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Economic Relationships in Transition

Objectives

The project involves a critical analytical investigation of the domestic and international legal regimes available for recognizing, valuing, preserving, and compensating for the genetic resources held by indigenous peoples in the form of biological and human genetic diversity and indigenous knowledge, an exploration of available forms of domestic law reform given conflicting international norms, and the availability of alternative normative resources for governing emerging transnational relationships. It seeks to map the networks of activity and communication that constitute a new social movement of indigenous peoples and NGOs who are developing new norms and protocols for access and consent, as well as novel forms of compensation with respect to genetic resources. It is part of a larger project that will develop an interdisciplinary collaborative network of researchers in law, anthropology, and the life and environmental sciences to establish a database for comparative studies that will inform future deliberations and relationships in the fields of biotechnology, biological diversity, and genetic research.

Context

The exponential growth and increasing economic significance of biotechnology industries depends upon continuing access to new sources of genetic material (Boyle, King & Stabinsky, Kundnani, Marks). Internationally, indigenous peoples are recognized as cultivators and stewards of biological diversity (biodiversity) (Cleveland & Murray, Roht Arriaza), sources of human genetic diversity (Greely, Lock), and as peoples who possess valuable forms of knowledge—legally and scientifically known as indigenous knowledge (Ellen & Harris, Ellen et al., Stilltoe). For example, indigenous peoples' knowledge of local natural resources and their agricultural and pharmaceutical properties as well as their knowledge of alternative cultivation, fertilization, pest control, and plant breeding techniques are recognized to be of great potential scientific value.

The increased focus on indigenous peoples as sources of resources and knowledge poses important public policy issues about the appropriate form of economic relationships to govern transactions for exchange, valuation, and compensation between indigenous peoples, corporations, research institutes, and the state (Anuradha, Dutfield & Ghate, Guruswamy & Mc Neely, Gupta, Magabe et al., Posey & Dutfield, Singh). Moreover, in both domestic and international legal arenas, new legal and regulatory frameworks must be negotiated to govern access, forms of ownership, norms of consent, and to accommodate related assertions of cultural identity and cultural property. These emerging economic relationships challenge traditional legal categories and assumptions, cutting across artificial and arguably outmoded distinctions

between contract, intellectual property, international human rights and trade regimes, and calling some of their fundamental presuppositions into question.

The recognition of the value of indigenous resources and knowledge has emerged in a legal and political climate in which forms of private property and market-based transactions are increasingly posed as the appropriate legal forms for governing economic relationships (Bowles et al., Reid, et al., Jacoby & Weiss). Indigenous peoples, NGOs, and anthropologists, however, have expressed grave misgivings about the adequacy and propriety of Western property and contract models in circumstances involving aboriginal groups, biodiversity, human genetic diversity, forms of cultural knowledge, and fundamental means of livelihood (Brush and Stabinsky, Dove, Flores. Hann, Mann). The contractual model may compel indigenous peoples to engage in forms of classification and objectification that are both foreign and alienating. By dividing real property, cultural property and intellectual property, and resources and knowledge, current legal regimes may force asunder what many indigenous peoples see as integrally related—a process that may pose potentially grave social and cultural consequences. Furthermore, the creation of exchange relationships which create limited forms of monetary exchange rather than ongoing social relationships of reciprocity is experienced by many indigenous peoples as a further form of estrangement (Strathern, Farley). Dominant understandings of contractual relationship assume liberal individualist principles of formal equality, all of which appear inadequate to deal with the social circumstances in which indigenous peoples find themselves. The knowledge and resources that must be valued may not be individually, but collectively possessed by groups that are not analogous to corporations or other Western legal actors. Historical patterns of exploitation, enforced dependency upon the state, unequal bargaining power due to limited forms of education and information, and legacies of distrust pose other dilemmas to models based upon abstract notions of equality in contract. As a policy matter, it is necessary to consider the extent to which it is just or even necessary to demand that indigenous peoples reconstitute their cultural categories or reconstitute their social relationships in order to engage in legally enforceable economic relationships. Are there other resources—drawn from native or customary law as well as from equity and the common law—that might be creatively deployed in the circumstances? It is also important to consider whether conventional understandings of duress and unconscionability need to be modified to address crosscultural encounters given particular historical circumstances and the extent to which the common law doctrine of stare decisis is capable of accommodating cultural and power differences over longer and historically specific durations.

These are questions that are already being addressed, albeit less formally, in the development of ethical research protocols amongst professional disciplinary associations (of anthropologists, ethnobotanists, and geneticists) in which indigenous peoples themselves have been active participants. Canadian actors have emerged as key players in the international law and policy-making arenas in which appropriate legal and regulatory frameworks, forms of ownership, norms of access and informed consent, research protocols and compensation guidelines are being negotiated. Canadian First Nations peoples, nongovernmental organizations (NGOs), and research institutes have achieved a high global profile for being on the cutting edge of research and for pioneering new relationships between indigenous peoples and public and private sector actors. The negotiation, publication, and acceptance of prior informed consent and no informed consent (PICNIC) norms and their international adoption in national legislation, indigenous declarations, collaborative research agreements, and professional

association bylaws needs to be fully described, catalogued, and made available as evidence of a legal pluralism that might serve as a resource and model for policy deliberations and legal reform. The research strategy outlined is designed to accomplish this.

The perceived need to create incentives for indigenous peoples to continue to act as environmental stewards, to compensate them for lost opportunity costs, to provide incentives for preserving and passing on indigenous knowledge between generations, the easy reproducibility of such knowledge, and its partial public goods characteristics has led many Western scholars to propose intellectual property as a conceptual means to ensure its protection and compensation (A. Gupta, Greaves, Horton, Ritchie, Stone). The World Intellectual Property Organization (WIPO) has put renewed emphasis upon the need either to amend intellectual property laws to protect indigenous resources and knowledge or to introduce sui generis protection for folklore (Farley, Kurluk). Similarly, it is suggested that culturally distinct human genetic material might be likened to a form of intellectual property for which royalties are due when its distinctive form is reproduced in the works of others (e.g., in pharmaceuticals or other medical treatments). The limitations of existing forms of intellectual property for protecting indigenous knowledge and genetic resources, however, have been widely recognized (Brush and Stabinsky, Drahos, Gupta 1996, Posey and Dutfield, Whitt). To what extent do the legal doctrines of authorship, originality, the idea/expression dichotomy, the innovative step, novelty, obviousness, publication, and disclosure disadvantage or exclude indigenous peoples and to what extent may these be modified to protect their interests?

Indigenous peoples themselves, although divided on the issue, have been generally pessimistic about the possibilities of what they consider a Eurocentric model for protecting their cultural and genetic heritage or compensating them for value realized from the appropriation of their resources, knowledge, and genetic heritage, as illustrated by the numerous declarations publicly issued by regional and international councils of indigenous groups (Posey & Dutfield, Liloqula, Ibeji and Korowai, Tebtebba Fdtn). As a matter of public policy it is still necessary to consider the viability of specific amendments to intellectual property regimes that might provide obstacles and prohibitions to the wrongful appropriation of indigenous resources, knowledge, and genetic heritage when these are incorporated into the works and innovations of others. To what extent, however, are national legislative initiatives to achieve such goals compatible with international obligations?

Intellectual property laws are no longer fully governed by domestic policy concerns or guided by national determinations of public interest. In the wake of the Uruguay Round of the GATT and the implementation of the TRIPs Agreement, members of the World Trade Organization must conform to the minimal requirements for intellectual property protection mandated by that Agreement or face trade retaliation measures—an imposition that many scholars and activists assert is not in the interests of the developing world or indigenous peoples (Carroll, Reichman, Gana, Oddi). One major policy issue facing states with indigenous populations (or those committed through international human rights norms to the rights of nonresident indigenous peoples) concerns the extent to which such multilateral trade agreements may be interpreted to permit intellectual property initiatives which afford protection to indigenous peoples. To date there is no scholarly literature addressing this issue. The matter is most immediately posed by the implementation of the Convention on Biological Diversity (CBD) which Canada, along with 170 other states, has signed. The CBD mandates recognition and compensation for indigenous knowledge and resources, and the use of intellectual property as

a means toward this end (Mc Manus). Although there is literature on the legal protection of biodiversity generally (Snape, Bosselmann, Swanson), there has been very limited scholarly work to date considering the intersection of the CBD and TRIPs (Cameron & Makuch, Tarasofsky), the potential for conflict between folklore protections for indigenous knowledge and TRIPs obligations, or the range of possibilities for modifying domestic intellectual property regimes to meet CBD objectives (Hannig).

Indigenous peoples and the NGOs that support them, moreover, have made it clear that such issues must be considered in a wider international legal framework that calls into question the interrelationship of multilateral trade-related intellectual property and environmental regimes with human rights covenants and their interpretation. Although there is now a large literature on the meaning and scope of indigenous human rights (Anaya, Barsh, Kingsbury, Pena Guzman), a literature on environmental protection as a human right (Boyle and Anderson) and an emerging literature on indigenous rights and environmental protection (Borrows, Hitchcock, Kastrup, Tsosie), none of this work relates these rights to intellectual property and trade regimes.

The recognition and preservation of indigenous knowledge and the use of human genetic material does have important human rights implications. Civil, political, cultural and economic rights (Ching, Leckie, Shelton) are all potentially implicated by these practices of appropriation, alienation, protection, and valuation as are the specific protections accorded indigenous peoples under international human rights covenants. To the extent that new economic relationships are forged to recognize the importance of indigenous knowledge and genetic resources, such relationships must be congruent with human rights norms. Intellectual property rights, as human rights, need to be developed with a sensitivity to their potential to reinforce or conflict with other internationally recognized human rights (Coombe 1998). In preliminary work, the Principal Investigator (PI) has delineated the major international, national, and regional human rights implicated in the consideration of indigenous knowledge and biological resources (Coombe 1998). Concerns over access to, use of, and compensation for indigenous peoples' genetic heritage raise other human rights issues that need to be considered (Stavenhagen, Wilson). Many indigenous peoples have asserted that indigenous knowledge, and some biological resources, rather than being forms of alienable property, are more properly recognized as being integral to indigenous cultural identity (Nazarea, Flores, Stevens, Whitt) as traditional territorial rights. Rights to control the use of culturally distinct human genetic material is also asserted as fundamental to the maintenance of sacred values and group cultural identity (Ching, Cunningham, Dodson). These issues should be legally addressed in relation to international legal norms of religious freedom (Mead) and self-determination. Many indigenous claims made to date, however, have been rhetorical and abstract, lacking the specificity necessary for either negotiation or implementation. To what extent do such claims conflict with and violate other internationally recognized human rights such as freedom of expression (Brown), progress in the arts, the diffusion of science (Agrawal, NRC), and democratic access to human cultural works? To what extent might they be narrowed and tailored to meet central indigenous concerns without conflicting with liberal democratic values?

All of the above questions invoke significant issues involving the meaning and evolution of concepts of social identity and group membership. To what extent and in what circumstances is it legitimate to consider resources, knowledge, and human genetic material to be cultural in

nature (Coombe 1999)? Which peoples are to be recognized as indigenous (Kingsbury, Warren)? To the extent that these issues are transnational, domestic definitions are unlikely to suffice. Similarly, to the extent that many nations do not recognize the indigenous peoples resident in their territorial jurisdictions as such, states party to multilateral trade and environmental agreements and human rights covenants, like Canada, may have obligations to a wider range of human social groups than those they have traditionally recognized as such. What are the legal benefits of being recognized as indigenous and what costs does this recognition entail? However defined, indigenous peoples are not homogenous either with respect to their position in the states in which they are resident, the global political economy, or the international legal regime in which they seek recognition. To what extent do these differences in political and economic location affect the viability of contract, intellectual property, the CBD, or human rights norms to meet their social and economic needs or to address the injuries they experience? Who speaks on behalf of groups, how are appropriate agents for engaging in economic relationships to be identified, and how are benefits to be determined and distributed (Juengst)? In a dense web of communications and activities that arguably constitutes a new social movement, indigenous peoples' representatives and NGOs have been actively addressing these questions in transnational deliberations and in ongoing practices, engaging. resisting and negotiating within genetic markets to create alternative forms of economic relationships. These deliberations need to be catalogued and analyzed to the extent that they may reveal normative guidelines for wider issues of public policy.

The investigators bring expertise in law, cultural anthropology, and legal anthropology to address this set of issues. The PI has worked for over ten years on the social, cultural, and political implications of intellectual property regimes and issues involving cultural appropriation. In 1998 she prepared a 280-page report for the Intellectual Property Policy Directorate of Industry Canada on intellectual property reforms to protect indigenous knowledge. She has twice been elected to the board of directors of the Association for Political and Legal Anthropology and has served on the editorial board of *Political and Legal Anthropological Review*. She has published extensive theoretical work on the concept of culture that has been widely reprinted in both legal and anthropological anthologies and has done prior fieldwork on law, globalization, and local cultures of identity. The CI has done prior fieldwork with NGOs who are researching and protesting the Human Genome Diversity Project (HGDP)—which identifies indigenous peoples as possessing distinctive and valuable forms of human genetic variation — and published two articles in this area. She has also engaged in extensive research on transnational social movements.

Methodology and Theoretical Framework

The project is interdisciplinary and multisectoral. It combines i) conventional legal research (doctrinal analysis, statutory and treaty interpretation, contractual interpretation): consideration of international, regional, and national human rights involving indigenous peoples, their resources, knowledge, and genetic heritage; the evolution of international customary law; the intersection between the CBD and TRIPs; and national legislative initiatives with respect to the implementation of the CBD, with ii) library research into the academic literature on the concept of indigenous knowledge and its development, the HGDP and the controversy surrounding it, with iii) archival research into the identification, recording, and registration of indigenous knowledge and NGO communiques and newsletters documenting indigenous accommodations, negotiations, and resistances with respect to TRIPs and the HGDP, as well

as information about contractual relations between indigenous peoples, agricultural research institutes, and pharmaceutical companies, and iv) ethnographic research (traditional fieldwork with indigenous peoples and participant-observation in NGO offices and in international policy-making contexts).

States party to the CBD are impressed with the mandate of exploring the use of intellectual property (IP) protections as a means of providing incentives and compensation to indigenous peoples for serving as stewards and cultivators of biodiversity. States are also called upon to engage in technology transfers to these peoples so as to encourage sustainable development. Norms governing access to resources, informed consent with respect to the uses of such materials, guidelines for joint ventures and allocation of IP rights between indigenous peoples, public sector research institutions, and corporate bodies are being developed in a number of arenas. In Canada, First Nations groups and NGOs (involved in the Open Ended Working Group on Article 8(j) of the CBD) have been actively involved in these deliberations and their global articulations.

The PI will take fieldtrips to consult with Ottawa-based NGOs and peruse their archives. These NGOs -[informant NGOs identities deleted for publication purposes] have been chosen because of their active engagement with international networks of other indigenous peoples' NGOs, their accountability to a diversity of differentially positioned indigenous peoples, their different orientations to state-based development agendas, their lobbying efforts with WIPO, their participation in the CBD Convention of the Parties, and their ongoing scrutiny of grants of intellectual property that involve the alleged appropriation of indigenous resources, knowledge, and genetic heritage. During these field visits the PI will engage in key informant interviews with project directors and researchers and investigate on-site archives. Contacts have been made with officials at three of the six NGOs who have expressed interest and support for the project. In the first two years the PI will attend the Canadian Working Group Meetings on Article 8(j) which involve indigenous groups in consultations about the protections to be accorded indigenous knowledge in Canadian law, to witness the process and to engage in open-ended interviews with indigenous participants. The PI will make four trips to Geneva over the first two years to engage in participant-observation at the Roundtable on Folklore and Intellectual Property and the Roundtable on Intellectual Property and Indigenous Peoples, which are designed to facilitate an exchange of views among policymakers and indigenous people concerning the viability of a sui generis folklore regime, and the effective application and possible improvements of the intellectual property system to protect traditional knowledge and which involve state representatives, NGOs, and indigenous peoples in dialogue. The PI will also attend the Open-Ended Intersessional Working Group on the Implementation of Article 8(j) prior to the COP to the CBD in the first two years of the project. Participant-observation in these forums will enable the PI to engage in empirical research into indigenous and NGO involvement in international policymaking contexts.

Although many (but by no means all) of the issues posed by relationships involving indigenous genetic resources have been considered doctrinally, they have not been conceptualized more broadly through anthropological understandings of culture, identity formation, or the role of law in shaping identities, claims, and the categorical frameworks in which people express the nature of social injustice. Nor has the debate in the legal and anthropological scholarship been informed by empirical research. An ethnographic perspective upon these issues enables us to understand the means by which indigenous peoples come to define themselves and negotiate

within frameworks which are not of their own making, while preserving traditional forms of significance and political autonomy. The research will make a major contribution to our understanding of transnational social movements and their role in the establishment of international legal norms and protocols for ethical commercial practice.

Representative Bibliography (partial list of representative literature drawn from a forty-page working bibliography; does not include publications by PI or NGO documents)

- A. Agrawal, "Dismantling the Divide Between Indigenous and Scientific Knowledge," (1995) 26 Development and Change 413.
- J. Anaya, Indigenous Peoples in International Law (Oxford: Oxford University Press, 1996).
- R. Anuradha, "In Search of Knowledge and Resources: Who Sows, Who Reaps?" (1997) 6 Review of European Community and International Environmental Law 263.
- R. L. Barsh, "Indigenous Peoples in the 1990s: From Object to Subject of International Law?" (1994) 7 Harvard Human Rights Journal 33.
- K. Bosselmann, "Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity," (1996) 7 Colorado Journal of Environmental Law and Policy 111.
- I. Bowles et al. "Economic Incentives and Legal Tools for Private Sector Conservation." (1998) 8 Duke Environmental Law and Policy Forum 209.
- A. Boyle and M. Anderson, eds., *Human Rights Approaches to Environmental Protection* (Oxford: Clarendon Press, 1996).
- J. Boyle, Shamans, Software and Spleens: Law and the Construction of the Information Society (Cambridge: Harvard University Press. 1996) ix-xvi, 1-46.
- S.B. Brush and D. Stabinsky, eds., Valuing Local Knowledge: Indigenous Peoples and Intellectual Property Rights (Washington, DC: Island Press. 1996).
- M. Brown, "Can Culture be Copyrighted?" 39 Current Anthropology 193 (1998). Responses to Brown, (1998) 39 Current Anthropology 206.
- J. Cameron and Z. Makuch, *The UN Biodiversity Convention and the WTO TRIPs Agreement* (Gland: International Union for the Conservation of Nature, 1995).
- A. E. Carroll. "Not Always the Best Medicine: Biotechnology and the Global Impact of U.S. Patent Law." (1995) 44 American University Law Review 2433.
- K. Ching, "The Human Genetic Diversity Project: An Emerging Human Rights Norm." (1997) 45 Fordham International Law Journal.
- D. A. Cleveland and S. C. Murray, "The World's Crop Genetic Resources and the Rights of Indigenous Farmers," (1997) 38 Current Anthropology 477-510.
- M. Craven, The International Covenant on Economic, Social, and Cultural Rights: A Perspective on its Development (Oxford: Clarendon Press, 1995).
- H. Cunningham, "Colonial Encounters in Postcolonial Contexts: Patenting Indigenous DNA and the Human Genome Diversity Project," (1998) 18 Critique of Anthropology 205.

- P. Drahos, "Indigenous Knowledge and the Duties of Intellectual Property Owners," (1997) 11 *Intellectual Property Journal* 179.
- G. Dutfield and U. Ghate, "Implementing Article 8(j) of the CBD Through Peoples' Biodiversity Registers," (1997) 4 Bulletin of the Working Group on Traditional Resource Rights 14.
- A. Eide et al. eds., *Economic*, *Social and Cultural Rights: A Textbook* (Dordrecht: M. Nijhoff, 1995).
- R. F. Ellen and H. Harris, *Indigenous Environmental Knowledge in Scientific and Development Literature* (Canterbury: University of Kent, 1997).
- R. F. Ellen et al. eds., *Indigenous Environmental Knowledge and its Transformations* (London: Harwood, 1999).
- Environment Canada, Caring for Canada's Biodiversity: Annex to Canada's First Report to the Conference on the Parties to the Convention on Biological Diversity (Ottawa: Environment Canada, 1998).
- C. Farley, "Protecting Folklore of Indigenous Peoples: Is Intellectual Property the Answer?" (1997) 30 Connecticut Law Review 1-57.
- M. Flores, "Treatment of Biological and Cultural Diversity: Regulation, Actors, and Dilemmas," (1998) 6(18&19) Beyond Law 25.
- R. Gana, "Prospects for Developing Countries Under the TRIPS Agreement." (1996) *Vanderbilt Journal of Transnational Law* 735-775.
- T. Greaves, ed., *Intellectual Property Rights of Indigenous Peoples: A Sourcebook* (Oklahoma City: Society for Applied Anthropology, 1994).
- Ahkil Gupta, Postcolonial Developments (Durham: Duke University Press, 1998).
- A. Gupta, "Rewarding Local Communities for Conserving Biodiversity." in Guruswamy and Mc Neely (1998).
- A. Gupta, "Rewarding Creativity for Conserving Diversity in the Third World: Can IPR Regime serve the needs of contemporary and traditional knowledge experts and communities in the Third World?" Indian Institute of Management Working Paper 1339 (1996).
- L. Guruswamy et al. eds., *International Environmental Law and World Order* (New York: Doubleday, 1994).
- L. D. Guruswamy and J. A. McNeely, eds., Converging Strategies: Protection of Global Biodiversity (Durham: Duke University Press, 1998).
- M. Hann, *Property Relations: Renewing the Anthropological Tradition* (Cambridge: Cambridge University Press, 1998).
- M. Hannig, "An Examination of the Possibility to Secure Intellectual Property Rights for Plant Genetic Resources Developed by Indigenous Peoples of the NAFTA States: Domestic Legislation Under the International Convention for Protection of New Plant Varieties," (1996) 13 Arizona Journal of International & Comparative Law 175.

- L. Henkin and J. L. Hargrove, eds., *Human Rights: An Agenda for the Next Century* (Washington: American Society for International Law, 1994).
- R. Hitchcock, ed., Endangered Peoples: Indigenous Rights and the Environment (Niwot: University Press of Colorado, 1994).
- C. Horton, "Protecting Biodiversity and Cultural Diversity Under Intellectual Property Law," (1995) 10 Journal of Environmental Law and Litigation 1.
- Y. Ibeji and G. Korowai, "The Hagahai Patent Controversy In their Own Words," (1996) 33 Cultural Survival Quarterly 33.
- C. Jacoby and C. Weiss, "Recognizing Property Rights in Traditional Biocultural Contribution," (1997) 16 Stanford Environmental Law Journal
- J. P. Kastrup, "The Internationalization of Indigenous Rights from the Environmental and Human Rights Perspective," (1997) 32 Texas International Law Journal 97.
- M. Khor, Global Fight Against Biopiracy (Penang: Third World Network, 1995).
- J. King and D. Stabinsky, "Biotechnology Under Globalisation: The Corporate Expropriation of Plant, Animal and Microbial Species," (1999) 40 Race and Class 73.
- B. Kingsbury, "The 'Indigenous Peoples' in International Law," (1998) 92 American Journal of International Law 414.
- A. Kundnani, "Where Do you Want to Go Today? The Rise of Information Capital," (1999) 40 Race and Class 49.
- S. Leckie, "Identifying the Key Features of Violations of Economic, Social and Cultural Rights," (1998) 20 Human Rights Quarterly 81.
- K. Liloqula, "Value of Life: Saving Genes Versus Saving Indigenous Peoples." (1996) Cultural Survival Quarterly 42.
- M. Lock, "The Human Genome Diversity Project: A Perspective from Cultural Anthropology," in B. Knoppers, ed., *Human DNA: Law and Policy* (Kluwer, 1997).
- J. Magabe et al. eds. Access to Genetic Resources: Strategies for Sharing Benefits (1997).
- H. Mann, Intellectual Property Rights, Biodiversity, and Indigenous Knowledge: A Critical Analysis in the Canadian Context. Report prepared for the Canadian Working Group on Article 8(j) of the CBD, November 1997.
- J. Marks, Human Biodiversity (New York: Aldine de Gruyter, 1995).
- C. McManus, "The Interface Between International Intellectual Property and Environmental Protection: Biodiversity and Biotechnology," 76 Washington University Law Quarterly 255 (1998).
- A. Mead, "Genealogy, Sacredness and the Commodities Market," (1996) Cultural Survival Ouarterly (Summer) 46.
- V. D. Nazarea, Cultural Memory and Biodiversity (Tucson: University of Arizona Press, 1998).

- A. S. Oddi, "TRIPS—Natural Rights and a 'Polite Form of Economic Imperialism," (1996) 29 Vanderbilt Journal of Transnational Law 415.
- M. M. Pena Guzman, "The Emerging System of International Protection of Indigenous Peoples' Rights," (1996) 9 St. Thomas Law Review 251.
- D. Posey and G. Dutfield, Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities (Ottawa: International Development Research Centre, 1996).
- J. H. Reichman, "Compliance with the TRIPS Agreement: Introduction to a Scholarly Debate," (1996) 29 Vanderbilt Journal of Transnational Law 363.
- W. V. Reid et al. eds.. Biodiversity Prospecting: Using Genetic Resources for Sustainable Development (Washington, DC: World Resources Institute, 1993).
- M. Ritchie et al., "Intellectual Property Rights and Biodiversity: The Industrialization of Natural Resources and Traditional Knowledge," (1996) 11 St. John's Journal of Law and Communication 431.
- N. Roht Arriaza, "Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Local and Indigenous Communities," in Ziff and Rao, eds., *Borrowed Power: Essays on Cultural Appropriation* (Rutgers University Press, 1997) 255-287.
- D. Shelton, "Fair Play. Fair Pay: Preserving Traditional Knowledge and Biological Resources," (1994) 5 Yearbook of International Law 77.
- G. N. Singh, In Defence of Indigenous Knowledge and Biodiversity: A Conceptual Framework and Essential Elements of a Rights Regime (Penang: Third World Network, 1995).
- W. Snape, ed., Biodiversity and the Law (Washington DC: Island Press, 1996).
- R. Stavenhagen. "The Right to Cultural Identity," in Berting et al. eds.. *Human Rights in a Pluralist World* (London: Meckler, 1990).
- S. Stevens, ed., Conservation Through Cultural Survival (Washington, DC: Island Press, 1997).
- P. Stilltoe, "Indigenous Knowledge and Applied Anthropology," (1998) 39 Current Anthropology 244. Responses to Stilltoe (1998) 39 Current Anthropology.
- C. D. Stone, "What to do About Biodiversity: Property Rights, Public Goods and the Earth's Biological Riches," (1995) 68 Southern California Law Review 577.
- M. Strathern, "Potential Property: Intellectual Property and Property in Persons," (1996) 4 Social Anthropology 17.
- T. Swanson, Global Action for Biodiversity: An International Framework for Implementing the Convention on Biological Diversity (Washington DC: Island Press, 1997).
- R. Tarasofsky, "The Relationship between the TRIPs Agreement and the Convention on Biological Diversity," (1997) 6 Review of European Community and International and Environmental Law 148.

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R. Tsosie, "Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics and Traditional Ecological Knowledge," (1996) 21 *Vermont Law Review* 225.

- K. Warren, *Indigenous Movements and their Critics* (Princeton: Princeton University Press, 1998).
- L. A. Whitt, "Indigenous Peoples, Intellectual Property and the New Imperial Science," (1998) 23 Oklahoma City University Law Review 211.
- R. Wilson, ed. Human Rights, Culture and Context: Anthropological Perspectives (London: Pluto Press, 1997).