

This article appeared in Harvard Design Magazine, Fall 2004/Winter 2005, Number 21. To order this issue or a subscription, visit the HDM homepage at <<http://www.gsd.harvard.edu/hdm>>.

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Double-Loaded

Everyday Architecture and Windows for Improvement
by Timothy Love

This is the story of the efforts of one American architectural practice to get developer-clients to break out of the deeply entrenched conventions of housing design to accept not-more-costly architectural alternatives to the drab and oppressive double-loaded corridor. It is meant to suggest that architects can help improve everyday American architecture through their deliberate and theoretically self-conscious imagination of better options, their economic realism, and their powers of rational persuasion—so theoretically self-conscious that it might appropriately be called a Movement.

Christopher Alexander's 1977 tome *A Pattern Language* is underappreciated more because of its earnest *Whole Earth Catalogue* tone than its specific recommendations. But if you are able to wade past its communitarian (and unrealistic) prescriptions for community planning, you will likely find Alexander's arguments for the appropriate dimension and arrangement of small-scale landscapes and architectural elements compelling. Alexander's book has only a few examples of "what to do" parables that use a negative example to clarify a "pattern." The most vitriolic is pattern 132: "Short Passages."⁽¹⁾ In this entry, the nostalgic photographs of communal village life are left behind for the totalitarian and oppressive: a long, blank, soulless corridor. Predictably, Alexander writes, "Long, sterile corridors set the scene for everything bad about modern architec-

ture."⁽²⁾ Significantly, the perceived social ills encouraged by the corridor makes the corridor a cause, not just a symptom. Because of its location in the building, a location itself "justified" by economic contingencies (and political injustices?), the space gets no natural light or fresh air.

A more compelling vision of the experience of the double-loaded corridor is found in Stanley Kubrick's 1980 film, *The Shining*. Alexander's bad corridor is here interpreted as sinister, having a kind of badness with more fertile aesthetic and psychological ambiguity. Perhaps it is only in the hotels that Philippe Starck has designed for Ian Schrager that the double-loaded corridor has fully embraced this film noir conflation of the sinister and darkly romantic. At the Mondrian hotel in Los Angeles, for instance, the light in the corridors has an eerie pre-dawn gloom, and the spaces are both sexed up and made more spiritual with small James Turrell installations. The mysterious light patches on the wall are actually hollowed voids with an acute angle detail that disguises their true depth. This effect is of a domesticated version of the northern lights. The light sources are small, hidden video monitors that bounce light inside drywall cavities with a much-needed sense of irony—the monitors play tape loops of cartoons.

Perhaps Ian Schrager's louche and hip hotels are the only places where the double-loaded corridors can be turned into a compelling space. Everywhere else

you look, the double-loaded corridor is as bad as Alexander thought. But why is “enlightened” architectural culture not commenting on the tedium of its ubiquity and looking for alternatives? Perhaps because the terms of this particular issue and its possible solution have more to do with the intersection of economics and design than with form itself.

Certainly the relationship between the economics of real estate development, the market, and architecture has not been a preoccupation of either the academy or progressive architectural practices. By “economics,” I do not mean the more general influence of capitalist economies on building types, building scale, or patterns of urbanization. Many of these issues have been addressed in the debate on sprawl, the embrace of big building types by Rem Koolhaas, and the corrective policy guidelines espoused by New Urbanists. Rather, my interest is in a much more particular relation: the way that economic models that establish “value” in real estate development influence building design.

The most revealing example is the simple “net-to-gross ratio” used to measure efficiency in speculative buildings. The resulting “loss factor”—calculated by subtracting the amount of saleable or rentable area (the “net”) from the total building area (the “gross”)—has repercussions beyond its use as a tool to calculate the financial return on a real estate investment. My and my colleagues’ interest in this issue is not to better understand the metrics of valuation, but rather to find ways to work creatively within the context of real estate development and, more ambitiously, to propose alternative modes of analysis. More sophisticated valuation equations that combine both efficiency factors and “added value” will encourage more innovative building types.

There are, broadly, two kinds of American building produced: those financed for a higher (and economically ambiguous) mission—e.g., museums, libraries, and owner/occupant-built houses—and those linked to an investment goal requiring measurable rates of return or requiring maximization of efficiency because they are publicly funded—e.g., hotels,

public school buildings, housing, office buildings, laboratories, parking garages, and retail centers. The architectural media have focused attention on the first group because these buildings encourage a higher degree of individual architectural expression. One reason for this increased architectural opportunity is the relative flexibility of planning solutions in private houses, libraries, and museums. The spaces that require privacy (with doors that close off rooms from shared circulation areas) are relatively few. Conversely, the public areas of these types are open to broad interpretations of form and content and do not preclude through-room circulation. The public spaces in these buildings are usually larger than they need to be, since they serve symbolic or rhetorical roles.

Office buildings, hotels, hospitals, and multi-family housing, on the other hand, provide proportionally fewer opportunities for spatial invention because these types require the repetition of private spaces accessed from a centralized circulation armature. Since the financing for these types is based on a pro forma that predicts future rates of return, there is an incentive to maximize the number of rooms or spaces that contribute to the future income stream. Non-leasable or saleable spaces, on the other hand, are a drag on future returns because they only add to upfront construction costs. The result is a fundamental design criterion that looks for the maximum number of hospital beds, hotel rooms, or condominiums for the smallest amount of circulation space. If architectural elaboration is possible at all, it is at the small scale of the individual spatial unit or in the public spaces organized adjacent to the entrance to the building (but again, these spaces do not earn revenue in the pro forma).

In multifamily housing, whether condominiums or rental apartments, the pro forma demands the most efficient solutions for circulation to individual units. Combined with the criteria imposed by contemporary fire egress regulations, accessibility requirements, the logic of elevator planning, and the efficiencies of structural solutions, economy is far and away best achieved in a house plan that is a rectangle between sixty and seventy-five

feet wide and between 8,000 and 12,000 square feet in area. The typical floor will contain between six and twelve units organized along a double-loaded corridor.

Despite the economic logic of this plan type, it has many problems as a paradigm for housing. First, all units, except for the apartments at the ends, have only one exposure to a perimeter wall. Natural ventilation and light are reduced, and space planning is made more difficult, since only a few room types (bathrooms, closets . . .) can be located away from the window wall. More significantly, the corridor itself is a long, narrow windowless space, despite the role it plays as the last semi-public space in the sequence from public street to the private house. Although there are obvious deficiencies to this type, the double-loaded corridor building is ubiquitous in the American landscape.

In our practice we have come up with two alternatives to this corridor. The first uses the same economic arguments that have sustained the double-loaded corridor as an “unavoidable” plan. In diagrams we prepared for a national housing developer, we compared a highly efficient double-loaded corridor scheme with alternatives that have clear advantages in terms of the market appeal, social patterns of the occupants, and design potential. The diagrams analyze the improvement of net-to-gross floor area (and resulting reduction of the “loss factor”) in buildings organized around a series of vertical circulation cores. The economic improvement afforded by the saleable area is then measured against the offsetting cost of additional elevators and stairs.

While seemingly simple, the diagrams analyze two cost variables typically considered in separate economic analyses at different stages in the design process. The net-to-gross calculation is done as part of the initial pro forma to weigh initial costs against future income. The pro forma is often completed even before the design is initiated; as a result, assumptions are made for a conventional loss factor and building diagram. The costs and relative values of building components, on the other hand, are typically not itemized and evaluated until the completion of

schematic design, a point in the process when it is not in the best interest of the developer/client or the architect to reevaluate the underlying organizational premise of a project. In our practice, we argue for basic building design as part of the initial development of the pro forma. That way, the financial arguments for project and the design rationale are considered in a single synthetic project rationale.

The second strategy for improving the planning of housing is to look for housing types that create the same efficiencies as a typical plan but with a more limited use of double-loaded corridors and better unit planning. We have developed an urban courtyard housing type, for example, which shares many of the economic benefits of the long rectangular bar building. But unlike the bar building, the court type allows each unit to have two or three exterior exposures. In the prototype we have developed, the plans of the units in the middle of the building are the most successful because the need for the units to slide around the corners of the courtyard creates a separately zoned private bedroom suite. The multiple exposures of these units also create more opportunities to create sophisticated relationships between kitchens, dining rooms, and living areas.

In addition to our interest in the structural repercussions of real estate valuation models, we are preoccupied with the potential role of the market (and marketing) on design. In market-rate housing production, for example, consumer choice and the resulting competition require a differentiation of the product, ideally manifested in design. Typically real estate developers provide the programming for differentiation with “amenities.” These special features may include large bathrooms with Jacuzzis and walk-in showers, high-end kitchen appliances, fancy Palladian windows, and marble floors in the foyer. What is instructive about the status quo is that there is a close link between the design brief and the way the house is marketed. In our own projects, we have looked for the same alignment but using a different set of issues. The discussions with our clients have focused not on amenities and features but on innovative

planning as the appropriate territory for market differentiation. In the courtyard housing, for example, the design advantages of the courtyard also become marketing advantages. A design brief that looks for “multiple exposures in every unit” and “separate eat-in kitchens with views back into the living area” creates a properly complex design agenda and at the same time can be translated almost directly to the marketing brochure.

For a new development in South Boston, our office has developed an innovative row house type that anticipates the market in its design. As a result of a careful analysis of recent real estate activity in Boston, we realized that it would be possible to build a new single-family house that could be marketed for almost the same cost as the median sales price of two-bedroom condominiums in the city’s historic neighborhoods. The result of our analysis was the discovery of an unmet market need for an efficiently planned three-bedroom row house that could be easily implemented on urban “missing tooth” infill sites, sites that otherwise were too shallow or too narrow for conventional multi-family housing.

At the same time, an acute shortage of conveniently accessible parking in central Boston meant that a house type that included private dedicated parking spaces would be unique to the market. The row houses have two-car garages, accessed from the rear of the site, and a front vestibule entered from the sidewalk. The houses have a minimum front-to-back dimension to allow for rear parking access on even the shallowest of sites. The houses are twenty-eight feet deep to provide enough room for garage and vestibule on the ground floor, front and back bedrooms on the third floor, and enough length for stacked single run stairs to the third and fourth floors.

In addition to sales prices that qualify the houses as “starter homes” and the relative luxury of parking garages, the houses have also been designed to accommodate several specific social configurations. The bedrooms are arranged so that the houses work well for couples in which the partners may each want separate bedrooms, for traditional families, and

for empty nesters with frequent houseguests. The master bedroom on the top floor has access to a terrace that faces back towards the street. The master bath has been designed with two “work stations” to allow a couple to get ready in the morning simultaneously. Since the fourth floor terraces will have good views, the top floor could be reinterpreted as another social space rather than as the master bedroom. In this configuration, the larger of the two bedrooms on the second floor would function as the primary bedroom.

To save precious space on the second floor living level, the customary powder room has been eliminated. Instead the bathroom on the third floor is enlarged and placed a few stairs down on an intermediate landing between the second and third floors. As a result, houseguests will not need to climb the full distance to the bedroom level to use the toilet. On the opposite end of the third floor corridor is a laundry room with a view down to the street. If the third floor bathroom and laundry room doors are left open, cross-ventilation is possible. Cross-ventilation is a feature of all three living floors.

The ability to propose a new paradigm for housing resulted, in this case, from a series of discussions with the developer/client about the specific opportunities afforded by the evolving housing market. Functioning as much as development consultants as architects, we also invited real estate brokers to the conversation to help frame the program. In addition to our making the cost numbers work, our design provided enough market differentiation to positively influence the predicted “absorption rate.”⁽³⁾ Clearly, proactive engagement with the potential of the market to embrace unconventional design is necessary to offset the conservative bias of the real estate industry. Since risk assessment and value are typically based on comparisons of similar properties, underwriters and investors typically encourage design solutions based on the most common and characteristic precedent. Without a compelling narrative that can provide the “market appeal” to balance “market risk,” even the most enlightened developer will want to emulate just

the last successful project. In this context, only arguments based on a convincing assessment of the potential evolving market will open the door to innovation.

In the row house project, we combined a careful look at real estate valuation models with a developing narrative that would structure both the evolving design and the ultimate marketing of the units. This process empowers the architect instead of the marketing team to create the lifestyle narratives of the project. (The marketing team typically develops the story after the fact and then follows its "vision" with interior decoration and marketing brochures filled with stock lifestyle photography.) More important in terms of the architect's role in practice, when the design agenda is cast in terms of user needs and opportunities, the architect's agenda is (usually and we think appropriately) the same as the client's.

Very few architects have closely examined the influence of real estate development finance and the regulatory environment on design with rigorous theoretical self-consciousness. One interesting exception is Ted Smith of San Diego, who combines the zeal of a New Urbanist, the lifestyle marketing savvy of a shelter magazine editor, and the pragmatic skills of a seasoned practicing architect. (4) Smith embodies a combination of entrepreneurial skills that seem to be more common with architects on the West Coast and in Arizona than on the East Coast. East Coast architect/intellectuals are often suspicious of these hybrid practices. To some, Smith is to architect/developer as the Jersey Devils are to design/build. Kitsch must lie just below the surface. Since Smith is both a developer and architect, he takes on some of the financial risk of his own programmatic and design choices.

The Architectural Alliance in Toronto is another relevant practice that has developed a compelling agenda while embedded in the everyday economic and cultural demands of the real estate industry. The preoccupations of The Architectural Alliance are perhaps closer to our own because the financial risk is being taken by the developer/client rather than the architect acting as the developer. This is

where the rhetorical skills of "pragmatic persuasion" are necessary to frame an ambitious architectural agenda at the service of the client's interests. Kenneth Hayes characterizes the position of their work: "It entails giving formal expression to desires that the masses are not themselves able to articulate. This may sound antiquated and paternalistic, but it applies equally to the apparently sophisticated, knowledgeable public of present-day North America. Modern architecture must transcend the immediate dictates of the market if it is to engage the future. The constructivist architect acts to realize that which is not yet hoped. This practice is counter to advertising's grim business of inciting insatiable desire, and has nothing to do with 'anticipating' the market." (5)

Architects can operate more ambitiously if they do not hide their aesthetic agenda but rather have the poetics of pragmatics drive the logic and elaboration of their projects. What is important here is the notion of pragmatics itself, since most architects would claim that they are operating with at least some responsibility to design a building that is thought-out as a single synthetic proposition. Instead what is being proposed is the suppression of other aesthetic and symbolic agendas precisely so that a methodology that looks for innovation in pragmatics can emerge. It is the self-consciousness of this methodology as a theoretical position that is important to architectural culture, as is the reality that it is, in this case, not the academy that is providing alternative paradigms for practice, but rather intellectuals embedded in practice-working from the inside out, as it were-that are discovering new theoretical territory.

Innovative architects and the associated superstructure of "theory" in the academy have championed political and aesthetic positions at the margins, not in the mainstream, through a radical differentiation of formal languages. But the efficacy of a cultural critique and resistance with exceptional form needs to be reconsidered. In some cases the strategies of the avant-garde position has been embraced, as it has been in the incredible post-Bilbao museum building boom. But what percentage of buildings that our culture pro-

duces warrants the media attention that naturally results from exceptional forms? And, in an ultimate irony: how can an architect hope to both offer a critique of mass culture and be embraced as a media star? So much for cultural resistance-this is cultural appropriation at a scale that produces a loud sucking sound.

In our practice, we have made a conscious decision to trade the radical but typically unrealizable position of the new avant-garde for the ability to effect real if incremental innovation within conventional culture. Rather than equate ambition with an exceptional architecture that can only be built by well-endowed private institutions, we are committed to a less pure architectural position-you could say that, to us, "purity" seems highly impure. We are interested in understanding and engaging the initial motivations in our culture that may then require an architectural response. For most of our built environment, this first motive is to generate future financial returns. We should and can be simultaneously in and out of that game.

Notes

1. Christopher Alexander, *A Pattern Language* (New York: Oxford University Press, 1977), 633.
2. Ibid.
3. The absorption rate, an important variable in real estate finance modeling, is the rate at which housing units are predicted to sell.
4. See Megan Miller, "Reassessing the Pro Forma: Smith & Others," *Praxis* 3, 46-51.
5. Kenneth Hayes, "The Vernacular Esoteric of Architects Alliance," *Praxis* 3, 74-81.

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