

GREEN?

By: Justin Bowman



# ARCH 510 GRADUATE SEMINAR DESIGNING FOR SUSTAINABILITY

FALL 2007

## STUDENT EDITORIALS

<i>Sterile: The Architecture of Health Care</i>	Justin C. Bowman
<i>A Change in the Wind</i>	Brett Gulash
<i>Remodelling</i>	Harshana Thimmanna
<i>american life, american responsibilities</i>	Clayton Harrison
<i>Sustainability Divided</i>	Crystal Van Horn
<i>Recycling, is it really that hard of a concept to grasp?</i>	Heather Sealy
<i>Contradicting Residents</i>	Jesse Walker
<i>LEED Certification: A Settlement Decision?</i>	John Andrysiak
<i>Retrofit to Sustainable Renovation/ ....Revolution?</i>	Jacob D. Lackman
<i>Standardized Testing in Schools</i>	Kenny Bissegger
<i>The Environmental Mandate of the Heavens</i>	Mark W. Steiner
<i>Business as Usual</i>	Scott Wohlschlager
<i>Editorial Essay</i>	Bryan Ferguson
<i>Editorial Essay Think up a descriptive title!!!</i>	Sean Nelson
<i>Architecture as Experience</i>	Hillary Fairfield

# STERILE: THE ARCHITECTURE OF HEALTH CARE

---

JUSTIN C. BOWMAN

Architecture is a powerful tool for influencing our minds, bodies, and spirits. It is no stretch of the imagination to say that everyone in every part of the world interacts with, and is affected by, architecture every day. Contrary to the beliefs of Victor Hugo<sup>1</sup>, not even the printing press could kill architecture. It is still very alive and in a position of great power and influence; that is, people of the modern world may go for days or weeks without encountering printed word or media. Indeed people in the vast undeveloped areas of the earth may be completely detached from the influence of the printing press altogether, but architecture still exists in some form. The intention here is not to challenge the importance of the printing press, but simply to illustrate the significant and powerful role that architecture can and does (in most other cases) assume. With this in mind, why have we allowed architecture, with its ability to influence virtually every aspect of our lives, to fall short of its potential with regard to medicine?

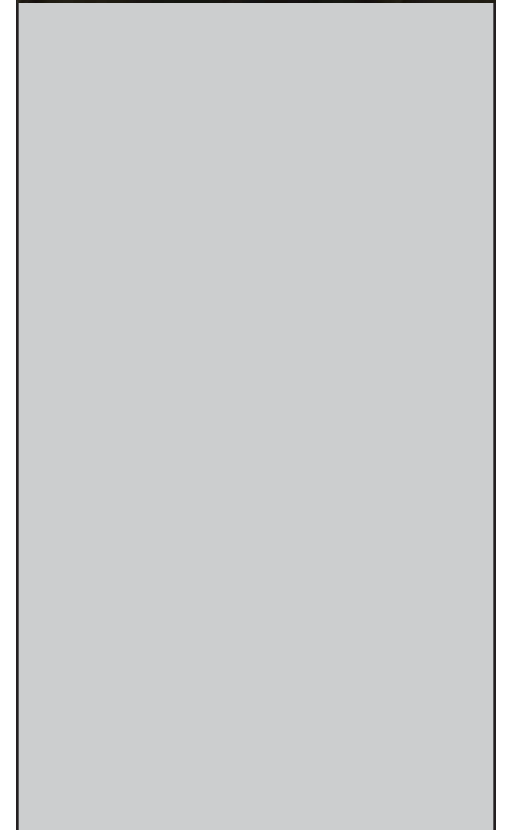
The architecture of our health care facilities is flawed, specifically that of hospitals. Since the 1950s hospital design has derailed, crashed, and burned; hospitals have become nothing more than warehouses for the sick and injured. They are places where you are sent when you are ill and “released” from like a prison when you are no longer deemed a threat to yourself or to society in general. How can patients be expected to experience a full and speedy recovery in an atmosphere where they are restrained, disoriented, uncomfortable, stressed, and detached? The depression, fear, and other stigma we associate with hospitals is a direct result of the nature of the medical profession, however medicine offers no viable solution to this problem.

## **Architecture is the solution.**

Architects approach health care facility design like they do other projects; they design for the needs of their client. In this case the client(s) are hospital administrators, doctors, nurses, and other health care professionals; all with one goal in mind—efficiency. This is, of course, a noble and logical goal; who wants to sit in the waiting room any longer than is needed. Unfortunately, efficiency becomes the altar upon which the ambitions and potential of architecture are sacrificed. Architecture has become the child in its relationship with medicine, always doing what it’s told and keeping its mouth shut. This is why hospitals are generally all the same, a central core with wings or concourses extending out. The windows in the patient rooms are generally too small and inoperable with no consideration for views. In many cases there aren’t even walls to offer patients a sense of security and comfort in what is likely to be a very embarrassing and uncomfortable experience. Regardless of the reasons, architecture has gradually relinquished its grasp on healthcare design until all it has left is finishes. Indeed, finish materials may be the layer of architecture with which we directly interact, but they cannot hide the reality of what the space actually is.

More consideration and creativity needs to be expended with regard to the form, structure, and atmosphere of

1 **Reference:** Victor Hugo: Notre-Dame de Paris: Book Fifth, Chapter II: This Will Kill That.



# GREEN?

By: Justin Bowman



be among the best problem-solvers. I find it disheartening health-inspiring spaces and still meet the requirements and culture to reclaim its place as an equal to medicine in the pursuit of the human body to sustain life; architecture influences the way they meet at the surface of the skin.

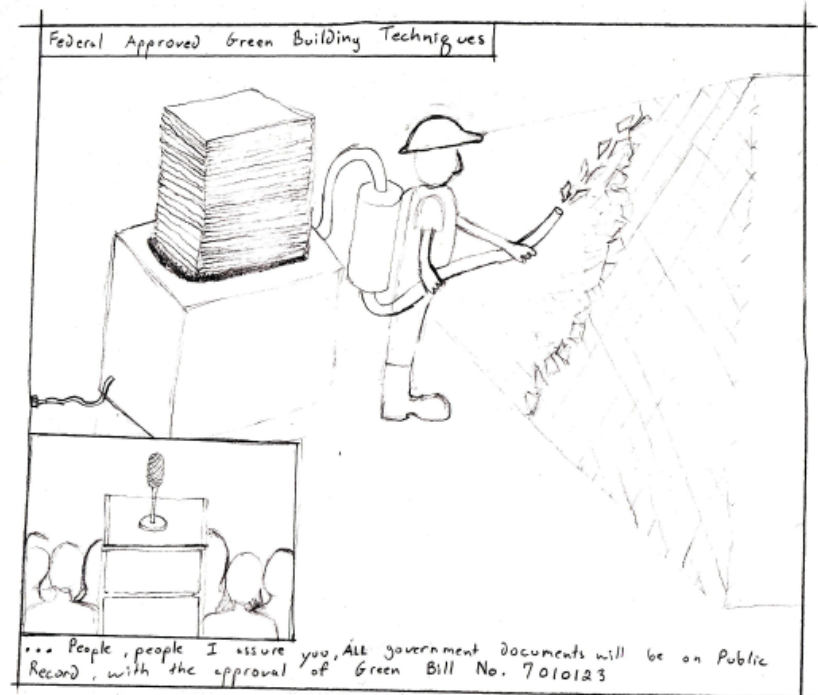
## A CHANGE IN THE WIND

BRETT GULASH

It has come to light that certain models and practices in our current government, fulfill the majority of citizens needs by the displacement of either natural resources or social injustice. Our government's policies seem to be decided by the corporation that best funded their campaigns. We no longer have a nationally representative government, but rather a capitalistic machine content only with feeding itself by any means it deems necessary. In this process the people lose; un-renewable natural resources, potential political contributions made by voices with no financial backing, and are facing a decaying ecology.

When looking at the global scale, let us not forget the politician's newest phrase, "Global Warming." Now don't get me wrong, this is an issue that we as a people need to address. When global warming becomes a political campaign rather than a place to start, there is a problem. My only reservation about the term Global Warming is the fact that "we" think by being conscious and stating the problem that we are saving the world. When in fact the only thing we are trying to preserve is our own interests by not actually changing our lifestyles. The earth will be around far longer than we (our current society) will be. The Earth has already set up a defense mechanism that will stop supporting us if we continue to maintain our current lifestyles. This is evident through things like acid rain, melting ice caps, and more extreme seasonal climates. The downside of our current practice is that our selfishness is so thoughtless the other species that inhabit this world, will ultimately suffer far more. I say this because we have put ourselves in this situation where they have fallen victim to our selfishness. Not only do we hurt the other species in the world, but we are hurting ourselves.

There are currently millions of children who will go to bed hungry, while the majority of Americans eat and waste more than their share of food. We must not forget there are thousands of Americans that go hungry every night as well. In a world where a majority is simply defined as anything more than half, we are settling as a nation when we state that a majority of people are happy and content. In terms of school or higher education a 50% is a failing grade, yet we deem this acceptable in terms of human statistics. Let us rise to be a nation that our fore fathers sough after, one in which its people stand united, one in which its people speak up for inequalities. Lastly but most importantly a Nation that isn't scared to admit it was wrong and that its current practices did not have the interest of Americans, the Human Race, and the World in mind when they were introduced. We can do better, we do have a choice, and we do need to start now.





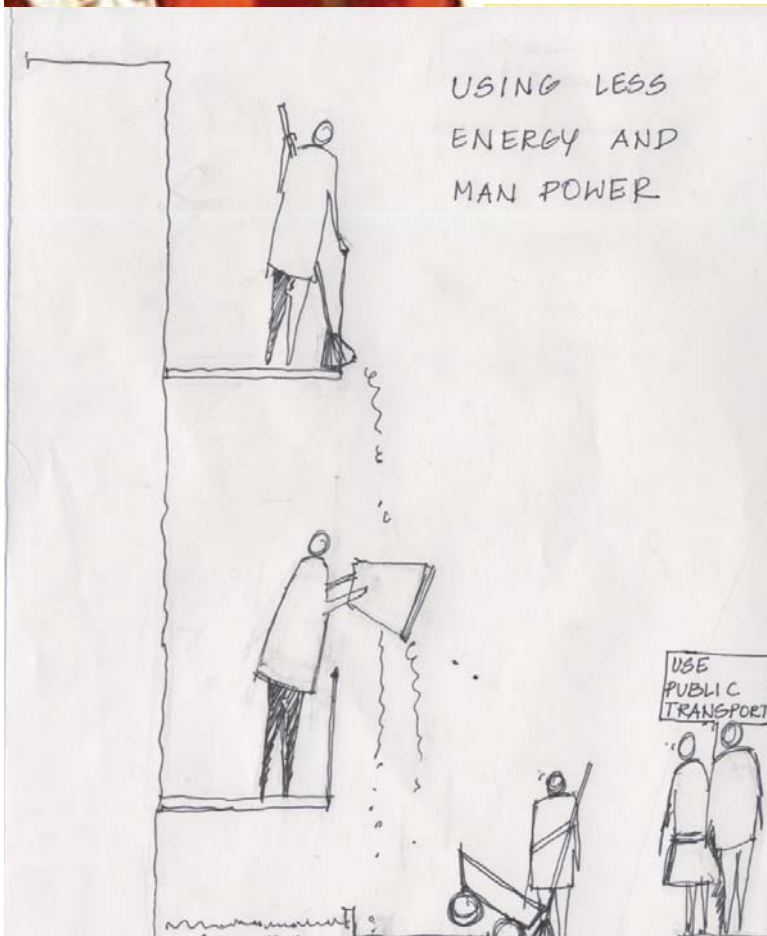
## REMODELLING

HARSHANA THIMMANNA

I do hear people saying that they want to build a new house with sustainable concepts but not everyone takes initiative to implement those concepts into their present house. Sustainability of a building largely depends on efficient usage of natural resources, materials and opportunities to reuse, recycle. We are using natural resources at an unsustainable rate. According to Paul Hawkin author of ecological commerce today's population uses it in one day what it took nature 10000 years to create. In other ways we are living on our energy capital and squandering our income (solar power). Remodelling existing homes instead of building new saves significant quantities of energy, materials, reusing things in turn benefit environment.

Architect and environmentalists prediction of buildings which are environmentally responsive, solar powered, human engineered, aesthetically integrated never came in. From past 30 years nearly 35% of buildings are remodelled, 1% of it is done using sustainable concepts otherwise there are other reasons where real estate investors remodelling building green may even mean the money they are going to get from renovating, for others it means they want to preserve the earth, not waste energy and resources. People look for products that are advertised as being green or being manufactured in a non toxic way, which may or may not suit their requirement, ending up in using high energy.

The home of the 21st century had arrived 25 years ahead of schedule. With building technology progressing rapidly and with the help of soft ware's, it is easier now to document the actual problems to get better solutions. We have all the required tools and readymade solutions to all most all the problems. After experiencing the impact of buildings on the global environmental issues facing our planet. People are now awakened, the environmental awareness has moved to the mainstream of the culture. As we move towards greater awareness of these issues, we are slowly collecting momentum not only towards solving problems but also towards recognising the opportunities. These opportunities lead us to a new generation of buildings which are environmentally responsive.



# AMERICAN LIFE, AMERICAN RESPONSIBILITIES

CLAYTON HARRISON

Thousands of societal rules, spoken and implicit, govern the way in which we conduct our lives. Federal manifestos give firm parameters for the conduct of our physical and economic activities. These rules, laws, and codes are the foundations of modern life, without them the progressive development of humanity would not be possible.

Strict Liability is a legal doctrine that makes a person responsible for damage and loss caused by his/her acts and omissions regardless of culpability, or fault in criminal law terms, this is normally expressed through the fulfillment of a mens rea requirement. Without the need for a mens rea requirement, numerous liability law suits have been prosecuted successfully. Though public opinion has become infected with cynicism, by thousands of frivolous lawsuits, there is still great purpose and value in civil liability. Liability creates accountability, responsibility and opportunity, an opportunity to balance debts created by mistake and negligence alike. These civil debts are measured by loss, both tangible and indefinable, so long as they are supported by evidence.

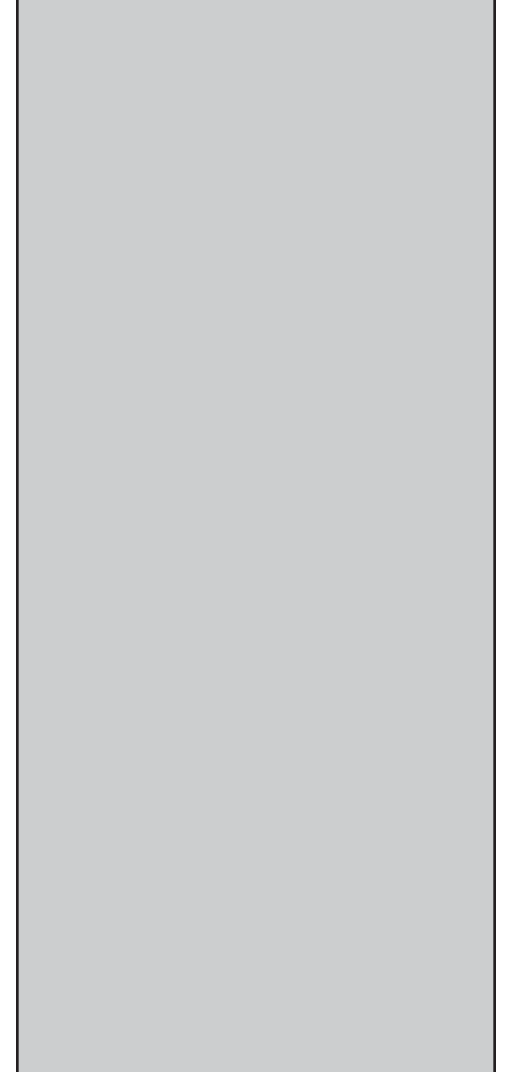
Al Gore's 2006 *An Inconvenient Truth* has become synonymous with the evidence constantly and consistently presented about the damages of daily activities in the American life. These mounting damages are not irreversible, they occur by matter of choice rather than absolute necessity to life. The immediate victims of these apparent damages are those left homeless after ravaging hurricanes along the Gulf Coast. Every generation born into this nation is born into one of environmental decay. Future generations are entirely innocent of the damages they will suffer, but whom is responsible for their loss?

Responsibility for the people is borne upon the people. The Declaration of Independence was founded upon this principle of self actualized government. Now it behooves us, as Americans, to take responsibility for the consequences of our actions. Accountability will necessitate change to both prevent and repair damages incurred; change rooted within those thousands of unspoken rules by which we live and the federal manifestos that legally govern our lives.

George Bush established the Department of Homeland Security in reaction to his responsibility, as president, for the security of his citizens. Perhaps a similar reaction extending beyond the guidelines of our current Environmental Protection Agency may be appropriate. The precedent for action is as apparent as the environmental damage which must be rectified, it is our American responsibility.

---

**Personal Note:** It is understood that the subject of this editorial is extremely vague, a clouded and confusing problem that infects every aspect of our lives. The vast context of the problem is reflected in its dangerous and comprehensive destruction of our American lifestyle. A record level of drought, undoubtedly related to climatic change, in Southern California has brought the flames of a forest fire to the doorstep of a very close friend to this author. Understanding the way in which a loss like that will impact her life forces me to reflect on how it



could easily have been my own home and lifestyle in peril. Ask yourself the same question, it is clear to me that I don't need to worry about saving the planet, I need to think about saving my own life, my children's lives and the lives of every person I care about. We the people founded a nation for each other, and upon each other; a revolution that saves our lives is no different than the one that brought us life.



## SUSTAINABILITY DIVIDED

CRYSTAL VAN HORN

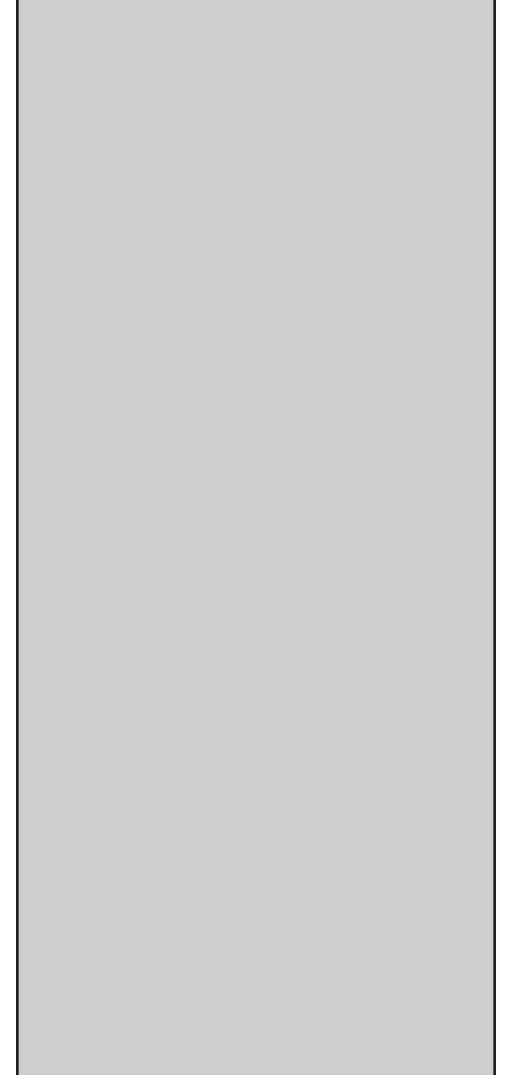
Have you ever thought about the difference between the people who “believe” in global warming and the ones who do not? Have you noticed that some cities strive towards sustainability while others couldn't care less? Have you thought about the demographics of those cities and which political party the majority of the residents side with? It seems to me that “sustainability” is an issue which is staunchly divided between the party lines of Democrats versus Republicans, better referred to as Liberals versus Conservatives. If it remains so, it is a certainty that America can only give 50% to the issues that surround global warming and sustainability; and 50% is just not enough to save a planet.

Al Gore (Democrat) is the front running spokesman for global warming with his movie “An Inconvenient Truth” which has won two Oscars, plus seventeen other awards (<http://www.imdb.com/title/tt0497116/awards>). Yet if you've ever listened to conservative talk radio he is at the butt of most any joke pertaining to climate change. Rush Limbaugh (Conservative) even has a song dedicated to Al Gore, it's to the tune of Johnny Cash's “Ring of Fire” except this song is titled “Ball of Fire” with the refrain lyrics as such:

“Our whole world will be a burning ball of fire,  
Polar bears drown, drown as the seas are getting higher,  
As it burns, burns, burns, the earth on fire, a ball of fire”  
(<http://www.youtube.com/watch?v=oZrhG2iT3H0>)

Rush as well as other Conservatives such as Sean Hannity and Glenn Beck, have been quick to point a finger at Al Gore's back citing his enormous carbon footprint while saying how hypocritical the man is for preaching carbon change while he flies around the world to do it. What's he supposed to do, walk to China? The last time I checked no one was perfect; yet I suppose that when someone has a message that scares, frightens, or questions people's current comfortable way of life then they may resort to any tactic available to discredit their opponents. I am glad that at least someone is willing to stand up and say “hey, we have a problem and our children may be too late to fix it but we can do something about it now”.

I have also noticed that Republicans generally only seem to be concerned with one thing concerning conservation; conserving their money. Such is the case with the EV-1 featured in “Who Killed the Electric Car?” a film by Chris Paine. The state of California's Air Resources Board passed the zero-emissions vehicle mandate in 1990 which stipulated that car companies needed to have up to ten percent of their fleets be zero emission vehicles by 2003 in order to help to reduce overall carbon emissions within the state. In short, GM effectively designed, built, leased, and then destroyed their own product in order to convince the public that electric cars were inferior in all respects. GM subsequently sued the state of California, citing that there was no demand for the cars and that they were losing money by producing them. The oil companies and their industry associations (Western States





Petroleum, “WSP”) also sued the state of California citing losses of revenue.

If cars didn't require gas then the gas and petroleum companies didn't make money. GM “killed” the electric car that they had created by making the car a sporty two-seater (which isn't applicable for families). It unfortunately was given an inferior battery with respect to the technology that was available at the time, which gave the car about 110 miles per charge and took about two hours to fully charge again. Who could take a road trip with that mileage per charge time? Yet the car required nearly no maintenance, except to plug it in to charge, refill the windshield wiper fluid and eventually replace the battery. Forty percent of auto manufacturer's income comes from car parts for the combustible engine; if the electric car didn't need those parts then the car companies lost their profits. The state of California had no choice but to drop the zero-emissions vehicle mandate due to the mounting pressures by auto manufacturers, oil companies, and the other industry associations ([http://en.wikipedia.org/wiki/Who\\_Killed\\_the\\_Electric\\_Car%3F](http://en.wikipedia.org/wiki/Who_Killed_the_Electric_Car%3F)). To bring this concept full circle by tying Conservatives to the vehicle and oil industries together, have you ever heard of Haliburton and George Bush's good friend Dick Cheney? Enough said.

Follow the money trail to anyone who disputes global warming or doing something about it and you will probably find a Republican or a Conservative behind it. The United States still has not signed the Kyoto Accord, why? For those of you who might not be familiar with international politics, “the Kyoto Accord is an international treaty whereby countries agree to reduce the amount of greenhouse gases they emit if their neighbors do likewise” (<http://mindprod.com/environment/kyoto.html>). The main reason why George Bush (Republican) hasn't signed it has cited the reason that it would hurt the American economy to reduce America's greenhouse gasses ... never mind the planet; he only seems to care about how much money America is producing. The oil industry had gone so far as to found its own support group in an attempt to refute such charges that the climate is changing. An extraordinarily well-funded lobby called the GCC, Global Climate Coalition, which initially included all the biggest oil, coal and auto companies; spent \$60 million on (dis)information to oppose attempts to reduce greenhouse gas emissions. They of course, were all strong Bush supporters. People may say that Bush lied to the people during his campaign that he was going to reduce CO2 emissions, because he then turned around and decided it was a good idea to push through bills which would subsequently raise CO2 emissions, such as the SUV tax subsidy (<http://mindprod.com/environment/kyoto.html>). An Australian Senator Bob Brown, calling for a U.S. oil boycott because of George Bush's refusal to sign the Kyoto climate change treaty said, “The world's got a pretty simple choice here. It's between President Bush and [our] grandchildren.”

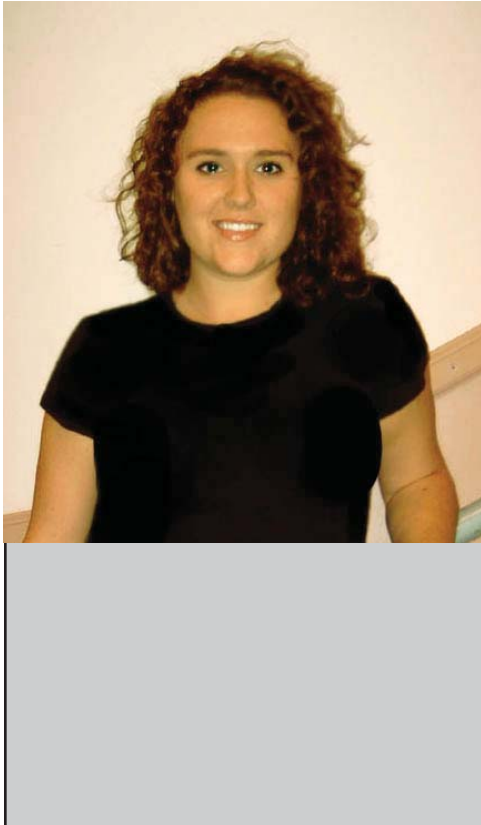
Responsibility to the planet, and to the future generations who will inhabit it, shouldn't be dependent on how much money you will gain or lose, or because of whether you are a Liberal or a Conservative. I have even met people who are Conservatives that didn't want to put photovoltaic panels on their roof mostly because their neighbors might see them. It was as if they would rather pay more for their electricity than be thought of as potentially being Liberal. They cited that there was a lack of tax incentives for getting photovoltaics installed and that the upfront cost of the photovoltaics was \$35,000 (which are sound reasons, I admit). Yet heaven forbid that

these people would drive anything less than a GMC Denali (13 mpg city/17 mpg highway) or a Mercedes (17 mpg city, 24 mpg highway). My non-hybrid 2000 Hyundai Accent, a Korean import, gets 25 mpg city and up to 35 mpg highway!

The mentality of America needs to change; global warming isn't about what party you belong to or the mentality of "why I should change if it doesn't affect me?" It's about doing what is right for our planet and living up to our obligations to our future generations. A Conservative, Willis Player once said, "A liberal is a person whose interests aren't at stake at the moment" (<http://www.quotationspage.com/>). It's too bad that these people can't see that it is in everyone's interest to do something for the only planet that has been discovered with the ability to support life within our reach, because once we pass the point of no return, it will be too late to go back to do anything about it. We must all work together 100% to fix the growing threat of greenhouse gases and the dangers they pose on our planet, because as I said, an effort of 50% is just not enough to save a planet.



Labeling something as "Green" doesn't always mean it actually is.  
Crystal Van Horn, ARCH 510, 2007



## RECYCLING, IS IT REALLY THAT HARD OF A CONCEPT TO GRASP?

HEATHER SEALY

Today's newest fad is sustainability, at least when it comes to designing building. I agree it is a needed element in design but why is it that people are just now catching on that we need to do this? Our planet has been slowly degrading because of our lack of environmental concern for hundreds of years and now within the last 10 years we decided oh my gosh, we need to fix the problem before it gets out of control. Well I have to say it...its too late, it's already out of control.

In 1999, recycling saved 64 million tons of materials from entering land fills, through composting and recycling. Presently the country recycles about 60% of their waste products, compared to the last 15 years when only 32% of materials were recycled. The most common recyclable material is paper but a close second is aluminum cans. Over 50% of all aluminum cans that are produced are then recycled, this process takes only 60 days from used to new and on the shelf. Idea that you could be using the same can, you used only two months ago is unreal. Not to mention the fact that one recycled aluminum can saves enough energy to keep a 100 watt bulb burning for 4 hours or three hours of TV.

Recycling is a quick, easy, and gratifying way of giving back to the environment and the community. Not only does it put less stress on the natural environment to produce the needed virgin materials but it also can help to employ people of the community within the recycling center. In Anchorage, there are 18 different recycling stations, although there is only one full service recycling center. The rest of the stations are limited to large bins for certain services, they are located at the local grocery stores and schools. So why aren't we recycling more? People

go to the grocery store at least once a month Parents go to school performances and conferences at least once a month. So, why not recycle, if it's a part of your monthly routine to walk by the recycling containers? My thought is that people are just too lazy to separate the overly simplified materials into the marked bins. I mean really how hard it is to place a plastic bottle in a paper bag next to the trash can, rather than filling up the trash that you pay monthly? Let's just think about this for a minute...you're paying per bag or trash can monthly, so wouldn't you want to limit the amount of waste you put into that container. Recycling a FREE service you can do on your way into the grocery store, or dropping your kids off at school.

The thing about fads is that they will eventually fade, and people loose their enthusiasm and the people that will pay for it in the long run is humanity. We can't just change our lifestyles when it's convenient for us. It needs to be a permanent and worldwide change. Imagine if everyone in the world demanded people to recycle, it's a small start but you have to start some where. So where will you start?



## CONTRADICTING RESIDENTS

---

JESSE WALKER

Throughout the history of human development, the main type of buildings being constructed and lived in were mixed-use environments. Humans relied primarily on walking as their means of transportation of goods and services. Most people dwelt in buildings that were built for live-work-play environments. They typically made goods and sold them from their own homes or used an office space provided on the street below.

Today, mixed-use developments are gaining criticism due to our pure dependence on the automobile. We now are forced to supply at least one parking space for every housing unit (bedroom). This creates a serious issue of space for everyone's automobile while providing enough space for domestic life and a place to work. This essay is not entirely about American's dependence on the automobile (which a majority of us are all aware of), but more about people who are inadvertently supporting the use of the automobile.

Currently, Wal-Mart is stirring up emotions in Pullman, Washington by proposing to open a "Super Wal-Mart" in the city limits. A large majority of the residents have a strong negative perception and are entirely against the introduction of this mega corporation. They feel it will taint the urban feel of the downtown area and in time run the local merchants out of town.

Pullman has a wonderful tree lined pedestrian friendly downtown. The two opposite directions of traffic are separated by buildings and are oriented on 'one ways'. The majority of the residents do not even shop nor support their local merchants' downtown due to the lack of business and/or options of stores. This drives the Pullman residents to go either to Spokane, Washington or even further Seattle to shop, eat, and entertainment. By their pure dependence on the automobiles they are destroying exactly what they are fighting to preserve.

Developers in Pullman have been pursuing to develop more living units in the downtown area. Meetings at the city hall have been held to hear the people's opinion of introducing more living units. The main concerns people have are the number of parking spaces required to house their automobiles. From the City of Pullman Planning Commission meeting on July 25, 2007 Alice Schroeder of Pullman stated, "...most residents of downtown residential development will walk to work and shop and thus have fewer cars than suburban residents. It's not a viable option for Pullman because: there are no groceries or drug stores in the downtown area; access to grocery and drug stores by bus is not sufficiently frequent and is also inconvenient; leaving Pullman is difficult or expensive without a car."

This goes to show the pure dependence Pullman residents currently have on their automobiles. There is not even a grocery store within walking distance of the central downtown core. The bus system is not sufficiently frequent due to the lack of bus stops, and/or people have no idea where the buses will stop to actually pick them up. A post in the cement on the sidewalk cannot be constituted as a bus stop, can it? There are no shading elements to protect the awaiting bus riders from the natural elements. It's obvious why people do not want to ride the bus sys-



tem and why it has become so inefficient to ride.

Residents are now not able to use the local bus system to get downtown to shop, eat, and play due to the lack of not having an automobile. How does this help local merchants and store owners to display their products or encourage people to shop downtown? Have the residents developed contradicting interests? They are allocating the majority of their income to gas and traveling in and around the area to get everyday supplies, which are not readily available downtown, nor even in the town. This is no way helping the local economy by throwing your paycheck at huge gas corporations, chain retailers, and/or grocery stores. Residents of Pullman have to drive from the North end to get groceries at one of the two grocery stores in town (which are located on opposite extremes of the city limits) and back home. Not what I call a 10-20 minute walking range. Does this sound remotely close to economical or convenient? Wal-Mart's "always low prices" could actually save the residents some money for their next tank of gas to get to work and maybe actually go downtown to support their local economy.



Mixed-use development can both provide adequate density and engage pedestrians, creating a live-work-play environment that is such a strong selling point for today's urbanites. It can create a stronger sense of community by fostering social equity through a spectrum of housing and jobs. It can make infrastructure more efficient. It can lower pollution levels by cutting back on automobile reliance. And, in cities with struggling office buildings, residential or retail offerings, it can be a breath of fresh air, reenergizing the original use and, in turn, revitalizing the area.

When carefully selected, the uses will benefit from people visiting them at different times for different reasons, potentially creating around-the-clock revenue. Developers are daunted by front-end risk or are inexperienced in one of the individual uses. Over time, mixed-use is a more sustainable investment than say, a strip mall or some other single-use development. You will be developing a place that will mature over time.

## LEED CERTIFICATION: A SETTLEMENT DECISION?

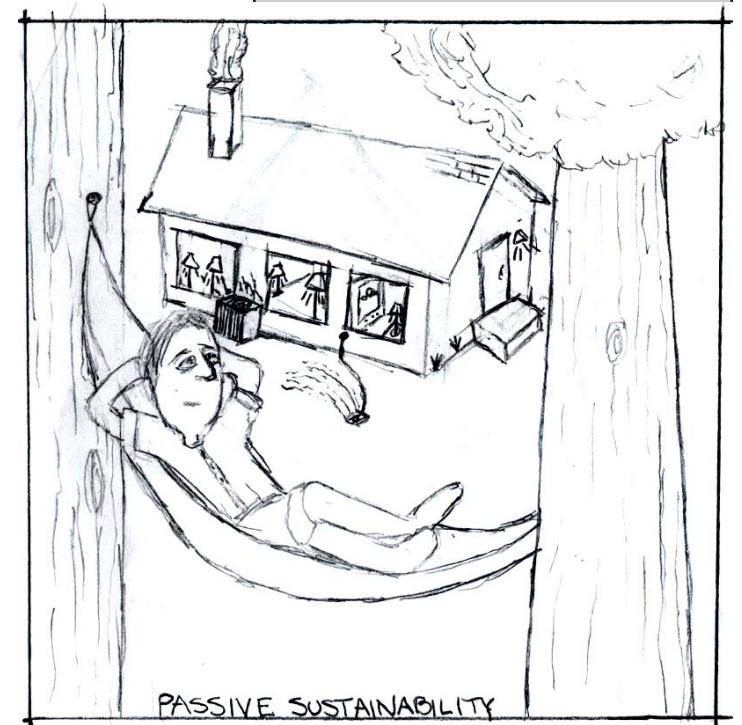
JOHN ANDRYSIAK

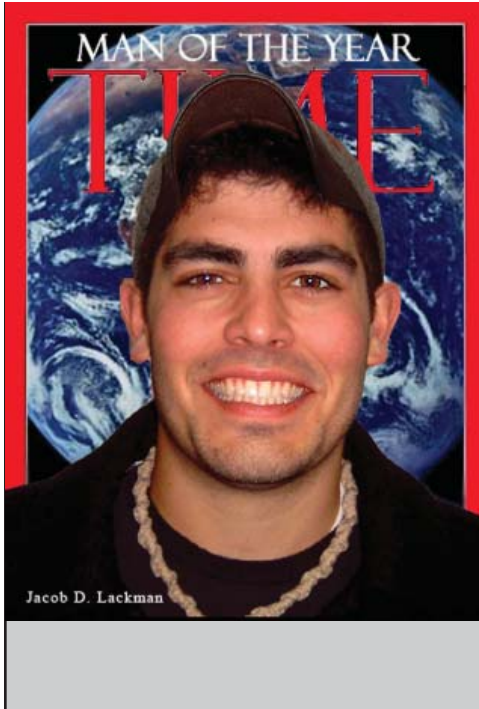
Throughout my architectural career I have been asked to look at structures as a means of sustainability. Not only do we strive for sustainability in all forms of design, but we push for a more sustainable way of living for ourselves as well. We are told over and over again that if we live our lives in a fashion as to represent sustainability we can make this world a better place not only for us but for future generations, but in order to achieve these things we must push the boundaries of design. That being said, the architecture profession has been wrapped up in checklists, buying off our carbon debt, and striving for a certification of some sort to prove to people that we are doing something right in this world. To an extent architecture is based on your achievements and what you have done to prove that you are an amazing architect, but when did our profession become ok with settling for a checklist rather than pushing the boundaries of design?

I feel the need for sustainable design don't get me wrong, but I don't see why I need to hire someone who is LEED Certified to tell me that my design is sustainable. Spending thousands of dollars to find out that I know how to design seems like a waste of time and money, not saying that a consultation is entirely horrible, but in the end if I know how to design something well and make it sustainable why do I need to have a checklist tell me that I know that I am designing the right way.

Also, why are we deciding now that it's ok to design a LEED Certified building and then call it a well designed building? To me LEED is a mere stepping stone to where we should be in architecture, not only does LEED seem to limit you in some respects, but it seems like certain architecture firms try to compromise certain aspects of what sustainability means just to get themselves a point on their certification. Pushing boundaries means pushing boundaries, it's not sneaking or weaseling your way around certain verbiage to get your LEED point. The interesting part about this whole thing is that more firms than you would like to think have the mindset of taking the easiest way out to get themselves a point. We have a moral obligation as architecture persons in the world to push past LEED Certification and not get stuck in the minutia of a point here or there, a plaque doesn't necessarily mean you have designed an amazing structure or that your structure is even as sustainable as it could be, it means that you as an architect have something to prove to everyone else and without that certification there is no way that you are sustainable.

LEED should be thought of as the way IBC is thought of, which is the least amount you can do to have your structure built. We have obligations to design sustainable and beautiful structures, so in the end why should we settle for a plaque that tells us that we are sustainable. Push, push, push, until we have a structure that we can truly call sustainable, you don't need a plaque to tell you that.





## RETROFIT TO SUSTAINABLE RENOVATION/ ....REVOLUTION?

JACOB D. LACKMAN

Sustainable architecture, it's all we hear about, LEED certifications, state of the art technology, new buildings, new, new, and NEW! But there's another side to responsible design and that's taking care of what we have already built. Historic preservation and renovation are vital tasks essential in any efforts to promote a sustainable environment. It is what we make, with what we have, that will determine our futures.

Take a walk down most towns or a look at its old industry. An almost guarantee is that you will see an old, out of use, left to die building. A 100 years ago that building, that warehouse was probably a backbone for that community or a place of commerce. What happened to these buildings? Why were they abandoned or left short of their full potential. In many cases it was due to high operational costs, inefficient energy use, or replacement by cheaper newer structures. In essence there is nothing wrong with these buildings, there just outdated. Back then yes, maybe it was more economical to just build a new building, but now, today, that luxury is no longer available. Now more than ever we must consciously build for the future, even if it means not to build at all.

Stopping new construction may be too farfetched, but looking at what we already have and know, we can take back these dying building and bring them to the life we need and they deserve. What will it take to bring these

buildings back? Community awareness, private investors, and the United States Government, or at least the tax writing side of our government, which has already have begun to help. "The Rehab Credit" is the nation's largest federal incentive that promotes urban and rural revitalization through private investment in reusing historic buildings." With tax incentives such as this, other historic renovation organizations and certifications like LEED, designers and builders can begin to think about the future by fixing the past.

"We can't build our way out of our environmental problems, but we can – and must make better, wiser use of what we've already built."

Historic renovation to sustainability goes past the environmental side of sustainability, but also into economic sustainability, by reinvesting in existing communities and local economies, as well as into social sustainability, by protecting and celebrating our cultural history so that it can be enjoyed by generations to come.



# STANDARDIZED TESTING IN SCHOOLS

---

KENNY BISSEGER

In the Humbolt School District near Prescott, Arizona, Kindergarten students spend the first two weeks of school each year taking tests. More common today than ever before, standardized testing has become the primary method of evaluating elementary students' performance. These measures have changed the educational landscape from the methods teachers choose to prepare their students all the way to the design of school buildings.

Early in their educational careers children are required to take a multitude of tests. In Arizona these include the AIMS, DIBELS and CRT standardized tests, all which must be completed by the end of the 3rd grade. This excessive amount of testing changes how teachers educate their students. Teaching must be geared toward test-taking preparation instead of working with the child and ensuring that he/she truly understands the material. Standardized tests have turned teaching into a goal-driven evaluation procedure with complete disregard to the process of learning and understanding the material itself.

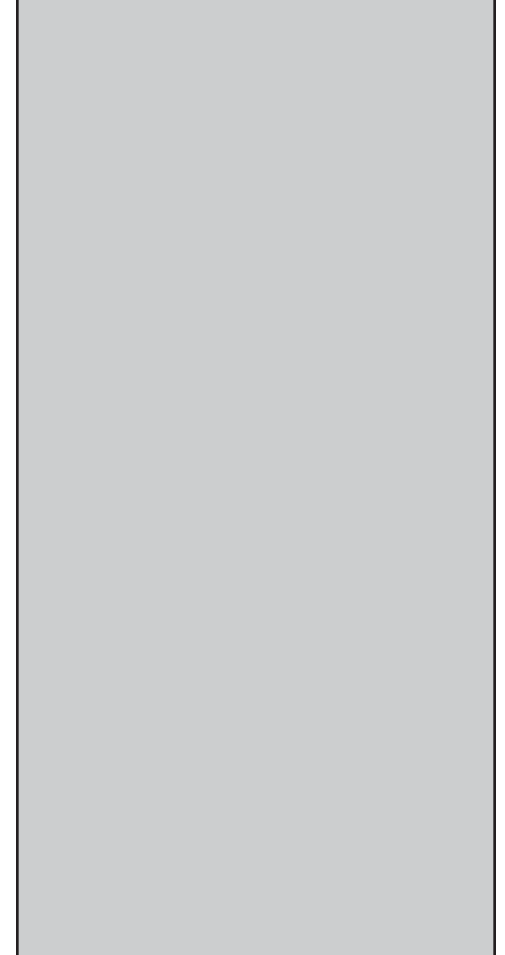
The scope of evaluating students with standardized tests is very limited. Almost all standardized tests only cover math, reading comprehension and vocabulary skills with an occasional section that covers science or social studies. No thought is given to evaluating other subjects such as music, art, etc.

Excessive testing also takes a great deal of time, space and money. Several weeks out of each year must be committed to testing. This is valuable time that could be used for teaching. In addition, standardized testing affects the architecture of schools. In an Oregon elementary school near Portland that our studio class visited, a whole computer room was dedicated solely for the purpose of student test taking.

Every child learns differently. Multiple Intelligence learning recognizes the fact that every student may grasp information in a different way and attempts to cater teaching strategies to helping a diverse range of students. Standardized tests ignore this by evaluating a student's performance on only one very limited level of comprehension. As a result they do not accurately represent a child's full capability. In this case standardized tests fail in their primary goal: they do not adequately demonstrate a child's knowledge or the performance of a school.

However, in today's educational system, these tests are used for more than just evaluating a school's performance. These ratings and comparisons transfer directly to school funding. In many areas, schools receiving low overall tests scores will receive less monetary funding. In this scenario, how is the "underachieving" school supposed to improve with even less resources than before. Conversely, in other areas, schools receiving the highest ratings will have funds reallocated to poorer performing schools. In this scenario, the "good" school is essentially punished for doing well. School funding is a tricky issue, but performance evaluations based on standardized tests are a poor way to evaluate them.

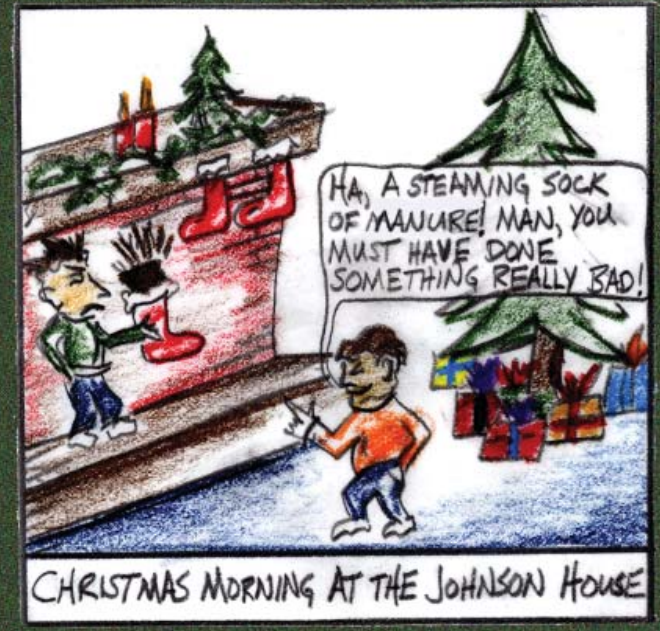
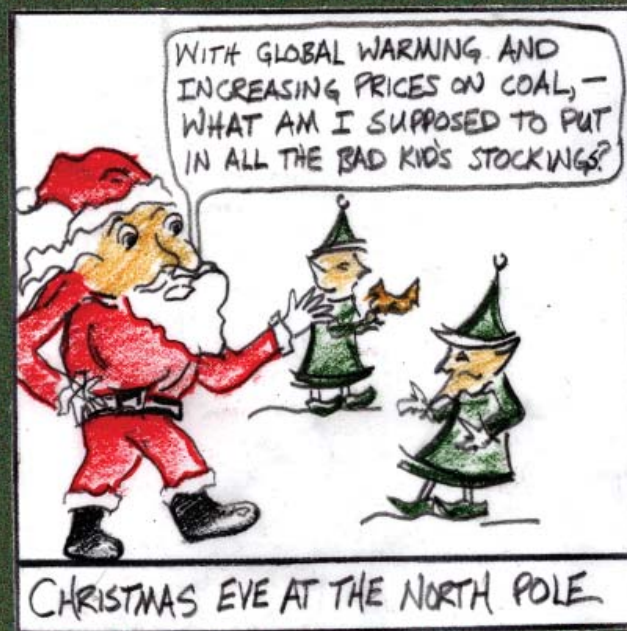
Lastly, and possibly most importantly, excessive testing turns children off to learning. When students enter





school in Kindergarten and are bombarded by and judged completely on tests their excitement for learning disappears. More emphasis, especially in earlier grades, needs to be focused on engaging and stimulating students. The feelings they develop toward learning at this early age are the ones that will stay with them through the rest of their educational career.

Standardized tests have their place in school, but need to be limited and redesigned. They need to be adapted and used in conjunction with other evaluation methods. They should be used to accommodate learning, not distract from it. The role of school is to educate students about themselves, their surroundings and the world they live in, not how to take tests.



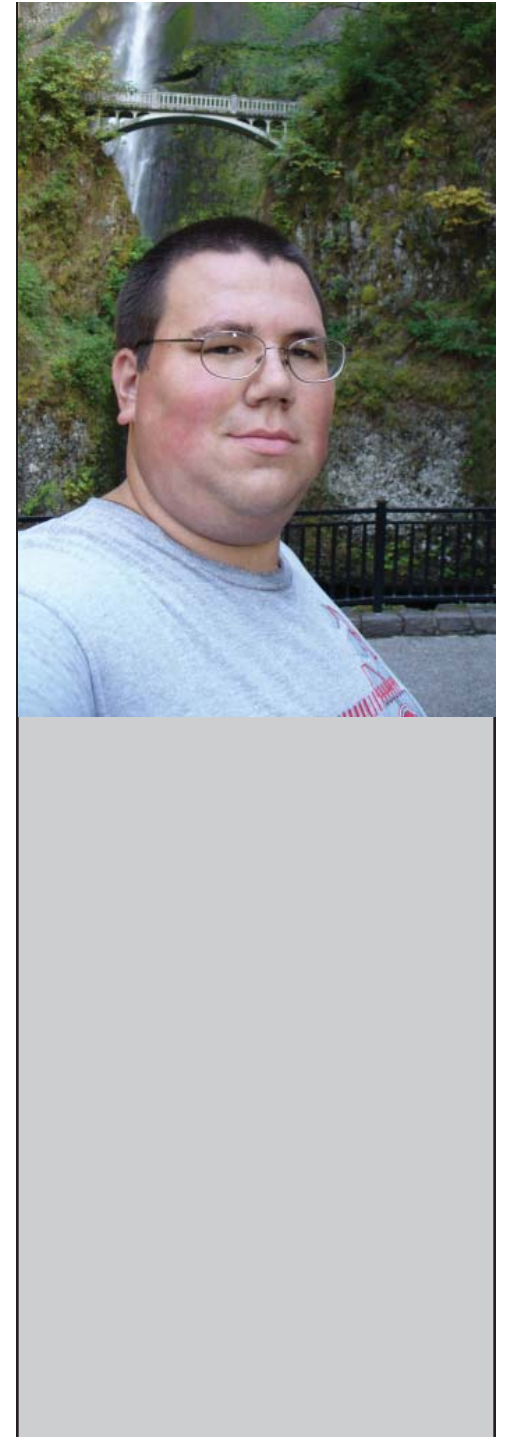
# THE ENVIRONMENTAL MANDATE OF THE HEAVENS

MARK W. STEINER

I must begin this piece with an omission. When I started out in the University of Idaho Architecture program I would roll my eyes almost every time that I heard about “green” architecture. Whenever a professor would talk about energy efficiency, sustainability, or regenerative design I thought it was all BS. I had been taught that it was all part of some liberal, hippie scheme to trick America into Socialism. At the very least, I thought there must be more important ideas in modern architecture that we should be learning about. However, as I went through school and matured, I slowly came to see that there was more to Sustainability and Environmentalism than meets the eye. I came to see that many ideologies had aspects that lend themselves to the care of the environment. Some people have used making or saving money as a good enough reason (or the only reason) to make buildings sustainable. However, I see these motivations as another in a long line of hollow endeavors that have historically led society to abuse the environment, their neighbors, or both. Monetary and economic concerns in relation to the environment have a place within my thinking about sustainability. However, in my opinion is when they are your primary concerns, they can easily lead to abuse.

Outside of monetary reasons, why else should someone care about the environment? When I really started looking at the issues, I began to see a common thread within many Judeo-Christian values, which many Americans claim they believe in, that requires certain behavior. This behavior can be called social justice, and it easily holds similar tenets about why we should use sustainable/regenerative design principles. Social justice has seen a recent resurgence at the pulpit due to the many events happening world-wide: terrorism, the Iraq War, Darfur, Rwanda, immigration, African disease and poverty, etc. (It is distressing that there is an “etc.” at the end of that list.) There are so many injustices and problems, beyond the environment, domestically and globally that it becomes insurmountable. Rather than seeing such a big list as a deterrent to change, I see them as a huge motivation for change. Much my motivation for this, relatively recent change in thinking has come from the Catholic community for which I will be designing a new parish.

Social Justice: the equitable, fair treatment and distribution of benefits and responsibility to everyone. Large pieces of the Bible deal with how to live or obtain this, and the consequences of when you don't. For example, many of the Old Testament prophets came to warn people to change their ways or face the consequences. One prophet, Amos in particular, preached the principle that a society was judged by the treatment of the poorest citizens. The society of Amos's time had a very small group of rich elites that used unscrupulous means and political power to maintain their status and stranglehold on the lower classes. The rich, of the time, also deemed the smallest efforts to help the poor as not worth their trouble. This society eventually met its violent downfall when another, more elite, society saw them as people to be abused and subjugated. How does this apply to our time? What small percentage of the global population consumes 90% of global resources? Are the global events we see with each passing day the consequences of our way of life? The pursuit of money seems to be the primary

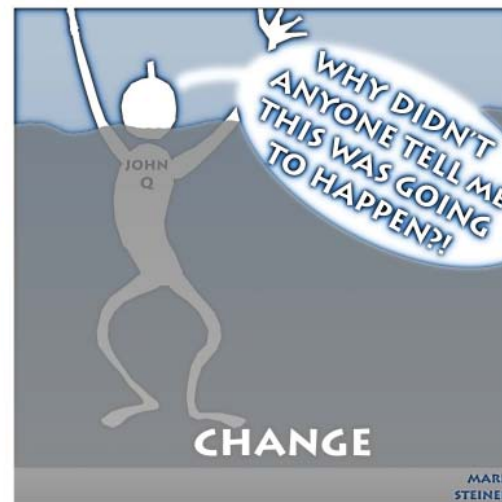
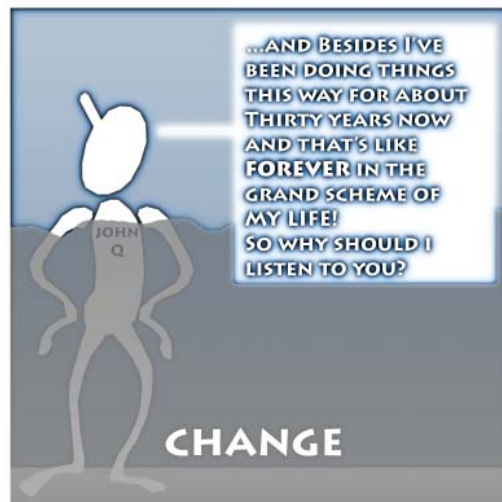
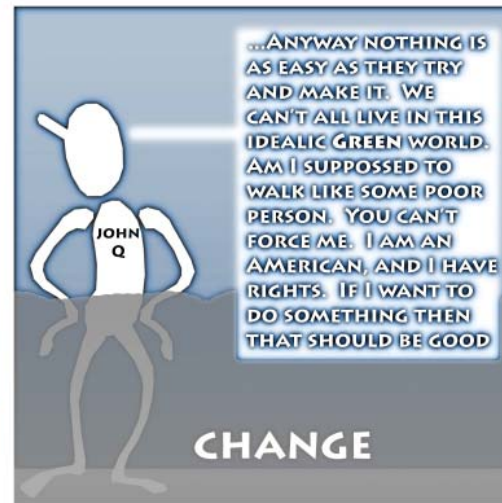
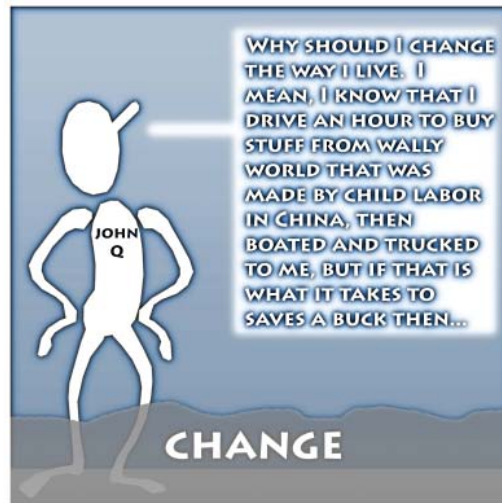


rational that is used to justify our society's behavior and treatment of earth and our neighbors.

How then, does the implementation of sustainable design solely for the continued purpose of hoarding money help society? I feel that it doesn't. Our goals for sustainable design have to aim higher than money or political power. Our efforts have to be aimed at social change that moves us to social justice around the world. However, it appears that this requires large changes to our culture and national mentality. This requirement of large social change seems to be the biggest obstacle that I and many other people have.

I believe that the opposition to such large change is that they tend to remind us that everything we know at do is only temporal, to a point. I do not exclude myself from this flaw. I know that change is necessary, but I would be lying to say that some of the ideas I now believe in still don't scare me. I was raised with a certain set of

societal beliefs and behaviors that came from the generation I was born into. There is only so far I can comfortably change or press them. I feel that the majority of our society has this same problem. It is hard and individual (let alone for a culture) to grasp that it cannot stay the same forever, but think about it. Americans in 1807 couldn't image our lifestyle in 2007, and we can't grasp how Americans will live in 2207. Sure we can dream, but they told people in the Fifties we'd be living on the Moon by now. It is the small changes and comprises, that build over time, which have the real effects on us and on our culture. How else can a taboo or obscene behavior, turn into something that can be seen on TV everyday? And how can a small stream carve a huge gorge? Granted, there are times that there can be quick, sweeping change. But that is the exception, not the rule. Then how can we prepare ourselves for the cultural changes that are bound and required to occur? I know that I am not the solution to this question, or to the world's environmental problems. But instead of viewing my work as a wasted endeavor; I take solace in the fact that I am part of a larger effort. I realize that I can only be but a part of one of the early steps on the path for our society to make real change. This faith in humanity and the path that we are beginning to embark on has, in a large part, come from my experiences with the Lewiston Catholic Community. For that reason, I seek to help them by designing a new parish that is an icon for the rebirth of real social and environmental justice.



## BUSINESS AS USUAL

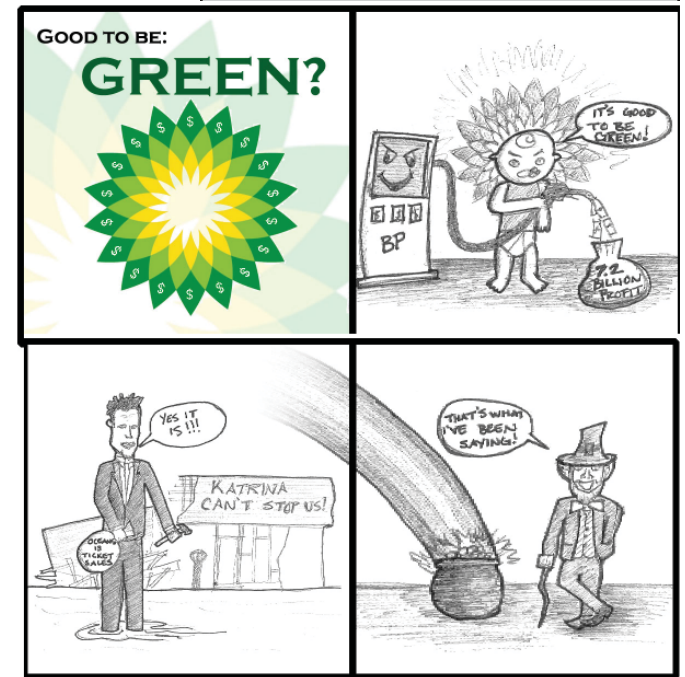
SCOTT WOHLSCHLAGER

Nearly continuous is the stream of rhetoric on environmental destruction, yet why hasn't the average American's daily life changed? Hour long commutes to-and-from McMansions packed in placid gated communities are a daily occurrence, along with an ever expanding rate of consumption and waste. Not only is this unresponsive and irresponsible in light of recent developments, but it is destructive. Sustainability is no longer a catch phrase for hippies and guilty elite. Rather, it should be of concern to every individual who inhabits this earth. The question then becomes who will become the shepherd of sustainability and lead the herd to take action?

Fortune 500 conglomerations such as General Electric, BP, and Wal-Mart have recently jumped on the green bandwagon. However, little critical thought is needed to discern their true motives: Profit. The "bottom line" is that sustainability is profitable. It's not surprising then that wind power is now comparable in price to coal-based generation plants, and is therefore becoming more economical. These companies are merely playing the green card to boost profits and lower their operating expenses. When green fatigue sets in and it's no longer profitable most companies will undeniably go back to their previous business practices. Kevin Danaher, cofounder of the human-rights group Global Exchange, argues that the tangible benefit of sustainability is to reduce the amount of toxic substances in our environment. Therefore is it wise to trust the same companies that sold us the toxins in the first place to lead us into a brighter and more promising future?

Megacorporations cannot inherently change the basis of American society from one of over consumption to one concerned with sustainability. These companies' policies do not impact people on an individual basis, and are often never taken to the point of realization. Instead, change needs to occur at a more visible, local, level. This includes both city and state governments as well as small businesses. Entities such as these present an opportunity for green principles to be introduced into the daily lives of individuals within specific communities. State and local governments can provide incentives, policies, and even laws to promote these practices. In addition, these incentives can be tailor made to fit a community's local demographics and concerns. Small business can co-op to create a green economy to reward and help others in their business practices. One-to-one interaction has the potential to inform people about green designs ease of use, economic value, and necessity for change.

It's ironic that in a culture that prides itself on individualism a leader is needed to guide us to a sustainable future. Megacompanies, who only serve in the self interest of their boards, are not the leaders we should trust. Those in charge are hidden behind a veil of bureaucracy and lack the accountability necessary for a green revival. If their policies work they revel in the spotlight, but if they fail miserably no one takes the blame. Instead, local leaders in business and government should be charged with the duty of enlightening society to the need of change and the ways to achieve sustainability.



SCOTT WOHLSCHLAGER



## EDITORIAL ESSAY

BRYAN FERGUSON

A flowing river, strong mountain ranges, and a fertile valley supplying an excellent source of water that has been carved out by glacial flows thousands of years ago. Post Falls is a beautiful place that needs a little direction to help preserve its integrity. I chose my thesis project because I was raised in this area and my family has been apart of the areas growth before me. In recent years things are happening that are not responding to or enhancing the area. This issue of urban sprawl on the farmland and aquifer with a total lack of direction and coherence has left Post Falls faceless and reliant on the automobile. I feel obligated to achieve a more sustainable community in which we live.

Urban sprawl is a problem all over America, but is more prevalent from the Mississippi River to the West Coast. The invention of the automobile gave us the ability to travel easily and obtain supplies from long distances. This way we can spread out and still get things we need. Also, we believe there is so much land that it will never run out, but we forget about the animals and farmland that we need to sustain life. If we build a housing development in a farmer's field we can't just pull it back out and reuse the soil, it is destroyed, ruined forever. We also keep moving further and further out, which has caused more animal-human confrontation. Boise has experienced this with their recent cougar encounters and attacks. Coeur d'Alene is getting dangerously close to this trend because each year more cougars are being spotted on Canfield Mountain, while more and more houses are being built on it. In response we either have to kill or relocate the animals, just to repeat the process in a few years when we have spread out even further. How is this a sustainable way of living?

Cities build their own problems when they do not respond to their environment and existing land. They have buildings that can be built anywhere and rely solely on mechanical systems to regulate the temperature in them. Then there is the "Aspen Effect", where the buildings have wood and rocks stuck to the side, but nothing more. The rich come in and drive up the cost of living so the people that work there to keep it running have to drive 80 miles outside of town to come to work. Coeur d'Alene is starting to look like this, but Coeur d'Alene is not Aspen, nor should it ever try to become that. It is time to set an example to start informing and motivating the community in the right direction.

What happens when we continue to do these things to the point where there is no farmland, animals, and nobody can afford to live there? Changes must be made. By researching and understanding these issues my thesis project will revitalize the city of Post Falls and the surrounding area.



"ARE WE THERE?"

## EDITORIAL ESSAY THINK UP A DESCRIPTIVE TITLE!!!

---

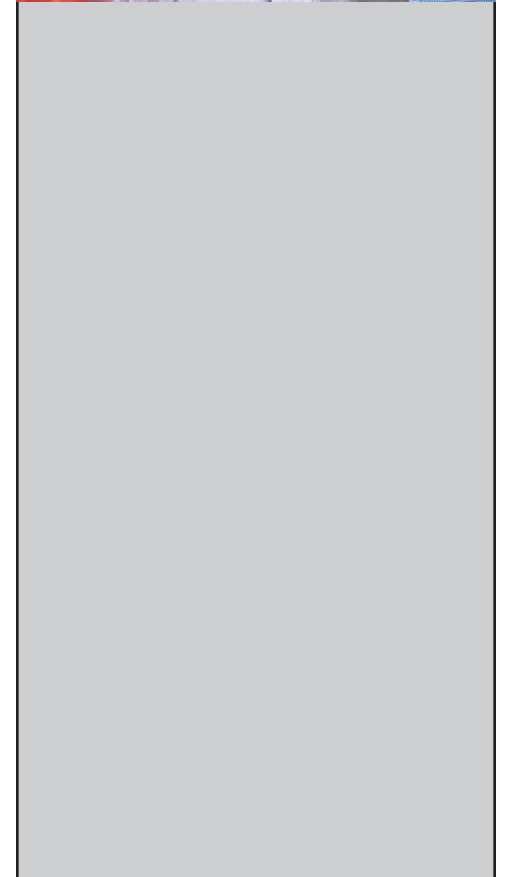
SEAN NELSON

Lead in is kinda vague...Change has existed since the beginning of time and will always exist. The inertia of change is guided by our self regulating planet earth. She is only so strong and has reached a capacity where equilibrium will only be maintained by drastic, eminent changes in the planet systems that have always been expected to be permanent and habitual. Now one must consider the design of methods and lifestyles that can potentially lessen the impact of these severe eminent changes. We expect the earth to regulate everything for us, she doesn't mind helping, but we take a lot more than we give back. Change is a necessity when envisioning the framework of our built environment. Our buildings heating and electricity requirements contribute to a quarter of our greenhouse gas emissions. (World Resources Institute) It is very clear that we can greatly reduce our impact on the Earth if we began to design the built environment with symbiotic relationships in contrast to our current parasitic trends. Solutions and innovations are all around us, they just need to be given momentum and implementation. We must let go of our trust in technology as a primary mode of change and look at history and age old adages as our source for inspiration. Some of solutions (elaborate!) are so simple that it is a wonder that they do not consume our current lifestyles. The bottom line is 'business as usual' will soon dig a hole so deep that mankind will not be able to escape.

Ever since the beginning of time man has tackled new and innovative ways to live on the planet. One may think that we are more intelligent than ancient times, but if I were to ask you to live in a cave, find food, produce your own clothes and fire, many of us would not be able to carry out such a task and survive. It is all based on context, if we were to live the same way we do now with a population that existed in the past, we would have no worries. Unfortunately our population we have now has exceeded the capacity of the earth when looking at the way we currently inhabit the earth. Not only is population increasing by more than 200,000 people a day, but is expected to exceed 9 billion by the year 2050. Citation???

Green Architecture is not an answer to this problem but a word that is only one piece in a massive formula for change. Whether a building does amazing things or not, one needs to understand a building within its contextual constraints and how these design considerations can fit within a 'bigger picture', framework or system. One must steer clear of such 'buzz words' in current design, they tend to be sustainability placebos, force fed (is force-fed one word?) into buildings. It is an issue of quantitative versus qualitative, it is better to have a building that works well rather than a building with lots of things that doesn't really work or operate without an expert or specialized technician. Not only do we rely on an elaborate vocabulary of placebos, but technology also has a heavy weight on its back. Solutions do not have to be tech intensive to be innovative.

It's time for change. No matter what level or scale, such a mentality must be adapted. As designers we have the capability to influence drastic change in our built environment which can directly and indirectly implemented to loosen our current vice on the planet. We can mold change on many levels. Even though change of an intense



scale is necessary for a softer landing, any little bit will change the severity of the impact and hopefully turn into an exponential phenomenon.

Divide this into 2 paragraphs. Change in terms of city design should start at a local level; localizing resources and infrastructure to such an intuitive state that all complex thought is understood and filtered into a simple easy to understand final product that reliance is completely dependent on itself. These hubs can then be linked into a larger scale system and so on, working as independent hubs linked into an emergency framework until eventually such a relationship will become unnecessary. One must understand that is easier to begin symbiosis with the earth at smaller scales; climatically speaking it is very hard to get particular concepts to work for larger scales because context changes. However, all ideas can be absorbed and transposed for different contexts and applications. Different scales can pertain to industrial symbiosis (explain); we have embedded the idea that once materials are extracted and processed for a final product that all resulted excess materials are waste. When designing in terms of nature there is always a place for everything, we must emulate this model in our industry. This is not a utopian vision, such concepts have been implement in Kalundborg, Denmark. The idea is that these frameworks must be developed so a possible 'big picture' of sorts will become apparent.

We must escape from our automaton shell and unite for the common good and try something new... make change.



# ARCHITECTURE AS EXPERIENCE

---

HILLARY FAIRFIELD

When did a concern for the user's perceived experience of architecture and design become frivolous, even self-indulgent? When did architecture go from a crafted service for people to an expression of the architect's desires and intent with little reference to those who must inhabit the space? Too many projects today are produced as public art rather than a functional and artistic response to the people, their needs, and what they view as expressive in regards to their unique understanding. A building does not make an experience but simply acts as its container (Pine). Quality architecture appeals to the senses and engages its inhabitants aesthetically as well as volumetrically and experientially. If architecture is truly a service for the people and a social art meant to improve their environment then why are many buildings today devoid of such meaning and place?

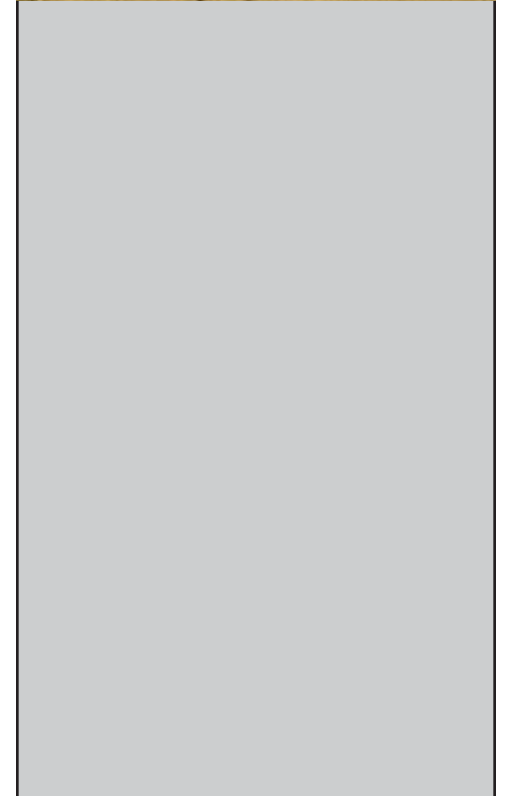
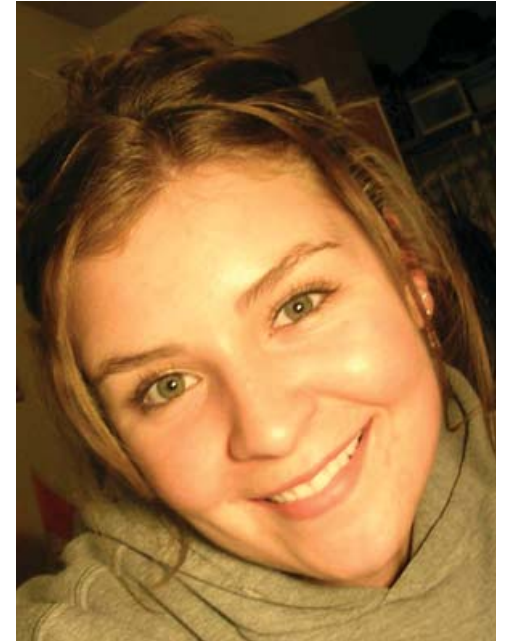
Experiences are defined as “memorable events that engage each person in an inherently personal way.” (Pine) It happens upon the encounter and interaction of the building and its contents. It happens within the user and is largely shaped by the social environment of the space. These experiences have meaning, a sense of place, and are authentic.

Charles Moore has stated that, “As everywhere seems more and more to look like nowhere, we seek out places that make us feel as though we are somewhere.” It is not until we re-evaluate our purpose as a profession and realize our duty to all people that we can begin to produce work that truly serves them. Yet how do we do this? How can we change the course of such disregard? Our job, as architects is to create place and not just space. We must take the focus off of architecting buildings and instead put it on architecting environments (Pine), and we must go from designing interiors to designing stage sets where experiences can be played out, their drama heightened.

If an architect were to truly remove ego and self from the equation, he or she would find that what people really want is a sense of place where they can be engaged and included in their surroundings. People want a place of expression, both structural and personal as well as a place of functionality and intrigue. We need to remember that architecture once embodied this idea and that it could again. We need to remember that there is more to the equation than site, building, and interior, leading ultimately to provide for personal interpretation of an authentically designed architectural stage.

In *For An Architecture of Reality*, Architecture professor Michael Benedikt wrote “In our media-saturated times it falls to architecture to have the direct aesthetic experience of the real at the center of its concerns.” It is not enough to make architecture that looks good. We must make real, authentic, and genuine places of experience where people can come and take for themselves their own interpretation. The key is to allow them the opportunity.

1. Pine II, B. Joseph, Architecture in the Experience Economy, Design Intelligence, February 10 2006







“Okay, now say something about the climate crisis...”

“Dude, I’m an environmentalist. I only took three planes to get here!”

“Yeah but I have a Prius!”

“All I know is that Al Gore puts on a damn good show!”

**BLIND  
LEADING THE  
BLIND...**

Thanks to all the Students in the seminar for contributing their time and opinions to this compilation!

—Bruce