

>> From WXXI News it's 1370 connection. [music] I'm Bob Smith and welcome back. If you've been listening to us at WXXI AM 1370 and FM HD2, welcome aboard if you're joining us on City Cable 12 on your Time Warner cable system. You're invited to be a part of the conversation by either calling us at 263-WXXI or writing to us at asktalk at WXXI dot org. And a question, with which we begin this hour, what happens to our landscape when human intervention for industrial purposes turns it into, at times, the remnants of a wasteland? Well my guest can tell you. Photoessayist Edward Burtynsky is the author of books of texts and photographs on that subject and others, subject of human intervention in the landscape, as well as the subject of Jennifer Blackwell's critically acclaimed documentary film of the same title as one of his most important works, *Manufactured Landscapes*. He's gonna be making a presentation of RIT's web auditorium at 8 this evening as part of the Caroline Warner Gannett lecture series. He joins us here in the studio right now. It's great to have you with us.

>> Great to be here Bob.

>> What brought you to what you have been quoted as calling an oil epiphany?

>> Well I had been photographing the landscape of mining quarries for over a decade, and in 97 I was driving I think through the states at one point looking at... a series of quarries that I was looking at, and then at a certain point I recognized, and I was thinking about the scale and speed at which we now withdraw our resources, and I thought that's not different, we've always done that as a species but what's different now is the scale of that. And it really occurred to me that it was this abundant supply of cheap oil that fueled the internal combustion engine that gave us the mechanical advantage to be able to function on that scale, and everything that I was in contact with, from my camera to the tripod to the film, to the road that I was driving on... the planes I use is all so deeply connected with that energy source that I began to think of that landscape of oil; where does all that stuff come from? And I began to research the greatest and largest oil fields in the world and photograph them.

>> And of course those can be found at a lot of different places all over the world. We think of Saudi Arabia, we think of Iraq and Iran as 3 places which have a great deal of oil, but really the landscape of our own continent is, I guess, littered with a lot of what used to be the centers of oil production, what used to be the centers of our sources of energy. You've seen them, you've seen a lot of them haven't you?

>> I have, yeah, and America still has... what's interesting is that the more kind of prolific oil fields, there's actually not that much to look at in landscape, you don't have those classic jack pump images of almost like mosquito-like figures in the landscape, drawing up the oil. That's usually the latter part of an oil field where there's no longer any pressure within that well. In Saudi Arabia a lot of them are under such immense pressure and they still pump some of the ceiling water underneath it to push the pressure up, so you don't have the pumping of oil in Saudi Arabia. It just gushes out of the ground and there's just so much of it that... they're not at that latter part of a oil field's life which at that point, you then have to kind of go into higher energy program of pumping it out.

>> Which of course even at 32 bucks a barrel, it's perfectly worth your while to do that if you have to do it but... it leaves a mark. When you look at it, what's the first impression you get whenever you see any place that's been heavily mined, heavily pumped out, heavily drained?

>> Well when I'm... the photographs I've tried to make, I'm trying to bridge this kind of landscape that we're all involved in on some level. It's a landscape that we all partake in, but yet we become totally disconnected, we live in urban centers, we don't see these places. Once in a while we might get a glimpse of them, in the peripheral vision while we're going down the highway or something, we say oh there's a mine over there, there's a quarry over there; but we don't really go in to understand what that is or the scale of it. So I found that the still image is a way to kind of look at those landscapes in a way that fixes them so you can stand in front of the printer, the image, and kind of pull it apart; to kind of analyze the scale of it and what's going on and the technique that may even be employed. There's a lot of information I think that a still allows us to kind of draw from the image that we wouldn't even get in a drive by, or even in a news reel; let's say a camera, it does a sweep across the landscape like that and talks about that particular mine going through financial trouble or whatever, and you look at it and we don't see... we don't approach that place in the same way that a still I think, done in the way I'm doing them, makes us re-look at those landscapes. So in a lot of ways, what I'm trying to do is to get a viewer to bring into consciousness these places that have become detached from us, and that these places are very much part of everyone's life except that we don't actually get to experience them unless we go out of our way to see those places.

>> They are mostly in places that are pretty remote, unless you live in Texas and grew up in Texas or maybe grow up somewhere between Calgary and Edmonton or something like that, just to name a few of the places where the oil industry centers there in North America. You don't think about it or see it much, but if you don't go too far you can still find it can't you?

>> You can, and a lot of it is just available, but it isn't on a tourist map. It isn't the place where it would be recommended that you go. Often times where oil is produced the air quality isn't great, there's a lot of smell of sulphur in the air. It's an industrial landscape, it's not something that you take your kids to. So again, the fact that through film and through photography these places can be accessed, albeit through a lot of negotiations and clearances that one can get in with the camera and begin to tease out what is interesting in those landscapes that makes it an interesting place to look at, both as an image and what the image and the content of that image conjures up; that these places are vast and they are important to us on a daily basis.

>> You've been to a lot of different places, some of the starkest images I've seen from your work, which I've had a chance to browse at some length on the web... you've been to places like, I think of the mine photos in particular. Everything from mineral mines to places where coal was dug, places where metallic ore was dug for refining and the rest; the very stark images, and in a way the first thing you think of is, what did they take away to get it there, to get it that way? I sense a little bit of loss when I look at it, at the same time you realize in your mind what was gained. When you see something like that and frame it for a shot, what do you feel?

>> Well there is a sense of a loss, but the loss for me is a loss to our natural world, that ultimately not only... is what's happened at that sight, whether it's iron ore that's come from there or copper or whatever, that is one element that's been shaped and transformed, but it's also what that material then goes off and does afterwards as well so that a lot of the metal or a lot of.... are building highrises or helping to build bridges to move cars further and further into the landscape. So these are all... it's not only what's happened there, but the material extended into a larger landscape that also, I sense, is our encroachment into a world that left untouched, is what we would call nature; that place where ecosystems are able to exist and the other constituents on the planet, animals, get a chance to forge a life as well. So as we expand our footprint, their's is shrinking. So there is this kind of a sense of that our success is at their kind of price, and I can't help but feel that we are moving to an imbalance in that kind of sharing of the planet. And I think that these kinds of places, the mines, are really stand in's for a larger impact that we are having on the planet, and so they... as a still image it's just too big. I can make images of large things but doesn't even come close to describing what's really going on, it's kind of like I'm still looking at the baby toe of the elephant. I'm not really able to kind of fit the elephant into a picture. But it is certainly an indication of... our effect, and who we are, and it also to me is also... those voids represent to me a direct consequence of our dreams and desires as human beings. We constantly... pushing to have more, to build more, to come up with the newest thing, the smartest thing, the better car, the more comfortable house. And all of that striving and all those... the pushing to achieve our dreams and fulfillment, we create these unintentional voids. In other words, this is a direct other side, in every act of creation there's an act of destruction and that these images begin to put some kind of form and shape to the other side of our dreams.

>> It gives you a sense of one thing, certainly how much power we have to change the landscape, because the Grand Canyon took millions of years of nature to create. These huge sort of artificial canyons sometimes that we create with quarries and mines and mining pits and the rest, they take maybe a few decades and in a sense, it gives you a renewed understanding of just what we can do, whether for good or ill. We're a huge influence on everything.

>> We are, with the internal combustion engine and gasoline, mechanical advantage that we gain through that... allowed us to... the stories I've heard where in this coal mine I photographed in the early 80's, the owner or the general manager of the mine West Ore coal mine, came out and said well we just spent 10 years removing the whole cap of the mountain to get to the coal seam. And he said, 30 years ago we would have never even dreamed of doing something like that, we would have gone underground. But today with the big trucks and the blasting techniques and the drilling techniques and the big shovels and trucks, we are able to actually remove the cap of the mountain in 10 years and now we're sitting on the coal seam, and now that is far more cost effective than going the other way. So that's indicative... there's no other time in man where we'd say, well we'll just move the mountain because what's under there is valuable enough to make it worthwhile to remove the mountain.

>> In a sense I suppose, if there's any mitigating factor in that, the good news is that when you mine a coal seam that way rather than digging into the ground and creating tunnels, it's a lot safer for the miners who have to extract the coal; they're not going to end up in the kind of horrible accidents that we used

to see that took dozens of lives at times, that's the good news. The bad news is what happens to the landscape?

>> Yeah, and in America you've obviously got an issue in West Virginia, and the de-capping of mountains there to go after the coal seams, so yes there's a price to be paid. It's safer for us and a much greater danger to the environment. Not only that, but coal itself... certainly augers as one of the most dangerous carbon fuels that we're putting out there because there's so much of it, it's also high in carbon so it's a much higher carbon contribution than say natural gas, and we have tons of it. We have, some say, 200 years' supply. So I don't think we have enough air space up there to actually deal with, with all of the CO2 that that means. So coal is to me, one of the scariest propositions that we have in front of us in that it's cheap, it creates tons of heat and which allows us to create cheap electricity, but it's also one of the most punishing fuels that we've discovered that has a negative effect to the atmosphere.

>> And it sounds so important to the processes that make steel, and let's face it, anytime you get in your car and wrap yourself in steel to go someplace... are we partners in it?

>> Well we're all implicated in this one. That's what's interesting, is that's why I never come out and say, this is wrong or that this is even right, that this is a human condition that we've just created that we do need these materials if we're going to kind of have the lives that we've proposed for ourselves. So the question is, can we lead this kind of life and yet deal with all the problems... downstream problems that are a direct result, leading these kinds of lives in urban centers with cars, etc. etc. So it's not an easy right or wrong, it's more of, I think, of an intense discussion and kind of unpacking of the true costs of what we're doing, and what are the alternatives and how do we change, how do we change our lives that has less impact? How do we recycle in ways that have the least amount of impact? And how do we begin to contain this pandora out of it's box that is growing exponentially every year, and yet there doesn't seem to be any immediate solutions that seem to be around the corner.

>> Photoessayist Edward Burtynsky, the author of collections of photography of the imprint of man on the environment, including such books as *Manufactured Landscapes*, is here with us right now. He's presenting at RIT's web auditorium as part of the Caroline Warner Gannett lecture series at 8 this evening. He's here with me now on 1370 connection from WXXI and at FM HD2. I'm Bob Smith and you're invited to be part of a conversation at 263-WXXI, 263-9994, as we take a look at how sustainable our impact is and will be; the questions being raised by my guest of the hour. What, in all the scenes that you've photographed and recorded, made the most direct and strongest impression on you for better or worse?

>> I think when I did the trip to India and Bangladesh, I did some quarries in Northern India and Rajasthan, and then I went on to Bangladesh to Chittagong to do a series on ship breaking in Bangladesh, which is the second largest ship breaking port in the world after one in India in a place called Alang. What struck me was, to me it was very much as if I had stepped back at the very beginning of the industrial revolution; something that... the satanic mills that Dickens wrote of. It seemed to have that kind of condition that I'd never seen before. Here in the west, a lot of those kinds of filthy, dirty, dangerous working conditions have been eliminated; largely through the push back from unions and organized labor, and the search for a more equitable working

relationship, and as economies improve. But if you look at a very early upstart economy like Bangladesh or Northern China, or Northern India, where everybody's eeking out a living and getting paid 2 dollars a day. Human life has a whole other meaning, and it's not really regarded. I can even remember walking along the edges of the quarries in India and the people working down below at 500 feet, wore no safety helmets, they went down, they didn't even have safety boots; they went down bare feet and worked all day and toiled literally with pick ax and hand augers to drill holes into these rocks. And they always told me, be careful don't kick a stone when you're walking because a stone flying off the edge could kill somebody down below because they didn't have a helmet. Then kind of after seeing the poverty and the dangerous workplace that they have there, I went to Bangladesh and recognized that that was actually not bad compared to ship breaking in Bangladesh, where again they're working barefoot, working with cutting torches, no cutting glasses, taking down oil tankers which are... I don't know if you've ever stood beside an oil tanker, but that's an awfully big thing to take apart.

>> I've seen a few of them coming through canals, is very, very big, some of them coming down the St. Lawrence seaway but pretty huge.

>> Yeah, the most sophisticated tool they're using to take it down is actually a cutting torch, and they're building, all the winches that bring it in are all the leftover parts of ships, the old diesel engines and the winches and the anchor winches that they drag all the bits and pieces. So it's a totally salvage job and everything that are using is stuff they've salvaged off the ship. Watching that, and I think it was actually that particular yard, they were losing about 750 men a year in casualties, not injuries but actual deaths. It was I think, thought of as the most dangerous place in the world that one could work, and walking along the beaches you see guys with one leg, guys with eyes missing, fingers gone. It's probably the most dangerous work environment on the planet.

>> So when you see those cable programs like Mike Rowe's Dirty Jobs, he's got nothing on some of those.

>> No, not at all! Not at all, even when they walk out, they've been breaking ships there for 4 years, when they walk out into this muck. It's really thick goeey muck, that if you actually break through and your foot... I had safety boots, if I got into that stuff I'd have to pull my foot out and then go into the mud hole and pull my boot out with my hands because I could never pull the boot out with my foot still in it. That's how goeey... it's called gumbo muck, and so nobody could wear shoes out there so they all go barefoot up to their knees or even beyond in this muck carrying cables out there. You think about what's in the muck, it's a scrap yard, they're scrapping ships there so there's bits of metal, there's all that stuff in the muck that people are getting cut up, they're falling in it, it's actually it's almost hard to watch in terms of the kind of toil, the human toil that's going on there and yet, it is our ships that we've now discarded and this is their end of life story.

>> And they're going to recycle the metal and turn it back around again into probably plate to build the next generation then?

>> Or most of them actually, 90 percent of it was actually being cut up and re-rolled. They call it re-rolling mills and re-rolled into reinforcement bar which was then used to build highrises in Bangladesh for the millions of people that

were coming into the cities to find a job and a place to live. I think Bangladesh, for me again, that kind of humanity I'd never seen before. It's the size of Wisconsin, the actual footprint of Bangladesh, and it has 140 million people in it. So it's the most populated place on the planet by a long margin, and the density is palpable, everywhere you go there's just people everywhere; in trees, in front lawns, and the sidewalks are full, there's a constant traffic jam. So seeing Bangladesh and seeing that level of humanity, was a real eye opener as well.

>> The images in a way are reminiscent somewhat of pictures I've seen taken around Pittsburgh 100 years ago, in terms of the clutter, the dirt in the air, everything else; and the industrial process all around you that you couldn't escape. Is it that bad?

>> Yeah, well I think our dirty period is behind us. But in developing countries, like China and India and the likes of Bangladesh and Pakistan, where people are struggling to move up and move their lives up to a middle class. And they know what it is, they know what it looks like, and they know they want it and they're willing to work hard for it. That's one of the things that I was able to witness first hand in China and in Bangladesh, is the kind of human struggle in very, very dirty environments trying to improve their lives. So I don't have, in many ways I don't have criticism for them and what they're doing, they're trying to make a living. Where I find the critique should be leveled is at the first world, knowing that when we send a ship over there and it's full of asbestos and it's full of marine paints, that if you cut and breath the air from the cutting of that paint on the hull, you're actually jeopardizing those people and putting them at risk. For me, we know that. We've gone through the dirty period and we know the consequences of it, so when we, when those ships are sold and the people who sell them know what's in there and what's happening to it and that they're putting these people who really don't have a choice, into harm's way, I think there's... I think it's us turning our back because it's different when we didn't know, but now that we know that asbestos is a killer, that these paints are killers, that somehow there should be international rules that ensure that they have the right equipment to... properly dismantle these things without actually hurting themselves.

>> 263-WXXI, 263-9994, our number. Photoessayist Edward Burtynsky here with us sharing what he has seen of man's impact on his world. Let's go to Keith in Rochester. Hello Keith, you're on the air.

>> Bob how are you?

>> Doing well, thank you.

>> Edward, a couple of questions and then some comments. Would your photoessay, were there any pictures of the before and after where an area was ravaged by human... inconsideration for lack of a better word? And then finally it was put back together and mother nature, per se, took over? That's one question. The other question is, or comment, on the Discovery Channel they did a whole series of, or a couple of programs on what if we didn't exist and it showed how mother nature in the long run, will win out. What you had mentioned about the thing in Bangladesh, I think 60 Minutes did a segment on that and on the new recycling problem, are all these computer and... computer boards, etc. etc. are being shipped to China where they're being recycled but at a huge personal health cost, which is now being born by the citizens of China. But all of these are

only results of the fact that you can find somebody to do it, risking their life, with risking their health, at a medial cost. Would you say that if the foreign nations were to get their population under control where they didn't have 6 or 8 children, knowing maybe two-thirds of them will survive to adulthood, keeping a job, that if the population was controlled to a lower count or even a break even point... they would be able to demand more pay and safer environment for the work that they do. It just seems that there's just so many people, if you refuse to do it somebody else will who's worse off.

>> Yeah Keith, your first question: the before and afters; I've done different before and afters in some in China where they were flooding and doing the area before the flood, and then shooting it once the water in the reservoir was created. I did a few in that. It takes a long time for land to reclaim itself, and quite often a reclaimed piece of land doesn't actually look that different. It does begin to look like... the landscape, again, if it's done properly. What I do often do is I'll do abandoned mines and abandoned quarries, which shows that nature kind of springing through the very tough areas and showing that kind of rebound that nature does so well. But nothing in a pure, as I think you were thinking about before and after. Going to the other comment on the workforces in the third world and population control; that's often crossed my mind as well. It's interesting that most of the population... one of the most effective controls on population, believe it or not, is affluence. Once you get in middle class, you find large families start to taper off. You might have 1, 2, 3, sometimes unusually 4, but often it's the parents are just replacing themselves with 2 children which is in an ideal way, that does automatically cap population growth while allowing enough population to be there to continue to take care of the elderly and to create an economy, which are also part of the important elements of humanity in a continuum in terms of progress. But when you look at the... when I was in Bangladesh or in China, most of the population growth is coming from the rural areas where families will still have, the parents will still have 6, 7, 8 kids because they know 4 are gonna go to the city, 2 are gonna die, and maybe 1 or 2 gonna stay on the farm. So they're playing the odds and then they're having many, many kids because they've seen what happens. So in Bangladesh, it's not unusual to have 7 or 8 children per families in the countryside. China of course tried to stem that by having the 1 child, and that's created interesting issues as well in that the... if you're gonna have one child in China, the child of preference is a male child. That seems to be the apple of all parents' eyes, which has often caused some really terrible things to happen to everything from if they know that it's a female fetus they might abort it. Often times they even, once it's born, the child is discarded. But they now have about a 60-40 ratio of boys to girls, which is also... nature, left on it's own, seems to always come up with 50-50 and now with this policy 20 years ago, we have an inversion of male female relationships trying to control the population. That's not even played out yet because this abundance of males are not going to be looking for wives, and there's gonna be a shortage of females. Does that mean that the Chinese men will be going to other cities in search of their mate? We don't even know what's gonna happen in that particular predicament, so population control probably remains one of our most pressing problems without any immediate solutions that I can see, other than as we move into a middle class, as we become more affluent, that automatically seems to slow a population growth down. And onto another point that you said in terms of, well as long as there's cheap labor to do it, you're correct. As long as there's cheap labor to do it, it will probably go there to have it done. What's probably more important is that international policies that deal with people who are in the business of shipping, and that they have to work within certain standards,

and that there is a way to do it in that when you purchase the ship, that there is a price that goes in escrow for the cost of properly breaking that ship. That money in that account continues to accrue interest, that should deal with inflation and all the other things. So by the time the ship has had it's full life, 40 or 50 years down the road, the money is there to properly dismantle it. So it needs to have, I think, a full life cycle accountability on things like that so that when toxic situations are there, that the right equipment and the right money to do it properly is in place; and you're not allowed to just have it done and to spoil somebody else's backyard.

>> Thanks very much Keith for checking in, do appreciate the call. Gotta move along right now, and we go to Bill in Rochester next. Hi Bill, you're on the air.

>> Thank you for taking my call. I have a problem with... seems like our strip mines and other non remediated soil abusers, put it that way, we could pass laws but we have to enforce the law to plant and mediate the soil and plant flora native to that area; and how long it'll take to remediate these things that you've seen, you said your photo journeys, takes a long time to remediate the property. Well how long will it take if we demand remediation and have laws enforce them? Just thinking about that.

>> Well I don't think it takes that long if it's all been prepared properly, and if...

>> That's the key.

>> Yeah, no I agree that it can be done, it's just... in a way it all comes to the rules of engagement, that when somebody's given a license to go and exploit a coal area or to exploit a gravel pit area, or... whatever, whatever that encroachment into the landscape is, it's at that moment of the licensing in which the conditions of... exit have to be determined at that point and how you're supposed to leave it. And if they have to leave it in a state that can be easily reclaimed, it would probably change the whole way in which the approach, the actual mining of it. Yeah, it needs to have a fund.

>> It's like a natural gas in some tier, we have a mud remediation problem. We have plenty of gas for 50 states for years, a thousand years or whatever. But let's remediate that mud. Put it back in a oil well or something, instead of putting it in streams and our rivers. Might be something to think about.

>> Absolutely.

>> Thank you very much for sharing that. Appreciate the call, at 263-WXXI, 263-9994. We are talking with photoessayist Edward Burzynsky, whose works include manufactured landscapes. He documents the impact of human activity on the landscape worldwide. He's going to share some of his insights with us this evening at RIT's web auditorium, as part of the Caroline Warner Gannett lecture series. Andy's sharing with us now on 1370 connection from WXXI and at FM HD2. 263-WXXI, the number, and Betsy in Rochester up next. Hello Betsy, you're on the air.

>> Hello. Well I've listened halfway through this program, so I didn't know what your gentleman was actually doing. But I gather that from the India experience... and the exploration of already explored places for energy, that he

was interested in the land. But I was just wanting, and I want very much to just put a plug in for the best book on energy I've ever read. It's called Soft Energy Paths: Toward a Durable Peace by Amory B. Lovins. Has that gentleman heard of him?

>> Yes, I know Amory Lovins is at the Rocky Mountain Institute, and ever since the 80's he's...

>> Ever since the 60's.

>> The 60's, yeah.

>> 60's, that's where he comes from and he published this book in the 70's, and it's all there for everybody to read and to understand that we can get all kinds of energy at a very cheap price, and that they're just putting the whole damn thing off with other things that they're.... showering us with the media about what we should do about the wars. And I don't know when they're gonna come to their senses and really address the problems that we have. It may be too late.

>> Well Betsy the one thing that I would add is that amongst even environmentalists now, there is a discussion about trying to establish a floor price for a barrel of oil; in other words, you can't go below 60 dollars a barrel.

>> Oh I don't even want to discuss that part of it, and that has nothing to do with what Amory Lovins talks about.

>> I do understand but...

>> ... is a treatise. It should be read by everybody who has any brains at all. And it should be followed, it has nothing to do with oil as a means of heating our homes, or whatever else we use it for. I can't even imagine all of the things that we use it for. But anyway, this book is for everybody and I want to mention it again, Soft Energy Paths: Toward a Durable Peace, Amory B. Lovins.

>> Okay Betsy, thank you very much for sharing that with us with that call; appreciate the call. 263-WXXI, 263-9994. One thing as we're talking about sustainability, President Obama in his inaugural address yesterday, mentioned it and talked about it as a priority. It also is one of the things he's going to try to do in the context of a total economic recovery strategy. If you happened to hear that, did it give you any encouragement that maybe somebody finally gets it?

>> I do think he gets it, and I do think he understands. I think that's what was missed in the last 2 terms of administration, is that in a way there is this total reliance on oil and it was in a way an oil presidency, and there was a lot of influence from that sector on this presidency; on the presidency that was. And it really lost some very valuable time, I think. And it also... I think that there is, what's missing right now is a new, what we'd call a real economy in that what happened after the high tech, which was half-real I guess. Some of it was real, and other parts of it were invented, and it imploded in 2000, 2001. And nothing really came in to fill the void, so a lot of the money went into derivatives, it went into housing, and that's where everybody was kind of putting their money back into what they thought were financial instruments or housing - something solid, because so much money was lost on air back then.

>> And we all know how much more deflated since... they say we've lost about 3 trillion dollars since then from all the other bubbles we were chasing.

>> Yeah, so ultimately to green America, is a real economy. There's a whole bunch of real jobs... finding energy efficiencies in homes, resealing homes, putting in better windows, putting in solar geothermal heating, refitting all the government buildings with better energy efficient windows, doors, insulation, roofs. That... and finding alternatives can become... Germany has proven, they now have 250,000 new jobs that are all in the green sector, they're now 30 percent alternative energy and relying less and less on oil and gas. Amory Lovins also has many things to say, he developed the foundations for a passive house which doesn't need a furnace, even in cold climates. There are many, many things that can be done and I'm encouraged by the fact that... what Barack Obama is saying about this new economy that I think he sees... that as one of the ways out, that does 2 things: one it starts to deal with the CO2 emissions that we're creating here in the west, and it also creates an economy so you're doing 2 good things in one stroke.

>> At the same time of course, it's easier said than done. Do you see evidence as you go around that very much actual tangible progress is being made toward that end yet?

>> Well that's what I was trying to say, I think it was Barbara, I was trying to say that having a floor price for a barrel of oil, because right now at 150 dollars a barrel everybody was plowing into green and once it went back to 30, all the green... if you look at solar companies, you look at all these green companies, they're at the bottom of the basement in terms of their share prices. When oil becomes a cheaper alternative, the economics always seems to win, and that we'll move to the cheapest, most reliable alternative versus the more expensive and more difficult one that may be the right one to take. But if we're competing against the barrel of oil, every time it goes below, let's say 60 bucks, all the green initiatives start to look kind of expensive and everything gets pulled up from under them. There's not the money in terms of incentives to shore it up, and so it just collapses. So you see this whole green economy trying to take off but it keeps getting undercut by cheap energy.

>> Bottom line - when gasoline gets to 4 and a quarter a gallon we gag, we demand alternatives. When it gets to a buck 75 where you can find it right now if you go around the area, and it's even cheaper in some parts of the country, then all of a sudden we become more tolerant for our excessive ways again huh?

>> Yeah, and the SUV starts to sell again. The memory, it seems, for high prices is very short and I think what we need is we need to kind of move away from short term thinking and move into longer term thinking.

>> If, for no other reason than the fact that we can't count on a dollar 75 a gallon gas being available realistically much longer, because we're gonna run out.

>> It seems inevitable.

>> I mean, a lot of the images that you photograph are images of resources that were spent! Gone. No longer really accessible to us anymore, used up. Should that be telling us something in and of itself?

>> Well I think when... if you think of capitalism, it's beginnings, and the kind of Adam Smith and the whole supply and demand continuum, that we've largely been in, there's been Keynesian tweaks in the 20th century in the 30's; basically dealing with the depression and the government should actually put money aside for times that we're entering right now, to be able to incent the economy back because recessions are a natural part of capitalist systems. But when you look at that, the only thing that they didn't include in the whole capitalist kind of paradigm is the fact that we live in a finite set of resources. And so when the easy iron ore is gone or when the oil is gone, or when the tin is no longer there, silver or whatever, at any kind of reasonable cost, what happens to that kind of growth model? What happens to that endless growth? So I think that in thinking about capitalism and it's future, I think keeping in mind that we live in a finite place called Earth should be also on the list of, how do you plan for the future and growth?

>> 263-WXXI, 263-9994 to Carlene in the city. Hello Carlene, you're on the air.

>> Hi. You know one of the things that I always strikes me is... how the old, what I call, the old thought economic argument runs, which is when the price of oil goes down and then when it spikes up we're caught again. What I heard Obama say, and what I've heard before from his advisors, is that they're not going for that anymore because in the long run look what's happened; whether it be directly the energy crisis with fuel for your car, or for your home, that we've been... the ultimate cost has been we've been at the mercy of the commodities market and everybody else that wants to get their hand in our pocket, regardless of what it does to our national economy. So I'm hoping that instead of being dis-incentivized by the momentary drop in gasoline prices, that people will have realized that we really have been held hostage and some of the old school economic advisors, I think we should just turn off their message and look to the future. Otherwise we're gonna be caught in the same mess we're in now with high food prices, high everything that has all been driven up in the last couple of years by speculation in the oil market. So when I hear anyone say, well we're gonna be lulled back in, I don't think it's gonna happen this time and I certainly hope it should be a number one concern because it's what runs our country. So whether it be industry, hospitals, schools, we as human beings are so energy dependent. So I do hope that they will really set a new path, and I think that's the thing that the average person is really excited about. So that's what I have to say for today, thank you.

>> Thanks Carlene for offering your thoughts.

>> Yeah Carlene, I agree with you that this is the new path because probably the thing that... let's say even if the oil runs without interruption from the Middle East, and let's say we continue getting from Venezuela and all is fine for the next while... I don't know if you've heard of the Hubbard curve, but Hubbard in 10 years before America hit peak oil, predicted the peak would hit and he's predicted around 2010 as the next peak; and he said that he originally had it earlier than that, but he said the slow down in the 80's, the recession slowed it down. So recessions do slow down the peak... but there's only I think 2 countries, or 3 countries, left in the world that they're actually getting more barrels per day than they were last year. Everybody else is producing less per day. So when Saudi Arabia and... I know Canada with the oil sands is now producing more on a yearly basis. And so the largest reserve of oil is Saudi Arabia, second largest reserve actually is Canadian oil sands. It's a different

kind of oil, but regardless, there is this thing hanging over us that's called peak oil, and if they say that to replace 2 percent of the energy that oil gives us per year in renewables, takes a decade to produce in terms of solar wind and everything. So if let's say, in a year, we have a 4 percent drop in the supply of oil that can be supplied to the world, we are now beyond the capacity to replace it with renewables. So I wish we were doing this a decade ago, but if we start now with a vengeance there's hope that we can actually avert a major crisis where economies start to plummet because there's not enough energy to sustain them and to heat them and to keep it moving. So this is akin to World War III, we need to mobilize all of our resources I think, to begin to conserve what we have and to find alternatives to energy, and put them in place as quickly as possible.

>> Has everything you've seen, everything you've recorded in visual image, made you hopeful or made you very worried about our future and the sustainability of some kind of life for us?

>> Yeah, I mean I think that... I have children and I'm certainly concerned about what their future is gonna look like, and especially if we run out of energy - this cheap, amazing, abundant source of energy that's re-allowed us to live a life like no other life, I think, on the planet. We've been a very fortunate... in terms of times to be alive, I think since the world war. I was born right after the war, I'm one of the baby boomers, and it's been a largely a fairly peaceful and affluent period; possibly maybe one of the best periods of mankind, but now we're at this kind of crossroads where the easy energy, the easy metals, the easy resources are quickly coming to an end and now it's gonna take a lot more ingenuity to go forward.

>> We're gonna have to, I take it, marshal that ingenuity pretty quickly?

>> We will. Absolutely.

>> Are you left feeling confident that we will, or...?

>> As of yesterday I feel far more hopeful that there is some... vision about how that can come into play, that I think that if this new package that's being put together to get America back to work, includes a new energy policy I think that the day has come and I'm very happy for it.

>> Alright thanks Edward Burtynsky, the author of photoessay collections, including manufactured landscapes, which document man's impact on his environment. He's gonna be making a presentation at 8 o'clock this evening at RIT's web auditorium as part of the Caroline Warner Gannett lecture series, sharing his insights with us this hour here on 1370 connection. For WXXI AM and FM HD2 Rochester. For Dave Campo our technical director, Katie Connelly our production assistant, I'm Bob Smith. [music]

==== Transcribed by Automatic Sync Technologies ====