversity curve when comparing genetic agrobiodiversity and cultural values of the cultivated plants...Their planting of many fruit trees and shrubs gives rise to anthropogenic forests. From this human ecology context, the mainstream perception of Amazonia as a *wild* ecosystem and as a pool of *pristine* biodiversity resources is shown to be incorrect as other ethnoecological research also suggests. The indigenous biodiversity regime also comprises a collective system of managing and sharing plant genetic resources, which feeds an open flow of knowledge and innovations on biodiversity...they broadly disseminate innovations and discoveries. Their cultivated fields, and also the forests, are in-situ and in-vivo germoplasm banks, where large amounts of biodiversity are conserved, managed, shared, and cultivated...In fact there is a cultural codification of deep ecological insights, so that indigenous ecological knowledge is inextricable from the cultural practices.³⁵

The utility of genetic resources, it is asserted, has been developed by local peoples whose knowledge is represented as perhaps more sophisticated than that of Western scientists, who appear to engage in engineering or altering rather than in any real creation, producing a dull uniformity rather than valuable diversity. Indeed, the innovations of Western scientists for which patents are granted are described as modest alterations or (better yet) minor tinkering. Patents granted for processes of treating plants and for the insecticides developed from them are sniffed at as mere derivatives – slightly modified versions of the original.³⁶ Each and every seed, it would seem, is an "original" to which we can affix a cultural if not an individual signature.

In this transnational discourse, the South has for too long been subsidizing the North and peoples have had to pay for the results of their own genius. The genetic resources found in ecologically diverse environments are valuable, Northern scientists assert, because of their intangible genetic information. Advocates for the South, however, argue that it is impossible to say that the collection of germ plasm does not result in deprivation to the source culture because only a few seeds are taken. The value of the work lies in its genetic structure, which is present even in the most minimal amounts of material. Just like Northern authors which cry deprivation when the hearts of their works – which embody their individual personalities – are reproduced without compensation. Southern cultures are deprived when the distinctive inscriptions of indigenous knowledge are reproduced in the genetic engineering of others. In short, to avoid having genetic resources essential to local livelihoods reduced to mere "information," these have

been reconfigured as cultural works, in progress. This rhetoric is deployed both by those who support the idea of protecting TK as a distinct form of intellectual property (although there are many variations in approach to this matter) and by those who oppose any further extension of intellectual properties and advocate instead for an expanded public domain.

If my point were simply that people speak to power in the language that power understands and/or that the excesses of this rhetoric match those of the discourses it seeks to counter, I would only be saying the obvious. However, I began by evoking my ambivalence as an anthropologist with respect to the particular position of culture in this subaltern discourse, and in the international legal arenas in which it is heard. My own ambivalence appears to reflect in microcosm the varied and conflicted responses to the development of the category of indigenous knowledge that have emerged within the discipline of anthropology. These responses, I would suggest, illustrate and give voice to pervasive disciplinary anxieties about the concept of culture, its colonial provenance, and its contemporary deployment.

For the past two decades critical anthropologists have been renouncing "culture" – recognizing the origins of the concept in forms of colonial governance, its complicity with Orientalism, and showing how many, if not most, constructions of tradition and cultural identity were reifications that served the interests of settler and colonial elites. Given this history, some anthropologists have taken great pains to distance themselves from the concept of culture; exhortations to go beyond culture, forget culture, transcend culture, and to write against culture were ubiquitous in the late 1980s and early 1990s.³⁷ More recently, some critical anthropologists have suggested instead that we "site" culture, recognizing "that while anthropologists are preoccupied with de-essentializing the concept of cultural wholes, many of the very people we study are deeply involved in constructing cultural contexts which bear many resemblances to such cultural entities."³⁸

At the same moment that the anthropological profession experiences a loss of faith in this concept of culture, it has become embraced by a wide range of culture builders worldwide. The paradoxical result is that anthropological works are increasingly being consulted by people desiring to construct cultural identities of a totalizing sort which the anthropologist finds deeply problematic. Even though anthropologists may fear that the desired cultural

identity derives from an earlier anthropological discourse that has become naturalized in various local contexts, this identity cannot be discarded as irrelevant.³⁹ Indeed, the discipline's new orthodoxy of "writing against culture," current practitioners' aversion to scholarly "essentialism" and distrust of others activities of "self-essentialism," our disapproval of practices that represent culture in any systemic form, and our anxieties about expressing any relatively autonomous forms of cultural difference (given the likelihood of being professionally wounded with accusations of "Orientalism") – not to mention our current certainties about the invention of tradition – may serve to blind us to the ways in which, at the international level, cultural anthropology's traditional tropes are becoming potent tools in global struggles for social justice. From "a position of critical reflexivity", the "siting" of culture in contemporary global circumstances as a "dynamic process of self-understanding"⁴⁰ requires that we contextualize actors, networks, institutions and discourses in an economic, political, and legal framework that identifies the forces, pressures, institutional imperatives, and ideologies that are shaping emerging hegemonies and the uncanny forms of their resistance. International law, or course, provides one of the most important of these institutions of power – and the discourse of environmental preservation coupled with the discourse of international human rights are perhaps the only legitimate rhetorics of sufficient scope to counter languages of neoliberalism and the imperatives of capital's insistence upon the magical benefits of free trade.

Not all anthropologists adopt such a position of critical reflexivity. Indeed, many anthropologists and ethnobotanists have seized the opportunity afforded by this new discourse of environmental crisis, biological loss, and indigenous wisdom (and contributed to it) as a means to reassert precisely those images of culturally distinctive systems of knowledge and belief that were modern anthropology's academic trademark – in order to establish the anthropologist's preeminence. Within the narrative of the knowledge rich and the biologically poor, they are able to locate the continued relevance and importance of their own disciplinary expertise. The "transition from capital-intensive to information-intensive development technologies" has opened the door for a new appreciation of indigenous knowledge and, concomitantly, new opportunities for anthropologists.⁴¹ Anthropologists are to be congratulated for being first to recognize that

"other people have their own effective science," which militates in favor of their taking their rightful place in the "development world."⁴² As the only experts who appreciate the significance of "sociocultural context" in understanding indigenous knowledge and consequentially the appropriate guardians against its being "treated as mere technical information," anthropologists are called upon to revive their disciplinary calling and return to what they do best – "the translation of another culture" as "the demands of development require."⁴³

The systemic view of culture that cultural anthropologists thought long discredited has returned with a vengeance to be embraced by applied anthropologists eager to demonstrate their continued relevance in nonacademic arenas. Reiterating tropes from the cultural ecology models that were abandoned by most anthropologists by the 1970s, these applied anthropologists represent local cultural practices as situated within "an overarching regulatory structure derived from the cybernetic and self-correcting properties of closed living systems."⁴⁴ Such images, like those sketched by the cultural ecologists that came before them, tend to conveniently obscure the fact that the social collectivities and knowledges they purport to represent are actually parts of large, complex, and open political economies, integrally imbricated with regional and global markets, state regulatory authorities, and international pressures.

Within cultural anthropology, which has long been influenced by post-structuralist currents of critique, and in which the ideological legitimations of the development industry have been largely discredited,⁴⁵ a critique of the indigenous knowledge industry and the anthropologist's role within it comes easily. Critics quickly point out that in this discourse, indigenous knowledges are presupposed to be bounded and inextricably connected to some isolable "cultural context" until disaggregated by the interpretive activities of ethnographers. This involves both misrepresentation and disciplinary hubris. Centuries of intercultural contact and cross-cultural sharing and working of agricultural and medicinal processes are being conveniently ignored here. Indigenous knowledge is represented as the knowledge of vague, but similar Others, defined in opposition to an authoritative We, experts in hard systems, who have possession of scientific knowledge. This polarizes the scientific and the indigenous⁴⁶ – and locates them in discrete and independent

spaces⁴⁷ – spaces which can exist only in Occidental and Orientalist fantasies. Applied anthropology's enthusiasm for the indigenous knowledge industry betrays an innocence or ignorance of the political context of the discourse's emergence and the necessary shaping of its rhetorical strategies by international legal instruments⁴⁸ in which the indigenous is a contingent, contested, and materially significant category.

For critical anthropologists, the outlines of a new global bargain or transnational contract reveal themselves. A "Northern We" will now value "Southern others" for maintaining cultural diversity because "their" cultural difference ensures "our" biodiversity. But how other must they be for us to appreciate them as having culture and when will those differences have international weight? As anthropologists Beth Conklin and Laura Graham show, Amazonian rainforest peoples are appreciated by global environmental groups when they appear in recognizably tribal garb, claim their integral relationships of Mother Earth, engage in subsistence activities, and otherwise play the part of noble savages.⁴⁹ They are less attractive to ecopoliticians and may even be denounced as inauthentic when they show interest and acumen in the economic exploitation of local environmental resources and the capacity to engage as active participants in international decision making processes.

Indeed, Elizabeth Povinelli's exploration of the Australian national desire to locate and respect "traditional indigenous law" suggests that such desires impose a profound violence upon Aboriginal peoples by making national recognition, public sympathy and state resources contingent upon an external scrutiny, inspection, and examination which always constitutes contemporary Aboriginal persons as failures. Aboriginal persons are scarred by and by virtue of their distance from and lack of sufficient identity with those ancient customs which define the authenticity of their cultural difference for a nation which is thus enabled to ignore or deny the violence of the settlement history which makes such isomorphic identifications impossible chimeras.⁵⁰ Under international law, however, indigenous peoples are recognized as self-identifying, as the primary interpreters of their own cultures which are recognized as evolving and changing, and their own customs are recognized as the primary determinants of how heritage

may be controlled. To the extent that indigenous tradition, culture and spiritual heritage provide the legitimating basis for indigenous self-determination in international law, "tradition" and "culture" are too significant as political resources to be abandoned, despite their potential to be abused by state legislatures and judiciaries. The discourse around the CBD illustrates that some indigenous peoples have been successful in having their knowledges recognized as simultaneously traditional and innovative, customary and dynamic, integral to their own specific histories and identities while valuable to international sustainable development efforts. Not all peoples have been equally successful on this playing field however.

The anthropologist Marilyn Strathern once remarked that the nice thing about culture was that everyone had it. Unfortunately, however, not everyone is equally placed to convince others of the fact! Renato Rosaldo's retrospective framing of a disciplinary subconscious that distinguished between peoples with and without culture⁵¹ now seems quaint in anthropological circles, but it is a distinction that appears to have a powerful claim on the international legal imagination. In international legal regimes, all peoples have a right to cultural identity, but all people do not. Certainly some people who inhabit biologically rich regions have been more successful in establishing themselves as peoples than others. As Kathleen Lawrey's ethnographic work demonstrates, these discursive strategies of representing nature as culture and tradition as innovative work in the service of the progress of humankind are not equally available to all marginalized peoples. Although Guarani Indians in the Izozog region of Bolivia are showered with NGO funding to represent their practices as integral to their cultures and encouraged to develop products based on their traditional knowledge, their mestizo neighbours find international organizations deaf to their cries that the harvesting of coca leaves is itself a traditional Inca practice that sustains biodiversity.⁵²

Designation as "a people with culture" is an important stake and site of contestation in ongoing struggles for recognition and income redistribution. Those who can make the strongest claims to possessing culture are more internationally empowered to protest local injustices. Hence, we see the emergence of strategic rhetorical moves to "indigenize" culture and

"culturalize" knowledge in local resistances to and reworkings of sustainable development across the globe because indigenous peoples are those most fully recognized as in possession of cultures worthy of preservation. Rather than preening about their newfound relevance, applied anthropologists should consider when or whether it is politically or ethically appropriate to intervene in processes of cultural authentication that are not invited or instigated by these others, as well as in those that are, and in what circumstances.

Intellectual property regimes were one of the first means suggested to promote the protection and use of traditional environmental knowledge and through it, biological diversity. Conservation, it was suggested, was not being implemented in developing countries due to the lack of any incentive structure for preserving rather than destroying biological resources. Means had to be found to value them before measures could be found to protect them. Neoliberal economists and their followers in the development industries suggested that intellectual property rights will compensate indigenous peoples for the "opportunity costs" of investing in the ongoing production of biodiversity. Treating TK as intellectual property would create opportunities for local profit making, joint ventures with government and corporate actors, the negotiation of culturally appropriate forms of compensation, and a market mechanism to revitalize interest in local cultures and traditional practices of resource management and use. There is now a vast literature (and a lively conference circuit) devoted to the possibilities for expanding intellectual property rights to recognize works of collective, intergenerational innovation, and works that involve so-called "community innovation systems" or "traditional technologies. "Many readers will be impatient at this point for a prescription. Should TK be protected as a form of intellectual property? Can it be? Isn't intellectual property simply a Western form of valuation that imposes a new colonial hegemony on peoples who have already suffered sufficient forms of European domination? Won't intellectual property protection simply strip TK of its cultural meaning, decontextualize it from social relations, ritual practices, alienating and reifying it as a simple commodity, disembedding it and putting it into circulation under the aegis of modernity's metaphysics of flows that assumes that all knowledges may be decoupled from cosmologies and

appropriated instrumentally? Perhaps. However, given the creativity of indigenous peoples and their capacities to occupy legal categories across the grain, and to creatively hybridize legal regimes I would hesitate to provide a definitive answer to these questions at this time. In any case, no singular position on the question seems viable given the very different political, economic, and social circumstances that indigenous peoples and local communities of peoples preserving and developing genetic resources find themselves.

It is extremely doubtful that the intellectual property regime in its existing or proposed forms is a politically or functionally viable means to accomplish the various tasks now assigned to it.⁵³ Indeed, as charges of biopiracy increase, patents hastily granted to corporations on technologies developed by peasant peoples are challenged, the anti-competitive and research-inhibiting implications of broad patent rights become evident, breeders' rights and patents granted on plants held sacred in indigenous communities are ever more publicized, and commitments made to third world governments under the TRIPs Agreement are not met, the intellectual property system is losing credibility. Nonetheless, the rhetorical value of debates about the viability intellectual properties to meet the needs of the world's most vulnerable peoples – in putting impoverished peoples' grievances on the international table and drawing policy-maker's attentions to global inequities in distribution and compensation for resources and knowledge – has been inestimable.

Globally, it appears that attitudes towards the viability of intellectual property to deal with environmental degradation seem to divide along an axis; with those who "have culture" and thus a more secure basis to make claims to territories and resources, less amenable to having their livelihoods reduced to exchange relationships among property holders. For those whom international legal regimes recognize as "indigenous," possession of cultural identity creates particular leverage. These indigenous peoples and the NGOs that represent them are far more opposed to the privatization and commodification of knowledge and living resources through intellectual property laws and they are actively involved in the "no patenting of life" movements. The right not to share knowledge, to locally govern the terms and conditions of research, to

restrict the commercial exploitation of any resources or information obtained to build local political capacities, and to control uses of knowledge such that local cosmologies and senses of intergenerational obligation are met are seen as much more significant rights amongst First Nations peoples, Maori, Aboriginal and Torres Strait Islanders' for instance. Assertions of indigenous intellectual and cultural property have indeed been made, but they have been made secondary to and inherent components of aboriginal title and self-determination, which recognizes the primacy of indigenous territoriality.⁵⁴

In areas where territorial rights based upon an historical connection ancestral lands are less likely to be recognized, at least in the short term, local peoples and governments are actively involved in reflecting upon their own knowledge, shaping it for legal purposes, and reconstructing it in ways that promise to provide recognition and income. This is particularly the case in Southeast Asia where grassroots networks of indigenous communities formally engage in knowledge sharing and crafting appropriate transfer payments between communities in 75 countries.⁵⁵ The NGOs who represent such peoples on the global plane (at international meetings local communities embodying traditional lifestyles tend to be represented by proxy by healer's associations, farmers associations, university based researchers who have established village networks for documenting TK, or simply assumed to be represented by the delegates from the states in which they are resident) put emphasis on the conservation and valuation of local innovations in medicine, agriculture, and resource management and the contributions such peoples works could and should make to global progress in the arts and sciences if properly acknowledged. They are more likely to stress the role of particular individuals and families, the need to honour, reward and compensate particular farmers and healers for their maintenance of specialized knowledges, and to downplay the collective and cosmological dimensions of such skills and their transmission. Nonetheless, to the extent that their own governments, and the governments of those Convention parties who provide them with foreign aid are obligated to help preserve the TK of those "local communities embodying traditional lifestyles" there is an impetus

to continually elaborate the "traditional" basis of such "works" while developing their significance as contributions to "progress" – now glossed as sustainable development.

Claims to indigenous intellectual property rights (as well as claims to ownership of cultural forms under the more inclusive norm of self-determination) have been subjected to critical evaluation within anthropology. These responses range from the liberal alarm bells sounded by Michael Brown, who voices Enlightenment fears that "the copyrighting of culture" is likely to result in the end of science, human progress, freedom of expression, and democracy as we know it,⁵⁶ through the apocalyptic nostalgia of Michael Dove, who with sad resignation insists that biodiversity is the result of marginalization – once peripheries are tied into centres through mechanisms like intellectual property, both biological and cultural diversity will vanish⁵⁷ – the social world is losing cultures at the same rate as the natural world is losing species, and the two are both inevitable and inextricably linked. More critical perspectives convey cynicism about the capacity of market mechanisms to stem market forces and caution against the new "greenwashing" politics of bypassing politics and the emergency of "Green Orientalisms."⁵⁸

A more pragmatic approach recommends itself. If, as Kristin Koptuch, nicely put it, culture is the colonial trope by which the third world is incorporated in the first,⁵⁹ it may also appear to be the troupe with which at least some of the marginalized may take claim to the – always contested – human in human rights. The human rights framework remains the only viable international political arena and discourse that commands sufficient legitimacy and respect to counter neo-liberal ideologies (and the hegemony of free trade as the basis for the governance of cultural flows or communications). If the rhetoric of informationalization increasingly insists that social life is determined by genetic codes (discovered by the genius of Western science) the response that genetic resources are themselves culturally defined by peoples' evolving knowledge is a critical intervention that displaces the debate and disrupts the integrity of the site of its emergence. It shifts the discourse from one of trade and property to one of culture and impoverishment and in so doing, reminds us that intellectual property is a *human* right.

If the new world order has established itself through new information technologies and the capitalization of its benefits through strategic deployment of intellectual property laws, we should not be surprised that the resistances it generates engage similar tactics and point them in alternative directions. Rather than approach these "factishes" as tragic capitulations to the totalizing logic of capital, I suggest we see them as calculated interventions in a large dialogue about social justice.

To the extent that indigenous peoples have put intellectual property rights "back" into the human rights framework, they also challenge the international policy-making community to reconcile intellectual property rights with other fundamental social, economic, and political rights. They have done so, moreover, precisely through the leverage provided by the ambiguities of the rights to culture contained in the major human rights covenants – culture as the accumulated heritage of humankind, to which we all have rights, culture as the right of self-expression, the right to engage in creative activity, the right to be compensated for the fruits of those labors, the right to benefit from scientific progress and to have access to human works as a right of cultural development, culture as a collective right to maintain and strengthen group identity through recognized attachments to objects, landscapes, resources, stories, songs, and yes, local knowledges. The relationships between these diverse forms of culture are not straightforward, they may even come into conflict, but the resolution of their contradictions is the site of tense, but productive negotiation.

Rights to culture enshrined in international human rights conventions exhort states to recognize people's and rights to "enjoy their culture," manifest their culture, and develop it. The insistence that culture be recognized, protected, maintained, promoted, disseminated – the imploring demand that we "enjoy our culture" and promote the other's enjoyment of it, should no longer produce in anthropologists any particular pride, nor frustration and anxiety. Such frustrations and anxieties about culture might instead be visited considered symptoms of the discipline's failure to address issues of ambivalence and desire when considering issues of meaning, history, and politics. Continuing to dismiss the idea of culture as false, ideological,

socially constructed, a colonial imposition, essentialist, Orientalist, the ruse of strategic essentialism, or a sop to appease anachronistic forms of legislation, is to fail to do justice to its power and to discount its power to express injustice. If justice is always a deferred absence, popular phrasings of injustice may well assume the spaces, the forms, and the tropes bestowed by colonial memory.

The identity of culture is not a positivity but a site animated by the force of ambivalence and wounded attachment – and this relationship to the historical trauma of cultural identification is also an important space of yearning and aspiration. To quote Judith Butler, "mobilizations against subjection will take subjection as their resource. An attachment to an injurious interpellation is the very condition under which re-signifying that interpellation becomes possible – an occupation and deployment of the unconscious of power."⁶⁰ From this perspective, it becomes less important to monitor and render judgment on progressive and reactionary deployments of colonial tropes but consider instead, the possibility that progressive deployments necessarily require reactionary fixations in order to effect subversive reterritorializations.

Identities are formed in constitutive relationship to juridical regimes which presume that assertion of rights and entitlements can only be made from the space of singular and injured identities – social totalizations of the particularities of historical trauma. If justice is always a deferred absence, popular phrasing of injustice may well assume the spaces bestowed by colonial memory. The ultimate value of culture, then, may well be its ever-elastic capacity to serve as a work in progress – to give new meaning and new voice to injustice.

NOTES

1. The concept of "unworking" is borrowed From Jean Luc Nancy and is developed in the final chapter of Coombe, *THE CULTURAL LIFE OF INTELLECTUAL PROPERTIES: AUTHORSHIP, APPROPRIATION AND THE LAW* (Durham: Duke University Press, 1998).

2. Rosemary J. Coombe, *Intellectual Property, Human Rights and Sovereignty: New Dilemmas In International Law Posed by the Recognition of Indigenous Knowledge and The Conservation of Biodiversity*, 6 *INDIANA JOURNAL OF GLOBAL LEGAL STUDIES* 59-115 (1998).

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4. Arturo Escobar, "Whose Knowledge, Whose Nature? Biodiversity Conservation and the Political Ecology of Social Movements," 5 Journal of Political Ecology (1998).
 5. I have attended the World Intellectual Property Organization Conference on Intellectual Property and Traditional Knowledge in November 1999, the second Open-Ended Inter-sessional Working Group to establish the Implementation of Article 8(j) first meeting in Seville, Spain, March 2000, the Indigenous Caucus meetings prior to that meeting, the CBD Convention of the Party's Meetings in Nairobi in May 2000, the Canadian Open Ended Working Group on Section 8(j)s Meetings in Ottawa, November 2000, the BC First Nations Conference on traditional knowledge in February 2000, the State of the Art Conference on Ethnobioprospecting and the International Congress on Ethnobotany, in Athens, Georgia, October 2000 and have research assistants and informants working in several interested NGOs (or "civil society organizations") and United Nations agencies.
 6. For a fuller consideration of international lawmaking practices with respect to traditional ecological knowledge, see Rosemary J. Coombe, "International Lawmaking with Respect to Traditional Knowledge: Culture and Custom as Performative Praxis," Cardozo International Law and Policy Review (forthcoming 2001).
 7. For interdisciplinary discussions of the various issues thereby posed, see VALUING LOCAL KNOWLEDGE (S. Brush & D. Stabinsky, eds., 1996) and PROTECTION OF GLOBAL BIODIVERSITY: CONVERGING STRATEGIES (I.D. Guruswamy & J.A. McNeely eds., 1998).
 8. See Posey, Darrell Addison, "Introduction: Culture and Nature - The Inextricable Link," in United Nations Environment Programme, Cultural and Spiritual Values of Biodiversity. London: Intermediate Technology Publications, 1999 pp. 3-18.
 9. A more recent estimate suggests "a striking correlation between areas of highest linguistic diversity, allowing us to talk about a common repository of what we will call 'biolinguistic diversity': the rich spectrum of life encompassing all the earth's species of plants and animals along with human cultures and their languages. The greatest biolinguistic diversity is found in areas inhabited by indigenous peoples, who represent around 4 percent of the world's population, but speak at least 60 percent of the world's languages." Daniel Nettle and Suzanne Romaine, Vanishing Voices: The Extinction of the World's Languages (Oxford: Oxford University Press, 2000) at ix.
 10. Commonwealth of Australia, Biological Diversity and Indigenous Knowledge, Research Paper 17 (1997-8). Available at <<http://www.aph.gov.au/library/pubs/rp/1997-98/98rp17.htm>>. For further discussion of the relationship between language, culture, and biodiversity see P. Muhlhausler, "The Interdependence of Linguistic and Biological Diversity" in The Politics of Multiculturalism in the Asia/Pacific. Ed. D. Myers. Darwin: Northern Territory University Press, 1995 pp. 154-161; Louise Maffi and T. Skutnabb-Kangas, "Linguistic Diversity and the 'Curse of Babel'" in United Nations Environment Programme, Cultural and Spiritual Values of Biodiversity. London: Intermediate Technology Publications, 1999 pp. CITE PAGES OF HER BIG SECTION WITH TITLE OF SECTION and Posey, Darrell Addison, "Introduction: Culture and Nature - The Inextricable Link," in United Nations Environment Programme, Cultural and Spiritual Values of Biodiversity. London: Intermediate Technology Publications, 1999 pp. 3-18. Nettle and Romaine's volume, supra note 8, is the most recent and thoroughly researched statement of this position. They estimate the number of the world's languages at between 5,000 and 6,700.
 11. Crucible Group II, p. 9-10.
 12. Michael Silverstein, "Languages? Cultures are Dead! Long Live the Linguistic-Cultural!" Paper presented at the American Anthropological Association Annual Meetings, San Francisco, November, 2000 at 4.
 13. Ibid. at 5.
 14. Ibid. at 6.
 15. Nettle and Romaine, supra note 8 at 27 and 51.
 16. See Susan K. Sell, Private Power, Public Law: The Globalization of Intellectual Property Rights. Unpublished Manuscript (2001) on file with author)for an excellent discussion of the process. For abbreviated discussion see Susan K. Sell, forthcoming in Cardozo International Law Journal...and Florida Journal of International Law...(2001 and 2002).

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17. Bronwyn Perry, "The Fate of the Collections: Social Justice and the Annexation of Plant Genetic Resources," in Charles Zerner, ed., People, Plants, and Justice: The Politics of Nature Conservation. New York: Columbia University Press, 2000, 374-402 at 383.
18. Michael Flitner, "Biodiversity: Of Local Commons and Global Commodities" in Michael Goldman, ed, Privatizing Nature: Political Struggle for the Global Commons. New Brunswick, NJ: Rutgers University Press, 1998, pp. 144-166 at 144.
19. Ibid. at 156.
20. Corinne P. Hayden, When Nature Goes Public: The Making and Unmaking of Bio-Prospecting in Mexico. (Unpublished manuscript based upon her dissertation forthcoming from Duke University Press, 2002) at page 62.
21. Ibid. at 63.
22. The concept of "informationalization" is borrowed from M. CASTELLS, THE INFORMATION AGE: ECONOMY, SOCIETY AND CULTURE (3 VOLS. 1998).
23. Durham: Duke University Press, 1998.
24. A similar but distinct project in a similar vein is initiated in J. BOYLE, SHAMANS, SOFTWARE AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY (1996).
25. Varieties of environmentalism, various forms of ecological distributional conflicts and the resistance movements that they have spawned are listed in J. Martinez-Alier, *Environmental Justice (Local and Global)*, 8 CAPITALISM, NATURE. SOCIALISM 91 (1997).
27. For an excellent discussion of Lyotard's concept of "phrasing injustice," see George Pavlich, *Phrasing Injustice: Critique in an Uncertain Ethos*. 18 STUDIES IN LAW, POLITICS, AND SOCIETY 245-269 (1998).
28. For a longer discussion of this process see Naomi Roht-Arriaza, *Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities*, in BORROWED POWER: ESSAYS ON CULTURAL APPROPRIATION 255 (B. Ziff and P. Rao, eds., 1997) ad Laurie Ann Whitt, *Indigenous Peoples, Intellectual Property & the New Imperial Science*, 23 OKLAHOMA CITY U. LAW REV. 211 (1998).
29. Pat Ray Mooney, *The Parts of Life: Agricultural Biodiversity, Indigenous Knowledge, and the Role of the Third System*, [1996] (1-2) DEVELOPMENT DIALOGUE 7-181 (special issue).
30. V. SHIVA, BIOPIRACY: THE PLUNDER OF NATURE AND KNOWLEDGE (1997).
31. C. Raghaven, *Recolonization: GATT in its historical context*, 20 (6) THE ECOLOGIST 205 (1990). This is a summary of the argument presented in C. RAGHAVEN, RECOLONIALIZATION: GATT, THE URUGUAY ROUND AND THE THIRD WORLD (1990).
32. Whitt, *supra* note 8.
33. I am providing a composite summary of some of the main features of a rhetoric drawn from hundreds of published sources. Representative examples include N. Roht-Arriaza, *supra* note 8, The Crucible Group, PEOPLE, PLANTS, AND PATENTS (1994), B. Haverkort and D. Millar, *Constructing Biodiversity: The Active Role of Rural People in Maintaining and Enhancing Biodiversity*. 2(3) ETNOECOLOGICA 51 (1994), Mooney, *supra* note 9, V. SHIVA, MONOCULTURES OF THE MIND: PERSPECTIVES ON BIODIVERSITY AND BIOTECHNOLOGY (1993), all issues of RAFI COMMUNIQUE (1990-1999) many articles in the INDIGENOUS KNOWLEDGE AND DEVELOPMENT MONITOR (1990-1999), and the various volumes published by the London publisher Intermediate Technology Publications.
34. Josep-Antoni Gari, "Biodiversity Conservation and Use: Local and Global Considerations,". Science, Technology, and Development Discussion Paper No. 7, Center for International Development and Belfer Center for Science and International Affairs, Harvard University, Cambridge, MA, USA, 1999.
35. Ibid. at 6-7.

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36. See S. Kadidal, *Plants, Poverty and Pharmaceutical Patents*, 103 YALE L. JNL. 223 (1994).
37. A longer discussion may be found in COOMBE, THE CULTURAL LIFE OF INTELLECTUAL PROPERTIES, *supra* note 1, at 11-18 & 24.
38. Kirsten Hastrup and Karen Fog Olwig, *Introduction*, in SITING CULTURE: THE SHIFTING ANTHROPOLOGICAL OBJECT. 1 AT 11 (K.F. Olwig & K. Hastrup eds., 1997). See also CULTURE, POWER, PLACE: EXPLORATIONS IN CRITICAL ANTHROPOLOGY (A. Gupta & J. Ferguson, eds., 1997).
39. *Ibid.*, at 3.
40. *Ibid.*
41. J.W. Bentley, *Untitled Commentary on P. Stilltoe, The Development of Indigenous Knowledge: A New Applied Anthropology* 39 CURRENT ANTHROPOLOGY 223, 235 (1998).
42. See Stilltoe, *ibid.* at 223.
43. *Ibid.* at 229.
44. See R. Peet and M. Watts, *Introduction*, in LIBERATION ECOLOGIES 5 (R. Peet & M. Watts, eds., 1996).
45. Three significant and influential texts addressing development within the field were A. ESCOBAR, ENCOUNTERING DEVELOPMENT: THE MAKING AND UNMAKING OF THE THIRD WORLD (1995). J. FERGUSON, THE ANTI-POLITICS MACHINE: "DEVELOPMENT", DEPOLITICIZATION, AND BUREAUCRATIC POWER IN LESOTHO (1994), and A. GUPTA. POSTCOLONIAL DEVELOPMENTS: AGRICULTURE IN THE MAKING OF MODERN INDIA (1998). See also J. Ferguson, *Anthropology and Its Evil Twin: "Development" in the Constitution of a Discipline*, in INTERNATIONAL DEVELOPMENT AND THE SOCIAL SCIENCES: ESSAYS ON THE HISTORY AND POLITICS OF KNOWLEDGE 150 (F. Cooper & R. Packard, eds., 1997).
46. See A. Agarwal. *Dismantling the Divide Between Indigenous and Scientific Knowledge*. 26 DEVELOPMENT AND CHANGE 413 (1995). Gupta shows the interrelation and interdependence of "modern" and "traditional" agricultural knowledges in POSTCOLONIAL DEVELOPMENTS, *ibid.*
47. Ferradas. *Untitled Commentary on P. Stilltoe. supra* note 21, at 239-49.
48. D. Posey, *Untitled Commentary on P. Stilltoe, supra* note 21, 241-2.
49. B. Conklin and L. Graham, *The Shifting Middle Ground: Amazonian Indians and Eco-Politics*, 97 AMERICAN ANTHROPOLOGIST 695 (1997). There is now a large literature disputing the proposition that indigenous peoples are always natural conservationists. See for example, E. Parker, *Fact and Fiction in Amazonia: The Case of the Apete*, 95 AMERICAN ANTHROPOLOGIST 715 (1993). On the other hand, extensive surveys of the available published evidence suggest that indigenous knowledges and skills are of immense value in preservation and ongoing production of biological diversity. See TROPICAL DEFORESTATION: THE HUMAN DIMENSION (L.E. Sponsel, T.N. Headland & R.C. Bailey, eds., 1996).
50. Elizabeth Povinelli, "Settler Modernity and the Quest for an Indigenous Tradition," 11 (1) PUBLIC CULTURE 19-48 (1999). See also Elizabeth Povinelli, "The State of Shame: Australian Multiculturalism and the Crisis of Indigenous Citizenship," 24 CRITICAL INQUIRY 575-610 (1998).
51. R. ROSALDO, CULTURE AND TRUTH: THE REMAKING OF SOCIAL ANALYSIS (1989).
52. Kathleen B. Lawrey, "Indigenous Knowledge, Indigenous Networks, Indigenous Monopolies: An Alternative Perspective on Contemporary Cultural and Intellectual Property Rights Debates." Paper presented at the Society for Cultural Anthropology Biennial Conference, Montreal, Quebec, Canada, May 3 - 6, 2001.
53. For a discussion of emerging alternatives to the intellectual property paradigm and new forms of international lawmaking in this area, see Rosemary J. Coombe, "International Lawmaking with Respect to Traditional Knowledge: Culture and Custom as Performative Praxis," Cardozo International Law and Policy Review (forthcoming 2001).
54. See BEYOND INTELLECTUAL PROPERTY: TOWARDS TRADITIONAL RESOURCE RIGHTS FOR INDIGENOUS PEOPLES AND LOCAL COMMUNITIES (D. Posey & G. Dutfield, eds., 1996).

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55. See for example, A. Gupta, *Rewarding Local Communities for Conserving Biodiversity: The Case of the Honey Bee*, in PROTECTION OF GLOBAL BIODIVERSITY 180, *supra* note 29.
56. M. Brown, *Can Culture Be Copyrighted?* 39 CURRENT ANTHROPOLOGY 193 (1998).
57. M. Dover, *Centre, Periphery and Biodiversity: A Paradox of Governance and a Developmental Challenge*, in VALUING LOCAL KNOWLEDGE 41, *supra* note 29.
58. M. EDWARDS.
59. K. Koptiuch, *Cultural Defense and Criminological Displacements in DISPLACEMENT, DIASPORA, AND THE GEOGRAPHIES OF IDENTITY* 215 (s. Lavie & T. Swedenburg, eds., 1997).
60. J. BUTLER, THE PSYCHIC LIFE OF POWER (1997).