

Environmental Stoicism and Place Machismo

A Polemic, by **Michael Benedikt**

1. THE ABILITY TO ENDURE or tune out places that are cheap or neglected, depressing or demeaning, banal, uncomfortable, or controlling—places to which people would normally react with despair—is what I call “environmental stoicism.” Environmental stoicism is what allows many Americans to put up with our all too typical surroundings—our wasted downtowns, potholed streets and weedy parks, billboard-strewn countryside, fluorescent-blasted workplaces, and same-everywhere suburbs and shopping strips. It is what leads us to substitute for this dispiriting landscape the more gratifying immaterial worlds of movies, radio, TV, and the myriad entertainments offered by the computer.

Environmental stoicism taken a step further is what I call “place machismo.” Whereas stoicism advises calm acceptance of what cannot be improved, machismo—less a philosophy than an attitude—recommends pride in the grim embrace of harsh realities. Whereas stoicism redirects attention to where it might do some good, machismo demands that we actually welcome the unpleasant, not to ameliorate it,

but rather to flaunt our toughness. Indeed, by feeling (or feigning) a fondness for the ugly or painful, we distinguish ourselves from those who are fearful, overly sensitive, effete.

Environmental stoicism is, of course, less common among architects than among the general population—after all, architects are trained to improve the built environment. For this reason, environmental stoicism and, even more so, place machismo, is especially noteworthy when it occurs in this profession. Thirty-five years ago, Robert Venturi, Denise Scott Brown, and Steven Izenour urged architects not to reject but to “learn from” the architecture of the commercial strip, and, through selective amplification, control, and lofty affection, turn the strip’s wasteful land-use patterns, glaring signage, and loony classicism into works of architectural art. Today Rem Koolhaas, in a seemingly opposite but actually similar move, advocates deployment and amplification of the raw urban infrastructure and industrial construction that ploughs through the mediocrity of modern global development he calls “junkspace”:

Junkspace is what remains after modernism has run its course, or more accurately, what coagulates while modernization is in progress, its fallout. Modernization had a rational program: to share the blessings of science, universally. Junkspace is its apotheosis or meltdown. . . . Junkspace is the sum total of our current architecture: we have built more than all previous history together, but we hardly register on the same scales. Junkspace is the product of the encounter between escalator and the air conditioning, conceived in an incubator of sheetrock (all three missing from history books). . . . It substitutes accumulation for hierarchy, addition for composition. More and more, more is more. Junkspace is overripe and undernourishing at the same time, a colossal security blanket that covers the earth. Junkspace is like being condemned to a perpetual jacuzzi with millions of your best friends.¹

Junkspace is the landscape that modern architecture was supposed to have saved us from in the last quarter century, but has really produced (albeit unintentionally, as the collateral of its advocacy of standardization and efficiency of construction). Junkspace is the new and stifling bourgeois environment underwritten by those who are, in effect, as careless about its cumulative effect on the psyche as about

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the long-term consequences of its creation for the planet. From the Koolhaasian perspective, better and more honest than junkspace, leaner and therefore more to be liked are things like freeways, garages, bridges, communication towers, warehouses, and distribution centers, both in themselves, unadorned and functional, and for the lonely “existential” spaces that proliferate in and around them.

In our postpostmodern times, Koolhaas’s place machismo has become a

widely admired avant-garde position, one which asserts that better than inadvertent banality is deliberate and exaggerated banality, grander, more Nietzschean, more refined for being less refined, interested in the beauty not of (real) flowers arranged in a window but of railroad bridge abutments caught in an accidental beam of light. “The sublime without overblown pretension” is what Koolhaas admires and by implication, what all architects should be after.² But Iris Murdoch’s words here might serve as a caution. As admirable as it is to face human suffering and at some level accept it, she argues, “Kant’s notion of the sublime . . . is a kind of romanticism. The spectacle of huge and appalling things can indeed exhilarate, but usually in a way that is less than excellent.” The fondness for the sublime “is nothing more than a form of romantic self-assertion.”³

There is little doubt that as the effluvium of development accumulates around the world, junkspace—an apt term for the stultifying norm of commercial good cheer indoors and the thinly disguised hegemony of real estate economics outdoors—increasingly becomes the thinking architect’s enemy. The question is whether a Koolhaasian amplification of infrastructural and industrial typologies will be any

more effective, as antidote to junkspace, than Venturi’s have proven to be, or that the early modernists hoped to achieve in *their* attack on bourgeois sensibilities.

Away from the extreme conditions that might justify it—war, exploration, dam building, and so on—stoic indifference to the discomforts of the immediate environment cannot be considered a virtue.⁴ Nor can its extension into place machismo be recommended as a permanent stance

toward the world, especially by designers. Both stoicism, over an extended period, and machismo, adopted as more than a passing fashion by the comfortable rich (I am thinking, for example, of “heroin chic”), will lead to further degradation of the urban and natural environments: the first through the toleration of neglect, the second through the provocation of hostility from “ordinary” people, people who want the world to be pleasant.

To see how architecture might progress ethically as a profession, we should attempt to create an etiology of environmental stoicism and place machismo. How did they arise? What are their manifestations? For both of them must be undone, or at least exposed for the defensive syndromes they are, if the appetite for the beautiful and the real is to be released in the population around us, and if an architecture unembarrassed to be healthful, gracious, and kind to human purposes is to resume its evolution.

2. INSENSITIVITY TO THE ENVIRONMENT is closely linked to an attitude I call “exteriorism.” The distinction between “exteriorism” and “interiorism” unveils a deeper component of the tolerance of both junkspace and of the more brutish conditions of environments designed for maximum efficiency.

Inside. Outside. What is the difference? Psychologically and experientially, the difference between being inside and outside is complex. Certainly the feeling of interiority—of being immersed, surrounded, enclosed—transcends the experience of rooms and other indoor enclosures, and extends to the out-of-doors (streets, squares, and parks bounded by trees and buildings). The feeling of interiority can also extend to pristine natural environments, where the stars or a tree canopy can seem like a ceiling, where the earth or a bed of leaves can feel like a floor, and a rock-face like a wall. “Embeddedness” is the metaphor and the dominant feeling.

Equally and alternatively, one can feel oneself to be always outside things:

a body next to and among other bodies, always in orbit around them or on some trajectory with regard to them. These other bodies are things whose interiors are inaccessible or that reveal, when broken open, yet more outsides: smaller bodies inside with unbreachable shells, “components,” jostling, poised, or circulating in empty space.

The first response is “interiorist,” the second “exteriorist.” These two responses are logically complementary but emotionally different. What is an onion, formally? A tiny seed embedded in a series of cupping shells, or a series of near-spheres each covering the one inside? It makes no logical difference whether one starts from the inside and moves out, or starts from the outside and moves in, but it makes a great deal of difference to how one feels about the onion—or rather, how it would feel to make or be an onion. The exteriorist wants to paint each Russian doll on the outside; the interiorist wants to line each enclosing doll’s inner, concave surface. In text, sensibility, and photography, *Architectural Record* is dominantly an exteriorist publication even when it presents interiors, while *Nest* is interiorist even when it shows exteriors.⁵

More than some recondite distinction to worry over in architectural theory, these two readings represent two fundamental orientations to being-in-the-world, and they are influential in areas beyond the design of buildings. Aristotle, Leibniz, and Einstein, I would argue, were “interiorists,” while Plato, Newton, and Bohr were “exteriorists.” Aristotle’s theory of space was a theory of places defined as successive layers of embeddedness in circumscribing surfaces: a river’s place was the riverbed. Leibniz’s monads were relational, each monad like a tiny silver ball reflecting the million other monads disposed around it and having no character apart from them. In his *General Theory*, Einstein extrapolated from how gravitation and acceleration would be experienced by an acute observer, and from what that observer would see of another moving observer’s clock, just

as in his *Special Theory of Relativity*, he had wanted to know what one would experience while traveling at the speed of light. Newton, on the other hand, followed Plato in striving to take the view from nowhere, which is to say the view from everywhere at once. The universe in this view consisted of discrete bodies and atoms acting on each other’s motion by impact or gravity, which is action-at-a-distance.⁶ The observer was one more such body. Matter was impenetrable and utterly hard; space was empty and “soft.” That is what made each what they were. Niels Bohr’s idea of the atom followed the same model (as do most theories of particle physics today, save quantum field theory). Ptolemy’s cosmology was interiorist; Copernicus’s exteriorist. In psychology, behaviorists and functionalists are exteriorists; existentialists and phenomenologists are interiorists. And so on.

William Gass has eloquently described what the exteriorist orientation entails, and what it costs us psychically. “[S]uppose we put a spade in the earth,” he writes,

the earth being a softer medium; our deepest dig will heave to view only another surface, this one crumbly perhaps, or with its clay compacted by the brutality of the blade. We can dig and delve like the most industrious duck; we can poke and pry: we shall find nothing but surface. Surfaces are unreal. They have only one side—their “out” side—and as far as our world is concerned, outside goes on forever. So if we feel lonely cooped up in our consciousness—a prisoner “inside”—we can take cool comfort from the fact that outside we are simply surface, and have plenty of company. If you like, consciousness, either real or implied, is the other, missing side of surface.⁷

With this passage in mind, we are led to believe that environmental sensitivity and environmental stoicism reveal an interiorist orientation because the very concept of environment—of milieu—makes sense only from inside things, looking out and around. Place

machismo, in contrast, suggests the exteriorist sensibility, because in reducing place to an ensemble of things that “see” each other’s outward surfaces only, it denies the cognitive or emotional validity of interiority as an equally universal perspective.

If consciousness is inside looking out, as Gass suggests, then the difference between interiorist and exteriorist is not the same as that between subjectivity and objectivity. Both interiorist and exteriorist readings can be subjective or objective.⁸ That we so easily make the pairing “interiorist = subjective” and “exteriorist = objective” only demonstrates the male bias of the sciences toward the Newtonian, exteriorist orientation.

Also, as Marshall McLuhan might have pointed out, each of the five senses encourages one orientation or the other. Dependence on picture-vision tends to support exteriorism, whereas dependence on hearing, kinesthesia, smell, or radar-vision—seeing the arrayed proximity of things around us rather than their composed shapes relative to each other—supports interiorism.⁹ These sensory inclinations are so subtle, however, that the intellect can readily override them.

3. IN THIS ANALYSIS, the exteriorist/interiorist distinction is not gendered—or not *yet* gendered. The problematic gendering of interiorist and exteriorist readings of the world entered the rhetoric of modern architecture early, however, and it remains with us. “The repression of materiality in certain strains of contemporary architecture,” writes Jennifer Bloomer, “lies on a continuum of repressions in modernism, a continuum of the embrace of masculinity and the consequent pressure for men to reject things female both within and without themselves. This casting out of the interior from architecture proper, the division of what was once unified in architecture—interior design and architectural design—into two stereotypically gendered professions is a symptom of this repression.”⁹ Bloomer makes an iden-

tification here between “materiality” and “interiority” that seems worth considering, especially if one thinks of space itself as one of the materials in question.

Consider the idea that architectural design is about shaping space—an idea developed almost entirely in the 20th century and made a design studio commonplace by the popularity of two books—Sigfried Giedion’s *Space, Time, and Architecture* (1941) and Bruno Zevi’s *Architecture as Space* (1957)—whose ideas have a grip on the architectural imagination and its vocabulary to this day. One would think that *space* would have been an essentially “feminizing” notion. After all, if architecture is properly about space, then it is not about objects or tools or things. But this is to overlook the fact that to conceive of space as “shape-able” by design is to treat it as a sculptor would. It is to transform space from something oceanic or atmospheric, from something fecund, field-like, and interiorly structured, into something with an exterior to which one could apply a tool.

“The architect models in space as a sculptor in clay,” wrote Geoffrey Scott in the second decade of the 20th century.¹⁰ I can think of no architect (or writer on architecture) who has since disagreed. This tacit agreement has allowed most architects to consider the tactile quality of materials—e.g., the difference between soft-to-the-touch surfaces and hard ones—only passingly, to draw a blank when it comes to visualizing color and surface patterning, and to trivialize incidental space-making elements like fabrics, whether loose, thrown, enwrapping, pinned, or wind-blown. Thus has an opportunity been lost to read the world as “endless interiority” and densely relational—a sensibility all but driven underground by the reductive desire to shape and command things which have interiors that don’t matter, that don’t touch (in both senses of the word).

My intention here is not to invent a new parlor game—“If Peter Eisenman is an exteriorist and Christopher Alexander an interiorist, then what is

Michael Graves?” Rather, I believe that there are important implications for architecture and education.

As a teacher of design, I can attest that students (men or women) who refuse to or cannot become exteriorists are often criticized by place-macho studio critics who judge as soft-headed anyone struggling intuitively to put environmental experience ahead of form making and tectonics. Appeals to “experience” abound, of course, in many architectural schools as they do in practice. But the lack of a way to describe and map sensory experience and to make it a part of design plagues the field to this day, notwithstanding the comparative ease with which “perspectives” can be generated by CAD software.¹¹

4. AS THE HUNDRED-YEAR WAR against interiority rages on, perhaps the place where we see the battle lines drawn most clearly is in the perennial contestation over the status of interior design as an art, a profession, and a discipline. Although this is beginning to change, it is still generally true that we architects, male and female, have to be careful not to like curtains or to know too much about color and fabrics. *Architecture* and *Architectural Record* are the profession’s periodicals, not *Architectural Digest* or *Nest*. Erecting things is our expertise—or fighting off the weather, or deploying the latest technologies, or “exploring geometries” (a peculiarly male and cabalistic pursuit). Our mindset is “masculine”: we see buildings as edifices, monuments, devices, or statements, not as places, shelters, harbors, or succor. To us, buildings are objects among objects, hard and stiff, with shapes that do things and forms that *perform*, not enclosures or diaphanous matrices of light and sound and smell.

What scorn many architects have for interior designers! “Licensing for interior designers? Come on! The best of them are architects, anyway.”¹² Such attitudes, of course, reveal not just pettiness—not just tough-guy chauvinism, place machismo, profes-

sional jealousy, class resentment, and maybe a touch of homophobia—but also the inability of the contemporary architectural imagination to address the full range of human needs, to engage all our senses, or to indulge even a few of our sentiments about issues not compartmentalizable into “use,” “performance,” or “form.” The window-wall + sleek cabinet + Barcelona chair formula does not begin to constitute the universal solution to interior design that many architects have thought it does.

Departments of interior design, as they become absorbed into schools of architecture, must resist standard architectural biases if they wish to preserve their sensibilities. They should refuse to be renamed departments of “interior architecture.” Such renaming is the first step to ideological colonization. Interior design teachers will have to develop their own body of theory and their own vocabulary, one that does not shrink from incorporating technical knowledge about light, air movement, and acoustic ambience, or from articulating the interiorist world view and all its sensitivities—sensitivities to texture, pattern, color, style, touch, nearness, arrangement, personality, and domesticity, to “charged” objects (the *life* in inanimate things), to class, and to the power of people themselves—of their clothed, warm, breathing bodies—to transform any environment by their presence.¹³

Complete architects weld the two sensibilities—exteriorist and interiorist—into a balanced, dynamic whole. Not only must they read and design the world as sculptors/engineers, that is, largely from the outside, but they also must make clear in their work that interior and landscape have been conjoined by an architecture that understands itself as a realm between the two, with the whole able to be experienced always *from the inside*, even outdoors.

Alas, there is only so much that a polemic like this can do (or any theoretical elaboration of it could do) to bring about a better balance between

interiorist and exteriorist orientations in architectural practice, or to de-genderize it. The effects of revisionism in architectural theory are as slow in coming as they are lasting once established. Besides, being human, few students (and few teachers) of architecture are convinced by ideas—and even less by “oughts”—until they find some point of application, some mode of production (be it buildings, drawings, or models), or some problem in society that can be solved by uniting powerful ideas and architectural practice.

Perhaps the continuing proliferation of “shelter” publications (on gardening, home improvement, interior design, and, yes, architecture) will do some good—books and magazines whose effect is to teach people that it’s OK to experience their environment more sensitively and hold it to higher standards.¹⁴ Contemporary shelter-and-style magazines, from *House & Garden* and *Southern Living* to *Wallpaper* and *Côte Sud* are doing a job for which architects ought to be grateful, whatever quibbles they might have about the taste culture(s) being promoted. And the slowly but steadily increasing power and authority of women in art, culture, business, politics, and intellectual life also offers hope, so long as the “feminine,” interiorist perspective is not itself lost in the process of acculturation to male worlds.

5. I WANT TO CLOSE by proposing one specific effort that I believe would lessen the need for place stoicism and insensitivity, namely improving the design of schools, and especially of high schools. For, setting aside the influence of action-oriented television and movies and the seemingly innate appeal to young men of the whole military mindset, high school is where environmental stoicism is, in effect, taught.¹⁵ Let me explain.

Visit a suburban American high school, vintage 1965 or later. Very likely it will be a building as bland as a warehouse, as hardened as a prison, one where you are inspired to do nothing

but escape its echoing din.¹⁶ Does its design demonstrate our respect for youthfulness and learning? Does it reveal sympathy with the teenagers who have to spend so many hours sitting in windowless classrooms? Is there any place for the shy to dream? A leafy courtyard? The answer to all these questions is almost always “no.” One has to wonder why.

City and school administrators will, of course, give several economic and demographic reasons for the soullessness of school design, if they recognize

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it at all. But architects have been complicit, for it was thanks to the pioneering efforts of several large architecture firms that high school construction, responding to the postwar baby boom, became subject to the same optimization and rational planning principles that had been developed for manufacturing plants.¹⁷ Faith in clear programs, in simple and flexible spaces, in lightweight construction, and so on, represented progressive thinking among firms of the day. The goal, then and now, was *efficiency*—defined in the narrowest engineering and economic terms, and, of course, suppression of any “sentimental” interiorist features that might add cost or complication.¹⁸

Arguably, the book that began the school design revolution, as it was then called, was William Wayne Caudill’s *Toward Better School Design*.¹⁹ Written before the inclusion of air conditioning was automatic, the book recommends natural lighting, noncompact plans, and visual openness to the outdoors—all to the good. But its fundamental message was the value of efficiency, of fast, lightweight construction, and of the kind of organization—of curriculum, administration, and building layout—that could be shown on a simple chart. And it was these factors that, by the 1970s, dominated school design

and that devolved, in the hands of firms specializing in “educational facilities,” into the school buildings we still use today.²⁰ Under the pressures resulting from the reduced revenues caused by property tax revolt, the logic of efficiency became relentless. If teenagers are to learn from books and blackboards and teachers’ faces, they shouldn’t need to look out windows. Therefore classrooms had few, high, or no windows. If teenagers are messy, then schools should be easy to clean—all linoleum and tile. If seventy-five

foot-candles at desk height is the ideal illumination, then so it should be, everywhere, always, and without shadow. Energy consumption a problem? Make the building as tight as a refrigerator. Most efficient size? Bigger and jam-packed. Theft a problem? Locks and bars. Misbehavior? Video cameras scanning every room, stair, and hallway. Communications? A public address system. Furniture abused? Make it steel and rock-hard plastic, and bolt it down. Landscape? Shrubs around the parking lot; a bubbler near the bleachers.

This is the environment, barely better than a minimum security prison, in which millions of teenagers have spent years of their lives at an age when they are sorting out who they are, what counts, and what their value is to their peers and society. The implicit message they receive from schools built on these principles is that teenagers are incipient delinquents whose sensitivity is best disregarded and whose individuality is to be asserted by strategic choice of clothing and stoic, aggressive, or subversive behavior toward the environment. Whatever these young people might learn about social interaction, the main response they learn to the place itself is abuse, neglect, or insensitivity to the physical

discomfort it causes or to the insult it implies to them and to the process of education.

Schools that don't provide students with some personal space—for example their own desks or small-group private zones (bay windows, alcoves, outdoor seat clusters, etc.)—schools that by their materials and surfaces show no trust in students' self-control, buildings that reflect not the adventure and exhilaration of learning or the simple joy of being young but instead the single-minded efficiency of an industrial plant, schools whose design suggests no pride in themselves as institutions—these schools understandably produce adolescents who burst out of them as if from purgatory. Primary and secondary education may rightly be compulsory, but this should not mean that the sites of education should be like penitentiaries. Schools like those I am describing have not only fostered environmental stoicism, they have also done immeasurable damage to learning, damage that has been measured in empirical studies.²¹

It is always easier to identify problems than to solve them. Changes in entrenched cultural attitudes are needed if we are to have more humane high schools. But not to offer any strategies to promote change would be to surrender to the stoicism I have been railing against. So here is a start: Foremost, of course, government at all levels should allocate greatly increased funding for school buildings. Some form of “school choice” would make school environments one of the points of competition between schools. And in architecture? The kind of innovation we have seen applied to museum design in the 1990s needs to be applied to school design in the 2000s. School design competitions can be a spur; a few modest ones have been held in recent years. The New York City Construction Authority sponsored one in 1998; the 1997–1998 AIA/DuPont-Benedictus Awards International Student Design Competition was for a high school.²² Chicago Public Schools recently held a national

design competition.²³ The National Endowment for the Arts has started a program to award grants in competitions for public buildings, with a special focus in 2002 on schools.²⁴ Single leaders can make a difference: Thom Mayne's exemplary Diamond Ranch High School was built only because Morphosis's signature creativity was understood and welcomed by Patrick Leier, Superintendent of the Pomona Unified School District in California. The Ross School in East Hampton, New York, a refined traditionalist environment that has a mission to be a model for new schools, was built under the direction and funded by the philanthropy of Steven J. and Courtney Ross.

When the public sees what architects can do when they set aside the formulae that have guided school design for forty years, a new era might begin—one in which architecture reinforces rather than undercuts education, one in which teenagers will feel free to be more sensitive to the built environment and to demand more from it. When environmental stoicism wanes, when place machismo has had its day and architects begin to address the gamut of human needs with all their goodwill and intelligence, place sensitivity will emerge and flourish.

Notes

1. Rem Koolhaas, cited by Gary Wolf in “Exploring the Unmaterial World,” *Wired*, June 2000, 310. Most architects (and academics) I know are baffled by Koolhaas, not quite knowing how to reconcile the bitter-pill rhetoric he offers on the one hand with his own pedal-to-the-metal practice at OMA on the other. Wolf, in the article cited above, concludes: “‘Junkspace,’ I thought, was Koolhaas showing just how much pain he could take. But the [rhetoric's] extravagant brutality also suggests that just as the architect is achieving international fame, he is reaching the end of a phase of his career. Junkspace condemns everything. It's like a horror movie in which the protagonist dies along with everyone else.”

The subjects for two of Koolhaas's GSD research seminars—shopping and the sprawl of Lagos, Nigeria, published as *The Harvard Design*

School Guide to Shopping (R. Koolhaas, ed., [New York: Taschen America, 2002]) and *Mutations* (Koolhaas, et. al. [Barcelona, Spain: Actar Editorial, 2001]) respectively—were selected for study, I surmise, precisely in order to beat the architecture establishment about the head with Reality—and more than this, to dare its avant-garde members (and Koolhaas's personal competition) to embrace what they absolutely cannot and *be cam*: to wit, the shamefully wasteful landscape of American consumerism on the one hand and the brutally pragmatic modernism of Asia or impoverished Africa on the other. Warhol meets Beuys meets Burroughs meets . . .

2. Koolhaas in conversation, 1997, speaking about the art of Yves and Uecker Klein, and the radical '60s movement Fluxus. See www.ArchiNed.nl/htdig/index.html.

3. *Sovereignty of Good* (New York and London: Routledge, 1971), 73.

4. One might add sports, camping, and adventure travel to the list. Here a certain level of physical discomfort is expected and suffered, if not sought, because it is a condition of a different category of reward. Important to remember, lest one be tempted to use this as a model for “rigorous” hard-to-bear architecture everywhere, is that, in sport and the like, the discomfort suffered is voluntary and temporary, and the rewards for suffering powerful—e.g., personal victories, endorphin rushes, camaraderie, exclusive and exotic experiences, dangers overcome, endurance recounted, and so on). Very few building-types can legitimately impose such strenuousness on comparable grounds, and certainly none where people cannot choose, without loss, *not* to be there, such as those in which they learn, work, shop, and live, or travel through or walk by, on a daily basis.

5. Ironically, popular interior design and shelter magazines are often exteriorist in sensibility. This is certainly the case when furniture, art, and collectibles are the focus. The room gives up its importance as place and becomes instead an setting for the display of as many lovely things' appearances as possible, their expensive carapaces posed for attention just as they were in stores.

In Adolf Loos's well-known 1908 essay, architectural ornament is condemned as retrograde, a “crime.” But interestingly, in spite of the macho quality of his rhetoric and his general interest in manliness, Loos in this essay never connects (love of) ornament to femininity per se. Rather, his argument was based on ideas about economic and cultural evolution: tough stuff. Loos's *architecture*, of course, showed tremendous interest in interi-

ority and coziness and in varied, exotic, good looking, and good feeling finishes. His exteriors, of course, were severe! Loos was an interiorist. (See Kim Tanzer, "Baker's Loos and Loos's Loss: Architecting the Body," in Kevin Alter and Elizabeth Danze, eds., *Center 9: Regarding the Proper* [Austin: Center for American Architecture and Design, 1997], 76–89.)

6. For the story of the development of the concept of space in science, see Max Jammer's seminal *Concepts of Space: The History of Theories of Space in Physics*, foreword by Albert Einstein (Cambridge: Harvard University Press, 1954). This book makes clear that architects' idea about space, up through modernity, remain resolutely loyal to the models provided by the ancients, Plato and Aristotle. Peter Collins in his *Changing Ideals in Modern Architecture* (Montreal: McGill University Press, 1965) goes further by pointing that the very idea of "space" as having anything to do with architecture makes its appearance only around 1750. Zevi's Greek space, Roman space, medieval space, etc., are all retrojections from modern theory.

7. William Gass, "The Face of the City," *Harpers Magazine*, March 1986, 37.

8. Objective exteriorist: "That chair over there . . ."; objective interiorist: "This chair in here . . ."; subjective exteriorist: "That chair is too flimsy."; subjective interiorist: "This chair is depressing."

9. Jennifer Bloomer, "The Unbearable Being of Lightness," in Jennifer Mack and Katherine Borum, eds., *Thresholds 20: Belonging* (Cambridge: MIT Department of Architecture, 2000), 17. Christopher Reed (ed., *Not at Home: The Suppression of Domesticity in Modern Art and Architecture* [New York: Thames and Hudson, 1996]) and Beatriz Colomina's "The Split Wall: Domestic Voyeurism" (ed., *Sexuality & Space* [New York: Princeton Architectural Press, 1992]), give a more detailed historical account of early Modernism's "suppression of the interior and female aspects of architecture." See also Alice T. Friedman, *Women and the Making of the Modern House: A Social and Architectural History* (New York, Abrams, 1998), where the constant input of the female clients is given equal credit for the creation of certain modernist icons.

10. *The Architecture of Humanism: A Study in the History of Taste* (London: Constable and Company, 1914).

11. Philip Thiel of the University of Washington's lifelong effort in this direction, as documented in his monumental *Paths, People, and*

Purposes (Washington: University of Washington Press, 1997) have yet to be acknowledged in the mainstream architectural press. See my "Paths, People, and Purposes, by Philip Thiel," in *ARCADE: The Journal for Architecture/Design in the Northwest*, Summer 1997, 14. It should also be noted that Charles Moore was a rare champion of the interiorist view of architecture. Hence the lack of macho *rigor* in his forms and his attempt, rather, to orchestrate feelings in a world experienced as endless interiority.

12. On September 10, 2000, Governor Gray Davis, having been lobbied hard by the AIA in California, vetoed the Interior Design Title Act. This bill would have offered state-certified professional licensing and protection for interior designers, similar to that enjoyed by architects.

The governor's argument: no one has ever died of bad interior design. (See www.aiacc.org/advocacy/govveto1096.html. Wait till Davis starts wondering how many people have died of bad architecture per se. Zero. Will it be long before only engineers need be licensed in California?)

13. Colomina's essay, cited in endnote 9, is a good example of research and writing in this modality. The writing in *Nest*, although less academic of course, is exemplary too.

14. See, for example, Rick Marin, "Gender Wars on the Home Front," *New York Times*, February 8, 2001, G1.

15. There is place *machisma* too. Among young women in high school, imperviousness to the physical environment is encouraged—or made possible anyway—by their all-consuming focus on the acceptability/desirability of their bodies and clothing, as well as on human relationships. Certainly the books, movies, and TV shows marketed to young women revolve around these issues. The most important room for young women at high school in this regard is the bathroom. With its usually large mirror and companionship, this is where many of the secrets of beauty and the problems of sexuality are first learned. Here is where they are safe from male eyes and from surveillance by authority . . . or so one might imagine. In fact, for many young women, the women's bathroom at high school is terrifying. These girls "tumble into the stalls and hide, desperate for privacy and an escape from judgment and ridicule" (Anon. Private correspondence). "Girls are most cruel to each other" when boys are not present and in such liminal spaces as bathrooms, dressing rooms, and so on. Needless to say, beyond providing the basics and a modicum of cleanliness, the *design* of the a

verage high school bathroom takes none of this into account.

16. Just how many schools are there in the United States that fit my description? Just as there are no statistics on what percentage of the nation's classrooms are windowless, there are no statistics that capture the sad physical condition of schools except, perhaps, the May 2000 estimate by the National Education Association of the cost of school modernization. The NEA puts this figure (not including the cost of construction of new schools, which the General Accounting Office estimates at \$100 billion over the next three years) at \$322 billion. "The \$322 billion total is ten times what states currently spend annually on public school infrastructure," says the NEA report (www.nea.org/nr/nr000503.html). With patience and funding, one could determine the percentage-of-windowless-classrooms statistic.

17. Among these firms, CRS (Caudill Rowlett Scott) of Houston was probably the leader.

18. On HOK's web page today we read: "The environments we create follow a simple program, elegantly executed, which can be implemented in a straightforward way" (www.hok.com/architecture/). What more could a client want? But, of course, there is more to want.

19. New York: F. W. Dodge, 1954.

20. There is perhaps no more chilling document demonstrating this dedication to heartless efficiency than Educational Facilities Laboratories, *SCSD: The Project and the Schools: A Report from Educational Facilities Laboratories* (New York: Educational Facilities Laboratories, 1967).

21. See the "Daylighting and Productivity Study" done by the Heschong Mahone Group for the Pacific Gas and Electric Company. This study just looked at *daylight*, that minimum requirement of humane architecture. One can only project what additional benefits accrue from truly sensitive, creative design—and await the studies that confirm intuition. Studying changes in student test scores over a full year at the Capistrano school district in California, and "controlling for all other influences," the Heschong Mahone Group found

that students with the most daylighting in their classrooms progressed 20% faster on math tests and 26% on reading tests in one year than those with the least. Similarly, students in classrooms with the largest window areas were found to progress 15% faster in math and 23% faster in reading than those

with the least. . . . We also identified another window-related effect, in that students in classrooms where windows could be opened were found to progress 7-8% faster than those in rooms with fixed windows. This occurred regardless of whether the classroom also had air conditioning. These effects were all observed with 99% statistical certainty.

Similar studies were carried out in Seattle and Fort Collins schools, but using only end-of-school-year scores rather than improvement measures. Here “students in classrooms with the most daylighting were found to have 7% to 18% higher scores than those in rooms with the least.” (From the Executive Summary of “Daylighting in Schools,” *Report to the Pacific Gas and Electric Company*, August 1999, 2, 3 [www.b-m-g.com]).

Walker Elementary, by SHW Group of Dallas, includes such elements as natural daylighting throughout, rainwater harvesting, solar hot water, natural landscaping tended by students, trash recycling, and sustainable building materials, as well as ubiquitous objects for learning: a weather station, rain gauges, sundials, an operational windmill (used for irrigation), and an air-conditioning plant visible behind glass. Computer-lined, carpeted hallways are wide enough to be classrooms, which are organized into narrow light-gathering wings. (For more, see Wyndol Fry, “Sustainable Schoolyard,” *Education West*, April/May 2001, 7-8; Kate Menzer, “Seeing the Light,” *Dallas Morning News*, August 1, 2000, 26A, or contact the motivator of it all, Mr. Wyndol Fry at the McKinney Independent School District in McKinney, Texas.)

22. For NYCSCA competition, see *COMPETITIONS*, Winter 1998/9, 28-33. The results of the 1998-99 DuPont Benedictus contest are available from the AIA. Four out of the five prizes for that competition went to one studio at the University of Hong Kong; the fifth prize, an honorable mention, went to students from Germany—the American showing was poor indeed.

23. After an elaborate selection process, the two winners of the Chicago Public Schools National School Design Competition were Koning Eizenberg Architecture and Marble Fairbanks Architects. Each firm will design a new elementary school. For more information, see <http://schooldesigncomp.org/>.

24. Visit www.nea.gov/guide/NPW02.html. The Center for American Architecture and Design at the University of Texas at Austin is organizing a New American High School Design Competi-

tion for 2002. At the time of this writing, ten major firms have committed to submitting designs. Philanthropic funding is being sought. In three further categories, the competition will be open to architects, architecture students, and high school students and teachers. For more information about this project, visit www.ar.utexas.edu/center.

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