



an interview with william cronon

On April 24 2006 Peter Wheelwright, former Chair of the Department of Architecture, Interior Design and Lighting, interviewed environmental historian William Cronon in front of an audience of students and faculty. This interview followed a discussion of several projects by students in the graduate architecture program dealing with issues of sustainability, illustrated here. Cronon was the 2006 Michael Kalil lecturer on Natural and Technological systems, an event sponsored by the Department of Architecture, Interior Design and Lighting at Parsons The New School for Design, the Michael Kalil Endowment for Smart Design, and the Tishman Environment and Design Center at The New School. He was introduced by Parsons faculty member and Co-Director of the Kalil Foundation, Jean Gardner.

William Cronon is Frederick Jackson Turner and Vilas Research Professor of History, Geography, and Environmental Studies at the University of Wisconsin, Madison. His books include *Uncommon Ground: Rethinking the Human Place in Nature*, (W. W. Norton, 1995) and *Nature's Metropolis: Chicago and the Great West* (W. W. Norton, 1991), one of three nominees for the Pulitzer Prize in History. He is currently completing a book called *Saving Nature in Time: The Past and the Future of Environmentalism*.

Aaron Tweedie, Composting Facility, Brooklyn Bridge Park, New York City (Thesis Advisor: Eric Bunge). Design Studio VI, Spring 2006.

An alternative plan for the reconstruction of Pier 6 in Brooklyn, this project allows the facility to construct itself and grow organically from within by the incorporation of a composting facility, greenmarket and transit node.

Jean Gardner: I have the pleasure of introducing William Cronon, our Kalil lecturer this year, and Peter Wheelwright, our Chair. This is an extraordinary opportunity to witness a conversation between two individuals who have made unique contributions to understanding the relationship between the environment and ourselves. This is also an occasion for us to recognize Peter as he steps down as Chair, and for us to acknowledge that none of this would be happening without the years he has dedicated to helping us see architecture in relation to the environment and environmental history, something that has made us unique as a department.

Peter Wheelwright: Thank you Jean. I wanted to start with some general questions about environmental history and then move towards architecture. For our students to get a better sense of who you are, Bill, I thought it would be interesting for you to give us some general thoughts about environmental history. Since it is a relatively young discipline, I am curious to hear you speak about how your interest in this area developed, who your influences have been, and perhaps what environmental history means in relation to wider histories and to other disciplines.

William Cronon: Although there are a number of intellectual fields that precede it, environmental history came into being as a self-conscious subfield of history in the mid to late 1970s. This is about the time when I first began to get involved, when I was in graduate school from 1976 to 1978. I came to this field because I have three great passions that date back to my childhood; I knew that I wanted to be a writer earlier than I knew anything else about myself; I am the child of a historian so almost every question I had about the world included asking how things got to be this way; and I have a long standing interest in natural history and the environment. I entered college thinking I was going to be an ecologist

or a geologist and only by a very circuitous route did I end up becoming an environmental historian.

Environmental history has sought to put nature back into the discipline of history, which typically treats people as if they were the only actors in the world. Although it's probably still true that humans are the only agents in history – and here I make a distinction between actor and agent which has to do with the moral self-consciousness of the actor – clearly there are many, many things in the world that change history, and unless you attend to how those things are changing history, how they are changing us and how we are changing them, you do not understand many important historical events and processes.

I think one of the most useful ways to see environmental history is in the way these student projects we have just been discussing are trying to do so creatively, which is to render visible that which has become invisible to us because we take it so much for granted that we cannot even see it. You could argue that one of the tasks of the historian is to show how things came to be visible and invisible in different ways. There are lots of interesting stories we can tell about how we got to where we are today, which are about how we stopped seeing, how we stopped being self-consciously aware of features of the world that our own lives are utterly dependent on. Much of the environmental project is about rendering visible and sensible things that much of our history has suppressed.

PW: This idea of visibility is useful, because one of the things that is interesting about environmental history is the relationship it draws between the material world and a kind of abstracted version of it, or, what Heidegger called the “earth” and the “world” – one being a pre-human biotic and material condition, the other being a constructed form of a human condition. Richard Rorty used the terms “texts and lumps,” texts being equivalent to Heidegger’s

idea of the “world.” When you talk about visibility, two things around this issue of what is abstract and what is material strike me. The natural world, you have argued, is not visible to us, at least the kind of sedimented layers of history in the natural world. For example, the way you talked about New England in *Changes in the Land*, showed that the natural ecology is really constructed through historical changes in our relationship to land. So the natural world is hard to see, in its different layers and so too, in a sense, is history itself. They are actually there in front of us, two different kinds of “natural” world conditions, related through different periods of time and processes.

WJC: I might put what you have just said in a slightly different way. I do not think it is invisible at all, I think it is right there before our eyes. The problem is that our eyes have not been trained to see it. Part of the project of environmental history, or for that matter the kinds of design you see on the walls around us in these student projects, is to retrain the eye to see what is right in front of it. This is almost a mystical thing to say, but to me the word nature and the word history are very nearly synonyms for each other. I think of the natural world as being the product of history, not just human history, but natural history. In the same way I think of our human world as the product of history. So in a way, I think of history as the universe unfolding. What is so interesting to me about landscape is that landscape is laden with all the residues of former moments, former times, former lives, former ways of thinking, that are still here to be recovered if only you can extract them. Landscape is the single most complicated, richest, most powerful historical document we possess, yet the bulk of historians do not try to read it.

PW: I would like to ask you to name some writers that have influenced you. I am going to mention one in particular who goes directly to this notion of history from the “ground up” and that is Carolyn Merchant, in her book *The Death of Nature*, written in 1980. In that book she argued that there is really no point in talking about human history without talking about the history of land, and this was her idea of history from the ground up rather than from the top down. I think this is something you would subscribe to?

WJC: Yes, absolutely. If you were to ask me who are the writers who have been particularly powerful for me as advocates for that idea, Aldo Leopold would be very near the top of the list, with his book *The Sand County Almanac*. I usually describe it as one the three most important books ever written by an American about people’s relationship to nature, along with Rachel Carson’s *Silent Spring* and George Perkins Marsh’s, *Man and Nature*. The great Berkeley geographer Carl Sauer is also one of the people whose work anticipated this way of thinking. His writing is included in an amazing book from 1950s that is still unbelievably rich in ideas, called *Man’s Role in Changing the Face of the Earth*, edited by William Thomas. The British literary critic Raymond Williams is deeply inspirational to my work, especially his book *The Country and the City* on the history of the pastoral in European literature. He also wrote a short essay called “Ideas of Nature,” a public lecture published in a book called *Problems of Materialism and Culture* that you absolutely must read. I have read it maybe forty times, and I still get something new out of it every time I read it, even though its just sixteen pages long.

PW: This brings me to the other side of your work in environmental history, which is the relationship of language to the problem of understanding the natural world. I believe your undergraduate degree was in philosophy?

WJC: No, I have an undergraduate double major in History and English.

PW: But environmental philosophy, which is also a relatively new discipline, seems to be a really critical and important aspect of your work, certainly in the way you talk about language and meaning.

WJC: I guess that is why Raymond Williams is so important to me. One of the most powerful and evocative things that Williams says is that the word “nature” is arguably the single most complicated word in the entire English language, and that it contains embedded within it an enormous amount of human history. That strikes me as a profoundly true claim. For instance, think about the extent to which this nation, our Declaration of Independence, and our Constitution are predicated on

a whole series of assumptions about something called “natural law.” “Natural law” was a foundational category of the Enlightenment, without which you cannot get the particular governmental and civil forms that, to this day, shape our polity. What we mean by “natural law” is very different from what a modern environmentalist means by “nature,” and yet they come from the same place, and have the same genealogy.

Despite the way some people have categorized me, I am not much of a post-modernist. I am a deeply historicist thinker. But I believe that – and here I am being almost Lockean (or, more accurately, Kantian) – we can only experience the world through our sense data, and our sense data are deeply mediated by our linguistic categories, our conceptual ideas. We do not touch the world directly, which is not to say that we cannot touch the world, but that we cannot have an unmediated relationship with it. To think that we can understand the world transparently is to misunderstand just how complicated our symbolic relationship with the material world is.

PW: I completely agree with you on this and I am going to talk a little bit about Richard Rorty and Pragmatism, because I think he and some of those characters are lurking in some of these issues for you....

WJC: It’s actually William James who is lurking for me.

PW: Your attempts to explicate the idea of our relationship to the natural world as something that is mediated has occasionally gotten you into a bit of hot water, and I wanted to throw back at you a couple of quotes taken from the book *Uncommon Ground*. In your essay you state that “Wilderness poses a serious threat to responsible environmentalism at the end of the twentieth century,” and that idea has gotten you into trouble with some environmentalists. There is also a comment by Richard White made in the same book, “Wilderness is managed land, protected by a 300-page manual, specifying what can and cannot be done in it.” Both of you were going after the idea of wilderness as a pristine, ahistorical kind of nonhuman condition, presented by Bill McKibben in his book *The End of Nature*. Could you talk a little bit about this?

WJC: Sure, and in defense of McKibben, it is a misreading of his book to think that the “end of nature” is about the end of a physical place. What is very clear if you read his book carefully is that he is most concerned with the death of an idea of nature in which nature stands for that which is uniquely separate from the human. Now, I entered environmental politics through the wilderness movement. Wilderness and land conservation have been passionately important to me all through my life. I sit on the governing council of the Wilderness Society and on the National Board of Trust for Public Land, so please do not think that my interest is in not protecting wilderness. When I say there is risk in wilderness for modern environmentalism, what I mean is that if we imagine the project of saving nature can be achieved by walling off some part of nature and protecting it from ourselves, we are deluding ourselves, because the engines that are currently threatening wild nature are emanating from inside of our political economy. No wall could possibly separate those places we are trying to protect from the forces we ourselves are creating.

Wilderness in the 300-page manual form is the ultimate expression of the modernist state. Post-Le Corbusier, there is nothing the modernist state loved more than a zoned landscape in which homogenous functions are segregated and walled off from each other to prevent them from cross-contaminating. What is wilderness if not a particular kind of zoning, in which we create a bureaucratic category in which one function, the wild function, is happening in one space at the same time as industrial functions, domestic functions, educational functions, religious functions, are happening in other zoned spaces? In general, I do not think that model of a zoned landscape will work, though I certainly understand where zoning came from in the history of urban planning and I am quite sure we cannot do without it altogether. But if the notion of nature as separate from us is what we think we are protecting with the category called “wilderness,” then we are deluding ourselves and an environmental politics built on that premise leads to all sorts of problematic places.

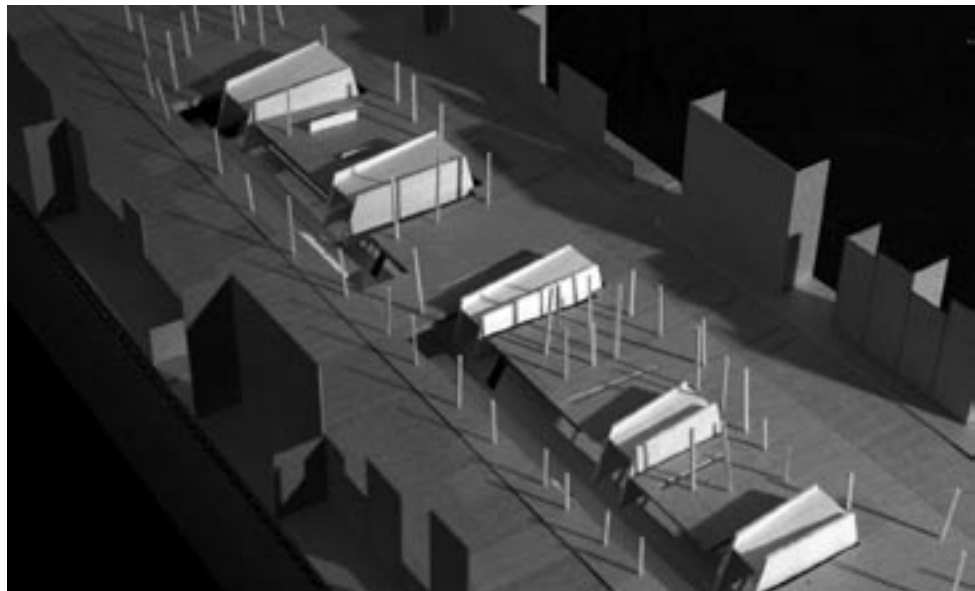
PW: In your lovely article about the Apostle Islands in Lake Superior, you make reference to the Hundredth

Meridian that historically divides western and eastern lands, and you mention that most of the designated wilderness areas are on the west side of this line. In this article you argue the case for another kind of definition of wilderness that allows it to be designated in a place in the more settled eastern side of the meridian.

WJC: This is an aspect of “The Trouble With Wilderness” essay and its author that many people do not recognize. If you look at where protected wilderness in the United States is currently located under the 1964 and 1975 acts, none of it is in the Mississippi valley, with the exception of the Boundary Waters in Minnesota and a handful of other places. It is all in the Rocky Mountains, the Southwest and the Appalachians. What this says is that there are large swaths of the North American landscape that do not count under the particular construction of wilderness that the 1964 Act embodies. I open the essay with an intentional misreading of Thoreau’s famous quotation in which he seems to be saying, “in wilderness is the preservation of the world,” and he is sometimes misquoted that way. What he actually says is, “in wildness is the preservation of the world.” There is a real difference between those two statements. We need to achieve a consciousness of nature in which we can recognize

wildness – by which I mean the non-human, that which we did not make – at every scale of our planetary existence. There is wildness right here in Manhattan island, an enormous amount of wildness. There is a great deal of wildness right here in this room. There is a great deal of wildness in my own body. Most of my body is wild, which is to say that I think I control some things that are happening up here [points to head]. I think I have some kind of relationship to my thought processes. I think I have a certain amount of voluntary muscle movement. But an enormous amount of what my body is doing I cannot control in any way. And yet I only survive because of the wild nature inside my own body.

This is extremely important to the work you are doing here at Parsons, which is to understand that wildness is a category that exists on all scales. On the continental scale the Artic Refuge stands for the wild, and Manhattan Island stands for the totally non-wild, and there are a series of landscapes that are in between. But if you move down to the scale of Manhattan Island, the Ramble in Central Park stands for wildness, or the Meadowlands, or the Hudson River, whereas the Empire State Building stands for the urban, or the non-wild. We can do that at any scale. Recognizing what counts as wild and non-wild



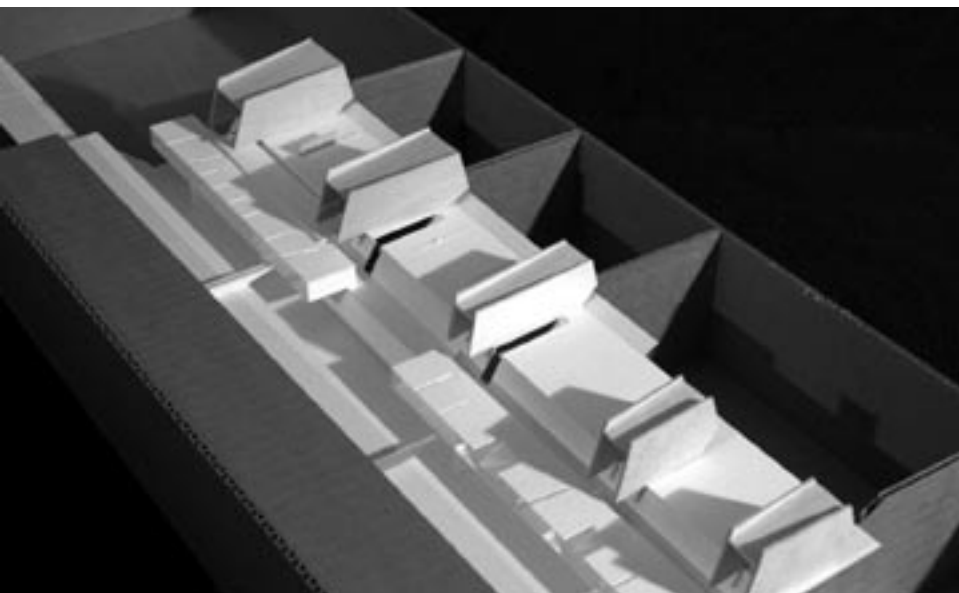
is a function of our own perception. This is an important way of remembering all the things in the world that we did not make, and whose survival is critical to our own survival. So the scalability of our relationship to nature is a really important issue.

PW: In that same article about the Apostles you referred to a notion put forward by one of your colleagues, “rewilding,” and I too was very struck by that idea. We understand “resettlement,” for example, from the point of view of human history, but this idea of a correlative in natural history, of “rewilding,” I think is an interesting framework for getting us to reassess the world around us.

WJC: In fact that category, “rewilding,” although its not called that, is what is embedded in the what I think is one of the wilderness acts that deserves more attention than it has received. The 1975 Act is called the Eastern Wilderness Act, and it specifically says we can create wilderness areas in lands that have been completely stripped of their pristine wild attributes, because of the extent to which they have returned to wildness. The 1975 Act emphasizes that pristineness is not the point, the point is nature naturing.

PW: Since one aspect of our work with our students in this department is situating architecture into the land, the issue of being able to understand the relationship between the built world and the biotic earth is one of the biggest challenges we face. To shift this conversation towards architecture a little bit, Americans are viewed as being very sentimental when it comes to nature. Earlier you raised the issue of our investment in “natural law” as very much a part of the national consciousness. Yet, while being very sentimental about nature, we are also, globally, the most destructive of the environment. If you look at what is going on in Europe in terms of the environment, and see how much further ahead they are in their relationship to energy conservation and so forth, it raises the question why?

WJC: Part of way to answer that question has to do with how you choose the base lines by which you assess the project of environmental protection. If the base line you choose is a wilderness base line, then the question you ask is, how far has the world departed from the natural condition it would be in, if we were absent? Had we never existed, what would the world look like? That is one version of the scalar against which you could define good and bad change in the world. The other base line, which



Erica Quinones, Reclamation Center, Sarah D. Roosevelt Park, New York City (Thesis Advisor Eric Bunge). Design Studio VI, Spring 2006.

A new urban space and building type integrated into the city's transportation infrastructure and park system, creating a platform for the exchange and resale of used goods.



Juanita Wichienkuer, Emergency Infrastructure, Sarah D. Roosevelt Park, New York City (Thesis Advisor: Stella Betts). Design Studio VI, Spring 2006.

Building on the nineteenth-century idea of the public park as a public amenity, this project proposes converting an existing park into a small-scale local emergency response center, a place to collect, store and distribute water, food and information.



is totally different, is what we could call the sustainability base line, which says, can we keep doing what we are doing now indefinitely? That question does not assume anything about a prior state. It does not say anything about wild nature. It just asks, can we keep going?

I would say one of the reasons the Europeans do what they do, is that they are far more sympathetic to the second of these two questions. The protection of autonomous natural systems is not at the center of the European cultural project. In fact, when I talk with most Europeans about “The Trouble with Wilderness” essay, their reaction is, “who would be so silly as to imagine a landscape that is untouched by human history?” That is just not a problem for them, though it is a problem for us, and in this I would include Canada, New Zealand, South Africa, the former colonies of the British Empire that have quite an interesting relationship to the idea of the frontier as they relate to the wild.

The other factor here is straight classical economics. I ended the book *Changes in the Land* with a gesture to a famous book by David Potter, a great southern American historian, published in 1954 called *The People of Plenty*. The last sentence of *Changes in the Land* is “the people of plenty were a people of waste.” That seems like an indictment of American values, but in fact if you look at it purely in terms of market behavior, you could say that what Americans have long done is to conserve one of their most expensive classical factors of production, labor, by using other factors of production that were cheaper, the land and its resources -- which, for most of American history, were a great deal cheaper than wage labor. You conserve wage labor by using up resources. That is exactly the contrast between Europe and the United States. There is a famous book by a British economic historian named H. J. Habakkuk called *British and American Technology in the Nineteenth Century*. He begins by saying that, for the most part, British engineers in the nineteenth century built machines that lasted for decades, whereas Americans were making machines that fell apart in a few years. Why couldn't Americans build better machines? But then he also says that, because the United States designed machines that fell apart so quickly, they innovated much more quickly than the European economies that built

longer lasting devices. If you think about it, in our own lifetime, the history of the PC, the reason we have evolved so quickly is related to our willingness to throw things out. Though I am not defending this, there is a curious relationship between our willingness to be wasteful and our willingness to innovate, and the way we conserve labor relative to resources.

PW: Many of the things you describe are very topical in the context of an architecture school. I am curious what you think environmental history's contribution could be to us here and I want to frame this question by invoking two models of so-called sustainable design thought in schools of architecture. One is this “organic” idea that comes out of the 60s and 70s where issues of design with nature come from the Wrightian tradition, and are anti-formal, non-heroic, about stewardship. Another model is very different, and in many ways it is opposite. We tend to call this the “technological fix” model, which is very futurist and mechanistic in its orientation...

WJC: ...Do you mean a Buckminster Fuller kind of thing?

PW: It has evolved well beyond that, to the point where architecture through parametric modeling can be on top of every little waft of air, every BTU, and so forth. The belief here is that if we put our technology to bear on these problems, we can solve them for the better. Of course the irony is that it is technology that got us into this fix in the first place. But, in both these models, and you could go to different architecture schools to see an inflection toward one model or the other, it could be argued that there is a science problem. The old organic model does not fully appreciate the complexity of human history and the social sciences, and the technological fix does not appreciate the limitations of natural science being able to convert itself into positive social action. So, I am curious where you think environmental history as a discipline can engage architecture schools that are trying to be environmentally responsible.

WJC: That is the 64 million dollar question. If I or anybody in this room could answer that question we would all feel like we were nearing nirvana. The metaphor we keep reverting to for sustainability is one of a cycle of use

and reuse, although the second law of thermodynamics, by definition, does not fit that model. We sometimes find it attractive to imagine sustainability as a state, where we can check off a list of twelve attributes and meet the LEED standard or the ISO 14000 standard, and we thereby achieve sustainability. But sustainability is a state, not a process, and we must start there. The energy that flows through the system is by definition not sustainable. It cannot be. The sun is not sustainable. It just looks sustainable to the kind of time horizon we are operating on. But it is all a linear flow, by definition entropic, and a great deal of the life process is about slowing that flow of entropy. So remembering that what we are really doing is managing entropy levels, rather than pretending that we might attain a completely circular system, is part of the key to thinking in a creative way about sustainability.

We are very tempted to imagine that once we have reached a certain plateau, nothing will change. But everything we know about history suggests that history is a series of crises, and in a Hegelian or Marxist, dialectic way, crisis leads to innovation. That is what history looks like. We will run out of oil. We can take that as a given. It is hard for me to imagine a narrative of history in which a civilization moves to a steady state and stays there forever. What we do is to arrive, in a Stephen Jay Gould punctuated equilibrium sense, at moments of relative stability that eventually hit crisis. The question is how do we navigate those crises? For me, therefore, the problem of sustainability is the dynamic management of crises that are intrinsic to history, both natural history and human history. We need to design dynamic systems that attend to underlying processes and conserve underlying processes without threatening the basic ability of the system to keep functioning.

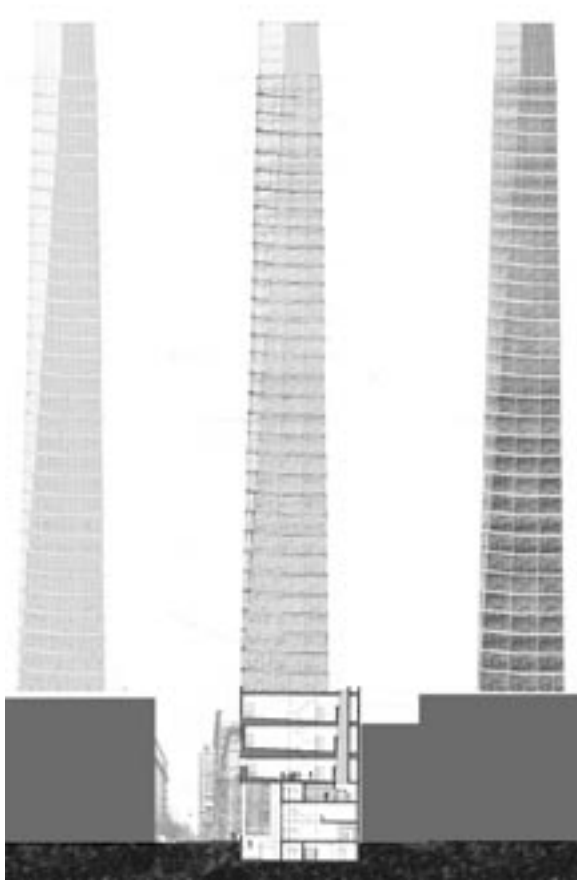
PW: I want to push you a little further on this. Do you hold out hope that it will be a technological fix that gets us to this model of a sustainable practice as you describe it, or will it be a kind of cultural ethos shift that allows this to happen, or will they work in tandem?

WJC: I cannot imagine the two separate from each other. For example, *Nature's Metropolis* might be read as a long argument about the causality of railroads as

machines, but ultimately the railroad is an idea. It is a profoundly complicated idea whose consequences took decades to work out. As a historian, I am fascinated by long-term historical phenomena in which millions of people all happen to make similar choices, leaning in a similar direction. It is not that they were forced to do that, but that they did, that they leaned the system in a particular direction. Again to use that metaphor of "crisis," something leaned them. That something is partly changing ideas, because that is part of your question, but I cannot imagine the problem of sustainability being solved without technological change. Both halves of your original question, the organic one and the machinic one, are both technologies. They are just different technologies articulating different values.

PW: At the end of *Nature's Metropolis*, you made a comment about the connection between the White City (The World's Columbian Exposition of 1893) as an urban model and the suburban retreat outside Chicago, that that their success lies in not being connected to any specific city but rather to a kind of paradigmatic city anywhere. What is the connection of that to places like Seaside, and some of the other New Urbanist projects? What are your thoughts on this, particularly around the issue of sustainability and the environment.

WJC: Clearly Seaside and the New Urbanism are in the tradition of Ebenezer Howard's Green Belt city, where the goal is to have country and city somehow become amenities of each other. In a way it is the classic suburban vision, although that is not the way it is now defended. The part of the New Urbanism with which I am most sympathetic is the critique of the twentieth-century zoning tradition that essentially mandated the creation of urban space predicated upon the automobile as the form of transportation that would shape American dwelling. The great riddle of the twenty-first century, depending on how we replace cheap oil, is whether the urban system created in the service of that vision is sustainable. The problem is that we cannot run mass transit through the density of dwelling that we have created on the auto-based model. To the extent that New Urbanism's critique of the residential model mandated by those zoning laws has force to it - and I think it does - then I am quite



Alison McElheny, Memorial Tower, East Village, New York City (Thesis Advisor: Joanna Merwood-Salisbury). Design Studio VI, Spring 2006.

This project proposes an ecologically sustainable way to care for and memorialize the city's dead. While their physical remains are reduced to compostable organic matter and redistributed to remediation sites, a memorial tower on the skyline celebrates their lives.

sympathetic. On the other hand, I think that the New Urbanist critics, for the most part, do not go as far as the New Deal green-belters did in trying to imagine what truly working communities would look like. I do not think the New Urbanism has succeeded in bringing landscapes of dwelling and landscapes of labor into anything remotely like proximity to each other. If you are going to have sustainable cities that do not require the hour-long commute, and all the energy costs that come with that, we are not there yet on this model. Whereas the New Deal green belt did actually try to put factories and working-class houses, and schools and synagogues and churches in a walkable space, though they did not succeed for other reasons. At least they were trying to get the entire economic function within walking space.

PW: Since I am aware of our time limits, I'll ask couple of final questions...firstly, your opinion of "The Death of Environmentalism" by Michael Shellenberger and Ted Nordhaus?

WJC: I am not much in sympathy with "The Death of Environmentalism." What is ironic for me about this essay is that I think it imagines a kind of reuniting of the green political project with left politics in such a way that, when I am being ungenerous, it looks as if they imagine we might resurrect the New Deal coalition. If only Franklin Roosevelt would come alive again, we could go back to a world in which labor unions and environmentalists could work together in a positive way. I do not think we live in that kind of world anymore. They have attracted a huge amount of attention for themselves and for their argument because "The Death of Environmentalism" is a great sound bite. My quick answering sound bite would be that, whatever you call it, the problem is not going to go away. For me – and your own work here in this school is proof of it – the project is building sustainable human dwellings and communities on this planet. It is the project of being alive as sentient organisms. What is interesting about the word "environmentalism" is that from the 1970s to this day the popularity of the word "environmental" has been in moderately steady decline. When you ask voters, "are you an environmentalist?" you get much the same

response as when you ask voters “are you a feminist?” Less than 20% say yes. But when you ask them “are you a conservationist?” over 50% say yes. If you ask “are you willing to pay taxes to have clean water?,” you will get an 80% positive response. (Interestingly clean water tops the list of all environmental issues people worry about, and it has done for decades.) So this suggests a much more complicated picture than just “The Death of Environmentalism,” which actually seems mainly to be just about the word we use to label these values, not those values themselves.

PW: One last question. At the end of the day we are all educators. We happen to be in an architecture program here, but we think of architecture as a lens through which we educate these young citizens. Your essay, “Only Connect,” where you put forward ten characteristics of the liberally educated person, reminded me of Richard Rorty’s essay “The Humanist Intellectual: Eleven Theses” in *Philosophy and Social Hope*. The two of you are really talking about similar things such as the stress on community or solidarity, as Rorty would say, and also an understanding of immanence in the sense that there is only this, the earth, that we live on this ground and must treat it well. This is the aspiration for the liberally educated person, to have that kind of understanding. But when you raised the notion of agape, I was surprised because I thought in an odd way it injected a religious overtone into what I thought was a very immanent position, a materialist position rather than a spiritual one.

WJC: When you invoke pragmatism as you have a couple of times during this conversation, you absolutely touch the core of my own philosophical stance, which I come to not through Rorty, but through William James. James is to me such an extraordinary exemplar of what an engaged, curious mind, looking at the world in a generous way, is capable of doing in dialogue with the world. Frankly, as somebody who is a deep materialist, who thinks pragmatism is all about moral responsibility in the world, if anything I have become more mindful as I get older about the ease with which the great religious traditions speak of the claims that God (whatever you and I may understand that word to mean) makes on us about our responsibility in the world, to each other, to

the world, to our own moral actions. I also observe the fact that we live in one of the most profoundly religious nations on the planet, which many academic intellectuals refuse to notice. Anyone who refuses to engage religiosity, which is one of the defining attributes of a large majority of the American people, is not attending to our politics, to the nature of the dialogue we need to have. I will use my own language as a metaphor for God: how do we answer to that which is larger than ourselves, that which we did not make, but which we need to reshape and use and reuse in order to live sustainable lives on the planet? I think that the word nature, as it functions for both secular scientists and for environmentalists, is in many ways a synonym for the word God. For many Americans who imagine themselves to be wholly secular, the word nature performs a great many of the functions that the word God performs for others who are more consciously religious. If more people recognized the synonymies that occur between the word God and the word nature - which are fundamental to the Enlightenment, which are fundamental to Romanticism -- I think we would have a much more dialogic space in which to talk about things that right now are among the deepest conflicts we have in our political life.

PW: We could go on for many hours about this. For example, I would like to go back to talk about John Muir and the Sublime with you, but that will have to be for another time. Thank you Bill.