“Seven Fallacies in Architectural Culture”  
(The Long Version)  

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ABSTRACT – This essay focuses on both the intellectual and pragmatic challenges facing architectural pedagogy and practice. Seven design fallacies that prevail in professional practice and in studio culture at most schools of architecture are posited and analyzed along with several related challenges to the discipline and profession, plus observations on other contemporary trends and structural problems in architecture and urbanism.  

The Seven Fallacies:  
1. “The Solo Artist” – Architecture as personal expression  
2. “Mandatory Invention” – Originality vs. creativity  
3. “La Tendenza Estrema” – Dialectics rather than balance  
4. “Architecture Trumps Urbanism” – Back to typology and mixed use  
5. “Global Trumps Local” – Cultural entropy and the loss of regionalism  
6. “The Forgotten Middle” – Serving only the rich and poor  
7. “More, Bigger, Higher” – Sustainable architecture and urbanism
“Seven Fallacies in Architectural Culture”

As an architect and educator I worry about the intellectual and pragmatic challenges that currently bedevil architectural practice and pedagogy. I perceive seven design fallacies that permeate professional practice and studio culture at many schools of architecture. Some are self-imposed and tractable; others are less easily addressed because they are externally driven – by the media, technology, globalization, and commodification. Some are more about making form, others about making things equitable and sustainable. All seven are deeply embedded in our psyches and changing them will not be easy; reform, however, will not only ensure the survival of architecture and urbanism, but also invigorate them.

1. “The Solo Artist.” Today’s student and practitioner feels entitled to use buildings, which are commissioned, constructed, and used by others, as vehicles for personal exploration and expression. Artistic originality and individual authorship are highly revered and given great sway, a function of the current culture of celebrity. Architecture is an art, but more a social and public art than a fine art. Buildings are too often free-standing, sometimes acrobatically balanced on one finger or contorted into a yoga position. We have come to accept object buildings as the digit of urbanism and the standard fare of high-end practices. Even if today’s students haven’t read Ayn Rand’s *The Fountainhead*, Howard Roark is still the most influential architect in America. He represents the perfect storm of artistic genius – possessed of a personal vision, predictably unpredictable, and unappreciated by a public considered to be plodding. American star designers are usually more Roarkian than their European peers, who take urban context, energy, and climate more seriously.

The contemporary sense of artistic entitlement and confidence has empowered architects to design some of the most brilliant and stunning individual buildings of all time, for which the world is much richer. Yet this autonomy has produced few good streets, campuses, neighborhoods, or cities. Background architecture that plays a supporting or infill urban role remains the missing link in an urbanism that all too often lacks coherence, legibility, and
scale. Every building is important, but those playing a background, supporting role can express themselves more quietly.

The focus on individual buildings may result in part from too little teamwork in design studios at architecture schools. Studio faculty frequently ask or allow for student collaboration on the analysis phase that often precedes the synthesis phase of a design project. This teamwork rarely extends into the creative phases of design. However, urban design and design/build studios, as well as in design charrettes, usually do include collaborative designing of different varieties. These studios ask students to work together in “horizontal” ways, i.e., as equals, whereas charrettes also require “vertical” collaboration between student and the team leader(s). Studios that distribute adjacent sites or a range of programs to students encourage collaboration with each other across space. And studios that physically build on the work of previous studios can collaborate across time.

Team work more closely simulates the contemporary design office and better prepares students for the realities of practice. It can also produce superior results, despite the more time-consuming, and ego-swallowing work that comes with group decision-making. Sorting out values, ideas, methodologies and strategies is a valuable learning exercise. (Because of these team dynamics, the muses may be slower to inspire a team in the synthetic phases, but the team can more than make up for lost time when it comes to production.) Teamwork, however, should not be the dominate or even the typical mode or format of studio pedagogy, lest some students be sheltered from learning the self-discipline required in design and misled about their design talents and skills, which can be masked or amplified on the coat-tails of more talented and harder working teammates. A balance of individual and collaborative effort is ideal.

2. "Mandatory Invention Fallacy.” Many students and practitioners feel not only artistically entitled but also compelled to be perpetually innovative, provocative, critical, and even spectacular – at all scales, from the handrail to the highway. Although the preoccupation has long been with the individual object building, the invention of figural form has recently given way to invention of abstract fields and a renewed interest in tectonics (or at least the appearance of tectonics), especially surface and skin, the more seamless and flush the better. Literally
translating programmatic diagrams into buildings – “programism” in Jorge Silvetti’s terminology – is another new design approach that seems simplistic, even when the program is unique or daring.

The shock of the new is by now orthodox and strangely conservative, requiring ever-higher voltage. Inventive form and flashy image have ironically become conservative and orthodox. Modernist conceit has turned audacity and perpetual change into self-important ends, rather than means to a greater end or responses to a problem. Obligatory invention and re-invention of form have become as slavish and predictable as Modernists once claimed about Beaux-Arts eclecticism and historicism (and now claim about New Urbanist design). Freedom to be inventive or even outrageous does not necessarily set one free.

Originality is not synonymous with creativity. Both require imagination and resourcefulness, but creativity is less about generating wholecloth or from scratch, and more about working with givens or within a system. It is not a race to be first or a competition to be the most original or startling. It’s less about superseding and more about adding – whether to a language of form or a larger body of knowledge. Being creative is generally more difficult than simply being original. Although both are positive, ubiquitous human impulses, there is rarely a pure “spark in the dark.” Serendipity and chance play a role in creativity, and a little attitude helps, but rarely is something “created out of thin air.” Talmudic scholars have long debated the meaning of the word created in the first sentence of the Bible – “In the beginning God created heaven and earth.” This clause still triggers interpretive questions about whether God was inventing out of nothing (originating) or putting together pre-existing things to make order (creating).

Architecture is built on existing ideas and formal precedents seen in other architecture, other domains, or in nature. Creativity also requires temporarily forgetting or distorting these precedents and memories to develop a genuinely creative voice. I would go farther and argue that forgetting yourself, escaping the bonds of ego, loosing the subconscious, opening up to both your fantasies and a spiritual realm, surrendering to a larger ethos, losing yourself in time, even stopping time, can all liberate even greater creativity. Forgetting yourself, rather than forgetting precedent, is key. This is also the path to deep aesthetic, sometimes sublime, experience of the
creative work of others. Zen Buddhist meditation or chanting is but one of many spiritual and religious teachings for quieting the mind and overcoming the ego and self-absorption.

On the other hand, speeding up time or over-stimulating the mind, in the manner that some drugs and electronic media breathlessly accelerate us through time and space, can also overcome self-consciousness and stimulate aesthetic experience. Speeding time up is easier than slowing it down. (It’s as easy as playing a high speed video game or turning on MTV.) However, I don’t feel it triggers as deep an aesthetic experience as slower, more meditative states.

Our personal (or collective) amnesia notwithstanding, we are connected and beholden to our past more than we realize or care to admit. To cite Robert Campbell, “… any creative person is a sponge in denial.” T.S. Eliot put it more bluntly: “The bad poet borrows. The good poet steals.” It is okay to borrow and steal, but in the words of John Habraken, we should admit it freely and praise our predecessors. (In the spirit of Habraken’s admonition, let me praise his writings and state that they have influenced several themes in this essay.)

The unspoken rule in design studio today is still, like it was forty years ago, that your work better be unprecedented and better look different from your fellow students’ work. To the credit of many educators who taught my generation, you had to be both creative and insightful to get kudos. Innovation and personal creativity weren’t enough; genuine insight into the problem was valued. Although objectivity was seen as an unattainable goal, it was not a free-for-all circus of subjectivity. For instance, you couldn’t get away with starting your presentation at a studio review with “I wanted to” or “this interested me…” or ending it with “…because I like it.” The “I” or “my” word and personal declaration of spin didn’t cut the mustard; you needed reasons (not always sound ones, I admit, in retrospect) beyond personal preferences and desires to justify formal moves. I hear students presenting (and faculty responding) entirely in the first-person-singular at reviews these days. Related to this self-centered approach, there are fewer true site plans with context and north arrows.

My generation was just as full of itself and rebellious as students today, perhaps even more so, but many of us rebelled with a cause that we thought was bigger than our individual selves (e.g.
advocacy planning, community design, affordable housing, etc. – some of which admittedly took architecture too far from its centerline of design). Fortunately, more and more of today’s student rebels have a cause, but in general, contemporary rebellion has been more personal and atomistic. I suppose each architecture generation unerringly figures out a way to push back and be critical in a way that seems misguided and vacuous to the previous generation. Almost by definition the generational cycle is about cyclical as well as metamorphic or permanent change, with fashion skipping generations like the proverbial “grandmother’s wedding dress” that Robert Venturi cites. (It’s happening again with solar architecture for instance.) The pedagogical challenge is to keep students creative and appropriately inventive, without making them creativity junkies who become hooked on playing the omnipotent creator in studio. Otherwise they soon think that perennially re-inventing and turning the world upside-down is normal.

3. “La Tendenza Estrema.” Contemporary movements have been anything but tendencies or trends. They are usually head-long, promiscuous rushes to positions, often polar positions. The pendulum is moving faster than ever, swinging from one extreme to its dialectical opposite. (Hegel and Marx can gloat!) For example, the dominance of figure over field or object over ground has now given way to the dominance of field over figure and pattern over composition. The recent enthralment with mesmerizing, computer-generated fields and patterns will be more positive when it drills deeper to the underlying physical, economic, ecological, and social strata.

And the media machine, always looking for even soliciting shock as much or more than virtuosity and truth, is usually bored by balance and uninterested in moderation. Extremism of the center, passionate moderation, or extraordinary balance are rarely recognized. This is the position that the academy and profession should strive and fight for! Or they will simply insure the pendulum keeps swinging. Both need to be very careful about throwing the proverbial baby out with the bathwater. If we are too doctrinaire, hard-line, purist, we will ensure a dialectical counter-movement in the next generation. Being dialectical only perpetuates the Modernist ethos and trajectory. We must remember that we are reacting as much or more to the unintended consequences of Modernism than the intended ones. New Urbanism and other such tendencies, even passionate moderation, will also have their unintended consequences for which we must remain vigilantly on the lookout.
4. “*Architecture Trumps Urbanism.*” If students and practitioners are artists first and architects second, they are urbanists third, if at all. Our cities tend to be a contemporary World’s Fair of one-off buildings, each an exception to the rule and shouting louder and gesticulating more wildly for attention than the next, or are mute abstractions refusing to converse at all with their neighbors. An architectural circus of styles or a typological riot does not a city make. Nor are they emblematic of a democratic city, as Frank Gehry and others claim.

A coherent hierarchy of architectural types, street types, and public space – from alley apartments to city hall – can sort out and make legible the mixture of land uses and building functions that cities have always possessed. Architectural type is once again more important than style. Typology engenders less selfish buildings that do not always vie for the center of attention. As we return to mixed use urbanism with its walkability and chance encounters – *the one tendency on which everyone from Leon Krier to Rem Koolhaas agree* – typology is a robust design concept and tool. Indeed, urban design is virtually impossible without the predictability that a shared architectural typology and design code provides.

On the other extreme, we have the privatized carpet of sprawl, where the monocultural field overpowers the figures. If the built environment is to be a whole greater than the sum of its individual interventions – as it is in the endless smear of subdivisions – there need to be better norms and more typological variety. Gated subdivisions bring a socially regressive order to the suburbs, which were once a more compact and free combination of fenceless security, open landscape, and physical mobility. Despite widening income gaps, social mobility still seems to obtain in America more so than any country in the world, perhaps in the history of the world.

We must concede that the city is generally too complex to figure out and design in advance or from scratch. Nor can it be reinvented wholecloth, as architects are wont to do. Like civilization itself, or language, the city is an organic product of endless micro and macro changes, mostly incremental and a few cataclysmic, to norms and traditions. It unconsciously embodies centralized and distributed knowledge far too complicated for any single mind to figure out, much less to “design” *ex novo.* It gradually, collectively, and serially creates itself over time.
It’s rare for good towns or cities to spring full-blown from even Jupiter’s forehead. (Witness the well-intentioned Modernist new towns of Britain and Scandinavia which, with a few notable exceptions, have fallen short of their aspirations. More traditional new cities, like Savannah, Washington, and St. Petersburg are more successful.) Nor can city building be reduced to scientific plans and algorithms, any more than raising a child can be planned at birth or even a long trip can be fully planned at the outset.

We must also realize that architecture does not “scale,” to use the fractal term. Because the human body is fixed in size and reach, building designs cannot simply be blown up or down like a photograph. The compositional principles and spatial sensibilities change with scale, which is why Le Corbusier was a master architect but a dangerous city planner. Nor does architecture “scale” in terms of production. Larger projects have a different set of economic, social, regulatory, and construction constraints. Architecture must give up some of the right-of-way over urbanism it has held over the last 75 years, during which the planet has gone from predominantly rural to half urban.

As trite and mediocre as New Urbanist architectural design and construction can be – an academic and professional liability for loyal but critical members of the movement like me – we must remember how serious and effective the Congress for the New Urbanism has been in recuperating a normative, infill, safe, walkable, transit-oriented, mixed-use urbanism. It is also re-establishing the important but forgotten difference between foreground honorific and background supportive buildings, as well as between private commercial space and public civic space, and their typological distinctions. And bringing back the defined street and small block, in lieu of the parking lot and superblock. New Urbanism is catching on with many developers and in many markets, and in its better examples, starting to reverse sprawl and to revitalize cities. It is also raising local and state planning standards and reforming engineering norms and Euclidean zoning that have neutered our towns and cities. Ironically, there is design “room” for star architects to strut their talent with public and institutional buildings in New Urbanist developments, but, alas, such commissions are rarely given or accepted. If New Urbanist principles were coupled with contemporary architectural language, not only would it make for a richer, more authentic built environment, but it would slow the swing of the stylistic pendulum.
Everyday Urbanism reasserts the importance of incremental micro-transformations of the vernacular environment – the ordinary field of life that most people unconsciously experience in a state of distraction and complacency. Our discipline and profession have been conspicuously, if not spectacularly, silent on ordinary urban fabric. To their credit, Everyday Urbanists, like Margaret Crawford and John Kaliski, care about the unheroic world made of, by, and for disadvantaged and subaltern subcultures, as well as the commonplace commercial world in which most of us work, shop, and play. They are adept at finding, by careful observation and empathy, new vernacular patterns of social behavior and physical space that have an increasingly robust role and meaning in contemporary society.

On the other hand, the Post Urbanists, like Eisenman and Koolhaas, are skeptical that urbanism-as-we-have-known-it is still possible, or even desirable. They try to capture and express the flux of contemporary life in their architecture. Indeed, “flow” has become “the central concept of contemporary spatiality,” according to David Leatherbarrow. Whether shards or blobs, this architecture is a self-contained and closed composition with a self-referential vocabulary. Its typological miscreants and orphans may generate interesting exceptions in the urban fabric, but they fail to contribute to an urban whole greater than the sum of its parts – a requisite if urbanism is to trump architecture.

5. “Global Trumps Local.” Since Alberti and Palladio first played to an international (albeit Western) audience, architects have sought jobs and recognition well beyond their local community and clientele. Dealing in the world of ideas in addition to building construction, architects (and artists) soon became the social and intellectual peers of their aristocratic patrons. They also started a network, then continental, now global, of criticism and publication in which books, awards, and journals are often the real site of competition and status. And in which the photograph – and recently the digital image – is privileged, sometimes more so and at the expense of the actual artifact. If the global network is electronic, the local community needs a diverse, face-to-face public realm, made all the more essential when communities polarize.
Signature buildings by international stars are still in demand, often with good reason given their high level of talent and skill. (We academics forget how difficult it is to design and construct a good building.) As always, counterfeit versions abound. But they seem less convincing after a few centuries than the countless Palladian imitations that his work quickly gave rise to all over the world. (Maybe critics of their day were unimpressed with second-hand Palladianism and time will prove us too harsh on today’s imitations.) In any case, how much more interesting and culturally sustainable it would be if these signature buildings by international stars and their imitators engaged more in a two-way, local conversation (e.g. Renzo Piano’s cultural center in New Caledonia). This kind of dialogue and mutual respect takes more time and effort than vainglorious monologues, however sophisticated. Such engagement takes multi-cultural sophistication and sensitivity – even generosity – to understand and honor local values, traditions, and sensibilities, which may be as diverse as they are foreign. Design that is specific to site, climate, culture history, building materials, and practices – what used to be called Critical Regionalism – holds in check the forces of globalization, commodification, and branding.

Our students need to be made cognizant of the battle between globalizing and localizing forces and realize that the latter are losing ground at this point in history. Most professional education, including law and business, tends to be anti-local, i.e., it attempts to train graduates to be cosmopolitan and part of an elite international network of fellow professionals. It tries to inoculate students against the provincial and the parochial. The latter day professional guild sees itself as above and detached from the local. Indeed, until the recent validation and elevation of studies of “place” in architecture, sociology, and philosophy departments, universities looked askance at scholarly work in their backyards, tending to dismiss it as parochial and beneath their research agenda and intellectual radar screen.

Students also need to recognize the concentration of power in huge multi-national corporations, which tend to be not so much immoral as amoral in the hyper-competitive but morally neutral marketplace, which can’t measure external costs and is structurally blind to calibrations of right and wrong. Freely operating across the borders of any single country, multi-national corporations dodge national laws, have budgets that exceed those of whole nations, and CEO salaries 500 times higher than their average employee’s salary (compared to 10 times in Japan
and 20 times in Canada). And these CEOs are not personally liable for corporate losses. These multi-national behemoths do not bode well for local and regional cultures. Architecture is a profession that can reveal and resist this untenable concentration of private power by realizing people-oriented and place-conscious buildings.

Educators must make students aware of the challenges on the other hand from religious fundamentalism and absolutism, which are often deeply local and rooted in place despite a spiritual other-worldliness that transcends physical place. Like global corporations, but for different reasons, they are no friend of democracy. Based on immutable and usually sexist beliefs, there is usually little room for open discourse and democratic institutions. Unlike corporations, absolutist sects are often strongly associated with a particular locale and culture. They are as fiercely moralistic as corporations are mutely amoralistic; they are as slow to change and compromise as corporations are forever fast to merge and acquire. They both want to grow and to gain a bigger market share, to be universal.

Neither group, I would contend, is likely to sponsor good architecture and urbanism: absolutism wants to freeze-dry design with zero tolerance for innovation or change. (Or in the case of some Christian denominations in America, there is a disavowal of interest in something as worldly as architecture.) And corporations don’t want to invest in high quality buildings, with the exception of their headquarters (although even these have dropped in quality as companies globetrot from metropolis to metropolis). Somehow we must balance the global with the local, blind faith with the transitoriness and amorality of the global marketplace. Our emerging global culture is entirely new and uncharted territory, and the struggle against it admits few, if any, precedents.

6. “The Forgotten Middle” or “Only the Rich and the Poor.” For as long as built civilization has existed, architects have served power – whether it be the state, the church, the aristocracy or oligarchy. This elite patronage is not surprising, given the high cost of buildings. The Enlightenment and then Modernism, to their credit, expanded the architect’s repertoire to include social housing and everyday utilitarian structures. But since the decline of the Modern Movement, the academy and the profession have generally given up on this progressive social
agenda. Much of this default is beyond our control and structural, i.e. the tides of deregulation, globalization, and consumerism.

We’ve also back-slid on our professional obligation to do no harm and on our public trust to contribute to the joy and dignity of humanity. Most of our design is for the top 5 or 10 percent – wealthy private patrons, government, institutional, and corporate clients. (Architectural firms collect over 50 percent of their billings from institutional commissions.) We still do a limited amount of work for the bottom 5 or 10 percent, e.g. housing for captive users such as the poor, the sick, and college students. We should expand our service, including pro bono, to the economic underclass, especially those who are not American by choice, such as Native- and African Americans. I concur with the late Sam Mockbee, who proposes that “we go beyond the call of a smoothly functioning conscience to help those who are not likely to help you in return, and to do so even if nobody is watching.”

The biggest omission, however, is the middle class. Neither patron, client, nor captive user, this “fourth estate” of architecture clientele is the customer, part of that great American army of consumers that buys houses like cars and refrigerators. Although the work of architects indirectly influences vernacular sensibilities, most contemporary architects view middle class taste as banal and beneath their attention. Other than New Urbanists, most architects fear to tread in this uncool world of homebuilders, bankers, and model homes, despite the fact that it represents the bulk of the built environment.

We need architects who can consistently design good buildings on a regular, sustainable basis without Herculean effort, perfectionist zeal, or luxurious budgets. All too rare is the good building, one not set apart from the norm unlike great buildings, which typically have either a patron with a rich budget, an unusual program, an exceptional site, or some combination of these pedigrees. (Give each of your students gas money for a day of random driving and count how many great, modern buildings they report!) We need architecture that is achievable, that can be delivered in ordinary circumstances, that can transform, enliven, and add meaning to the everyday environment, and that might even touch some deeper social pattern and environmental structure – rather than the student or architect more or less doing what s/he wants.
Architecture can be a fine art or a vehicle of personal expression, but there is no reason that architects can’t design for the middle 80 percent. It may take more practicing architects, but there are plenty of graduates and the new technologies of designing, manufacturing, and construction require fewer architects per building. Middle class budgets and popular taste may embarrass architects, but those are the very sensibilities that shape and the people that use the everyday built environment. New Urbanists deserve great respect and understanding for working in a forbidden and embarrassing zone; and for doing it patiently and effectively. Somehow, its principles of urbanism, as well as designing for the middle class, needs to be made more palatable to academics, especially in architecture programs, where it is less accepted than in urban planning programs. Architecture and urban planning students, as well as design practitioners, need to better understand the constraints and exigencies of real estate development. On the other hand, New Urbanist developers need to utilize more of the architectural talent in this country, especially cutting-edge design firms.

7. “More, Bigger, Higher.” Until the embargo of 1973, Modernist architecture and urbanism, not to mention Western society as a whole, was on a mindless upward trajectory of increased consumption and exploitation of natural resources. Our capitalist economic system is about perpetual intensification and growth. It is omnivorous in its hunger for new markets, greater market share, and cheaper labor and materials. Left to its own devices, corporations will tend to maximize rather than optimize their performance, which is why the government must be vigilant in regulating, monitoring, and incentivizing their behavior. Corporations are wonderfully productive, but have no brakes or rearview mirror, and their headlights are weak.

Even with the massive environmental reforms and pervasive behavioral changes that emerged during the 1970s and 80s, Americans still consume at least five times their global share of energy and produce a commensurate proportion of greenhouse gases. Some corporations are responsible for more CO₂ emissions than whole countries. Shell Oil, for instance, in its production of fuels is responsible for more than Canada or Brazil. To add insult to injury, some energy conglomerates spend more money on “greenwash” advertising than on actually greening their production or products. In the meantime, we consumers drown ourselves in goods. We
also occupy more square feet per capita, and the average home sits on a bigger lot and has grown 40% larger in the last generation, even though our households have grown smaller. The average American house in 1900 did not have an indoor toilet; by 2000 the average new house had fewer occupants than bathrooms! And we typically spend more money per square foot on bathrooms than on our public spaces.

The average American’s ecological footprint is 24 acres, about five times our planetary allotment. (Visit www.myfootpring.org and quickly figure out your personal ecological footprint.) We used to explain this prodigious energy use away by arguing that we were the world’s largest and most efficient producers; but it turns out we are average and produce no more per BTU of energy than Ethiopia. And now post-industrialized countries, many of which have mined, farmed, fished, and lumbered themselves out of natural resources, expect other, less developed countries to instantly become conservationist and forego plans for an American lifestyle. These poorer countries are the most impacted by global climate changes, although they are the least responsible and least able to do anything about it. The birth of an American signals a bigger burden and threat on the environment than any other birth on the planet.

It is true that the environmental/ecological movement is a socio-cultural construction that favors the upper classes of the affluent, industrialized societies, but the doomsday numbers and trends are too dramatic to be ignored, even after discounting for exaggeration. If the construction, conditioning, and maintenance of all buildings accounts for 40 to maybe 50 percent of the nation’s energy pie, clearly architects must step up to the plate. (Industry has done a better job than the architectural and building profession in addressing American energy consumption and pollution. Until the epidemic of SUVs, the transportation sector was also improving.) It’s time buildings became greener and architects did their fair share in this effort.

The architect’s traditional legal charge in America to protect “public health, safety, and welfare” needs recalibrating: public health no longer means controlling for infectious diseases so much as cleaning up brownfield sites and dirty air; safety is more about safe streets and building security than structural collapse or fire protection; welfare is now more about providing calm and
affordable settings in an increasingly frenzied and expensive world, as well as not squandering human, cultural, and natural capital.

Speaking of laws, architects well know and respect the law of gravity. And most of us understand the first law of thermodynamics, that energy and matter are neither created nor destroyed; they simply change form or state. This law encourages us to conserve energy and material, as well as to use it wisely and efficiently. It would behoove us to also respect the second law of thermodynamics, which is about entropy and the dispersal of energy in the form of heat. This tells us two things; that high temperature energy is higher quality than lower temperature energy and should be used for more difficult tasks, like running a computer rather than heating a bedroom to 70°F; and that all matter, including toxins, will eventually find their way into the ecosystem and our bodies. Someone has said these principles “are not just a good idea, they are law, the law of the universe.”

The passive solar movement of the 1970s was a good start, with many of the design principles and energy systems developed then still operational and compelling. Site- and climate-specific design, especially for small buildings, started to penetrate studio culture at some architecture schools and some firms until softening energy prices pulled the rug out from under the movement during the post-Carter Republican administrations in the 1980s. A quarter century later, architecture, urban design, and urban planning students are now leading a revival of environmental-and-energy-conscious design. This cone of vision has expanded to include the reuse, the recycling, and the toxicity of materials and solid waste, as well as water and land conservation. It also importantly promotes the concept of “sustainability.”

“Sustainability” is an invaluable one-stop, catchall for all things environmental and ecological. Easier to define than to measure and monitor, sustainability is essentially about living within your means without mortgaging subsequent generations (of flora and fauna as well as humans) with economic, social, and environmental bills and time bombs that compromise or even eliminate their ability to live equally well or better. Sustainability prompts our market economy to think more about appropriate design. On the triple bottom line of sustainability – Environmental, Economic, and Equity – belongs the fourth “E” of Esthetic. Landscape
architects, like Frederick Steiner and Joan Nassauer, have been ahead of the curve on this important insight. Indeed, if a building, landscape, or city is not beautiful, it will not be loved; and if it is not loved, it won’t be cared for, maintained, and sustained. Thus, the love of esthetics in design culture is inextricably joined with the love of the environmentally sustainable. This connection, long in coming, is the key to greening the culture of both architectural education and practice.

As our lifestyles and toys get bigger, our buildings larger and taller, and our expectations higher, architecture and urban design can calm things down. Because the built environment is fundamentally heavy, slow, expensive, and place-bound, we can help slow and downsize our lifestyles. We can add value and quality to life, reversing the “junk space” — the sheetrock, escalators, and supercaulk that makes possible the continuous miasma of interiorized space that Rem Koolhaas celebrates. We may also laugh at the race for the world’s tallest building which, in and of itself, is a fairly innocuous if macho competition, but sorely emblematic of our craving for more, bigger, and higher things.

Architecture can do much more with much less. Let’s teach ourselves and the next generation to build better but less, and build with less; recycle more, better yet, reuse more; design for “the long now,” remembering that sustainability and environmental justice are intergenerational as well as international.

And Two More Things

There is another problematic trend with studio culture in our schools. Studio projects in many schools have recently drifted away from designing at the scale of the building, including construction tectonics at that scale. It was one thing for Alberti to permanently divorce the act of design from building construction almost 500 years ago; but it’s another to separate architectural design from building design. There are exciting, promising new opportunities and imperatives for collaboration with other media and disciplines, ones that need exploration and development. While opening up new areas of design and intervention is good for architects (and vice versa, as Phillipe Starck has so convincingly shown), we must be mindful of unintended consequences,
such as losing an even larger share of designing the built environment to forces that care less about the important values we cherish.

This shift away from designing buildings is presumably because of faculty, not student, preference. The paradigm shift in focus from figure to field may be one cause, but it may be that their practices genuinely depend on other opportunities and clientele to survive. Or it may be because conventional practice seems boring after the intoxicating freedom of architecture school. Another reason may be that a growing percentage of our students will never practice architecture, either by design or default. (And, of course, there is no intentional way to cater in studio to the very diverse and unpredictable fields and careers they will enter; any more than a law school curriculum caters to the multitude of fields in which their graduates end up.) We cannot afford to water down the curriculum and the teaching of skills for the sake of those students who, bless them, will go on to other fields to work and to commission buildings with a rigorous design education.

This trend away from designing at the building scale, when taken at the flood, does not bode well for students. Especially for students who take the path of least resistance or most fun by cherry-picking their way through elective studios, selecting ones with projects that offer more immediate feedback, smaller-scale projects, trendier experimentation, simpler tasks, less work, more travel, more fun or whatever strikes their fancy. The immediate gratification offered by such “wildcard” studios that feature furniture design, product design, or architectural sculpture are wonderful curricular breaks, but too many of them doesn’t prepare students for the patient, complex work and the deferred gratification of professional practice. Nor does the shift away from building design bode well for society, which needs more architects to competently design more structures than ever as it builds and rebuilds structures that grow obsolete quicker in the emerging global metropolis that grows exponentially.

To quote Sam Mockbee once again: “What is necessary is the opportunity to seek solutions within the context of the problems, not outside them … help students of architecture to become more sensitive to the power and promise of what they do and to be more concerned with reaching their architectural goals through a path of cooperation, restraint, and respect …”
Working within real world constraints and opportunities can trigger just as creative, if not more creative, design and construction. Studio options must range from the pure and platonic to the messy and hybrid.

A two year M.Arch program that follows an undergraduate B.A. or B.S. degree in architecture (4 + 2) typically has three studios and a thesis studio - a curricular chain with few links in it. Enrolling in a studio or two that doesn’t focus on building design, plus a self-selected thesis topic that may be even less likely to include designing a building, results in a professional degree program that might be closer to an architectural art or studies degree. And with the Architectural Registration Exams likely to be taken hard upon graduation, the implications are even more serious. Either the laissez-faire curriculum should be embedded in a longer program, say 2 1/2 or 3 years, or the majority of studios should focus more on building design if the M.Arch is to live up to its billing as a two-year professional degree. If we are to be adventuresome and liberal with studio curriculum, it simply takes more time in the architectural brine to become well pickled. And as for the many graduates who will go into other fields, society will be all the richer because of their longer or more rigorous architectural education.

The other bothersome trend in the academy is the dominance of Theory with a capital “T.” But that is more a cycle that goes back to the Renaissance than a fallacy, and one that seems to be ebbing now. Theory, especially art and literary theory and continental European philosophy, has had a long run – too long in my opinion. Post-structuralist, anti-humanist, deconstructivist, and other avant-garde theories of the last several decades have made us more deeply aware of issues such as gender, race, and power in society, as well as added “meaning” to “commodity, firmness, and delight” as the four pillars of architecture. They have been intellectually provocative and permanently changed our understanding of architecture, although many of them are now looking like academic cul-de-sacs.

It’s time for a large dose of American pragmatism, with its greater emphasis on outcomes and broader results in the community than French philosophy, which sometimes wants life to fit theory rather than the other way around. Theory and criticism need to give way to advocacy; anti-humanism to humanism and academic humanism to humanitarianism. We need to re-
embrace the social, political, and environmental dimensions of architecture and urbanism. We need to be vigilant against the natural tendency of institutions to be repressive, as Foucault warned us and to outsmart the phalanx of well-meaning but arthritic legal, regulatory, and bureaucratic agents.

**Being slow in a fast, mediated world**

The media not only shun the moderate and the local, but encourage and precipitate change with an appetite that architecture will never be able to satisfy. Science and technology may change fast enough for the media, but built architecture and urbanism are typically too slow, complicated, and expensive. And simply because “emergence” and “contingency” increasingly characterize our understanding of reality, it doesn’t follow that every aspect of culture has to or should be emergent and contingent. Although the built environment is becoming less permanent, it is still society’s biggest investment and one of its longest-lived artifacts. The AIA or ACSA might as well field a team in the National Football League (or NBA or NHL) as try to compete with the velocity of art, music and the entertainment industry.

Only virtual architecture can keep up with the media’s addiction to newness and with science and technology’s torrent of exciting discoveries and new materials and processes. (Some technopundits, like Bill Joy of Sun Microsystems fame, are beginning to question whether our regulatory and legal system can hold in check rogue scientists and negligent technologists, which might prove our catastrophic undoing.) Architecture can soar when appropriate, but we need to accept and take advantage of the fact that our medium is usually local, heavy, costly, site-specific, human-centric, and even humanitarian – all slow and quiet traits compared to, say, MTV. And buildings are palpably present and naked to all the senses. They are physical facts, not electronically filtered or gift-wrapped like digital media, where mistakes can be deleted to the digital trash more easily and later in the production process.

There are some races where the poured-in-place tortoise can whip the hot-wired hare. We can turn our grand slowness, magisterial fixity, and magical sense of place to advantage in a world hungry for islands of sanity and repose in the choppy seas of stimulus and excitement – especially in its residential and institutional environments.
Let’s soar with the human spirit of exploration and creativity, let’s push the limits, but let’s also realize that grounded architecture and local community are incredibly potent tonics in a world of increasing flux and uncertainty. Balancing tradition and change is ultimately more natural, more liberating and more sustaining than embracing one at the expense of the other. We need to know when to push the accelerator, to hit the brakes, to glance in the rear view mirror, turn on the headlights or even a siren, when to cruise, and when to put the top down and enjoy the wind in our hair. Teaching this kind of knowledge and mastery – of our medium, of ourselves, and of our talents – would put the “M” back in the Master of Architecture degree, as well as some modesty and balance back into the discipline and practice of architecture and urbanism.

As if other media didn’t present enough of a problem, architecture also needs a Trojan horse to get through the “Tribunal of the Grand Inquisitors.” Dan Solomon’s phrase refers to bottom-line developers, spin doctors, code officials, bureaucrats, value engineers, construction managers, bankers, review boards, and public taste. Architecture has always had trouble succeeding solely on its own merits. Designers also want something to make them feel they’re not being arbitrary and capricious with form. It was engineering for the early Modernists, social advocacy in the 1960s, energy in the 70s, Postmodern historicism and literary theory in the 80s, and computers in the 90s. Today, the most promising and synergistic “sponsors” of good architecture are urbanism and sustainability. These twin imperatives are not only noble ends but also possess the cachet to overcome the Inquisitors, provide the compass to reorient design, and they can reinvigorate architectural culture.