

Resistance is Fertile: The Commodification of Life and Environmental Protest in the 21st Century¹

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The environmental movement has a long and rich history of social protest. In fact, it could be argued that social protest is one of the more important reasons the movement has been so successful. Early actors brought environmental issues to the attention of the broader public and ultimately created a climate where legislation to protect the environment became possible. A major factor behind environmental legislation, at least in the United States, was the transformation of public consciousness regarding environmental issues and a growing awareness of the negative impact humans were having on the natural world. Without social protest it is doubtful politicians would have responded to the environmental crisis brought to public attention in the late 1960s and early 1970s.³ Despite many successes, environmentalism suffered from a corporate backlash during the 1980s as they recovered from their earlier losses in the face of general social opposition. Environmental progress has been more difficult in the 1990s and there have recently been calls marking the death of the environmental movement.⁴

While the environmental movement, especially in the United States, may be losing its effectiveness, this paper joins the chorus of voices rising to counter the argument that environmental resistance is dead. Instead, I argue that environmental resistance is evolving to confront a substantively different world than the one in which early social protest emerged. As part of the evolution of environmental protest, it is important to frame contemporary environmental issues within the technologically constructed and consumption oriented environment that constitutes the lives of much of the developed world – a world that is invading the global south through the assertion of patent rights over knowledge and agricultural products. I wish to investigate the resistance to intellectual property, specifically the interplay between patents and environmental exploitation, growing at a global level. This (relatively) new permutation of the global environmental problem focuses on the privatization of the natural world through the ownership of genes, seeds and genetically modified plants and animals and the appropriation of traditional knowledge. Anxiety over the privatization of the natural world is the foundation for a global environmentalism seeking to resist the commodification of life as we know it.

In this paper I will examine the death of environmentalism thesis and use it as a starting point for rethinking what we mean when we talk about the environment and about environmental resistance. Second, I'll argue that the resistance to the commodification of life in all its permutations is a key form of environmental resistance, a new environmentalism for the 21st century. To make this argument I would like to draw upon Habermas' theory of new social movements and assess the applicability of Hardt and Negri's notion of the multitude. Finally, I would like to illustrate the importance of this battle. Resisting the expansion of patent rights to seeds, plants and animals is key to formulating a future where environmental and social justice prevails.

1. The Death of Environmentalism

The modern environmental movement has gone mainstream with the primary American environmental organizations now staffing offices in Washington D.C. and having some access to power.⁵ Environmental activists are now also lobbyists and fundraisers. Some would argue moving to the mainstream means these environmental organizations have been co-opted by the system they initially sought to change.⁶ The transformation from its grassroots beginnings to insider status suggests that the context in which contemporary environmental battles are being fought is substantially different from the early years of the movement.

The success of the environmental movement in getting legislation passed during the 1970s and the resulting backlash during the 1980s and 1990s create the conditions for a decidedly different environmental movement today.⁷ Once legislation was in place to protect the environment, attention shifted to litigation as a protective strategy and policy formation.⁸ While social protest remained important, a professionalized group of actors was necessary to fight these more complex environmental battles. Furthermore, as hostility to the environment was institutionalized in the administrations of numerous American Presidents from Regan to the current Bush, environmental organizations had to spend more time defending the gains made in early decades. Whereas the major US environmental legislation emerged in a matter of years, the politics of reaction have been mounting for the past two and ½ decades with funding from resource extraction industries and petroleum based outdoor adventure industries.

Those seeking to protect the environment are fighting a defensive battle on all sides. The movement faces backlash from politicians and corporations in the policy-making realm where real environmental success is difficult to achieve amidst the complexity of rule making and the power of lobbyists. The movement also faces challenges to its core assumptions as what constitutes the natural world, the environment, and nature are critiqued, often by those sympathetic to environmental protection. These critiques take several forms.

The first theoretical critique comes from the environmental justice movement. It became increasingly obvious that many mainstream environmentalists defined issues in such a way that the concerns of the poor and people of color went unaddressed. By focusing on the protection of wilderness and endangered species, environmentalists tended to voice concern for issues not salient to poor urban and rural dwellers. The environmental justice movement was born from the conflict between a vision of the natural world that only the privileged could enjoy and the health and human impact of industrialization and resource extraction industries on poor populations.

Mainstream environmental groups tended to ignore the plight of those living in highly polluted urban areas as they concentrated on protecting wilderness from human intervention and destruction. Unfortunately, environmental groups tended to define the protection of the environment against poor communities, many of whom needed access to the natural world to survive.⁹ The environmental alternative of preserving land and halting the more devastating forms of resource extraction tended to pit environmentalists against rural jobs. For those caught in the middle, the environmental option was not necessarily the best solution. How environmental protection and sustainable living for vast numbers of people around the world can be created is part of the response that has emerged as part of the environmental justice movement.¹⁰ In the urban context, poor inner-city areas are organizing to fight for a better environment by merging environmental and social justice issues, something that mainstream American environmental organizations were slow to address.¹¹

A second challenge to the original conception of the environmental movement comes from postmodern environmental theory. Theorists such as William Cronon have undermined the definition of nature as something 'out there' that should be protected as separate from humans.¹² Instead, they put forward an idea of nature as socially constructed. These thinkers argue that the conception of wilderness as nature in the absence of humans and the corresponding division of humans from the natural environment is a badly flawed environmental paradigm.¹³ If the original environmental paradigm was flawed, then a new paradigm must rethink the idea of environment itself.

The resistance to intellectual property as an environmental issue only becomes possible if environmentalists move away from the traditional conception of nature as 'out there' and instead examine the lived experience of human beings within the natural world. In other words, to claim biotechnology, patents on life and agricultural products and the theft of traditional knowledge as environmental issues, one must accept the underlying premise that the debate must move beyond the protection of wilderness from human intervention. While it is possible to resist biotechnology and GMOs with the articulation of a reified environment as untouched by human hands, contemporary resistance must go well beyond the protection of nature as 'out there.' Centering environmental critique within the realm of human experience also supports the underlying assumptions of the environmental justice movement.

Both the environmental justice movement and postmodern critiques have changed the trajectory of the environmental movement by adding theoretical and practical reconsiderations. Specifically, they have opened the idea of protecting the environment to issues of social justice and urban renewal. It is no longer controversial to think about the environmental movement of the future as dealing social justice and the nexus between technology and the environment.

One final change is relevant to the contemporary state of environmental resistance – it is the increasingly transnational nature of the movement that crosscuts different social issues. If Rachael Carson was the emblem of the American environmental movement, Dr. Vandana Shiva is the emblem for the contemporary global environmental movement.¹⁴ Dr. Shiva has worked tirelessly to raise awareness regarding a series of interlocking issues in India. She symbolizes the integration of social justice, poverty reduction, feminism and the harmful impact of intellectual property laws, into a global paradigm of sustainable living for the entire world. Dr. Shiva has linked environmental justice, social justice and globalization. She can be found marching to resist the patenting of HIV/AIDS medication, making a passionate speech against biocolonialism, or working to protect women's rights. She speaks to both the transnational nature of the threat and its connections with other aspects of the fight for social justice.

Generally speaking, it is the developed world, specifically the United States, that benefits from a global patent regime while the patenting of seeds and the appropriation of traditional knowledge primarily harms the global south. However, it is of course not that simple. There are actors benefiting from the privatization of knowledge throughout the world and many who protest these actions live within the United States. What becomes important to recognize is that the future of the environmental movement will take place within a global environment influenced by transnational actors. State-based environmental action and romanticized visions of nature are less central to the environmental fights of the future. Where one might think the old environmental movement was primarily located in the developed world, the new movement has its roots in the environmental devastation of the global south.

2. New forms of environmentalism

While concerns for clean air and water and wilderness protection will always remain important, a new layer of environmental issues have evolved upon which social protest should also be focused. Shellenberger and Nordhaus suggest that the American movement has been unable to bridge the gap between what they deem environmental issues and social justice issues. Environmental activists working outside the United States, however, have made significant headway towards bridging this gap and will ultimately bring the fight back to the U.S. Europe, for example, has a far more sophisticated resistance to biotechnology and genetically modified organisms. Going beyond the resistance in Europe, the strongest voices for a new paradigm focused on intellectual property and environmental protection comes from the global south, led by India and Brazil. One of the first international venues where these important global issues were voiced was the Earth Summit in 1992.

The 1992 Earth Summit in Rio focused on the global environment, including considerable time spent debating the impact of intellectual property. The Earth Summit helped define technological problems related to biotechnology and genetically modified organisms as environmental issues. Many in the global south were concerned with the way intellectual property, specifically patent law and control over agricultural products, would impact their everyday lives and these concerns were part of the Earth Summit discussions. Thus, even by the early 1990s it had become clear that intellectual property was a potential environmental threat.

Patent law was already being used to transform agriculture and the building blocks of nature itself in ways that primarily benefited the developing world. Biotechnology had grown in power throughout the 1980s and early 90s aided in large part by the U.S. Supreme Court case *Diamond v. Chakrabarty* in 1980.¹⁵ Chakrabarty had created an oil-eating organism that would improve clean up efforts when applied to an oil spill. He applied for a patent not only on the method of applying the organism to the oil spill, but for the organism as well. Until this case, the United States Patent Office had not allowed living things to be patented. After losses in the lower courts, the U.S. Supreme Court upheld Chakrabarty's patent because the organism was not found in nature, but had been 'manufactured' by Chakrabarty. This decision allowed the biotechnology industry to increase production of genetically modified organisms, all now protected with a monopoly patent grant by the U.S. Government.¹⁶

Patent law, biotechnology and access to seeds in the global south soon merged as crucial issues.¹⁷ Multinational companies such as Monsanto sought to end the process of seed saving and instead require farmers to purchase new seeds from them every year. They introduced the terminator seed – protected by patents and guaranteed to only grow in a single season of operation, but faced such enormous resistance that it was initially pulled from the market.¹⁸ Despite this setback, which arguably came before multinational corporations had created the appropriate conditions for privatization, these new agricultural products, protected by 'intellectual property' and rigid licensing agreements continue to move towards the global status quo in seed production and distribution.¹⁹ For those in the global south that had long shared seeds and saved them from year to year, the privatization of seeds translated into a new form of colonialism where formerly independent farmers would now be reliant upon major multinational companies for their seed stocks. The debate is obviously complex, with many suggesting that corporate-controlled bioengineered seed stocks may be the only way to end food insecurity in much of the world. The costs and benefits are clearly high and while it may be that GMOs have a place in the future, one should question a form of corporate instead of public ownership.

Biopiracy (often called biocolonialism) is another increasingly salient concern. As corporate ownership of agriculture, GMOs and patent law converge to make agriculture an industrialized for-profit practice, new raw materials must be found to feed the engines of production-oriented growth. While most often associated with the pharmaceutical industry, biopiracy is generally defined as the process through which western scientists seek out traditional knowledge, defined by them as the 'heritage of mankind,' use

this knowledge to identify important plants with medicinal or agricultural value, take these plants back to the U.S. where the important properties are identified and then apply for a patent on the resulting product. Finally, the product is sold back to those who were its original inventors as the property of the company who stole the idea in the first place.²⁰ The end result is the appropriation of knowledge from those who have used it for generations and the privatization of this knowledge through the patent system. Ultimately, it creates a net flow of knowledge and profits from the global south to the north. Biopiracy places concern for a commodified nature within the context of transnational networks, debates over appropriate technology and patent law and has become an important rallying cry across much of the global south.

Biotechnology, patents and biopiracy were among the issues raised as important environmental concerns, especially by developing countries, during the Rio summit.²¹ Generally speaking, the resulting Convention on Biological Diversity (CBD) requires that intellectual property rights do not interfere with environmental protection, thus (theoretically) privileging environmental concerns over intellectual property concerns.²² However, passage of the Trade Related Aspects of Intellectual Property Agreement (TRIPS) in 1995 increased environmental concerns related to intellectual property despite language in TRIPS that allows member countries to protect the environment even if it means less protection for intellectual property rights.²³ The environmental concerns raised by the CBD and TRIPS have since been catapulted into the larger transnational counter-globalization movement as key considerations of any future globalized world. Thus, environmentalism is not dead, but the scope and nature of the issues have changed. Additionally, it is clear that social protest is as necessary as ever to ensure that substantive change happens.

3. Resistance is Fertile: Transnational Social Movements and the Environment

Since the battle in Seattle in 1999, the networked nature of contemporary social movements has been observed. In Seattle, many marveled at the coalition of organizations that merged to resist neo-liberal globalization; especially the links that seemed to be formed between environmentalists and trade union members. The crush of issues brought to the table was chaotic and diverse. However, the convergence of issues also suggests that old-style resistance is outdated and has been replaced by networked struggles.²⁴ As Hardt and Negri point out, “new dimensions of power demand new dimensions of resistance,”²⁵ and globalization is the articulation of a new form of power – biopolitical power that constructs Empire.²⁶ To fight against Empire new networks of resistances that can act in common where appropriate, but maintain autonomy, are necessary.²⁷ It is within this framework of resistance that contemporary environmental resistance should be examined.

Hardt and Negri suggest that while other forms of resistance will remain intact (like wilderness protection), the hegemonic form of both power and resistance has transformed into distributed networks. From a standpoint inside the more mainstream movement, it may seem as if environmental resistance has withered because hierarchical structures like those in place within environmental organizations are no longer the hegemonic structures. Rather, a new framework has emerged – one that redefines what environmental issues are. These newer issues combine resistance to technological innovation and intellectual property rights with farmer’s rights, traditional knowledge, access to seeds, and sustainable living. The resistance is networked – with groups coming together to protest biotechnology and the ownership of genetic materials, but also maintaining their own environmental and social agendas. The environmental movement is converging with other aspects of the counter-globalization movement to resist the underlying assumptions that create environmental problems – the privatization of common knowledge and the global success of capitalism.

Jürgen Habermas suggests that new social movements such as the environmental movement articulate their resistance to the colonization of the lifeworld.²⁸ These movements struggle to resist the commodification and privatization of their everyday lives.²⁹ Resisting the commodification of the lifeworld is at the heart of reactions to the use of intellectual property law, specifically patent law, to privatize biodiversity, ownership in genetic code, seeds, and traditional knowledge. The movements that have emerged to fight this colonization are not simply environmental in scope, in the sense that they seek to protect a reified notion of “nature,” but rather are hybrid movements that seek to respond to the convergence of technological innovation, patent law, and sustainability issues. As such, they form a new type of environmental network that moves beyond mainstream environmentalism to seek connections that can transcend any single organization.

The environmental movement of the future is a networked movement – one that must be transnational and must take into consideration multiple other resistances. Those who seek to compartmentalize their environmental issues or who wish to continue to seek the protection of an environment that is “out there” conceptualized as a wilderness will be further marginalized in this

environmental future. In the final section of this paper I'd like to look specifically at what can be considered some of the "new" permutations of environmental resistance and discuss the importance of globalizing this resistance.

4. The Environment and Intellectual Property

Intellectual property laws are not new, but the networked age has made intangible property a cornerstone of global development. The over expansion of intellectual property laws has sparked multiple levels of resistance, but one especially fruitful area where the vision provided by environmental activists is most compelling is where intellectual property issues and the environment overlap. During the Earth Summit, environmentalists brought up several key issues that merged environmental protection and concern about growing intellectual property law. These concerns related primarily to the privatization of seeds, biotechnology, farmer's rights, and traditional knowledge. These issues have continued to be salient to the growing counter-globalization resistance in the ensuing decade. I would like to describe a few actions that serve to merge environmentalism and intellectual property in the past decade – actions that illustrate to me that resistance remains alive and fertile.

The Third World Network (TWN) is one of the most active and vocal groups on issues of environment and IP as they relate to the global south. Their work is widely read and respected and they serve as a point of convergence for multiple issues that face developing countries. They have organized internationally to resist biopiracy and the spread of GMOs.³⁰ The TWN is working to construct a global paradigm that places human and environmental rights above the privatization of innovation and technology. Organizations like TWN serve as the foundation of a new global civil society and produce knowledge that can help transform the global paradigm towards one that protects public knowledge at the expense of private knowledge.

The Council for Responsible Genetics has sponsored a "No patents on life campaign" to help foster awareness of the problems associated with patenting life forms. Their goal is to create a national movement to help oppose patents as they relate to living entities, including humans.³¹ The growing resistance to patenting of life forms has taken the form of protests, as depicted by Indy media sources at the Bio 04 conference in San Francisco California.³² These resistances are crucial to linking environmental issues with the highly abstract world of patent law. While patents may be problematic for any type of innovation, an argument that can be made elsewhere, applying patents to living organisms and seeds brings this abstract law to life and makes it possible to resist the commodification of life forms.

India has been especially involved in protesting seed patents and the privatization of traditional knowledge in part because millions of Indian farmers depend upon seed storage and the knowledge of their traditional practices to grow food. In 1993 over half a million farmers came together to protest patents on agricultural products and the pace of environmental protest has not let up since.³³ Dr. Vandana Shiva began the Seed Satyagraha, a non-violent resistance to the commodification of seeds. This movement has brought thousands to the streets to protest and resist the privatization of commonly held seed stocks.³⁴ The Jaiv Panchayat: Living Democracy Movement, another Indian movement to resist biopiracy, has also been successful in articulating the connections between resisting corporate globalization, protecting the environment and providing for a traditional way of life.³⁵ Such a powerful resistance is not only a movement towards social justice, but also towards sustainable development and appropriate technology.³⁶ It is a hybrid movement that will impact not only the well being of an entire continent, but the world.

The counter-globalization movement has been sympathetic to these hybrid environmental issues. They have been taken up internationally at protests against the WTO and more recently in protests against the Free Trade Area of the Americas (FTAA).³⁷ The FTAA protests in Quebec City, for example, highlighted the patenting of life, GMOs and corporate control over food production – all issues that stand as hybrids between the environmental movement, intellectual property issues, and social justice.³⁸ Thus, while stagnation may be the case at the national level in the United States, there is clearly a vibrant international environmental movement growing and changing the way we approach environmental issues. One can hope that alliances can be forged and an international alternative to contemporary globalization can be found.

5. Conclusion: Success and the Future of the Environment

This paper can only briefly begin to describe the state of resistance to the commodification of life that is an important motivating factor behind global social protest. While it is difficult to point to major successes, it is important to recognize the construction of an alternative way to think about environmental protection and intellectual property. The way forward on issues of intellectual property, especially the patenting of life and the appropriation of traditional knowledge, are key issues for social justice advocates

to address in the coming decade. The transformation of biodiversity, the genetic code of seeds and humans, and much more into a form of private property that can be centrally owned is a serious form of global power that should be resisted. Given the state of the environmental movement and the political atmosphere in the U.S., it is clear that resistance will have to come from outside the U.S. This resistance has emerged in the developing world, and to some degree in Europe, and will hopefully spread from there. As individuals concerned about social and environmental justice, it is time to join those concerned about the privatization of knowledge in the attempt to articulate a different future and a better world.

Notes:

¹ The title “Resistance is Fertile” comes from a sign held by a protestor against the patenting of life at a conference on biotechnology.

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³ It is important to note that Rachel Carson was vilified by the chemical industry for her important work on the impact of DDT. Al Gore, “Introduction” in *Silent Spring*, Rachel Carson (Boston: Houghton Mifflin Company, 1994), xv-xxvi.

⁴ Michael Shellenberger and Ted Nordhaus, *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World*, September 2004, (10 May 2005).

www.thebreakthrough.org/images/Death_of_Environmentalism.pdf.

⁵ Mark Dowie argues that the environmental movement has become a mainstream special interest. Mark Dowie, *Losing Ground: American Environmentalism at the Close of the Twentieth Century* (Cambridge: MIT Press, 1996), 68-75.

⁶ Shellenberger and Nordhaus, 8. Direct action environmental organizations continue to exist. For example, Greenpeace fights environmental injustice with direct action; the environmental liberation front (ELF) has been called a terrorist organization by US officials concerned about ELF’s willingness to destroy property; and globally social protest remains strong.

⁷ For an overview of the history of the American environmental movement see: Michael E. Kraft, *Environmental Policy and Politics*, 3ed, (New York: Pearson Longman, 2004) 94-120. For a specific critique of the contemporary American situation see: Robert F. Kennedy, Jr., *Crimes Against Nature: How George W. Bush and His Corporate Pals are Plundering the Country and Hijacking Our Democracy*, (New York: Harper Collins, 2004). See also Robert S. Devine, *Bush Versus the Environment*, (New York: Anchor Books, 2004); “Politics and Science in the Bush Administration,” Prepared for Rep. Henry Waxman, United States House of Representatives, Committee on Government Reform, Minority Staff, Special Investigations Division, August 2003, iv (June 6, 2005).

http://www.house.gov/reform/min/politicsandscience/pdfs/pdf_politics_and_science_rep.pdf

⁸ Dowie, 34-38. See also, Shellenberger and Nordhaus, 9-10 on contemporary environmental organizational strategies.

⁹ Laura Westra and Bill E. Lawson (eds), *Faces of Environmental Racism: Confronting Issues of Global Justice*, 2nd ed., (Lanham, MD: Rowman and Littlefield, 2001).

¹⁰ Much of the sustainable development and environmental literature attempts to bridge the gap between the needs of poor people and environmental constraints. See generally, Julian Agyeman, Robert D. Bullard and Bob Evans, eds, *Just Sustainabilities: Development in an Unequal World*, (Cambridge: MIT Press, 2003).

¹¹ Daniel R. Faber and Deborah McCarthy, “Neo-liberalism, Globalization and the Struggle for Ecological Democracy: Linking Sustainability and Environmental Justice,” in *Just Sustainabilities: Development in an Unequal World*, eds. Julian Agyeman, Robert D. Bullard and Bob Evans, (Cambridge: MIT Press, 2003), 45.

¹² William Cronon, (Ed), *Uncommon Ground: Toward Reinventing Nature*, (New York: W.W. Norton & Company, 1995). Shellenberger and Nordhaus reiterate this point. Shellenberger and Nordhaus, 12.

¹³ William Cronon, “The Trouble with Wilderness; or, Getting Back to the Wrong Nature,” in *Uncommon Ground: Toward Reinventing Nature*, William Cronon, (Ed), (New York: W.W. Norton & Company, 1995), 69-90.

¹⁴ Dr. Shiva has published numerous books on the subject. She founded the Research Foundation for Science, Technology and Ecology which can be found at <http://www.vshiva.net/>. See also her book on biopiracy: Vandana Shiva, *Biopiracy: the Plunder of Nature and Knowledge*, (Cambridge: South End Press, 1997).

¹⁵ 100 S.Ct. 2204, 1980.

¹⁶ Vandana Shiva, “North-South Conflicts in Intellectual Property Rights,” *Synthesis/Regeneration* 25 (Summer 2001), (April 29, 2005) <http://www.greens.org/s-r/25/25-14.html>.

¹⁷ Keith Aoki, “Weeds, Seeds and Deeds: Recent Skirmishes in the Seed War,” *Cardozo Journal of International and Comparative Law*, 11 (Summer 2003), 247-331.

¹⁸ *Ibid*, 255.

¹⁹ “*Monsanto v. Schmeiser: A Landmark Decision Concerning Farmer Liability and Transgenic Contamination*,” *Journal of Environmental Law* 17 (2005): 83-108. Monsanto, for example, sued Percy Schmeiser when they discovered patented Monsanto seeds in Schmeiser’s field. Schmeiser had not planted the seeds, instead they had blown into his field from neighboring fields. However, the court found against Schmeiser and Monsanto was able to defend their property rights. For a narrative by Schmeiser about the case see: “Monsanto v. Schmeiser: A Classic David and Goliath Case.”

<http://www.percyschmeiser.com/conflict.htm> (June 9, 2005).

²⁰ For more information on the process see: Debora Halbert, *Resisting Intellectual Property*, (London: Routledge, 2005).

²¹ The resulting Convention on Biological Diversity (CBD) was an attempt to compromise between the developed and developing nations on issues of biodiversity and biotechnology. Needless to say, there are still plenty of problems to be worked out. See: Patricia Kameri-Mbote, “Community Farmers and Breeders’ Rights in Africa: Towards a Legal Framework for Sui Generis Legislation,” *University of Nairobi Law Journal*, 2003. (June 9, 2005), *International Environmental Law Research Centre*, <<http://www.ielrc.org/content/a0302.pdf>>, 8.

²² International Institute for Sustainable Development and United Nations Environmental Program, *Environment and Trade: A Handbook*, 2000. (June 9, 2005).

<<http://www.iisd.org/trade/handbook/default.htm>>, 5.7.1

²³ For problems TRIPS causes for environmental protection see: Philippe Cullet, “Intellectual Property and Environment – Impacts of the TRIPS Agreement on Environmental Law Making in India,” 31 May 2002 (April 29, 2005). http://www.fu-berlin.edu/ffu/Lehre/pkgec/Paper_Cullet.pdf. For an excellent overview of the CBD and TRIPS as they relate to the environment and intellectual property see: Charles R. McManis, “The Interface Between International Intellectual Property and Environmental Protection: Biodiversity and Biotechnology,” 76 *Washington University Law Quarterly* 255, Spring 1988.

²⁴ Michael Hardt and Antonio Negri, *Multitude: Ware and Democracy in the Age of Empire*, (New York: The Penguin Press, 2004), 68-69.

²⁵ *Ibid*, 80.

²⁶ For their analysis of Empire see: Michael Hardt and Antonio Negri, *Empire*, (Cambridge: Harvard University Press, 2000).

²⁷ Hardt and Negri, *Multitude*, 86.

²⁸ Jürgen Habermas, “New Social Movements,” *Telos*, 49 (1981): 33-37.

²⁹ Habermas, 34.

³⁰ See: Third World Network, <http://www.twinside.org.sg/index.htm>.

³¹ See: Rebecca Charnas, “No Patents on Life” Working Group Update, 2004, (April 29, 2005). <<http://www.gene-watch.org/programs/patents/updates.html>>.

³² For photos from the protest visit www.indybay.org/news/2004/06/1684066.php; www.indybay.org/news/2004/06/1684111.php; www.indybay.org/news/2004/06/1684282.php.

³³ McManis, 256; See also: “Intellectual Property is Theft,” *The Economist*, 22 January 1994, 72-73.

³⁴ Vandana Shiva, “Seed Satyagraha: A Movement for Farmers’ Rights and Freedoms in a World of Intellectual Property Rights, Globalized Agriculture and Biotechnology,” in *Redesigning Life: The Worldwide Challenge to Genetic Engineering*, Brian Tokar (ed.), (New York: Zed Books, 2001), 251-60.

³⁵ The Campaign Against Biopiracy is associated with Dr. Shiva’s Research Foundation for Science, Technology and Ecology. In response to the World Environmental Day in 1999 over 2000 people from Northern India launched this movement to preserve biological heritage and protect against biopiracy. See: <http://www.ratical.com/co-globalize/LDandCAB.html>.

³⁷ Farmers in Thailand protested the WTO meetings planned there to discuss agricultural issues. See: Nantiya Tangwisutuit, “Chiang Mai (Thailand): Anti-WTO Protest Planned,” *The Nation*, 28 March 2001 (April 29, 2005). <<http://www.nadir.org/nadir/initiative/agp/free/imf/asia/chiangm.htm>>

³⁸ For a call to action for the FTAA see: “The Belly of the Resistance to the FTAA,” (April 29, 2005) <<http://www.tao.ca/~kev/belly/en/commonground.html>>