

**Contested Remediation:
Local People, Corporate America and Mainstream Environmentalism in the
Hudson River Valley**

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Comparative Environment and Development Seminar
Macalester College
Fall 2006

Although political ecology as a subfield has traditionally focused on the Third World, it is becoming clear that themes brought forth through the study of political ecology can be helpful when problematizing situations in the First World as well. In this paper, I will apply themes from political ecology to the controversy surrounding the dredging of the Hudson River in New York State, with the goal of gaining a better understanding of the actors and forces affecting the situation, and adding to the literature in the growing field of First World political ecology. The struggle surrounding the Hudson River has been taking place for decades. Recently, the movement to clean up the river has gained significant ground. Late in his second term President Clinton made the decision that the Hudson River should be dredged of the harmful contaminants that the General Electric Company (GE) had spent years dumping into its waters. Shortly after George W. Bush took office, he concurred with his predecessor – the Hudson should be dredged. In 2002 Christie Todd Whitman, the head of the United States Environmental Protection Agency (EPA), supported the presidents by passing the Record of Decision (ROD) stating that the dredging project would happen following a three-year planning period. According to Alex Matthiessen, executive director of the environmental watchdog organization Riverkeeper, “The EPA decision [to dredge] represents more than just a

regulatory victory; it represents the triumph of truth over deception, good over evil, the will of the people over the massive and relentless anti-environment campaign of a corporate giant” (Tucker 2002, 54). At first glance, the situation surrounding the Hudson River clean-up project seems simple. Environmentalists and concerned citizens and lawmakers want to rid the river of harmful chemical compounds, while large corporations like GE and the people on their payroll would rather not spend the money to do so. But why, then, were there so many residents of the upper Hudson region who opposed the dredging plan?

Throughout this decades-long controversy, the Hudson has been portrayed as a once-pristine landscape marred by human industry. A narrative has been created, with groups on both sides of the issue using carefully crafted language to plead their case. There is scientific research being conducted to support both viewpoints. Since there is little scholarly work being done to analyze the Hudson River controversy, it is at times difficult to wade through the rhetoric of each side to find an objective viewpoint. Themes from the field of political ecology prove useful when examining the controversy surrounding the Hudson River clean-up.

Despite the fact that an overwhelming number of local residents were resisting dredging – up to 80% of the local population on some accounts – the EPA approved the dredging plan (Tucker 2002). I will argue that this was not because local residents didn’t understand the implications of the contamination, or were on the GE payroll, but it was in part due to multi-scalar social and political forces that were at play in the region and beyond. This case study represents more than an environmental controversy; the struggle

for the Hudson is a situation in which local people were trying to maintain control over a landscape with which they identify, and in turn maintain control over their livelihoods.

In this paper I will attempt to shed new light on the controversy surrounding the Hudson River by applying theories of political ecology to the situation. I will begin by outlining a political ecology framework for analyzing the controversy, highlighting particular themes from the field that I feel are especially pertinent. I will then outline the Hudson River case and attempt to portray as many sides of the struggle as I can, as this will be important in trying to formulate the most complete view of the situation possible. I will then analyze the case using a political ecology framework to come to a new and complex understanding of this decade-long environmental battle. It is my hope that this study will help add to the growing field of First World political ecology.

Methodology

In order to gain an understanding of the controversy surrounding the Hudson I relied on writings on the subject in both scholarly and popular sources, in addition to information put out by the EPA and GE. In addition, I used transcriptions of public meetings from the time period just after the EPA's decision to dredge. These public meetings were held by the EPA in an effort to clarify the ROD, answer the public's questions, and mitigate disapproval of the plan. Doing this project from afar, these transcripts were useful as I was not able to conduct interviews with local people or representatives from the EPA. I made an effort to gather information from all sides of the controversy, and looked at the emotional writings of local residents just as I looked at scientific writings commissioned by the EPA or GE. In the end, the assessment of this

situation cannot be reduced to an environmental impact survey or a calibration of the level of contamination in the river, but must instead include a survey of the historical and political processes that help shape the identity of the region.

Political Ecology and First World Environmental Controversy

While the subfield of political ecology contains an impressive collection of works focusing on Third World issues, significantly less work has been done in applying political ecology themes to the First World. Scholars are now realizing that there is no empirical reason why political ecology should not apply, and serve as a useful tool, in the study of the First World as well (Schroeder 2006). In fact, with every corner of the world now being affected by globalization, it seems nearsighted to think that such a comprehensive area of study would only apply to “less developed” or Third World regions. Globalization has created international linkages that must be illuminated – if you are studying AIDS in South Africa, you are surely not going to look at the country as if it is in a vacuum. Throughout your study you would also need to analyze the North American drug corporation that is making the medication needed to mitigate the disease and the international organizations offering aid to those South Africans affected by AIDS. And just as influences from Western nations are touching the Third World, trends from less developed countries occur here in the United States as well. As Schroeder points out, deindustrialization and changes in agricultural practices and structures has led to “Third World” conditions in the Heartland of America (2006). Because of the relevance of political ecology themes, the subfield can help elucidate nuances in situations of First World human-environment interactions.

Central to the study of First World political ecology is the notion that nature is socially constructed. William Cronon, and many others following him, put forth the idea that “[wilderness] is quite profoundly a human creation.” Cronon argues that the concept of wilderness is created, and in fact recreated, by humans throughout time. Cronon illustrates this idea by tracing the evolution of how people have viewed wilderness in the past. He contends that, “[wilderness] is not a pristine sanctuary where the last remnant of an untouched...nature can for at least a little while longer be encountered without the contaminating taint of civilization. Instead, it is a product of that civilization” (Cronon 1996). Duncan and Duncan’s discussion of this theme is helpful in clarifying the idea that nature is actually not natural at all, but rather constructed. According to Duncan and Duncan (2001), “Saying that wilderness is a human creation is not an ontological statement; it certainly does not mean that the nonhumanized landscape to which the word refers does not exist independently of human knowledge of it. Wilderness is a humanly imposed category with a particular geography and history.” In our society, we have developed in our shared imagination what “wilderness” should look like, and have taken great pains to protect these sacred landscapes. An important characteristic of our wilderness is the distinct absence of human activity, save the occasional recreational hobby. This characteristic has been entirely fabricated in our minds, as there is certain proof of humans living in and utilizing many of our “wilderness” areas centuries before they entered our collective consciousness.

Especially in rural areas, value is placed on the aesthetics of the environment, and because of this there emerges an ideal of what the landscape should look like. Problems arise when there are competing ideas of what this ideal should be. The questions of who

ultimately creates this ideal, and how they go about ensuring it is upheld, have serious political and social consequences. In a study done on landscape controversy in the Sierra Nevada, Peter Walker and Louise Fortmann contend,

In increasingly gentrified and 'aestheticized' rural areas of the global north such as Nevada County, conflicts over landscape are of growing importance (seen, for example, in recent national-scale debates over 'rural sprawl' and 'smart growth'). Conflicts emerge particularly in places where economic and cultural value is being placed not on individual natural resources but on aesthetic and environmental values (such as 'viewshed' or 'rural quality') that derive from a totality of many individual landholdings. These are especially subject to dispute because 'ownership' of landscape qualities is often undefined. Deeply political contests emerge over the question of who will 'possess' or 'control' the landscape (Walker and Fortmann 2003, 470).

A similar situation is occurring along the Hudson River, which is an area of tourism and recreation, where people from New York City and beyond come to enjoy the beauty of the natural environment. The benefit to be gained from time spent in such a locale has become deeply ingrained in our society; when one is tired of the grit and grime of the city, escape to the Adirondacks and the Hudson River Valley! According to Cronon, "For many Americans wilderness stands as the last remaining place where civilization, that all too human disease, has not fully infected the earth. It is an island in the polluted sea of urban-industrial modernity, the one place we can turn for escape from our own too-muchness" (1996, 7). This separation between "natural" and "human" landscapes is a creation of our society which greatly affects the Hudson River area. Robbins, agreeing with Cronon, argues that Edenic notions of non-human nature are constructions, pointing to the example of the African savannah (2004, 148). According to Robbins, people have been written out of the environmental history of the region, making it seem as if the only lions, tigers and other charismatic mega-fauna belong there. I would argue that just as

these Edenic notions are used to write humans out of the environmental history of the Serengeti, so too are they used to write industry out of the environmental history of the Hudson River region.

Taking from this tradition of viewing nature as pristine and free of the pollution of human industry, the environmental movement in the United States has waged many battles to clean up contamination caused by industry. While efforts to clean the environment are no doubt noble, it is the idea that the environment can be cleansed of all traces of human touch that can be problematic. In the case of the Hudson River, not all interested parties share the desire to rid the river of all vestige of human industry. This is because there are differing ideas of what the landscape of the Hudson River should look like. The views of many environmentalists clash with those of local residents, who see the river as part of their economy and intricately intertwined with human activities.

The local people of the Hudson River Valley view the land in a way that is linked to a livelihood struggle, similar to what Robbins observes in India (2004). The relationships between community, identity and livelihood that Robbins describes in Rajasthan can be seen in New York as well; local people who have forever lived in small towns, farming, fishing and recreating on the river, struggle to have autonomy over their land and tend to reject outside intervention into their communities. In this controversy, it can be observed how “people organize to defend their interests and engage ecological and technological change as a political act” (Robbins 2004, 201). As Robbins states, it is important to note how these communities do this on their own terms, and are often ambivalent about interference from outsiders.

The Hudson River Environmental Struggle

The Hudson River originates at Lake Tear of the Clouds, high up in New York's Adirondack Mountains. From its headwaters, the river flows over 300 miles through dramatic mountains, sloping farmland, locks and dams, towns and cities, before reaching



Fig. 1 – Hudson River Watershed. Map from www.hudson-americasvalley.com.

New York Harbor. It is a striking example of both natural beauty, and industrial contamination – while its landscapes inspired the first school of painting in the nation, its contamination distinguishes it as the longest Superfund site in the United States (Claudio

2002). Superfund sites are determined by the EPA as being seriously contaminated with hazardous waste.

The history of the Hudson River is closely knit with the growth of industry and commerce in America. It is named for Henry Hudson, who navigated the river in 1609 thinking it would be a quick route to China. While Hudson was clearly mistaken, the river did become an important inland waterway for the United States. By constructing the Erie Canal in 1823, ships were able to sail from the Midwest to New York City, and onward. When railways became the most efficient transportation method, tracks were laid along the banks of the Hudson, making it an ideal location for industry. With easy access to both water power and rail transport, the banks of the river teemed with factories.

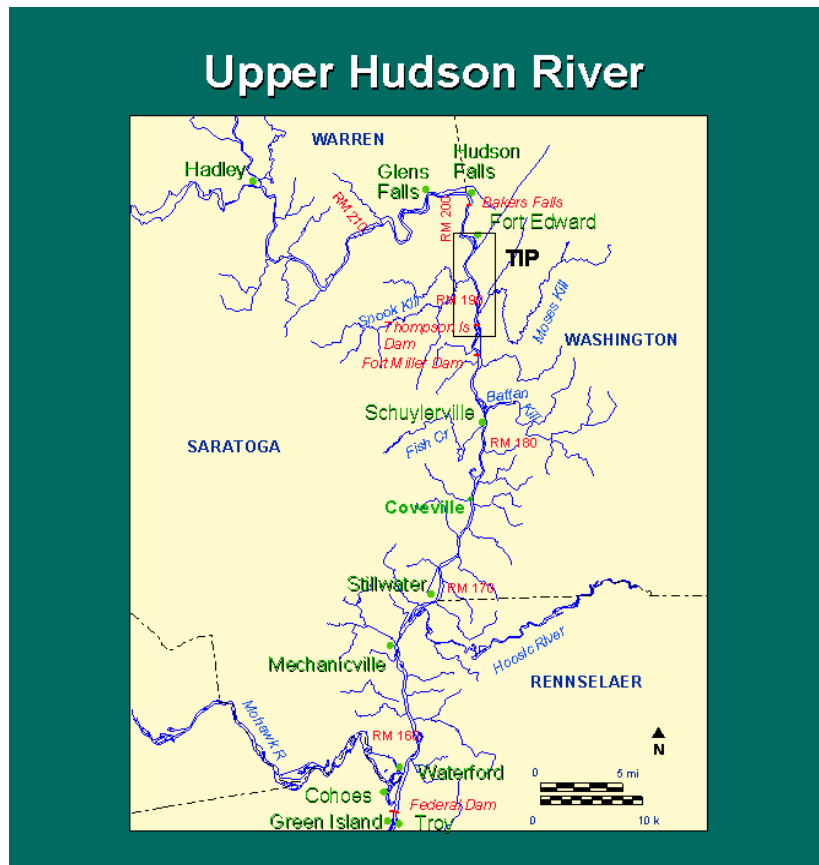


Fig.2 The Upper Hudson River region. Map from www.epa.gov/hudson.

One of the earliest and most important companies to locate along the Hudson was the General Electric Company (GE), formed when Thomas Edison consolidated his patents for incandescent bulbs in 1892. Although the company was based in New York City, it began taking over factories along the river; before long GE's manufacturing complex stretched from Schenectady to Pittsfield, Massachusetts. In Fort Edward and nearby Hudson Falls, GE took over factories directly on the river (see Fig. 2) and retained permits from New York State to dump waste into the river (Tucker 2002). The two locations continue to be pivotal in the controversy surrounding the river.

The Rise and Fall of Polychlorinated Biphenyls

At the time when GE was expanding operation along the Hudson, electric companies used organic coolants in electrical capacitors, but these compounds were not efficient in dispersing heat, causing the capacitors to explode. Many assumed this problem was solved in the 1920s with the development of polychlorinated biphenyls (PCBs) (Claudio 2002). In the beginning, PCBs seemed to have many virtues and no obvious faults. They are nonflammable and extremely stable, and early toxicity tests did not reveal any hazardous effects; these early signs made them an excellent choice for coolants in electrical capacitors. (Colborn, et al 1997). PCBs were widely used in many commercial products for 36 years before questions were raised as to their possible toxicity. In the coming decades, as scientists studied the human health effects of the chemical compound, companies such as GE were discarding PCBs in garbage dumps, where they leaked into the environment. Waste from GE's Hudson Falls and Fort Edwards plants leaked directly into the Hudson River, thanks to the permit from New

York State, and settled into the silt that backed up behind the Niagara Mohawk hydroelectric dam at the south end of Fort Edward. By 1973, the dam was considered a hazard and was demolished, sending the backed up PCBs cascading down the river (Tucker 2002).

In 1975, the first large study showing evidence of PCBs as carcinogens was published by Renate Kimbrough in the Journal of the National Cancer Institute. Kimbrough showed that rats fed varying doses of PCBs developed liver cancer on a “dose-response curve,” meaning that the more PCBs they were fed, the more they developed the cancer. This evidence was enough to convince the EPA to hold the National Conference of Polychlorinated Biphenyls, which led to the recommendation that PCBs be considered a human carcinogen. In 1976 the United States banned the manufacture of PCBs, but did not address existing PCBs, allowing their continued use in closed applications such as transistors and small appliances. It is estimated that during the time of their manufacture, 3.4 billion pounds of PCBs were produced worldwide (excluding the USSR). PCBs were loose in the environment, and when scientists began looking for them, they found them nearly everywhere – in air and soil, in the sediment of rivers, lakes and estuaries, in the ocean and in animals (Colborn, et al 1997).

Since the EPA decision to ban the manufacture of PCBs, there has been a great deal of debate over the possible human health effects of PCBs. GE has funded various studies, including one by Dr. Irving Selikoff of Mt. Sinai Hospital in New York, for which the company gave him access to its records since 1940. In 1982, Dr. Selikoff published his results, stating that he found no excess of cancer deaths or other serious side effects among 300 GE workers exposed to PCBs throughout a 30-year period.

Similar results were found in a study conducted by the National Institute of Occupational Health and Safety concerning an electrical equipment manufacturing company (Tucker 2002). More recently, GE commissioned a study by Renate Kimbrough, the scientist who originally found that PCBs were hazardous to rats in 1975. The company asked her to expand on Dr. Selikoff's study by investigating all 7,025 people ever employed at the Fort Edward and Hudson Falls plants. In 1999, she published her study in the *Journal of Occupational and Environmental Medicine*, contending that the workers had no increase in mortality compared with regional mortality rates. This study, along with other industry-funded science, has been criticized as potentially biased. Specific contentions with the Kimbrough study are that only one third of the study's subjects had worked in capacitor manufacturing for more than five years, and that exposure assessment was not conducted on the subjects (Claudio 2002).

The Damage Already Done

However inconclusive or dubious the science surrounding the carcinogenic effects of PCBs, there are many other hazardous health effects of the chemical compound that have scientists worried. PCBs have been identified as hormone disruptors, which is exceedingly worrisome when one considers how ever-present they are in the environment. According to Colborn et al, "[PCBs] have spread throughout the planet and into the body fat of almost every living creature" (2002, 89). The very properties that made PCBs excellent coolants for industrial use also make them persist in the environment, resisting the break-down process that many harmful chemical compounds experience. In addition to persisting in the environment, PCBs biomagnify as they work

their way up the food chain. According to Colborn et al, concentrations of PCBs in animal tissue can be magnified up to 25 million times from the original concentration (2002, 27). This statement does not bode well for those on the top of the food chain – humans. So, according to recent science, PCBs are everywhere in the environment, are especially potent high up on the food chain, and have been shown to disrupt the endocrine system (Colborn et al 1997; Claudio 2002). Research by the EPA's Superfund Basic Research Program (SRBP) on PCB toxicity suggests that concentrating on cancer may have caused earlier researchers to miss the bigger picture. Exposure to PCBs during gestation and early development, due to the compound's endocrine disrupting characteristics, causes many problems in growth and development. PCBs can be passed on through the placenta or through breast milk, and while scientists do not know all the answers as to how this affects our children, there is a general consensus that humans carry high enough levels of such chemicals to endanger their young. According to Colborn et al, during breast feeding, infants are exposed to five times the allowable daily level of PCBs set by international health standards for a 150-pound adult (1997, 107). The amount of chemical compounds we are passing on to our offspring could leave them with serious health problem, and while there is still debate over the exact effects of PCBs, the possible threat they pose is enough to convince many that they are an environmental problem that should be dealt with swiftly.

To Dredge or Not to Dredge

Since the discovery of the level of PCB contamination in the Hudson, and the possible human health effects of PCBs, a debate has raged about whether or not the

chemicals should be dredged from the river. At first glance, it appears that this debate takes place between environmentalists and concerned citizens who wish to clean up the river, and GE, which would rather not spend the money and let the chemicals work their way out naturally. According to the National Resources Defense Council (NRDC), the environmentalists scored big in August 2002 when Christie Todd Whitman, head of the EPA, announced the Record of Decision (ROD). In a joint state and GE-funded effort, the EPA would remove approximately 2.65 million cubic yards of PCB-contaminated sediment from a 40-mile stretch of the Upper Hudson. GE would be responsible for most of the bill, but the state would contribute since they issued the permit to allow waste disposal in the Hudson Falls and Fort Edward sites. The amount of PCBs removed during this project would be equivalent to about 65 percent of the PCBs present in this stretch of the river. The EPA expects to leave only one part per million of PCBs in the river after the project is completed. The ROD included two phases for the project, the first being a smaller dredge period in which the methods would be monitored to make sure regulations are being met. During this time the EPA expects to dredge 200,000 to 300,000 cubic yards of sediment. Phase II would take place over a longer time period – about five years according to the EPA – and would dredge the remainder of the 2.65 million cubic yards of sediment. The two-phase method was created to alleviate skepticism among local residents, as many felt the EPA was undertaking a project that it could not actually complete (EPA 2002). The ROD also expressed a desire to develop and maintain a community involvement plan during both phases of the project. According to Bonnie Bellow of the EPA,

We are committed to an open public process that will give affected communities and interested organizations and individuals a chance to really provide input on the critical issues related to this clean up plan.

Our goal is to develop a community involvement program that will encourage real dialogue, and I'm talking about real dialogue (EPA 2002, 15).

The EPA hoped it had a comprehensive plan that could win over local residents. The NRDC, along with other environmental groups, believed that the Hudson case served as a benchmark in the fight to save the environment from industrial polluters. While this decision has been made, and the dredging project will most likely be in the coming years, this case remains important to the study of First World political ecology. When the case of the Hudson River controversy is examined in more depth, it becomes clear that there are more stakeholders, and more complex socio-political interactions taking place, making the question of whether or not dredging should take place much more nuanced.

Two Sides to Every Story

Up until the release of the ROD, the debate raged about whether or not the Hudson should be dredged. Even today, the discussion continues as negotiations between the EPA and GE continue and the dredging plans are slowly finalized. In order to understand this heated debate, we must examine the actors on both sides. The pro-dredging opinion is represented by the EPA and many environmental organizations. These organizations include Scenic Hudson, a land trust working to protect, preserve and restore the river and its riverfront as a public and natural resource; Clearwater, a sloop that sails the river combining environmental education and advocacy work aimed at protecting the Hudson; and the Natural Resources Defense Council, a nation-wide environmental action organization. There are clear reasons that environmentalists point to for wanting to clean up the Hudson – reducing the level of PCBs to eliminate human

health risks seems like an obvious choice. These environmental advocates maintain that natural processes will not be adequate tools to take care of contamination, and that action should be taken to clean up the mess left by GE (Tucker 2002).

GE was against dredging from the start; the company waged a long and expensive campaign to convince the public that dredging was not the best course of action, but regardless of GE's efforts, there were many citizens who were also opposed to dredging from the start. In a June 14, 2000 letter to Carol Browner, then head of the EPA, Daniel Walsh, president of the Business Council of New York State (BCNY) urged her to reject the proposed dredging project. According to the Business Council, dredging would disrupt recreational and economic activity along a 40-mile stretch of the river, harming many communities. The construction involved in the process, for both the dredging and building the de-watering facilities needed to prepare the waste sediment for disposal, would also bring economic decline. The Business Council also cited possible harm in transporting truckloads of PCB-laden sediment through the rural communities of upstate New York for eventual disposal in a yet to be decided upon location. In addition, Walsh maintained that the dredging would cause massive ecological damage. Since there were no prior projects of this magnitude to serve as models, the EPA was prescribing, without an adequate frame of reference, what would be the largest dredging project ever undertaken. By Walsh's estimate, there were 70 villages, towns and citizens groups siding with the Business Council in opposition to the dredging plan (Walsh 2000).

Several citizens groups were especially active in the fight against dredging, including CEASE – Citizen Environmentalists Against Sludge Encapsulation, The Property Rights Foundation of America and FAIR – Farmers Against Irresponsible

Remediation. These groups, headed by local residents, worked to bring the concerns of upstate New Yorkers to the attention of the EPA and the national media. Some major concerns voiced by these groups included the issue of where the waste sediment would be disposed of once removed from the river, the redistribution of PCBs throughout the river after dredging them up from the bottom and the harm the project could cause to local communities. According to Tim Havens, head of CEASE, in an interview on Public Radio's *Marketplace* in August, 2001, "The cure is going to be a whole lot worse than the disease." Many upstate residents were willing to live with the trace levels of PCBs in the river and let natural processes, such as sedimentation, decrease contamination levels. The disruption caused by the dredging project, according to these organizations, would not be worth the nominally-beneficial outcome.

Many local residents were worried about where the contaminated sediment would be brought once dredged from the river. Farmers and other local people did not want truckloads of contaminated waste traveling over their land or treated or disposed of in plants in their town. At a public meeting held by the EPA shortly after the 2002 ROD, Aaron Mair, President of the Atlantic Chapter of the Sierra Club expressed many concerns about waste disposal. Mair brought up the environmental justice issue of disposing of hazardous waste in low-income or otherwise marginalized areas, and demanded that the EPA "go the extra mile" and agree not to dispose of PCB-laden sediment in such areas. Following up on Mair's comments, Jack Lawlor, town supervisor of Waterford, New York, expressed his concerns, specifically that the EPA not disturb local dairy farms with waste sediment. To this issue, the EPA has decided to not site disposal facilities in the Hudson River Valley, and has ruled that transport of

contaminated material must happen by rail or barge, not by truck. De-watering facilities, which will treat the sediment prior to disposal, might be located within the region. The EPA is hoping that communities will find a benefit in volunteering to host de-watering facilities, so that the government would not have to force a community to comply through eminent domain. Many local residents continue to harbor ill feelings toward the government on the issue of creating disposal facilities because of previous attempts to dredge the river. In 1979, the New York State Department of Environmental Conservation (DEC) ruled that they would be purchasing 220 acres of land in Fort Edward to dispose of PCB-laden waste from the river. Not only would this plan displace a family from its farm, it would also contaminate neighboring land. The DEC told neighboring farmers that their land would be too contaminated to farm, and they could apply for damages through small claims court (Tucker 2002). The EPA eventually ruled against the DEC's dredging plan, but with the current dredging project moving forward, many local residents fear a take-over of farmland by the government for sediment treatment purposes.

Another concern brought up by local residents was the issue of resuspension of contaminants during the dredging process. According to Lawlor, residents of Waterford had been getting their drinking water from the Hudson for 100 years, and would continue to do so during the clean-up project. He was concerned that PCBs would be resuspended during the dredging process and contaminate the residents' drinking water. While the EPA assured him that they would take this into consideration, they were not forthright with an actual plan of how water would be protected. Like so many other aspects of this project, the information about how the EPA will maintain the standard of drinking water

is buried in a policy document and written in inaccessible language. Because of the inaccessibility of the information, many community members continue to be concerned, even about issues which the EPA has attempted to address.

A third concern brought forth by local citizens was the possible economic impact a long-term dredging project could have on their communities. Tim Havens, at the same public meeting, addressed the EPA experts saying,

I come from is a low income community. Many of the other communities along the river also are low income communities. They may not be mostly inhabited by people of color or Indian descent, but they are people that work hard for a living and have had hard times fall on them due to industrial closings and things like that. They don't want to see the value of their homes destroyed or the property values or the tax base that supports their school district [destroyed] through this project (EPA 2002, 41).

Havens, reverting back to the concepts of environmental justice brought up by Mair, was concerned that the nearly constant construction the project necessitates, in addition to noise and air pollution, would be detrimental to local economies.

In addition to negative economic effects, citizens were also worried about negative ecological impacts. Dredging has been a controversial method of remediation around the world for years, and in many instances it has been shown that dredging can cause more harm than good. The effects caused by dredging projects are highly varied and site specific. When evaluating these effects, one must take into consideration both short and long-term impacts at dredging and disposal sites. Speaking generally, short-term increases in the level of suspended sediment as a result of dredging can give rise to changes in water quality, which can affect marine flora and fauna. These effects can include increased turbidity and the possible release of organic matter, nutrients and contaminants depending upon the nature of the material in the dredging area.

Resettlement of these suspended sediments can result in the smothering or blanketing of subtidal communities or adjacent intertidal communities. Other negative effects that may indirectly occur from dredging include alteration of sediment pathways and changes to siltation patterns, which may affect marine habitats and species; alterations to water currents and wave climates, which might effect navigation and conservation interests; and reduction of water quality (UK Marine Special Areas of Conservation Project). It is difficult to tell what the exact impacts would be on the Hudson River, since each dredging project and its effects are site specific, but many believe this uncertainty is enough to delegitimize the project.

The issues brought forth by the Business Council and the local citizens were important – local residents were wise to be wary of such a large-scale and potentially disruptive project in their backyards. But when looking deeper, these were not the only reasons why the dredging project was controversial. There were social and political factors at play which shaped the groups taking part in the struggle and affected the decision to dredge.

First World Dualism – The Privileged Nature of the Environmental Movement

In analyzing this situation through a framework of political ecology, it is important to look closely at the parties involved, in addition to the political and social forces affecting the controversy, to discern the best course of action. In the case of the Hudson River, environmentalists and politicians have been pitted against rural residents and GE, and while it seems like the former group is winning the battle, it is not clear if

this will provide the best environmental outcome, or the best outcome for citizens of the Upper Hudson region.

In this controversy, it is extremely difficult to tell fact from fiction, science from propaganda, understatement from exaggeration, publicity from honest concern. The same river is described by different people in vastly different ways because of contrasting views of how the river should be used. People with different interests have competing conceptions of the Hudson landscape, and therefore view its environmental contamination and the decided-upon clean-up method in different lights. The struggle is an example of how differing visions of landscape reflect the heterogeneity of economic positions and social and cultural identities. In the Hudson River Valley, “Competing social groups struggle through a political process to limit or redirect the course of change toward a future landscape consistent with their respective visions. Landscape shapes politics that in turn reshape the landscape” (Walker and Fortmann 2003, 482). The major delineation in the Hudson River situation is between the environmentalists who view the river as a natural landscape which must be protected and preserved, and local residents who view the river as their home, at times their farmland, and a major part of their daily lives.

This struggle is reminiscent of the livelihood struggles that Robbins identifies in the Third World, where he points to the, “rise of indigenous livelihood movements and the peculiar articulation of ethnic identity in the landscape” (2003, 191). Throughout this struggle, local residents of the Hudson River Valley have continually identified themselves with the landscape. They make sure it is known that they are “members of the affected communities,” or “river people” who have grown up fishing, swimming and

canoeing along the Hudson. Many also identify as farmers, or as somehow making their living from the landscape. But for many local residents this relationship with the land is not rooted in romantic notions of pristine wilderness, but instead in day-to-day livelihood activities. In this sense, the industry located along the river is not out of place to them, but is instead a manifestation of the way modern technology has become integrated into the landscape to enhance their livelihoods.

It is also important to recognize the class differences that are present between local residents embroiled in a First World livelihood struggle, and the environmentalists of Scenic Hudson and other organizations. This aspect of the Hudson River controversy is put forth by William Tucker, author of *Progress and Privilege: America in the age of Environmentalist*. Tucker's main thesis is that the environmental movement in the United States is a covert attempt by a group of upper-middle class elite to protect its lifestyle, class status and privileges from the upward mobility of the laboring and depressed classes. While Tucker's views are controversial and his writings often misleading, in an article for *The American Spectator* he brings to light the issue of class in this struggle, and while doing so illustrates many of the concerns of upstate New York residents:

The real purpose of the dredging will be to prove to the people of the Hudson Valley that nineteenth and twentieth century industrialization was a gigantic mistake – a “pollution-based prosperity” that never should have happened in the first place. People actually living in these communities don't share this vision. But it has always been the favorite fantasy of the Hudson's landed aristocracy – possibly the closest thing America has ever come to producing a true leisure class. For decades this courageous little band of aristocrats and their admirers have fought a rear-guard action against power plants, factories, and anything to do with industrial life. In the process, they helped give birth to what is known as the 'environmental movement' (2002, 54).

Throughout his description of the Hudson River situation, Tucker is highly critical of the efforts of environmental groups and the EPA. His tone is derisive; he labels environmentalists “patron saints of nature and the nation’s bearers of good taste.” While Tucker’s cynical view of the environmental movement may be extreme, he brings important issues of politics and social structures to the forefront. Tucker’s concerns raise the issue of who the environmentalists fighting to dredge the Hudson are, and where they live.

Scenic Hudson and Clearwater, two of the most active environmental organizations in support of dredging the Hudson, are both located in Poughkeepsie, just north of New York City. In addition, the EPA headquarters for the region is located in New York City. Many people in the Upper Hudson region view the environmentalists as members of the Hudson Valley’s landed aristocracy, or New York City leisure seekers who just come upstate to vacation and get away from the city. While this may be a generalization, it does seem that many key environmental actors do not live in the Upper Hudson region. Marilyn Pulver, who for a time was the town supervisor of Fort Edward and is also a farmer, emphasized this aspect of the struggle when she said that,

When I hear Scenic Hudson...making their nasty remarks about how we’re just a bunch of backwards farmers up here and don’t know anything, I get really annoyed. They think we’re not smart enough to understand our own interest. It’s easy for them to sit down there talking about dredging, but we’re the ones who will have to live with it for five years. It’s our farms and livelihoods at stake (quoted by Tucker 2002).

Because of these concerns voiced by local citizens, it is important to examine who the environmentalists who advocate dredging are, and what their biases are. Are they New York City elite and aristocrats such as Bobby Kennedy Jr., fighting for the romantic ideal of a pristine river free from human interference? And to what extent are they taking into

consideration the concerns of the people living in the communities that will be affected by dredging? By looking at the Hudson River controversy as a snapshot in time, many of these issues would be missed. The historical formation of upstate New York's social system and the class characteristics of the U.S. environmental movement play an important role in the struggle over the Hudson.

Now For the Conspiracy Theories

Broader political structures must also be examined in the case of the Hudson. In this situation, where the federal government played an integral role in creating an environmental clean-up project affecting specific communities, it is important to analyze the actors at play at the federal level. In August 2001, shortly after President Bush decided that the river should be dredged, Time magazine ran an article alleging the decision was far more political than environmental. The evidence is actually quite convincing – Jack Welch, then president of GE, had campaigned for Bush and was apparently being considered for a spot in the president's Cabinet. Bush wasn't exactly eager to meet the wishes of America's environmental movement. And yet, he made a decision at which environmentalists were pleasantly surprised – one that would cost Welch's corporation \$460 million dollars. For this to be a rational decision, politics would have to be at play. The Time article cited Bush's decision to drill for oil in the Alaskan National Wildlife Refuge as one reason the president decided to approve the dredging plan. Apparently feeling the need to balance his environmental record a bit, Bush may have decided "that there was little cost in offering a nod to environmentalists in the East, and what more conspicuous a target than Welch, who had enjoyed the

Administration's largesse [that] summer and [would] soon retire anyway" (Kluger 2001). While the President's decision might not have been such a clear-cut political trade-off, it was most likely politically motivated. His thoughts on the controversy didn't center on the concerns of the people living in the upper Hudson region, but with the pressure politicians feel from America's powerful environmental movement. The issue was not "what is best for the Hudson and the region's residents," but rather "what is best for me politically."

Searching for a Moral to the Story

The convoluted tale of the Hudson River's recent past mirrors many environmental struggles that are taking place all over the United States and illuminates many themes from political ecology. The struggles that are taking place are, at their most basic, about how we view the environment and how we wish to proceed in protecting it. At the root of many of these struggles are issues of social control and cultural frictions which come to light because of competing ideas of landscape (Duncan and Duncan 470). In the case of the Hudson, environmentalists and local residents had differing conceptions of the river as a landscape, and therefore came into conflict over the issue of dredging. In addition, political factors affected the decisions made by politicians and political organizations, irrespective of the views of local residents. The local situation was shaped by broader social and political forces, illustrating the fact that it is important to recognize those forces when making environmental decisions. Learning from the lessons of the Hudson River case study could be helpful in making future decisions about environmental remediation and protection. By taking themes from political ecology into

account, and, as Paul Robbins says, making sure our political ecology framework “ascends in explanation from the site of environmental interaction through scales of individuals, households, communities, regions, and states,” a more complete (or simply complex) and nuanced understanding of environmental problems may be reached.

By taking a look at the Hudson River situation through the lens of political ecology, it becomes apparent that this is much more than an “environmental controversy.” It is a situation in which different groups have different ideals for a landscape, resulting in competing conceptions of how the landscape should be dealt with. In addition, it is a situation in which local people are struggling to assert their political power and retain autonomy over their communities and their livelihoods. With this realization, comes the conclusion that historical, political and social factors should be examined in other “environmental” controversies throughout the First World. When deciding on remediation projects, a political ecology framework will be useful. Therefore, the story of the Hudson River tells us that many themes from traditional Third World political ecology can and should be applied to the First World. It is time for us to take the blinders off and utilize the tools offered by political ecology in our own backyards.

References

- Bopp, R. F., Chillrud, S. N., Shuster, E. L., Simpson, H. J., & Estabrooks, F. D. (1998). "Trends in chlorinated hydrocarbon levels in Hudson River basin sediments." *Environmental health perspectives*, 106 (Supplement 4: Integrated Approaches for Studying Hazardous Substances), 1075-1081.
- Brown, Mark, Werner, Mary, Sloan, Ronald, Simpson, Karl. (1985). "Polychlorinated biphenyls in the Hudson River: Recent trends in the distribution of PCBs in water, sediment and fish." *Environmental Science and Technology*, 19(8).
- Chiarenzelli, J., Scudato, R., Bush, B., Carpenter, D., & Bushart, S. (1998). "Do large-scale remedial and dredging events have the potential to release significant amounts of semivolatile compounds to the atmosphere?" *Environmental health perspectives*, 106(2), 47-49.
- Claudio, L. (2002). "The Hudson: A river runs through an environmental controversy." *Environmental health perspectives*, 110(4), A184-A187.
- Coglianesi, C. (2001). "Social movements, law, and society: The institutionalization of the environmental movement." *University of Pennsylvania Law Review*, 150(1), 85-118.
- Cohen, B. R. (2002). "EPA's dredging scheme will wreak havoc on the Hudson River." *Human Events*, 58(1), 10.
- Colborn, T., Dumanoski, & J. Peterson Myers. (1997). *Our stolen future: Are we threatening our fertility, intelligence and survival?*. New York: Penguin Books.
- Cronon, W. (1996). "The trouble with wilderness or, getting back to the wrong nature." *Environmental History*, 1(1), 7-28.

Duncan, J.S. and Duncan, N.G. (2001). "The aestheticization of the politics of landscape preservation." *Annals of the Association of American Geographers*, 91(2), 387-410.

Environmental Protection Agency. (February 2002) *Transcript of Public Meeting: Hudson River PCBs Superfund Site New York, Record of Decision*. Saratoga Springs, NY.

Final design for first phase of Hudson River dredging project: An overview. (2006). General Electric Environmental Programs.

Hudson river PCBs superfund site community involvement plan (August 2003). New York, NY: United States Environmental Protection Agency.

Kluger, J., M. Duffy, & U. Kher. (2001). "Here comes the dredge." *Time*, 158(6), 23.

LaGrasse, Carol. (2001). In Christie Todd Whitman (Ed.), *Re: Dredging of PCB-laden mud from the Hudson River*. The Property Rights Foundation of America.

McCarthy, J. (2002). "First world political ecology: Lessons from the wise use movement." *Environment and Planning*, 34(1), 1281.

Moon, B. In American Public Media (Ed.), *Marketplace for August 1, 2001*.

Peet, R., & M. Watts. (1996). "Liberation ecology: Development, sustainability, and environment in an age of market triumphalism." In R. Peet, & M. Watts (Eds.), (pp. 1-45). New York: Routledge.

Preliminary design report Hudson River PCBs superfund site. (2004). Albany, NY: General Electric Company.

- Responsiveness summary: Hudson River PCBs site record of decision white papers.* (January 2002). New York, NY: United States Environmental Protection Agency.
- Robbins, P. (2004). *Political ecology*. Malden, MA: Blackwell Publishing.
- Robbins, P. (2002). "Obstacles to a first world political ecology? looking near without looking up." London: Pion.
- Schroeder, Richard A., Kevin St. Martin, & Katherine Albert. (2006). "Political ecology in North America: Discovering the first world within?" *Geoforum*, 37, 163-168.
- Shields, P. (2006). "Understanding population and individual risk assessment: The case of polychlorinated biphenyls." American Association for Cancer Research.
- Tucker, W. (2002). "Junk science, green gangsters & the pursuit of PCBs." (cover story). *American Spectator*, 35(1), 52.
- UK Marine Special Areas of Conservation. (2001). *Environmental impacts of maintenance dredging and disposal*. Retrieved December 9, 2006, from http://www.ukmarinesac.org.uk/activities/ports/ph5_2.htm
- Walker, Peter and Fortmann, Louise. (2003). "Whose landscape? A political ecology of the 'exurban' sierra." *Cultural Geographies*, 10(4), 469.
- Walsh, D. (2000). In Browner C. (Ed.), *Copy of the Business Council's June 14, 2000 letter to EPA administrator Carol Browner urging the EPA to reaffirm its 1984 decision not to dredge the Hudson River to remove PCBs*. The Business Council of New York.
- Welch, J. (2002). "In the crosshairs." *American Spectator*, 35(1), 65.