

Home Delivery, **Museum of Modern Art (Spring 2008)** Sallie Hood, Ron Sakal

Edited by Harold Henderson

During its final two days in October 2008, we visited the Museum of Modern Art's visually rollicking exhibition, "Home Delivery: Fabricating the Modern Dwelling"—a multimedia salvo reviewing the intertwined histories of architectural modernism and prefabricated housing, complete with nine commissioned projects: four wall fragments and five full-scale houses.

Much of the exhibition lives on in a more linear, tranquil form in the published catalogue *Home Delivery: Fabricating the Modern Dwelling*, by curators Barry Bergdoll and Peter Christensen, and on MoMA's website (<http://momahomedelivery.org>, by Flat, Inc.), which includes a detailed timeline, still and moving images, and time-lapse views of the commissioned houses being fabricated and erected on their temporary site.

The website's three-and-a-half-month blog—featuring posts from the curators, the designers of the commissioned projects, and other exhibition participants—offers an inside view of preparations for the exhibition's July 20th opening. Now called "Installation Journal Archive," it includes much information not found elsewhere. How else would we know that designer Richard Horden of the commissioned Micro Compact Home (mch) is preoccupied with the number 26? (See his July 4 post.) Or that the website itself was originally modeled in chipboard and balsa wood? (See the June 14 post.) Unfortunately the blog is suffering from electronic decay: it can still be read, and the posts remain in order, but the 2009 calendar imposed on it has advanced their dates six days. As of late February, in order to retrieve the first post, made and dated March 24, 2008, it was necessary to click on the calendar date March 30, 2009. Posts are also accessible by topic.

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We are irresistibly drawn to model residences, and had intended to visit the five signature houses first. We glanced at them through the chainlink fence, but kept finding reasons to remain in the gallery hubbub. In retrospect, we may have been responding to their standoffishness. The five shared one lot, yet had no significant relationship with one another—the dominant tone was isolationist. No landscape. No curb appeal. No modernist village.

Were the curators trying to position the houses as provocative art objects? Or were they carefully avoiding any hint of New Urbanist generic-genteel aesthetics? We wouldn't blame them for the latter, but the result was incoherent and unwelcoming—and a missed opportunity to display edible, low-maintenance, drought-resistant landscapes. Was there no room in MoMA's budget to give the houses a setting that might make visitors want to live in them?

Inside the museum, the exhibit's overall effect—despite its jam-packed, dynamic presentation—tended to the funereal, with ashen grey walls, low-level lighting, and faded modernist artifacts. Many "Home Delivery" projects are old friends we've loved since they were new. They're why we became architects (we live high above the Chicago coast of Lake Michigan in a three-bedroom variant of Case Study House #26), why we design modest housing, and why we've long championed modular construction. We recognize modernism's urban design failures (and we design infill projects as restitution), but they haven't dimmed our affection for the fervent optimism of the movement's early days.

Working against the grain, we joyfully waked the formerly sleek and shiny creations of our youth, toasting Wright, Keck, Fuller, Prouvé, CSH #8, Quonset Huts (reminding us of the military's role in promoting prefab), the Lustron House, Suuronen, and Monsanto's House of the Future (present only in a film loop).

The film loops and installation videos on prefabrication themes by Joey Forsythe of Velocity Filmworks provided many high points. (See his June 7 blog post.) We would have loved a theater for comfortable, chronological viewing. The website includes many excerpts, and Google Video and YouTube fill some gaps (including Buster Keaton's "One Week" from 1920), but we yearn for a MoMA DVD.

Pop culture and high culture rub shoulders amicably in the catalogue (and did so in the exhibition), as they rarely do in real life. Back in the day, the catalogue notes, the popular Sears kit houses suffered "infamy" in architecture circles. The Lustron all-steel house (the show-stopper this time around) was vilified by *Time* magazine precisely for its modernist honesty in expressing its manufactured nature. And according to Robert Rubin, Jean Prouvé's *Tropicale* houses "were too strange looking for their intended buyers: the French colonial bureaucracy and business community."

This gap between modernists' good intentions and their customers' conservative tastes haunts the exhibition. Curator Barry Bergdoll takes it on in his introductory catalogue essay, "Home Delivery: Viscidities of a Modernist Dream from Taylorized Serial Production to Digital Customization." He poses a plaintive rhetorical question: "If factory production has made such a revolution both in the production of once hand-crafted objects such as clothes, shoes, and household products, as well as in modern mobility—automobiles, planes, and ocean liners—then why is the culture of building

so resistant to transformation?"

Of course factory production has already transformed building. Bergdoll himself notes that nearly one-third of American single-family housing starts are manufactured. (Who hasn't experienced traffic crawling as extra-wide housing modules are hauled down the highway?) It's just that outstanding designers, modern or otherwise, have had little to do with most of them, so the results tend to be routine, ugly, or both.

Modernism's failure to attract public acclaim is the subject for century-old cheap shots, but it is difficult to lead a revolution without followers from among those on whose behalf it is being led. The challenge for the designer of modernist prefabricated houses is to achieve minimalist elegance while striking that delicate balance between *gemütlichkeit* and kitsch (ably achieved by Heikkinen-Komonen's Touch House). Several practitioners now produce well-designed prefabricated houses in the U.S. (see Allison Arieff's "By Design" *New York Times* blog, <http://arieff.blogs.nytimes.com/2008/09/15housing-the-universe>) and in the UK (see Colin Davies, *The Prefabricated Home*). Their work might have answered Bergdoll's question, or rendered it irrelevant, but they were not in MoMA's exhibition, which nevertheless found room for popular products from Scandinavia and Japan, as well as dystopic visions like Zvi Hecker's Ramot Housing and Michael Jantzen's M-Vironments/M-House (disorienting even for Dr. Caligari).

Bergdoll calls the U.S. manufactured housing business "invisible to, and all but impervious to, design culture." True enough; but as his phrasing hints and the exhibition demonstrates, this knife cuts both ways: the design culture can be equally impervious to most people's reasonable desire for affordable firmness, commodity, delight—and community.

What would we get if we transformed on MoMA's terms? To use today's language, what kind of durability, usefulness, beauty, or neighborhoods could we expect if we put our houses into the hands of Bergdoll's handpicked exhibitors?

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Community? The word may not have made Vitruvius's list, but it's on ours, for both urbanist and environmental reasons. Taken one at a time, as they demanded, three of the commissioned houses are hard to imagine as compatible neighbors in a neighborhood, either of its own kind or with others—BURST*008, SYSTEM3, and the Micro Compact Home. At least the high-spirited BURST*008 doesn't even pretend to try.

SYSTEM3's entry façade was the only lovely element in an otherwise sober and austere residence. As compositions made up of multiple residences, SYSTEM3 recalls the failed social housing of the Khrushchovkas and Paul Rudolph's Oriental Masonic Gardens. A look at the designers' website (<http://www.olkruf.com>)—specifically their House Innauer (2002) in Dornbirn, Austria—confirmed

our unfavorable impression, given that design's imposition of a virtually blank street wall on the community.

The curators describe the tiny mch as "a bold statement regarding what is essential to life in the twenty-first century"—no books but two TVs—adding that it's "specifically geared toward single persons with a mobile work or leisure-oriented lifestyle." That seems like a narrow vision of life's essentials in a century when economics, ecology, and energy are pushing us toward more dense, compact, walkable, and interdependent neighborhoods. Like SYSTEM3, when mch becomes a composition of multiple residences, it also fails, becoming no more inviting than the Nakagin Capsule Tower.

The impulse to design minimal living spaces isn't new, of course, and given the global economy, may yet become the norm. The mch reminded us of Ken Isaacs's low-tech Living Structures—bigger than furniture but smaller than architecture (and with room for books), and easily made of plywood and 2x2s by do-it-yourself-ers. He designed them in the 1950s and '60s to add variety and make use of "waste" space inside already tiny apartments. Throughout Chicago they proliferated in Ken's students' flats. They were sustainable before the word was invented, and designed for sociability, too, whether constructed inside city apartments or out in the woods. (There's a brief account at <http://www.dwell.com/peopleplaces/profiles/6846577.html>.)

We were able to imagine the two other commissioned works being neighborly. In the catalogue, KieranTimberlake Associates' disassemblable-and-reusable Cellophane House is portrayed in a hypothetical urban context. However, its plan and section struck us as pedestrian, and its insistence on translucent and transparent floors and ceilings was positively disorienting. The MoMA guard told us she liked the house but, when pressed, couldn't see living there: "There's no place to hide."

Larry Sass's incomplete Digitally Fabricated Housing for New Orleans (being built in summer 2009—our jury is out until then) is a shotgun house designed and ornamented to relate to its potential neighbors in that devastated city. For this thoughtful effort, Sass received a stinging rebuke indicative of modernism's ongoing difficulties in dealing with context. "When I first showed my ornate models to a few colleagues [at MIT], I had no idea that something so small could offend so many," he wrote in his June 5 blog post. "Some were appalled that my work did not reflect the modern movements in architecture." What appalled us was the use of exterior plywood in a climate where it would promptly delaminate.

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Instead of community, the commissioned houses revolve around various high-tech contraptions used in conditioning interior space and in computer-controlled fabrication. The Cellophane House, for instance, relies on a system of "operable dampers and minuscule

fans” which “anticipates internal climatic needs and eliminates the possibility for unwanted heat gains and losses”—that is, until one of those many moving parts malfunctions. High-tech is cool, but it’s not green when passive solar design alone can achieve climate control.

At least BURST*008 was fun in itself (if only we might relocate the primary bathroom’s too-public entry). Oddly enough, it was intended “less as a statement about prefabrication than...as a demonstration of what fabricated housing can achieve by mining the possibilities of the computer.” Creators Jeremy Edmiston and Douglas Gauthier are “more interested in creating a system of production than in creating forms.” Computer templates allow a design to emerge directly from client discussion; the architects’ software formula then “explodes” the design into more than a thousand non-identical pieces; and another piece of software arranges them to be cut from more than 300 sheets of plywood “with minimum waste.” The results are packed flat and sent to the site for assembly.

“Ingenious” is too weak a word for this scheme, generically known as CNC (computer numerically controlled) technologies. Yet the resulting intricate lattice of plywood underneath BURST*008 struck us as a maintenance nightmare and a world-class nesting area for social wasps. Here again, however fabricated, plywood seems a dubious material for exterior use.

Indoors, computer-aided design and manufacturing spawned the beautiful but high-maintenance walls. The Vector Wall was downright gorgeous. (If all we’d seen of SYSTEM3 was its entry facade, freestanding among the other commissioned walls, its array of tiny CNC-milled circular openings would have sold us.) But when architectural detailing in any style becomes a maintenance headache, it’s a sign of ostentation overcoming common sense—especially in prefabricated housing aimed at affordability.

CNC fabrication may or may not conserve wood, but it does increase architects’ control of the building process: instead of mere drawings, now we can produce (in the words of Marble and Fairbanks’ “Flatform” proposal) “highly precise sets of instruction and data that drive manufacturing processes.” Computer-controlled fabrication is a fascinating sub-discipline in itself, although we find it more appropriate for decorative work (as in the die-cut lights of Studio Tord Boontje) than for architectonic uses. But in any case, it is a tool—not a design principle, let alone a design philosophy. Is it enabling today’s modernists to go overboard, creating elaborate patterns for their own sake? If so, isn’t this the same kind of fussy excess proto-modernists rejected a century ago?

MoMA’s modernist conceptions and prototypes behind us, we visited the harsh reality of 1869 in the Tenement Museum—overcrowded, noxious, labor-intensive, and one impetus for the Modern Movement’s commitment to good design for the many. Yet, our docent assured us, the tenement’s residents enjoyed a tightly

knit, supportive community. Tenements are nothing if not grounded. By contrast, many of the designs at MoMA were as un-grounded as possible without dissolving into air.

Many, perhaps most, Americans, barely “see” design at all. If they can buy a reasonably priced, familiar-looking prefabricated house from a company employing no first-rate designers of any stripe, they’ll make do with its infelicities (probably without even noticing them). The creators of “Home Delivery” have documented the difficulties past generations of modernists had with their would-be mass clientele. From what we saw, we fear that many present-day modernists may continue to do the same thing—designing impractical, unsociable prefabricated dwellings—while hoping against hope for a different outcome.

Yet one blaze of hope did emerge from the exhibit—from a designer who engages people where they are rather than from some self-absorbed aesthetic or computer-geek worldview. We weren’t the only ones who stopped at Estudio Teddy Cruz’s “Maquiladora” for the liveliness and color, and stayed for the infrastructure, policy, and community-building message. The “Maquiladora” is a scaffolding system that would allow Tijuana residents to assemble the leavings of wealthy San Diego into low-cost neighborhoods that are denser, more vertical, and more visually harmonious than what is there now. In general, having provided a scaffolding system for residents to use, “there is very little work that Cruz can or even wants to control”—the very opposite of computer-controlled fabrication. (<http://www.youtube.com/watch?v=jXr9vEE7gaM>)

In the end, it was Cruz’s populist approach—not the show’s celebration of digital fabrication—that inspired us as did the modernism of our youth. “Maquiladora” exuberantly expresses the individuality of residents within a harmonious but subtle community order. With ample spaces for residents to delight in both community and public life, “Maquiladora” reminds us of what must have been best about living in NYC’s unwholesome tenements—a (very) close community.