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THE ARCHITECTURE
and DESIGN REVIEW
of HOUSTON

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Cite

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The Rice Design Alliance, established in 1973, is a nonprofit educational organization dedicated to the advancement of architecture and design.

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COVER:

Detail from a map-in-progress showing four towns northeast of Dallas, near Lavon Lake: Lowry Crossing (salmon); Princeton (light blue); Lucas (tan) and Wylie (gray).

Courtesy Keith Krumwiede.

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Iowa Colony, Texas. Population 804. (See page 18.)

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The Rice Design Alliance, established in 1972, is a not-for-profit organization dedicated to the advancement of architecture, urban design, and the built environment in the Houston region through educational programs; the publication of *Cite*, a quarterly review of architecture and design; and active programs to initiate physical improvements. Membership in the RDA is open to the general public.

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CALENDAR

RICE DESIGN ALLIANCE LECTURE: OPEN CITY

Wednesday, March 20, 7:30 p.m.
Brown Auditorium
The Museum of Fine Arts, Houston
713.348.4876 or www.rda.rice.edu

ALEX MARSHALL, author of *How Cities Work: Suburbs, Sprawl, and the Roads Not Taken*, will discuss "Transportation and the Architecture of Place." (This lecture was originally part of the RDA's fall 2001 series.)

RDA CIVIC FORUM

Tuesday, March 26, 7:30 p.m.
Brown Auditorium
The Museum of Fine Arts, Houston
713.348.4876 or www.rda.rice.edu.

"Constructing a Vision: Round III" asks, how can Houstonians effectively communicate with elected officials? And how can officials address citizens' concerns? Panelists include Texas State Representative Garnet Coleman, Harris County Judge Robert Eckels, Houston City Council At-Large Member Annise D. Parker, and Houston City Council member Gabriel M. Vasquez.

RDA 2002 ARCHITECTURE TOUR: WORKING AT HOME

Saturday, April 6, and Sunday, April 7
1-5 p.m. each day, various locations
713.348.4876 or www.rda.rice.edu

The 2002 members-only architecture tour will feature innovative houses that serve as both homes and offices. (For more information on the houses, see page 30.) Tickets $15. Memberships available on the tour for $35 and include complimentary tour ticket.

RDA SALLY WALSH LECTURE

Wednesday, April 10, 7:30 p.m.
Brown Auditorium
The Museum of Fine Arts, Houston
713.348.4876 or www.rda.rice.edu

SHIGERU BAN, *Interiors Magazine*'s 2001 Designer of the Year, uses cardboard tubes to build churches, display pavilions, design galleries, and sturdy emergency houses for refugees displaced by natural disasters. According to *Interiors*, "Ban's paper buildings have opened up radical new possibilities for greening architecture, housing refugees, injecting warmth into minimalist spaces, and eliminating barriers between interior and exterior." The lecture is co-sponsored by the Houston Architecture Foundation.

RDA HOUSTON TALKS

Wednesday, May 1, 7:30 p.m.
Brown Auditorium
The Museum of Fine Arts, Houston
713.348.4876 or www.rda.rice.edu

HENRY CISNEROS, former mayor of San Antonio and secretary of the U.S. Department of Housing and Urban Development, describes his work in affordable housing.

RDA FALL 2002 LECTURE SERIES TOWN AND COUNTRY: INVENTING THE AMERICAN CITY

Brown Auditorium
The Museum of Fine Arts, Houston
713.348.4876 or www.rda.rice.edu.

This series will focus on American city form in the 19th and early 20th centuries and will explore ways in which conventions of urban development were reformulated in response to popular pastoral ideals.

Wednesday, September 25, 7:30 p.m.
WILLIAM CRONON, author of *Nature's Metropolis: Chicago and the Great West*, will speak on the economic relationships of cities and their countryside in 19th-century America.

Wednesday, October 2, 7:30 p.m.
Speaker to be announced.

Wednesday, October 9, 7:30 p.m.
CHARLES E. BEVERIDGE of American University will examine the remarkable career of Frederick Law Olmsted, who virtually invented the professions of landscape architecture and urban planning in the U.S.

Wednesday, October 16, 7:30 p.m.
CHRIS WILSON of the University of New Mexico will demonstrate how a group of artists and anthropologists invented a distinctive city form for Santa Fe, New Mexico.

RICE SCHOOL OF ARCHITECTURE SPRING 2002 LECTURES

All lectures are free and will be at 7 p.m. in Anderson Hall's Farish Gallery at Rice University. For information and updates, see www.arch.rice.edu.

Monday, March 25
MARION WEISS and MICHAEL MANFREDI, of New York's Weiss Manfredi Architects, will give a lecture titled "surface/subsurface."

Monday, April 1
MICHAEL ROCK, of 2x4/AMO, describes "Diagram As Weapon."

Monday, April 8
ROBERT MANGURIAN's and MARY-ANN RAY's Los Angeles architectural firm, Studio Works, has been called "an antidote to commercialism." They discuss their recent work, which won them the Chrysler Award for Design Innovation.

UNIVERSITY OF HOUSTON GERALD D. HINES COLLEGE OF ARCHITECTURE 2002 ALUMNI ASSOCIATION LECTURE

Monday, April 5, 7:30 p.m.
Architecture School Atrium
713.743.2353

ANTOINE PREDOCK, who designed Rice's Center for Nanoscale Technology and Austin's new city hall, will speak.

UNIVERSITY OF HOUSTON GERALD D. HINES COLLEGE OF ARCHITECTURE GALA

Saturday, April 6, 7 p.m.
College of Architecture
713.743.2353

The Blueprint Ball honors architect Antoine Predock. Lyle Lovett headlines the black-tie event.

THE DECORATIVE CENTER PANEL DISCUSSION: PRESERVING HOUSTON'S MODERN ARCHITECTURE

Wednesday, April 24, 4 p.m.
The Decorative Center
8th Floor Seminar Room
5120 Woodway

Panelists include William Stern of Stern and Bucek Architects; Barry Moore, director of the Workshop for Historic Architecture at the Gerald B. Hines College of Architecture; Ramona Davis, executive director of the Greater Houston Preservation Society; and Stephen Fox, a fellow of the Anchorage Foundation of Houston.

LAWNDALE ART CENTER 20th-CENTURY MODERN MARKET

Wednesday, April 24–Sunday, April 28
Lawndale Art Center
4912 Main Street
713.528.5858

Thirteen dealers specializing in 20th-century antiques will offer furniture, glass, ceramics, metalwork, textiles, *objets d'art*, and fashion. Call for times and lecture information.

RDA GALA 2001

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Photos by Gael Williams


Dr. Richard E. Weinerdi, Joyce and Larry Lander


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The 15th annual Rice Design Alliance Gala, honoring Texas Medical Center, was just what the doctor ordered. More than 1,000 guests wore black tie or their best scrubs, and the evening raised nearly $450,000 for the Rice Design Alliance's educational programs.

The gala took place at the former Nabisco bakery, at 2450 Holcombe Blvd., which Texas Medical Center is transforming into offices, labs, classrooms, and conference spaces. Dr. Richard E. Wainerdi accepted the RDA award for design excellence from RDA President Larry Whaley. Gala chairs Larry and Joyce Lander, environment chair Katherine King, underwriting chair Chuck Gremillion, and auction chair Andrea Crawmer felt anything but sick about the evening.

The crowd also included Rice University president Malcolm Gillis and wife Elizabeth; Rice provost Eugene Levy with Erzsébet Merényi; Anne and John Mendelsohn; Mary Nell Reck and David Spaw, whose construction firm Spaw/Maxwell hurried work along so that the construction site was clean and the parking lot completed for the event; TMC's Andy Icken and Denise Rhodes; Bob Crawmer; Glenn Rosenbaum; and Manolo de Perio.

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The Rice School amphitheater.

Creative Tension

University of Houston students build with fabric

THE ELEMENTARY-SCHOOL PERFORMANCES at the amphitheater behind the Rice School are modest compared to those at the Cynthia Woods Mitchell Pavilion. But the two venues share a common trait: a complex, high-tech fabric roof.

The Rice School amphitheater, big enough to seat a single class of elementary- or middle-school students, was designed by 13 University of Houston architecture students enrolled in professor Patrick Peters' design-build studio class. For the last 12 years, every summer, the program has offered students the real-world experience of conceiving and constructing a small structure for a local nonprofit group.

Last year, the students considered four possible sites at the Rice School, a public elementary school. Within the first three weeks of class, they had focused on the amphitheater, which was unused partly because it lacked shade. "It presented problems that had architectural solutions within the means we had available," Peters explains.

The students presented a scheme to the school faculty at the beginning of May 2001. A week later they came back with a final design, revised according to the faculty's suggestions. The collaboration thrilled Rice School principal Jocelyn Mouton. "Every time we met," she says, "the students were taking notes and listening."

By this time, the project had become unconventional. Overhead power lines hemmed in the site; underground pipes required a long span. Peters says they were left with no choice: "We didn't start out to do a fabric project. But by the time we got to that point, there was almost no other solution."

Having decided on fabric, the 13 UH students began their search for expert help at Hendee Industries, a Houston company. Hendee turns computer coordinates into patterns used to cut fabric sections, then stitches the sections and welds them into three-dimensional shapes. "It's a lot like making sails," says company president Bill Hendee.

Architects, of course, are rarely trained to make sails, and few attempt the tricky business. Hendee referred the students to fabric-structure expert William Murrell, owner of the New Jersey-based consulting firm Fabric Structures, Inc.

Murrell, a math major who switched to architecture in his junior year, launched his career at a military think tank, where he designed portable barracks; the idea was that a plane could carry an entire portable base. He found himself doing fabric extensions for aircraft hangars, then protective "bubble" enclosures for tennis courts. The bubbles stay inflated because fans keep the air pressure inside slightly higher than the air pressure outside. (A similar system holds up the Detroit Silverdome.)

In the early 1980s, Murrell began exploring tensile structures. Like "bubble" structures, these are made of a light fabric, but instead of air, masts or arches support the tightly stretched fabric. The tensile forces created by stretching the fabric are much larger than any other forces on the structure, including wind, rain, and gravity. At every point on the fabric surface, the built-in tensile forces are in equilibrium. That means that at every point, the fabric must curve — and curve not in just one direction, but two. The forces inside the fabric dictate its form.

Architects, of course, usually work the other way around — with structure following the architectural form — and the UH students were no exception. On a Friday in July they arrived at 4 p.m. in Murrell's New Jersey office. By 8 p.m., Murrell had concluded that the designs they'd brought were unworkable. "The cable forces were immense," he explains. "The columns were not in compression but in bending. What was wrong would be an interesting discussion."

Soon, though, the students found the right shape. This computer-intensive process is the most complicated part of designing a tensile fabric structure. "We call it form-finding," Murrell says, "and we treat it with some reverence. We don't make the shape; we try to find the shape. It's a mathematical procedure. Once you find the constraints, you try to find the inherent shape."

The students' amphitheater designs evolved into a pair of intersecting arches with the fabric stretched over them. That shape proved low enough to clear power lines, tall enough to avoid obstructed seating, and curved enough to satisfy the laws of gravity.

Back in Houston, in the last two weeks of July, Hendee Industries made the fabric, a vinyl-coated polyester that Hendee predicts will last 10 to 15 years. Cables run in sleeves at the edges of the panels. At the corners, those cables are attached to a plate, which is bolted to the arches. The UH students performed most of the labor, making patterns and cutting the fabric to shape. Hendee's staff used radio-frequency welding to fuse the fabric pieces together.

The fabric was ready by the end of summer, but after fall classes began, work slowed to weekend sessions. A building permit was approved the first week of August, a month later than planned. Foundations came next; in September a crew from W.S. Bellows Construction lifted the steel lifted into place, pro bono. The students did the welding.

At last, everything was ready for the big moment. On November 17, a Saturday morning, 2,000 pounds of fabric were rolled out on a dolly. Ropes had been stretched across the steel arches to cradle the fabric. Some of the UH students unfurled the fabric; others pulled it over the frame with ropes. Nobody there had ever raised a fabric roof before.

The fabric now draped over the arches, wrinkled like laundry, awaiting the tension that would snap it into place. At each corner, the fabric was bolted to a sleeve that slid over the steel pipe supports. Students hand-tightened a pair of 4,000-pound comealongs at each support to pull the sleeves down and stretch the fabric.

As Peters watched, the canopy's saddle curve emerged. "That was the first moment that fabric had a quality of being more than hung," he says. "It became something altogether different."

— *Christof Spieler*

Top: D.D. Smalley in his museum.

Insets: Smalley's business card.

Small Wonders

Architecture students and Brazos Projects revive a folk-art museum

D.D. Smalley was excessive to the bone. Even his name was excessive, notes Smalley aficionado Helen Fosdick: The initials stand for David David. A draftsman and mapmaker for the Southern Pacific Railroad, he threw himself into hobbies. He made robots, which performed for his guests. He built large telescopes, for which he ground his own lenses. When he entered a painting show at the City Auditorium, he won first, second, and third place. He carved ships-in-a-bottle, airplanes, scenes of rural life, and complete balsa-wood train sets. He even hosted a radio show on which he performed as a one-man band and offered a prize to any caller who requested a tune he couldn't play.

In 1941, at his wife's suggestion, he converted his attic to the Hyde Park Miniature Museum, where neighborhood kids could admire his eccentric treasures. There were corset staves, dinosaur turds, fleas dressed in tiny costumes, and approximately 250,000 stamps that he'd soaked off envelopes and tied into neat bundles. There was a petrified beehive, an acorn from the White House lawn, and things that Smalley proclaimed to be "Porcupine Eggs." Kids could make the giant model train set whistle, or they could read any issue of *Popular Mechanics* or *Life* ever published. Visitors were asked to sign a guest book, and if they put a penny in the donation box, a mechanical monkey would tip its hat.

Smalley died in 1958. In 1994, Helen Fosdick and Smalley's grandson, Frank Davis, carefully stored the museum's contents in a barn in San Marcos. Someday, they hoped, the museum could be revived.

This fall, students from the Rice Building Workshop designed and built an exhibition unit for the museum — one that could both travel the country and recreate the strange charm of Smalley's attic. "The purpose of the Rice Building Workshop is to get architecture students involved in hands-on projects with real-world clients," says Danny Samuels, the workshop's director. "These clients and this project were fun. The students had a grand time."

On March 19, the exhibition debuts at Brazos Projects, the exhibition space next to Brazos Bookstore. For a year, viewers will be able to appreciate Smalley's dinosaur hip bones, his genuine Hawaiian grass skirt, and a ring that once belonged to 8'6" Jack Earle. — *Lisa Gray*

Courtesy Rice Building Workshop

Model of the Rice Building Workshop's exhibition unit.

THE NEW FOLEY'S, HOUSTON, TEXAS

EMPIRE ROOM, RICE HOTEL, HOUSTON, TEXAS

Above: Vintage postcards of architect Kenneth Franzheim's work. Below: Bank of the Southwest Building (1955).

Endangered City

Franzheim Alert!

The Greater Houston Preservation Alliance has nominated Kenneth Franzheim's 1952 Prudential Building at 1100 Holcombe to the National Trust for Historic Preservation's list of America's 11 most endangered historic places for 2002. The Trust will announce the list in June.

The very real possibility that M.D. Anderson Hospital will raze this great building (See "Modern Landmark Endangered" in *Cite* 52) starkly dramatizes how little of Franzheim's work we have left, and worse, how little it is appreciated.

Kenneth Franzheim moved to Houston in the 1930s, bringing a high New York style to the Bayou City. The Empire Room, the great art deco night club on the Rice Hotel's ground floor, demonstrated to Houstonians just how good he was.

Foley's at 1100 Main, completed in 1947, is arguably Franzheim's best work; it received a national AIA design award in 1950. The building's original Raymond Loewy interiors are long gone, but the exterior is original.

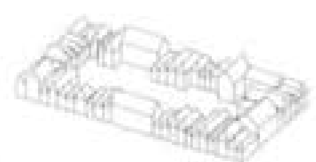
The Capital National Bank and garage (1955) is still at 1300 Main, though it has undergone recent large-scale upgrades to attract more tenants. Franzheim would probably be sympathetic: He took on many remodeling jobs himself, including the Hermann Professional Building at 6410 Fannin, and the Phase Two addition to the old Texas Company/ Texaco Building at 720 San Jacinto.

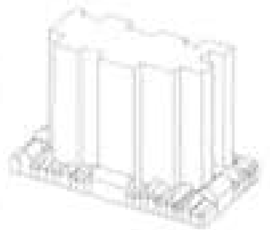
Franzheim's largest downtown commission, the Bank of the Southwest Building at 910 Travis, is still mostly original above street level, although the great Rufino Tamayo mural *America*, commissioned for the second floor banking lobby, now graces the Dallas Museum of Art. The streamlined, continuous canopy that made the entire surrounding sidewalk a shelter from sun and rain did not survive the gentrification efforts of new owner Bank One in the mid-'90s.

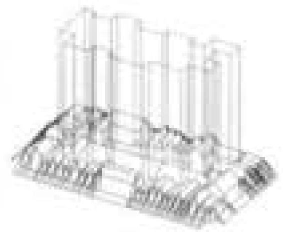
At this point it seems as if the corporate landlords are better stewards of the Franzheim legacy than the institutional owners. Maybe it is only logical: Kenneth Franzheim was Houston's ultimate corporate architect. — *Barry Moore*

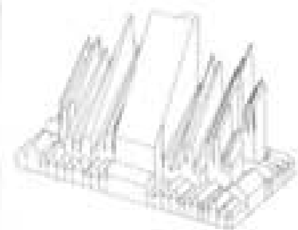
Measure Your Urbanism

What do urban planners need? Data—and lots of it.


18TH CENTURY BLOCK | FAR = 0,8


EXTRUSION OF THE INNER COURT


VIEWLINES FROM THE STREET


CUT OFF 1


Courtesy MVRDV

Cool and calculated: In this senior-housing project, MVRDV's data-driven design overcomes lot coverage and solar envelope restrictions.

When architecture becomes urbanism, it enters realms of quantities and infrastructure, of time and relativism. Psychological issues, anti-disaster patterns, lighting regulations, acoustic treatments — all these manifestations can be seen as "scapes" of the data behind it. — MVRDV

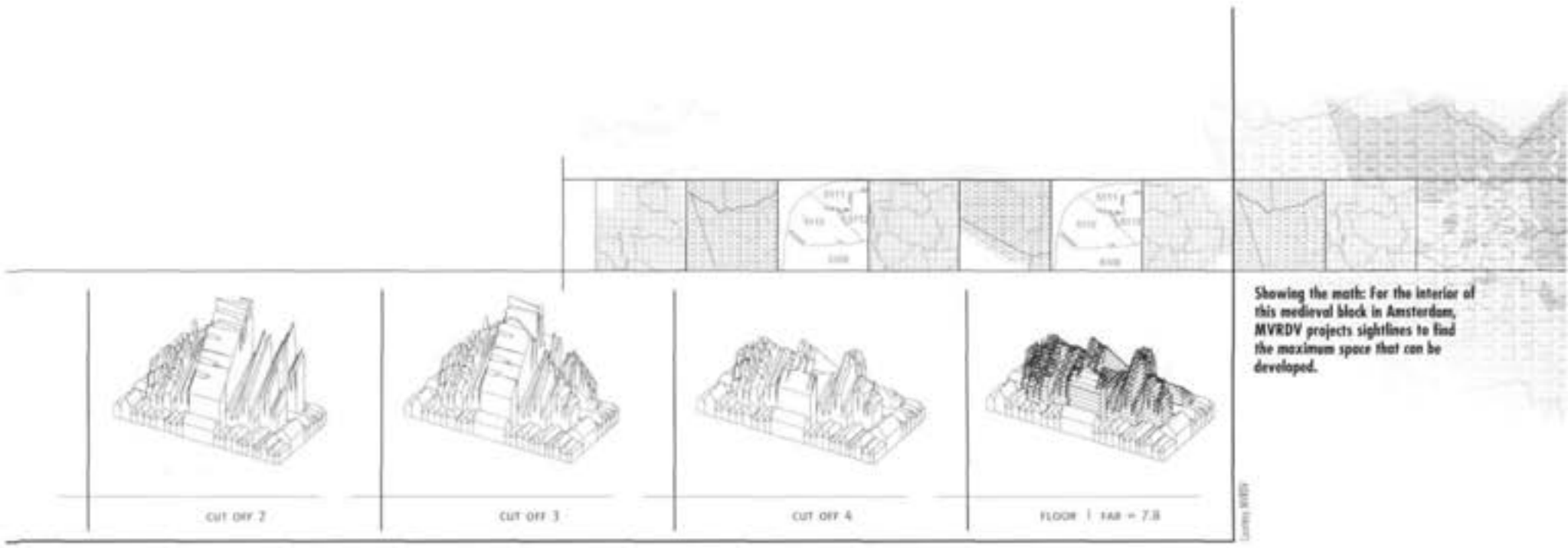
BY JOHN KALISKI

From Numbers to Design

FOR THE PAST DECADE the Dutch architecture firm MVRDV has explored the three-dimensional manifestations of urban codes and zoning, using information technology to study the relationship of environmental factors to architectural form.[1] MVRDV also applies social-science methodologies to three-dimensionally "map" the forces of contemporary globalism. Combining, collaging, and projecting the results, they forecast a theoretical urbanism and architecture grounded in the facts and figures of information frameworks (see, for instance, the drawings at the top of this and the next page).

Using the conceit of maximum densification, or FARMAX (Floor Area Ratio — square feet of building area divided by square feet of site area — MAXimized), MVRDV deftly moves conceptual blocks of urbanism and architectural bulk hither and thither in a surreal operation that produces a topos of fantastic urban imagery and compelling architecture. Though their method and work has been described as the "... status quo disguised as an incredible endless amount of ... paper,"[2] the work touches a visual nerve, especially with younger designers.

MVRDV makes its point powerfully: a new critical urbanism and urban architecture is best realized by first extrapolating and then playing with the comprehensive system of rules and numbers that govern everyday life in the metropolis. For these architects, artistic or traditional town-making simply clothes contempo-



Showing the math: For the interior of this medieval block in Amsterdam, MVRDV projects sightlines to find the maximum space that can be developed.

rary urban forces in ill-fitting suits without addressing — indeed, by denying — growth, modernity, and the fact of ever-present virtual datascapes. In the 1980s and 1990s, during the high-water mark of postmodernism, architects seemed more interested in design semantics and symbols than in the scientific method. Now architects and urban designers, as exemplified by MVRDV and their spiritual (if market-obsessed) mentor Rem Koolhaas, are once again seeking to generate innovative forms from the investigation of data sets. These architects view quantifiable information as a key component of design, and they are not alone.

The Good City Is Good Numbers

The quantification of cities is limited only by individuals' capacity to invent new criteria to gauge. Thus urban intensity and quality is measured in many ways: people per square mile, dwelling units per acre, vehicle trips per hour, sales tax per square foot of retail space, water runoff per minute, percentage of sidewalks shaded, and so on. Such measurements lead inevitably to comparisons between settled areas. These comparisons in turn stimulate discourse regarding the ideology and shape of contending urban models. For instance, it recently was reported that daily one-way commute times in Los Angeles (28.1 minutes) are lower than those of comparable big cities.[1] Does this mean that Los Angeles has a more logical form and higher quality of life than New York (39 minutes), San Francisco (29.6 minutes) or Washington, D.C. (28.5 minutes)? Perhaps yes. Does the availability of such information lead inevitably to changes in urban policy that in turn affect urban form? Indeed yes.

Over the past decade, federal, state, and local governments, entities such as universities and civic associations, and individuals have collected a landscape of urban data and made it available to the public, particularly on the Internet. Census data, environmental impact reports, housing affordability studies, traffic studies, air and water quality measures, and other databases have been mined to support countless community discussions. Data is marshaled to argue for and against infrastructure improvements, developments, master plans, and urban design policies. In most cities the public at large uses this information and becomes a key player in shaping both urban form and the legislation that determines that form. In the 21st century, obsessive counting and codifying by urban designers, architects, planners, bureaucrats, and developers — as well as by average citizens — increasingly define the planning and design of cities and city life. To design a city, you now need good numbers.

Measured Versus Visual Urbanism

Still, for many urban designers, the measure of North American urbanism is emphatically not numerical. As opposed to data, most architects and urban planners typically utilize in their design practices an amalgam of images from places other than the ones where they live their daily lives. Italian hill towns, a great neighborhood in Savannah, Georgia, or Charleston, South Carolina, Disneyland's Main Street — name your favorite place — are picked through and selected like postcards at a flea market. Indeed, these places conjure up strong emotions and wonder. The designer and the citizen ask: Why can't our city, our community, and our street feel just like this?

Some practitioners of urban design make a pseudo-science of revealing these popular precedents and turning them into vision plans. Unfortunately, this methodology measures and projects only one very narrow aspect of the urban continuum: the visual framework of the city. Though the visual framework is of course critical, increasingly this aspect of urban design — in essence, the artful city — is only the narrowest gauge of the good city. Architects and communities need to move beyond the idea that if it looks good, it is good.

The design of urbanism is at a crossroads. On one side of the ideological fence are those who continue to design the city solely for the eye. On the other side are practitioners, citizens, and grassroots organizations who use a flood of data that may, or may not, have any connection to traditional definitions of urban beauty. In the increasingly fierce competition between urban regions, those places that take the time to measure and then benchmark unique urban qualities will have a competitive advantage over those that simply visualize and then haphazardly implement what has proven to be successful someplace else.

Urban Design by the Numbers

An information revolution has occurred. There is no doubt that it is affecting city design. For instance, Andres Duaney, godfather of New Urbanism, claims to be spearheading a web site that for a small fee will deliver to your doorstep neo-traditionally inspired code and zoning approved plans.[2] This effort foreshadows the development of smart programs that will assist non-professionals in the self-design, engineering and approval of projects such as individual homes and small commercial properties.[3] In Los Angeles, anyone with a PC and web access can look up individual land parcels and download complete zoning and lot information.[4] Here the implication is that the public can know, enforce, and necessarily shape what can be built in their communities before developers do. Perhaps the best use of information and data with regard to the design of cities is found within the rapidly emerging discipline of geographic information systems, or GIS. GIS transforms data into maps that can tell powerful stories and reveal the forces at work in the city.

With GIS, building and safety departments can quickly discover clusters of buildings with higher-than-average safety complaints, and then dispatch code enforcement teams to help stabilize and reverse the decline of neighborhoods. Planning departments can visualize flood plains and immediately compare 50-year, 100-year, and 500-year inundations to proposed development before it is approved. With GIS, not only agencies but citizen experts can map their city in accordance with the factors of their choice. The only limitation is the depth and breadth of the data available.

In the past, ideal city form was an abstraction, understood and generated by a small elite in service to a cadre of the privileged. GIS, combined with ever-increasing networks of accessible information, forever puts a brake on this type of city formation by the select. The necessity of ideal city patterns passed down from one generation of professionals to the next gives way to the development of urban trajectories shaped by popular will. One illustration of this phenomenon is the role a group of bus riders is playing in designing Los Angeles' transit system.

For years, the Los Angeles Metropolitan Transportation Authority's official policy was to build a subway and light rail system consisting of approximately 150 miles of rail. Future growth, com-

Measurable improvement: After number-savvy citizens demanded transit improvements, Los Angeles speeded up the introduction of its popular, cost-effective "Rapid Bus" system.

mercial and residential, was to be concentrated at centers served by rail transit. The construction of the rail lines was seen as a "world-class" means to address increasing vehicular congestion and commute times.

From 1980 to 1995 the transit authority poured billions of federal, state, and local dollars into heavy rail and light rail construction. Though the success of the completed lines is impressive — the service is used by approximately 150,000 people a day — less impressive is the lines' influence on overall urban form. From a regional perspective, rail transit has had virtually no effect; Los Angeles continues to spread out based on the enormous convenience and relative cheapness of automobiles. At the same time, for the millions of mostly poor individuals and people of color who stay on the bus and never transfer to rail, the emphasis on rail caused problems; as rail transit was implemented, bus service deteriorated.

Throughout this period a group of dedicated labor and public transit activists closely monitored the situation. As the problem grew worse, they rode the lines and organized a bus riders' union. The union then gathered data both from its own surveys and the MTA. Bus riders were able to document that wait time at bus stops was increasing. The number of standees on buses was also increasing. The number of buses off the road due to breakdowns was ever increasing. In turn, the only people seeing improvements in service were wealthy commuters whose rail trips were heavily subsidized by federal dollars. The Bus Riders Union and their advocates sued, arguing that the numbers clearly indicated a pattern of discriminatory use of federal funds. They won.[5] As a result of the lawsuit, the transit authority agreed to buy thousands of new buses and increase the quality of service based on quantitative criteria that can be monitored both by system operators and the Bus Riders Union. The lawsuit also spurred the transit authority to more quickly introduce cost-effective "Rapid Bus" service on two major bus corridors in Los Angeles. The lines were an immediate success. More rapid bus lines are now planned, and the mayor of Los Angeles is on the record as supporting a shift of transit priorities from rail to rapid bus.

In Los Angeles, this type of planning, action, and reaction to the use of information by citizen experts is abundantly evi-

dent in the arenas of air quality, open-space acquisition, tree planting, schoolyard greening, and restoration of the Los Angeles River. The region as a whole has made great strides forward in these areas and others even as growth continues. Citizen advocates, acting in a democratic arena, are using careful quantification and organization of information to shape the urban design of Los Angeles.

Houston by the Numbers

The long-term success of Houston, like that of Los Angeles, will be determined by its general population's rigorous attention and reaction to facts. But unlike the residents of many other big cities, Houstonians as a whole appear casual, if not cavalier, about their urban quality-of-life benchmarks. How else can one explain the relative lack of response, compared to other regions, to basic ecological vitality? Is Houston too accepting of poor air quality? Why is the flood plain so grossly overbuilt, leaving the city prone to devastating inundations?

Houston's built-form situations are fascinating to speculate upon. Perhaps they herald some new type of super-individualistic, ephemeral, market-driven hyper-urbanism.[1] Unfortunately they also suggest a lack of close attention to the science of urban design. The built-form juxtapositions one sees in Houston — towering new residential buildings intruding visually into adjacent neighborhoods; vast swaths of land vacated to further real-estate speculation at the cost of collective property values; institutional agglomerations such as the TexasMedical Center with little sense of human scale — show that most Houstonians don't believe that, from urban facts, they could craft land-use and built-form systems such as zoning in ways that would benefit both individuals and the community as a whole.

Most cities are getting better at managing vast reservoirs of urban information and using them to improve the collective quality of life and the local economy. When cities compete on a global basis for business, intellectual know-how, and cultural significance, attention to the science of urban detail will differentiate the cities that are magnets for ideas and talent from the has-beens. No doubt there are individuals, groups and leaders in Houston who are as committed as people any place to improvement of the overall urban environment. But the sum of Houston's built environment suggests that citizens have not learned to make effective use of urban-design tools and the data that support them — and such use must be very effective indeed to counterbalance the singular intensity of land speculators and developers, not to mention the bureaucrats and consultants who support them.

Do these powerful interests have the right to pursue their activities? They do. On the other hand, the city designed as a product for consumption, whether in the form of production housing tracts, shopping malls or business improvement districts, does not adequately address the vast in-between spaces of the city where most daily life occurs. Nor do singular development interests adequately pursue in their projects the complexity that is a hallmark of the best places. The citizens of Houston need to more effectively wrestle with Houston information so they can play a more vital role in the nurturing of this urban complexity. With data in hand and a belief that the data can be used to establish constructive counter-policies for the evolution of the city, grassroots groups and citizen experts can help ensure that a more sustainable urban environment is realized more quickly than will be the case if development and growth interests act alone.

Measure Your Urbanism: An Agenda for Urban Quantification

At this very moment, someone is literally designing your city by organizing information and developing urban design equations. Do you know where the data is collected? Who writes the equations? What factors are considered? Which criteria are ignored? To realize the good city in an information age, citizens must do the following:

1. Develop an easy-to-use, publicly accessible urban database with information about air, water, soil, flooding, traffic and transportation, housing, built forms, building permits, and code violations.[10] All the information that people typically gather to understand the life of the city needs to be easily available and beyond dispute. To ensure public trust, city departments that are typically perceived as disinterested players, such as libraries and city-supported higher-education entities, need to have a greater role in the development, dissemination and guardianship of essential urban data.

You do the math: In Houston, unfettered development — such as this new "loft" building — comes at the expense of the city as a whole.

2. Establish and monitor urban design benchmarks. Benchmarking organizes and facilitates the discussion of urban values. With annual or semi-annual monitoring, communities can formulate urban design objectives, measure progress, and establish changing goals that address new contingencies. Benchmarking also allows citizens to place urban design expectations upon themselves and their leaders.

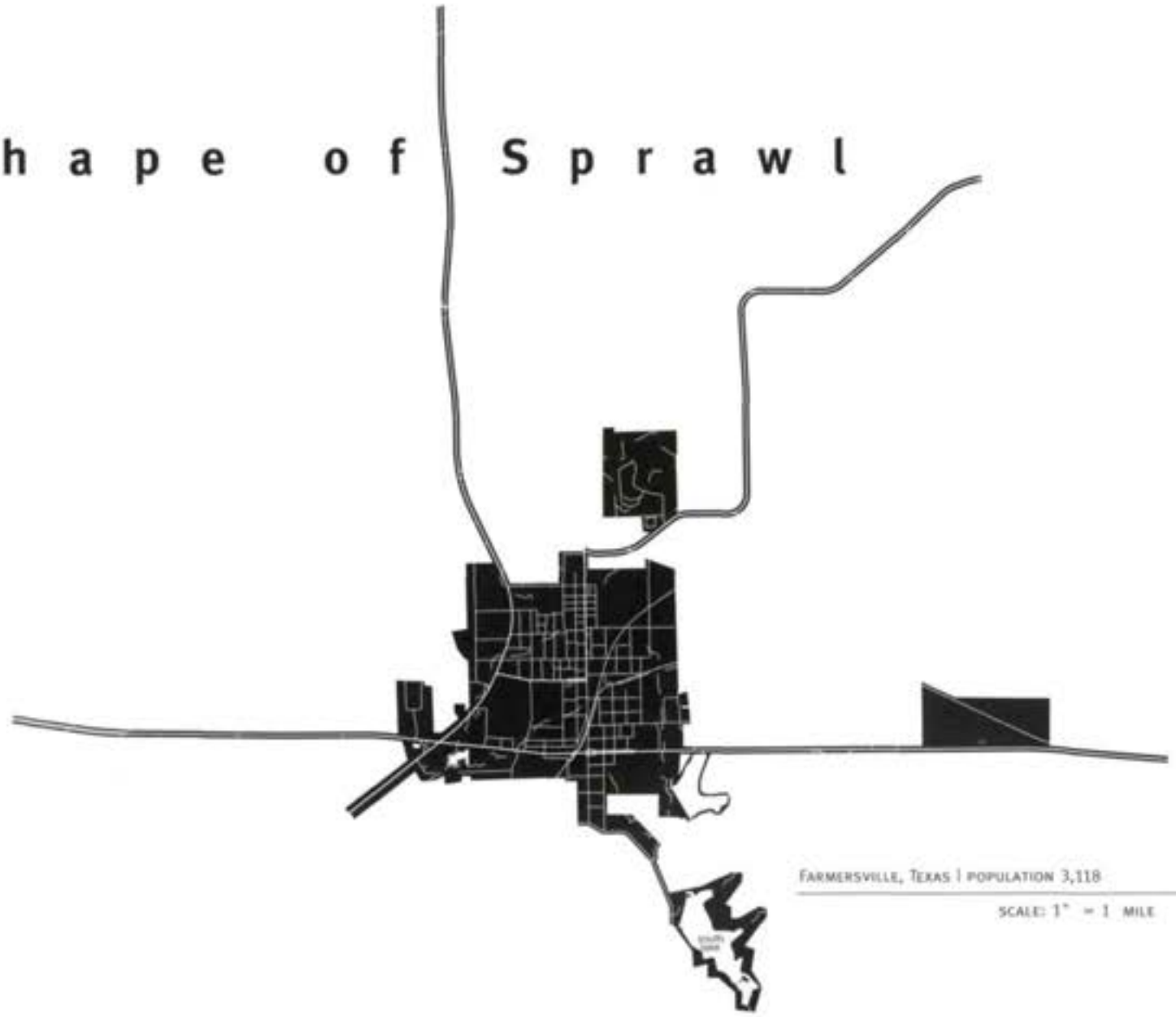
3. Make the urban database visible. As data is collected, it should be mapped and illustrated in three dimensions. Geographic Information Systems that illustrate the location of data points and reveal criteria comparatively are a basic tool of urban design and planning in the information age. Rapid visualization, like rapid prototyping of industrial design products, needs to be both available and required as part of the normal process of planning, designing and approving projects in the city. Like urban databases, urban visualization systems should be publicly available and easy to use.[11]

4. Accept and institutionalize the role of the citizen expert. An informed citizenry, armed with good data, will apply the creative checks and balances needed to shape development towards a larger public good. Citizen experts also are the surest long-term advocates of enduring quality.

There is no doubt that in Houston, government, academics, and most especially developers measure the urban. The critical question for Houston and all modern democratic cities is whether citizens have an equal interest and means to measure their urbanism for themselves. A higher quality of urban life will be possible in Houston — and any other metropolis with aspirations for greatness — only when lay citizens embrace the science of urban design, and are able to counterbalance the powerful groups that already use these tools. ■

1. MVRDV, FARMAX: *Excursions on Density* (010 publishers, Rotterdam, 1998), page 101.
2. ibid.
3. Irene Lund, "dada (data)," from *Hunch: the Berlage Institute Report*, No. 3, Spring 2001, page 132.
4. *Los Angeles Times*, November 20,2001, page B7.
5. Duaney has talked about this on many occasions, including a debate on New Urbanism sponsored by the American Institute of Architects' Regional and Urban Design Committee. The debate was held February 20, 1998, at Disney World.
6. See www.smartcode.com for Duaney Plater Zyberk & Company's most recent work in code development.
7. See the Zone Information Map Access System (ZIMAS) at http://plngis.lacity.org
8. See *The Los Angeles Times*, October 19, 2001, Record edition; page B.4.
9. See Lars Lerup, *After the City* (2000, Cambridge, MIT Press)
10. The Federal Housing and Urban Development Department's Community 2020 software program has included simple mapping software so that Consolidated Plan applicants would have standardized means to illustrate grant applications.
11. New School for Social Research's Environmental Simulation Laboratory is one of many entities that have developed 3-D software and urban design imaging techniques to help communities understand development proposals.

The Shape of Sprawl



FARMERSVILLE, TEXAS | POPULATION 3,118

SCALE: 1" = 1 MILE

BY KEITH KRUMWIEDE

THE STRANGE SHAPES ON the following pages are those of cities — Texas cities, to be specific, as they looked in the year 2000.

Platted as squares, most early townships in Texas were founded at the intersections of local, regional, and national transportation routes. They were, essentially, transportation hubs that connected local agricultural production to the national market via a railroad. In this way, each town secured an economic territory many times larger than itself. A simple, stable geometry clearly delimited a town center that functioned as the focal point of commercial and civic activity for a larger rural community.

But after the Second World War, Texas' population shifted from mostly rural to predominantly urban. According to the Texas Legislative Council, between 1940 and 1960, the fraction of Texans living in urban areas rose from 45.4 percent to 67.3 percent, while the rural population fell from 54.6 percent to 32.7 percent. This migration changed the way metropolitan regions developed. Suburbs sprang up around larger cities. Rivers were dammed to create reservoirs. New highways cut across the landscape, and retail development rose up in their wake. Small cities and towns were forced to adapt.

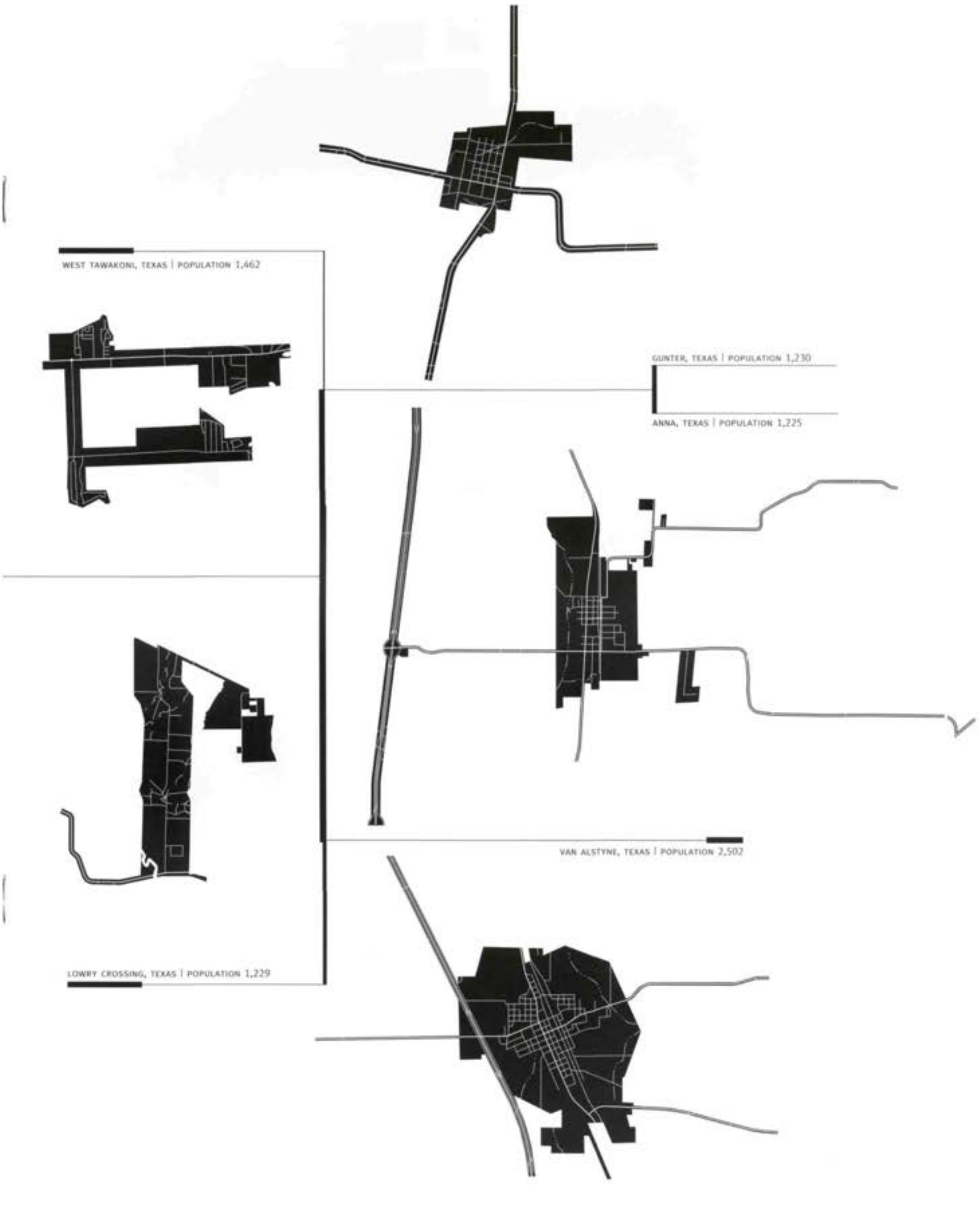
To survive in this new, more complex geography of competing economic, environmental, and political interests, those cities began to mutate and sprawl. Simple geometric boundaries could no longer guarantee a small city's economic security. The small cities you see here — most of them in the Dallas/Fort Worth metroplex — exhibit an almost biological pattern of growth.

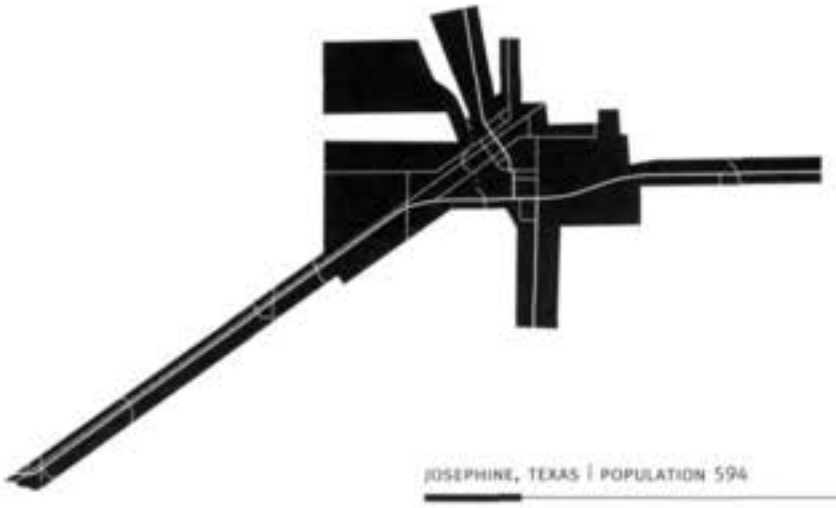
Their boundaries function less as stable edges defining a fixed center than as elastic membranes capable of absorbing the resources necessary for survival.

Until recently, Texas law placed few restrictions on a municipality's ability to annex adjacent territory. Whether to capture nourishment in the form of tax revenue, or to defend against the predation of other nearby municipalities, both large and small, cities exploit their annexation powers tactically. New suburban housing developments are ensnared; emerging revenue sources along highways and interstates are absorbed; natural resources are consumed; and unincorporated land is blockaded to prevent the encroachment of neighboring cities. In some cases, cities have annexed strips of land as little as 10 feet wide but several miles long. Cities are no longer fixed legal entities, but mutable, aggressive fiscal organisms. In all likelihood, some of the boundaries shown here have changed in the two years since these maps were platted.

Such urban planning is not confined to Texas, but it is here that the practice is pushed to its extreme. It is here that a sprawling, predatory landscape emerges — a landscape of municipal self-interest blind to any larger, more comprehensive vision of city form and life. ■

This catalog of plans is taken from the author's ongoing research project examining the economic and political dimensions of metropolitan growth and form.


WEST TAWAKONI, TEXAS | POPULATION 1,462
GUNTER, TEXAS | POPULATION 1,230
ANNA, TEXAS | POPULATION 1,225
VAN ALSTYNE, TEXAS | POPULATION 2,502
LOWRY CROSSING, TEXAS | POPULATION 1,229

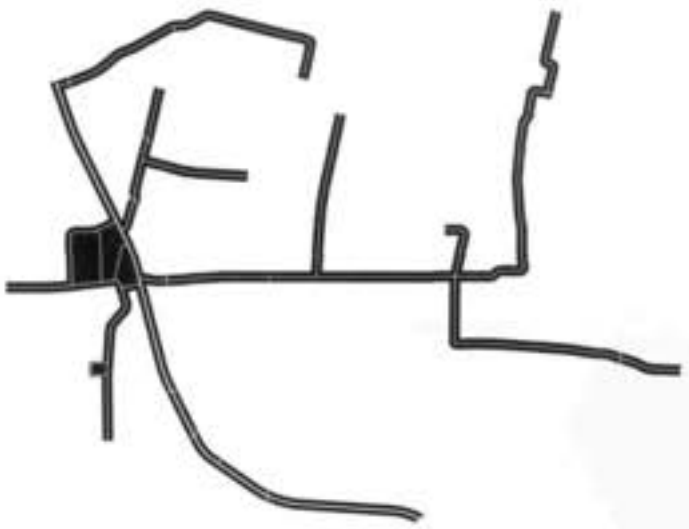


JOSEPHINE, TEXAS | POPULATION 594

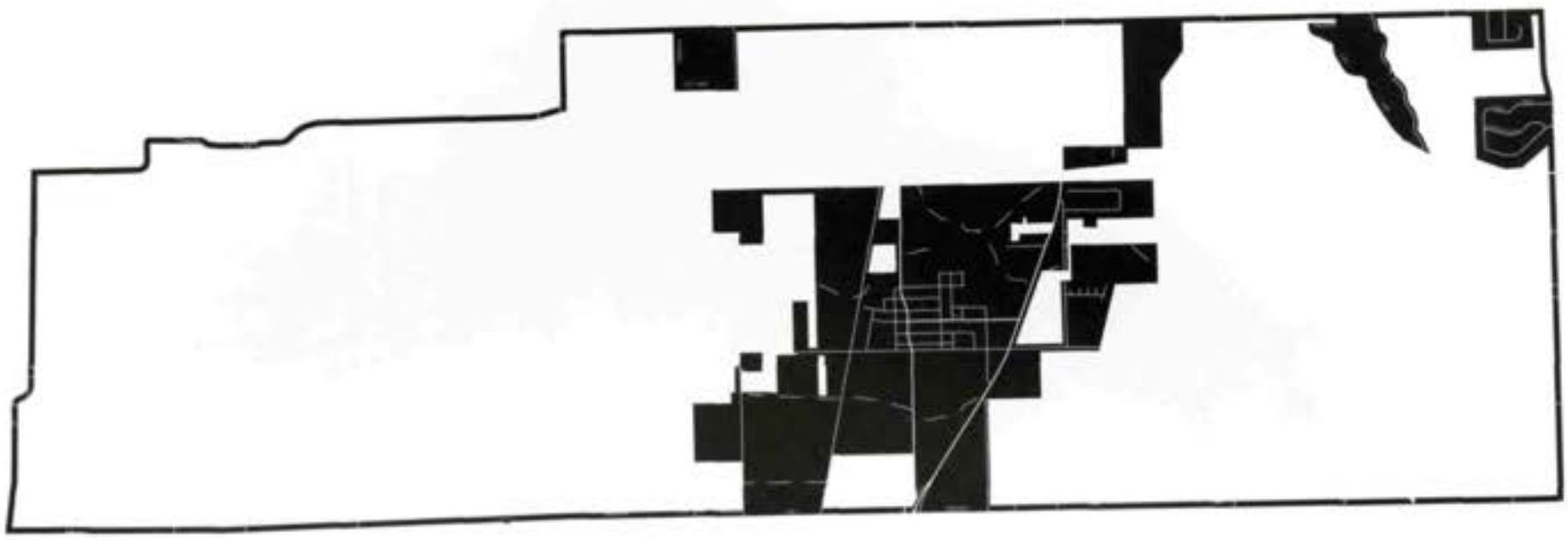
ROYSE CITY, TEXAS | POPULATION 2,957

LUCAS, TEXAS | POPULATION 2,890

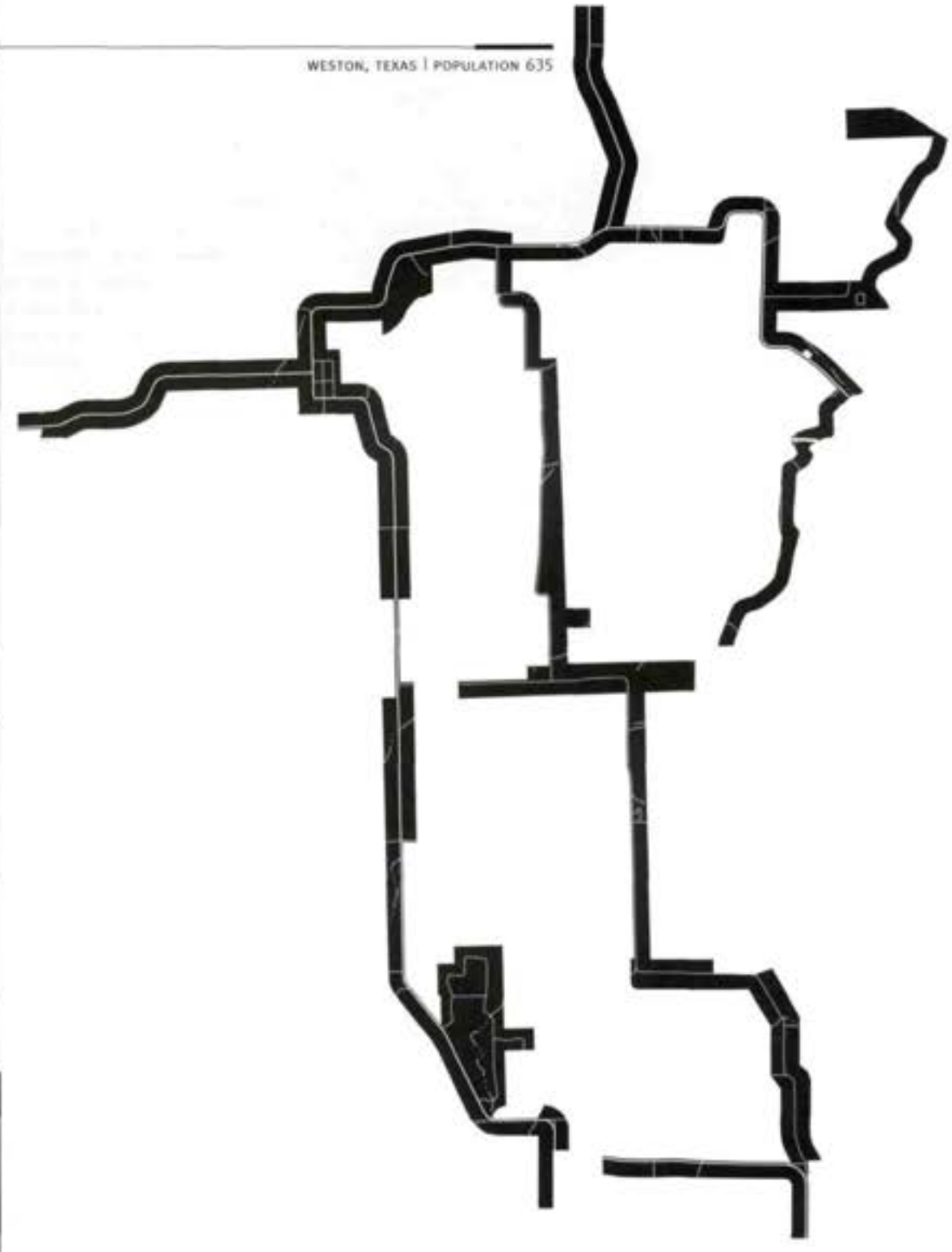
BELLS, TEXAS | POPULATION 1,190



LUELLA, TEXAS | POPULATION 371



PROSPER, TEXAS | POPULATION 2,097



WESTON, TEXAS | POPULATION 635

SADLER, TEXAS | POPULATION 406

MELISSA, TEXAS | POPULATION 1,350

BY JOEL WARREN BARNA

The Rise and Fall of Smart Growth in Austin

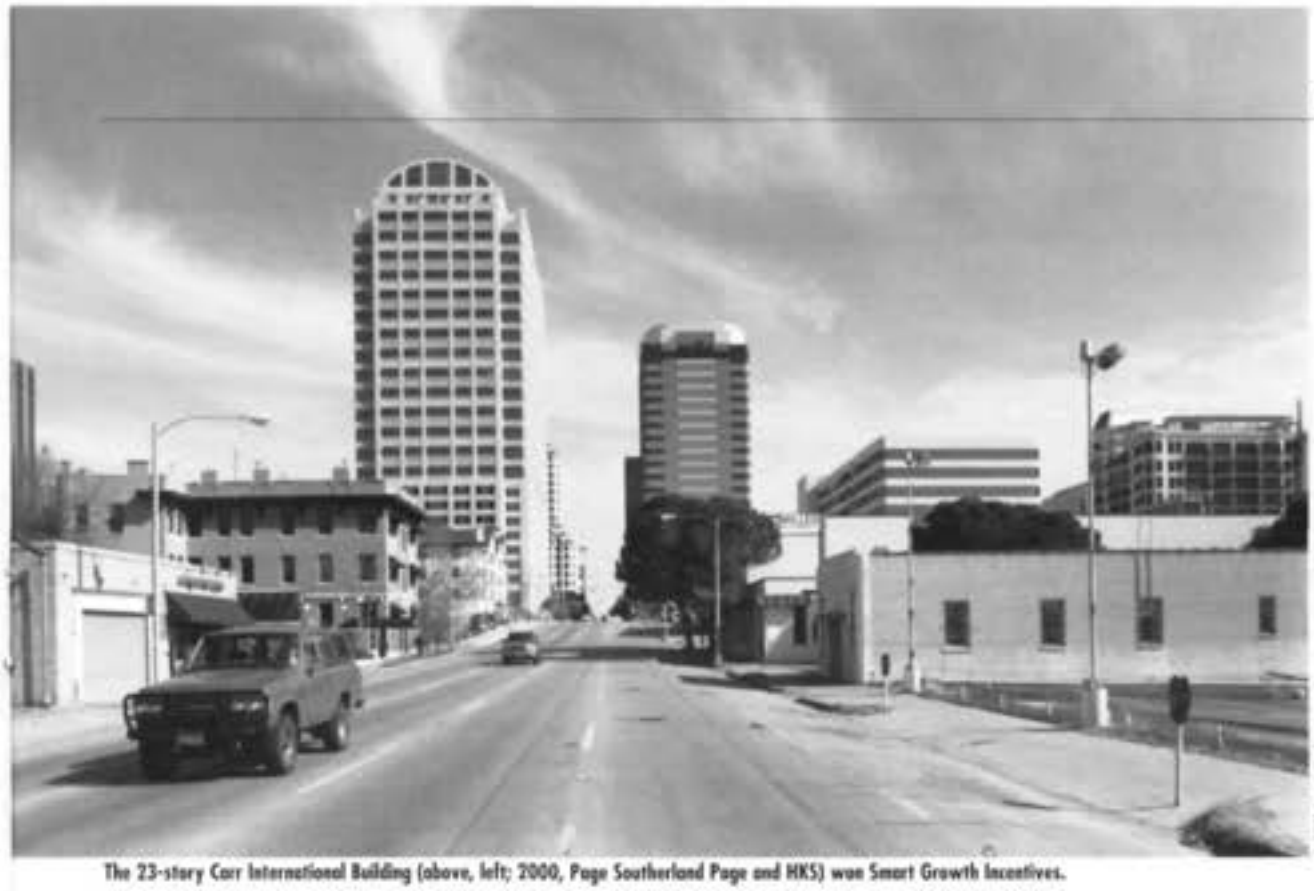
Top: The Austin Smart Growth map. To see the map in color, point your browser to www.ci.austin.tx.us/smartgrowth/default.htm.

Bottom: The unfinished Intel Building awaits an economic resurgence.

Defeat can be a more important catalyst than victory. Texan identity clings to the tragic loss of the Alamo. Serbian nationalism draws on the memory of defeat by the Turks at Kosovo Polje; Iranian Shiites reenact the martyrdom of Husayn, grandson of Mohammed's heir.

For Austin's environmentalists, the catalytic defeat arrived in the early 1990s, in the form of Barton Creek Resort and Country Club, a golf course/spa/meeting center. Since the 1970s, the city had grown explosively: population had soared from 250,000 to 630,000; more than a million people lived in the metropolitan area; and 40 percent more were predicted to arrive by 2010. The growth did not go smoothly. As the city boomed, restive environmentalists and city-core neighborhood groups waged a low-level war against developers, road-hungry suburbs, and key members of the Texas legislature.

In the middle were Austin's mayor and six-member city council, working within a city-manager governmental arrangement that remained the final authority on every major zoning question in the city. The balance of forces on the



The 23-story Carr International Building (above, left; 2000, Page Southerland Page and HKS) won Smart Growth incentives.

council changed with almost every council election.

In the early '90s, the city council voted to allow the creation of the Barton Creek resort west of the city, on the Edwards Aquifer. Soon afterward, the public was outraged by the resulting runoff pollution of the city's beloved swimming hole, Barton Springs Zilker Park. A coalition called the Save Our Springs Alliance won city-wide passage of strict development-control ordinances covering the Edwards Aquifer, and Save Our Springs leader Brigid Shea was elected to the city council. In defeat, the environmentalists had found victory.

Developers sued to overturn the Save Our Springs ordinance and, when their suits failed, worked with willing state legislators (of whom there was no shortage) to limit the city's jurisdiction and rule-making authority. Three such bills were passed but later struck down by the courts.

By the mid-'90s, the situation had settled down to a tense stasis. Meanwhile, Austin grew faster than ever. The success of Dell Computer, Advanced Micro Devices, Motorola, and IBM, along with a flood of smaller-scale Internet and high-tech manufacturing startups, brought low unemployment, a rush of immigration, and a free-wheeling investment climate. It was like Houston 20 years ago.

For people concerned about Austin's quality of life, the effects were frightening. Metro Austin had started the 1990s with one of the lowest population densities in Texas, but by mid-decade, its average commuting times had become the highest of any mid-sized city in the country. By 1996, Austin had become the capital of Texas sprawl.

November 1997: A Sea Change

The tenor of local politics changed dramatically in 1997. A property-rights coalition calling itself Take Back Texas fielded a slate of well-financed candidates against the city council's Save Our Springs-backed members, aiming to tip the narrow balance back to the development side. But when the smoke cleared, Take Back Texas had lost every race, and the enviro-prog Greens dominated city council.

Elected mayor with the new Green council was Kirk Watson, a downtown attorney supported by the Chamber of Commerce and a sampling of neighborhood and environmental groups. Watson seized the momentum from the election and quickly forged an alliance that up to that point had seemed impossible, not to say whimsical: He talked the Chamber of Commerce, the Real Estate Council, and Save Our Springs into uniting behind an agenda of ideas that had been adopted in Portland, Minneapolis and a dozen other cities: Smart Growth.

The basic rationale for Smart Growth is familiar to anyone who has followed critics of postwar suburbia or the growth of New Urbanism: Sprawl bad, compact cities good. On the City of Austin's Smart Growth Initiative web site, the case is made this way: "Our current pattern of growth, sometimes known as 'sprawl,' has a number of negative cultural, economic, environmental, and social consequences....

"To address these problems, Smart Growth emphasizes the concept of developing 'livable' cities and towns. Livability suggests, among other things, that the quality of our built environment and how well we preserve the natural environment directly affect our quality of life. Smart Growth calls for the investment of time, attention, and resources in central cities and older suburbs to restore community and vitality. Smart Growth advocates patterns for newly developing areas that promote a balanced mix of land uses and a transportation system which accommodates pedestrians, bicycles, transit, and automobiles."

Conservatives all over the country argued that that Smart Growth's premises were false and that its prescriptions were, as the Competitive Enterprise Institute put it, "a solution in search of a problem." Austin had talk-show hosts Bob Cole and Sammy Allred, two deft Smart Growth opponents, slamming the idea every weekday morning on a popular country music station.

Nevertheless, with suburbanites irritated by increasing traffic congestion, air pollution, and general ugliness, the anti-sprawl movement was catching on as a national political agenda. It came to enjoy the support of a number of Republican centrists, including Christine Todd Whitman, who told a 1998 national conference on Smart Growth policies in Austin: "We are once again in a space race. This time, however, it's not outer space but open space. This time the enemy isn't Soviets but sprawl. And this time the focus isn't how to land on the moon but on how on earth to save the land.... We owe it to ourselves and our families to win the race for open space by promoting profitable development, livable communities, and environmental integrity."

In Austin, Mayor Watson's argument was simple but persuasive: Austin will continue growing, and without Smart Growth, there will be only Dumb Growth — more suburban sprawl at the expense of the inner city. With Smart Growth, he argued, Austin could more actively influence the city's future form, instead of fighting every development battle on the terms that had brought Austin to the early-1990s impasse.

To green activists, Smart Growth sounded appealing because it provided a way to shield Barton Springs and its federally protected salamanders from further West Side development. To political progressives, it was a way to deal with what they see as an equity issue. Austin architect Sinclair Black recently stated it this way: "To me, Smart Growth has been about tax equity. If you look at the required investment in infrastructure per dollar returned in taxes, downtown is a tax exporter to the suburbs. With standard sprawl development, you're taking money from an efficient tax-producing area and subsidizing development, through roads and infrastructure, in places that are far less efficient and that will kill off the efficient area eventually." To the Chamber of Commerce and Real Estate Council, Smart Growth, with its emphasis on incentives rather than prohibitions, represented a way to get business done without the acrimony and litigation of previous decades.

And the timing was perfect: The same factors that were leading to political dissatisfaction with traditional suburban planning were creating a previously untapped market for downtown and near-town residential development all across the Sunbelt. There were warehouses and empty lots downtown, and there were young people eager to live and work near the clubs where they liked to party — a small number compared to the hordes flocking to northwest Austin, perhaps, but enough to represent significant business opportunities.

From Principles to Action

In the spring of 1998, the Austin City Council began codifying the means and the goals for Smart Growth. The parts of the city and its extraterritorial jurisdiction lying over the Edwards Aquifer were declared the Drinking Water Protection Zone (DWPZ). Several areas were designated as Desired Development Zones (DDZs), including downtown, an "urban core" extending north from downtown and the University of Texas campus to the north and east of I-35. Most of the major north-south and east-west thoroughfares were designed as Smart Growth Corridors.

In May of that year, Austinites voted $65 million in bond funds for purchasing and protecting land in the DWPZ and approved creation of the proposed Smart Growth Matrix, allowing the city to waive fees and rebate infrastructure costs and taxes for development in the DDZs. City officials set about creating a

THE SMART GROWTH CRITERIA MATRIX

Goal 1: How and Where Development Occurs	Possible Points
Locating downtown or in the urban core, within a Desired Development Zone, with specifically high ratings for locating close to transit stops. Trail blazing in areas of economic need could earn	45
Support of neighborhood groups outside downtown	42
Support of the Austin Design Commission could earn another	75
Support from the Historic Landmark Commission	50
Reusing historical buildings could be worth 50 more	25
Meeting a threshold density requirement to support mass transit could earn another 12 points	12
Providing a minimum employment density, measured in floor-to-area ratios	12
Land use-measuring whether a project would be a regional retail or entertainment draw or would provide 200 or more housing units in downtown or the urban core	45
Having three uses in a building (with a minimum of 20 percent per use in the project	75
Total possible goal 1	**431**
Goal 2: Improve Quality of Life	
Dividing the project's facade into 30-foot increments, providing "human-scale details," skinning street-level walls in at least 50 percent glass, and having well-defined street entries every 50 feet	16
Integrating well with its neighbors in terms of massing, height, and rear treatment	12
Providing accessible public outdoor space with furniture, trees, and lighting	16
Streetscape improvements, including large trees, 12-foot-wide sidewalks, arcades and other features	60
Connecting with greenways and providing bicycle facilities	30
Providing a parking structure	30
Providing reasonably priced housing	40
Providing "traditional neighborhood retail uses" and promoting local businesses	48
Building with the city's Green Building program standards and using renewable energy	35
Meeting a minimum threshold for enhancing the tax base	12
Total possible Goal 2	**299**

How smart is your project?: A high-scoring proposal could earn tax rebates and fee waivers.

Traditional Neighborhood Development ordinance and a complex set of Infill and Redevelopment Amendments to the city's building code. They described eight options; among them were "cottage lots," "urban home single family lots," mixed-use buildings, secondary (read "garage") apartments, and neighborhood corner stores. These options would be available in areas with a city-council-approved Neighborhood Plan.

The Smart Growth Criteria Matrix (see right) outlines the measures by which proposed development would be rated for Smartness. A project could earn points for a long list of virtues, such as employment, historic preservation, integration with transit, the political process of working with neighborhoods to employment, and even design quality.

Projects scoring 250 points or fewer under the Smart Growth Matrix criteria would no longer be considered. Projects earning 251 to 335 points would be eligible to have 50 percent of City of Austin fees waived. Projects scoring 336 to 420 points could be awarded up to five years of rebates on city property taxes. And those in the top tier, up to 705 points, could be eligible for a ten-year rebate.

It would be two years before the tech bubble would burst on Wall Street, and numerous businesses were considering setting up shop or building projects in Austin, the Silicon Hills. Envoys from the city and the chamber of commerce went calling to let these potential new employers know about the incentives, as did Save Our Springs representatives.

Deal after deal was made in quick succession. Most clustered around the Fourth Street entertainment district and city-owned land facing the Colorado River, or else on the corridor between downtown and Lamar Boulevard west of the Central Business District. Some worried that the city shouldn't give away future tax funds to lure businesses that wanted to come to Austin anyway. Mayor Watson's answer: "It's money we don't have yet, and that we won't have until we get these projects built." If we can get them to build downtown, following the Smart Growth guidelines, he argued again and again, we can save on the infrastructure costs of sprawl development that would otherwise result — not to mention the time and expense we can save protecting the Edwards Aquifer.

With $1.2 million of incentives from Austin, Chicago-based Carr International committed to a 23-story office tower on Sixth at Guadalupe — the first new office tower started in downtown since 1987. Austin awarded a new retail/entertainment development at Sixth and Lamar $2.1 million in incentives. Post Properties of Atlanta was offered $980,000 in city assistance for a two-phase condominium-loft project on West Avenue. The Nokonah Condominiums on Lamar, just north of Sixth, was awarded $280,000.

In the area around Republic Square, on Lavaca and Fourth Street, Intel Corporation announced that it would build a seven-story, $124 million design center. The Austin company Vignette, maker of specialty Internet integration software, had grown from a few dozen employees to more than a thousand in less than four years. It announced plans to build a $350 million headquarters near the Austin Convention Center along the neglected Waller Creek; the city offered Vignette $25 million in incentives.

Smart Growth incentive money also spurred projects in outlying areas. The city offered developers $23 million to help with their plan for a mixed-use project of office towers, retail, and housing in the so-called Barrett Tract, along I-35 between 11th and 15th Streets. Some $7 million in city incentives helped the Cencor development work out its long-standing dispute with neighborhood groups around "The Triangle," land formerly owned by the Texas Department of Mental Health and Mental Retardation. The result was the transformation of a big-box mall strip into a mixed-use center with connections to the surrounding neighborhood. In yet another deal, a developer was promised $4.9 million for a Traditional Neighborhood Design subdivision on the Morse Tract. All told, Austin offered $103.4 million to employers and developers.

The city struck its highest-profile deal with Computer Sciences Corporation (although the incentives offered were only $10.4 million). In early 1998, CSC agreed to build a multiphase complex on César Chávez Boulevard (First Street), with a new city hall in the middle. Page Southerland Page of Austin, with the UT–Austin School of Architecture's then-dean, Larry Speck, as lead designer, was hired as architect for the seven-story glass-and-stone-clad buildings. Antoine Predock was named architect for the city hall project itself. Encouraged by incentives, AMLI development company (which has already developed six other projects concerning Austin's high-tech businesses) agreed to build a 250-unit apartment project one block south of the CSC/City Hall complex. Page Southerland Page, with Black & Vernooy as design architects, was hired for the project.

The Crash

By early 2000, Smart Growth was shaping up as a terrific success. With the CSC, Vignette, and Intel deals, incentives had brought nearly 2,000 jobs downtown, all in buildings with street-level retail and wide, tree-planted sidewalks tightly integrated into the street fabric. With the projects at Sixth and Lamar, Smart Growth had transformed empty car-dealership lots into a shopping zone. And with the projects undertaken by Post Properties, Nokonah, AMLI, and other loft developers, Smart Growth had brought in hundreds of new dwelling units.

Then in the spring of 2000 the tech crash started. Vignette's stock, which was trading at more than $150 a share, plummeted (it's now trading at around $5). The company canceled its project on Waller Creek. Intel, which had erected the concrete skeleton of its building, reacted to the sales slump by putting the project on hold — leaving a gray hulk surrounded by an eight-foot-tall chain-link fence. Local wags said it needed a new sign: "Intel not inside." One of CSC's first two buildings was put up for rent before it was finished. Suddenly, it seemed that Austin hadn't been welcoming the future; it had been betting the farm on a narrow and vulnerable industrial sector.

Recriminations started almost immediately. On the enviro-progressive side, Save Our Springs officers began characterizing the city's Smart Growth incentives as wasteful "corporate welfare," and the city council members aligned with them chimed in. The chorus of second-guessing claimed another, even more significant, victim later in the 2000. Capital Metro Transit Authority had scheduled a vote on authorization to spend its funding on a light-rail starter line that November. Former city council member Max Nofziger split the environmental left by denouncing the light-rail plan precisely because it would do the things that Smart Growth hoped — reshape the urban fabric around dense, transit-oriented nodes.

"The light rail tracks are the signal to developers that here is the place to do their projects," Nofziger wrote in the

Top: The excavation where Austin's City Hall will rise flanks the Computer Sciences Corporation development (1998, Page Southerland Page with Larry Speck). The City Hall/CSC complex was to be Smart Growth's most visible success.

Bottom: Rendering of the future City Hall (2000, Cotera, Kolar, Negrete and Reed Architects with Antoine Predock, FAIA).

Austin Chronicle. "Rail is the means by which the city implements Smart Growth, which means densification — i.e., more people crammed into less space, building up several stories instead of out. Redevelopment along South Congress means that all those beautiful, unique, funky shops will be replaced by multistoried buildings with retail on the ground floor, offices or apartments above. Who will be able to afford the rents on these new, non-funky, expensive buildings? Starbucks, Gap, Wendy's, etc."

Capitol Metro had the support of the mayor, the Chamber of Commerce, and the Real Estate Council, but the agency knew it faced an uphill fight in the northwest part of its service area, where Republican anti-tax sentiment is strong despite the '90s influx of relatively green high-tech workers. The defection of the left killed the light-rail plan.

As Nofziger's anti-rail screed demonstrated, the end of the boom also exposed a fault line in Smart Growth forces that had been hidden from the start. The city's close-in neighborhoods didn't want to become denser. For the most part they wanted protection from new development — particularly multifamily housing projects. In that context, the Smart Growth plan was particularly unwelcome, top-down planning at odds with the decades-old effort to strengthen neighborhood cohesion. And that spelled trouble for Smart Growth, given the neighborhood groups' well-developed power to turn out voters.

Smart Growth also faced an additional adversary: the Texas Department of Transportation, which is committed to big new roads for Austin and its suburbs the same way that the ocean is committed to being salty. For several years, the Downtown Advisory Alliance, a group of landowners integral to the Smart Growth movement, has waged a quiet battle with the department over the plans for I-35 east of downtown. The Department of Transportation envisions an expansion of I-35 along downtown with new elevated lanes and widened access roads, all focused on speeding people on and off the freeway. According to Sinclair Black, a board member of the Downtown Advisory Alliance, the transportation department's proposals threaten the eastern half of downtown, and the group demands that the agency redesign its proposals to depress the roadway and treat the access roads as part of the neighborhood fabric, not part of the freeway. Neither side has budged after many meetings. Says Black, "They think time is on their side, and that if they just ignore us they think we'll eventually go away." The outcome of that particular battle may not be known for some years, but overall, it seems that Smart Growth forces have lost the war. In the coming decade, the Department of Transportation will pour hundreds of millions into roads in Austin's suburbs, stimulating a torrent of new suburban growth.

From Austin's Present to Houston's Future

It is too early to call Smart Growth either a success or a failure. Kirk Watson's term as mayor marked a four-year break in the Austin's stormy political climate, and now, with new mayor Gus Garcia, the clouds are back.

On the plus side, the Edwards Aquifer zone west of Austin now has thousands of acres of protected green space, paid for by bonds authorized in the first flush of Smart Growth enthusiasm. The CSC/City Hall complex and new apartment buildings will create a web of residential and business projects around the Fourth Street/Sixth Street entertainment complexes. Two thousand more people living downtown, and a similar number of new people working there by day, will provide a welcome change from the empty storefronts and vacant lots of the early 1990s.

The largest Smart Groth Project outside the Central Business District is only now getting underway. The Mueller Airport tract, 711 acres of open land, just four miles east of downtown, could potentially accommodate thousands of residents and contain millions of feet of business space. Neighborhood representatives have been planning a New Urbanist village for Mueller since the city announced, in 1995, that its airport would move to the former Bergstrom Air Force Base. Now city officials are near choosing a business plan for the site, and activists worry that their urbanist principles will be the first things jettisoned.

Except for the Mueller tract and the Triangle, however, Smart Growth policies have had almost no effect outside the DWPZ and downtown. In part, this is because the close-in neighborhoods chosen as Desirable Development Zones never wanted that designation. Urban planner Ben Heimsath also suggests that the city's zoning regulations discouraged development projects outside the urban core. "There just wasn't enough to trade or to offer incentives to make Smart Growth projects attractive to developers outside downtown," he says.

Smart Growth's future in Austin will depend on many factors: a recovering economy, passage of a light-rail initiative, and continued support from city officials and staff. With the election of Mayor Garcia, the will to push for the second and third parts of that equation are said to be in place.

Could Austin-style Smart Growth work in Houston? Some would argue that it doesn't have to. In the last decade, the Lanier mayoral administration found federal funds to provide incentives to rehabilitate the Rice Hotel, the Albert Thomas Convention Center, and other center-city projects. Tax-increment districts were created to lure the developers who have flooded Midtown with new apartment and condominium projects. These results, though arrived at by different mechanisms, mirror the effects of Austin's Smart Growth Initiative. And the city's first light-rail line, with its potential for transit-related development along the Main Street corridor, is already underway. In terms of visible results over the past five years, Houston is already ahead of Austin.

And whether Austin-style Smart Growth could be effective in Houston is questionable at best, says David Crossley. Crossley, the director of the Gulf Coast Institute, recently founded the group 1000 Friends of Houston, which advocates regional planning to address a wide variety of problems. He fervently wants Smart Growth to take root in Houston, but he sees many obstacles. "Austin has zoning, it has a development code in which urban design issues are elements — not just parking and setbacks — and it has a permitting process in which neighborhoods have real representation," he says. "Mostly it has a process in which planning is not a dirty word."

Houston has only what former Houston Controller George Greanias once characterized as "shadow planning" (see *Cite* 42, Summer/Fall 1998, "Shadow Planning"). Entities such as tax-increment districts and private developers have taken over the financial and design-related tools of planning, but without public oversight or accountability. Whether planning can be brought into the light and Smart Growth principles can be embraced throughout the city will be the story of the next decade in Houston. ■

HOME | work

BY STEPHEN FOX

Bailey A. Swenson's Montrose house and studio (Swenson & Linnstaedter, 1958).

The concept of "live/work," which gained currency in the consumer market of American lifestyles during the 1990s, reverses a century-and-a-half prejudice against the practice of living and working on the same premises, because it was considered incompatible with middle-class domestic respectability. The success of this ideological campaign can be deduced from the dearth of architectural models of live/work domesticity in Houston, a city that took shape during the last century and a half. Lack of zoning in 20th century Houston may have meant that dwelling and doing business at the same address was never outlawed by city code. But the restrictive covenants preserving the "integrity" of middle- and upper-income residential neighborhoods in 20th-century Houston compensated by rigorously excluding business activity from the dwelling place, and giving this exclusion the force of law.

Although physicians routinely practiced from their houses in the 19th and early 20th centuries, it was often only the presence of a secondary door that architecturally distinguished the Victorian houses of doctors from those of their middle-income neighbors. Ellen Beasley, in her examination of American urban vernacular architecture, has focused especially on the corner grocery store, a building type that derived its identity in part from its combination of domestic space with the workplace. Much more so than

Site plan for Westbury Square (1960, William F. Wortham, Jr.).


Work faces out, domestic life faces in: 2911-13 Ferndale (1976, Anderson/Wilson Architects).

the doctor's house, the corner store stands out as a mixed-use building type. But just as deed restrictions prevented doctors from bringing their offices with them when they moved their families to restricted garden suburban neighborhoods in the 1910s and 1920s, so the transformation of corner groceries into corporate supermarket chains in the 1920s just as decisively separated the place of business from the place of residence. Houston has a few exceptional examples of mixed-use urban building types built in the 1920s, such as Pierre L. Michael's Ironcraft Studio and Isabella Court buildings on Main Street, and the Patio Shops at Almeda Road and Oakdale Avenue, which contained residential apartments on top of ground-floor retail lease space. All still stand, as does the two-story studio/retail/residential building that the photographer Frank W. Schleuter built in the early 1920s at 3617 Main Street, near Michael's buildings. However, for most of the 20th century, the mainstream of Houston commercial building types was as averse to mixing residential and business uses as were domestic types.

Beginning in the 1950s, Houston architects began to experiment with combining the workplace and dwelling. Robert W. Maurice compacted a house for his family into the one-story studio building he designed at 3222 Mercer Street, completed in 1959. The year before, Bailey A. Swenson had added a slender tower house for himself and his wife, Kathryn, to a former garage-apartment building in what had been the backyard of a large house at 3106 Brazos Street in the South End. Swenson and his partner Herbert Linnstaedter had their architectural studio on one floor of the garage-apartment building, while Kathryn Swenson operated her New Arts Gallery on the other. Such hybrid uses were possible because neither the Maurice nor the Swenson house was constructed in a restricted subdivision. The Maurice Studio and House was in a neighborhood of small office buildings; the Swenson House and Studio was built in an older neighborhood that never had deed restrictions. These conspicuous displays of modernist nonconformity also stood outside the bulwark of conventional residential financing, limiting their potential as models of counter-cultural domesticity. The iconoclast architect building a modern house in a declining older neighborhood (or an unrestricted nonresidential district) ran counter to the dominant ideology of what constituted good practice in community development and housing production in the 1950s. Nonconformity required that clients live/work outside the constraints, and assurances, of conventional market-oriented practices. Such clients tended to be self-employed professionals who had achieved middle-income economic status but had the self-assurance to selectively disregard social norms.

HOUSTON'S LACK OF ZONING MAY HAVE MEANT THAT DWELLING AND DOING BUSINESS AT THE SAME ADDRESS WAS NEVER OUTLAWED BY CITY CODE. BUT PRESERVING THE "INTEGRITY" OF RESIDENTIAL NEIGHBORHOODS COMPENSATED BY RIGOROUSLY EXCLUDING BUSINESS ACTIVITY FROM THE DWELLING PLACE.

The extreme case: Frank Zeni's Tempietto Zeni (1990).

A bridge between home and work: Adams Architects House and Studio (1991).

The market produced at least one unusual instance of live/work in postwar Houston: Ira W. Berne's Westbury Square of 1961. Now partially demolished, Westbury Square was a specialty shopping center deep in the heart of southwest suburban Houston. Berne rejected the strip typology of 1950s shopping centers for a village concept. His concept included constructing apartments on second floors above retail lease space. Although immensely popular during the 1960s, Westbury Square was so singular, and in market terms so nonconforming, that its residential-retail mix was never duplicated.

Like the Tin House Movement, another local architectural trend of the 1990s, the live/work phenomenon started slowly in the 1970s with a handful of examples built at widely spaced temporal intervals. Architects again featured prominently as both designers and clients. William J. Anderson, Jr., and Tom Wilson were the pioneers. Bill Anderson and his wife, Laurence, built a combined studio-residence at 2808 Virginia Street in the Ferndale Addition in 1972, which they shared with the Anderson/Wilson architecture office at 2806. Since the postwar 1940s, this compact neighborhood on the edge of River Oaks (consisting of two parallel streets, Virginia and Ferndale), had been a place where architects, especially those who lived in River Oaks, built their studios. Karl Kamrath and Fred MacKie and John Staub and Tom Rather built small studio compounds on Ferndale and Virginia, respectively, in the late 1940s. Both the MacKie & Kamrath and Staub & Rather buildings were office buildings only. But their house-like scale and the inclusion of landscaped open space allowed them to fit unobtrusively among the small houses of the Ferndale Addition. By the 1970s, the landscape architect A. Gregory Catlow lived and worked at 2922 Virginia and had a second dwelling unit on the property. And Burdette Keeland had just begun to build a series of unusual townhouses in the neighborhood, as well as radically remodeling an unprepossessing house at 2907 Ferndale for his own family.

Bill Anderson reinforced his own example when he and his wife built a second live/work house at 2911-13 Ferndale, next to Keeland's house, completed in 1976. The Anderson/Wilson architecture office remained on Virginia.

It was Laurance Anderson who was responsible for the work component of the second Anderson House. Her specialty shop, Made in France, occupied a retail space that, from the street, was given more visual prominence than the house front. Bill Anderson turned their house inward to face a spacious interior garden and swimming pool. A huge live oak tree, visible from Ferndale, was the only external clue to the existence of this hidden garden. Anderson's succession of houses in one neighborhood demonstrated the feasibility of combining dwelling with office or retail uses. What made managing conflict between living and working practicable was that the owner-occupants for both parts of the building were the same. Anderson's houses also represented what a live-work urbanism in Houston might look like. This was not a vision of multi-story buildings, with apartments stacked above retail spaces, but an unexceptional streetscape of two-story houses with residential driveways and garage doors interspersed with small businesses, all set close to the street. The nature of these businesses — two restaurants, several interior designers' studios, the Pooh Corner nursery school, and the French Poodle Grooming Salon — underscored the Ferndale Addition's proximity to River Oaks and the unthreatening character of the mixed-use urbanism that prevailed there in the 1970s, and continues to do so.

In the 1990s, Laurance and Bill Anderson built a third house for themselves in the Ferndale Addition at 2912-14 Ferndale. Larger in scale, less spatially intricate, and more figurally assertive than the Anderson houses of the 1970s, the 1990s house is programmatically more complex, since it contains both Made in France and Anderson's architecture studio along with the Andersons' living space. As a third-generation live/work house, the Anderson House represents the durability of this practice in Houston. Yet it also represents the special circumstances typically associated with live/work in Houston: an owner-occupied house and business (where one of the owners is the architect) in an unrestricted neighborhood.

As was also true of the Tin Houses, the early 1990s were a propitious moment for the flourishing of live/work houses in Houston. The real estate depression of the 1980s meant that there was not as much competition from developers for property in centrally located, working-class neighborhoods without deed restrictions as there had been in the 1970s and early 1980s. These neighborhoods, such as the West End, were the kinds of places that looked too marginal to the middle-class mainstream. The clients for live/work houses tended to be architects and artists, people who had the resources to build their own houses and who lacked anxiety about living in ethnically-mixed, lower-income neighborhoods. It was often the affordability of such neighborhoods that made it possible for them to buy and build. Live/work was also an economic necessity: There were no extra resources for leasing work space in addition to building a house.

The artist-architect Frank Zeni built his studio-house, the Tempietto Zeni, in the West End in 1990. Zeni's studio-house represents an extreme case among architect-designed live/work houses in Houston in that it is an

Independent but connected: The Glitsch-Inmon House (1998) and Glitsch Studio (2001), Val Glitsch, architect.

artist's house, and therefore built for an even lower budget and with an even more flexible attitude toward conventions of middle class domesticity than the architects' houses. The tempietto began as a loft, with two levels of platforms spanning above the ground-floor slab. During the past ten years, Zeni has gradually domesticated parts of the house with interior enclosures and air-conditioning, spatially differentiating between its living and working parts. Nonetheless, the Tempietto Zeni stands out for its openness to the climate and its non-conformity. Zeni's outrageous architectural imagery is less and less shocking, though, as the cottages that were its neighbors are demolished for new townhouse complexes that are just as tall and as architecturally extroverted, if not as witty.

Artists' live/work spaces are categorically different from those designed by architects. They tend to be found spaces. The Art Guys World Headquarters on West 22nd Avenue in the Heights, Jim Pirtle's NotSuOh at 314 Main Street in the Kiam Building Annex downtown, the Aurora Picture Show at 800 Aurora Street in a former Church of Christ, and the no longer extant TemplO on Feagan Street in the West End, constructed by the collective formed by Nestor Topchy, represent serious counter-cultural examples of live/work, not just because they do away with the living room-dining room-kitchen progression, but because they transgress such ideological fundamentals as privacy and personal possessions. Even when an artist lives in a single-family house, its conversion to live/work tends to make the house more an extension of the artist's work than of his or her workspace. An 80-year-old house in the Rossmoyne Addition has been reshaped internally by the painter Richard Stout to become a mesmerizing spatial extension of his paintings, which involve interiors and landscapes seen in perspective. Stout's house was conceived as singular and interior, not as an implicit architectural model or an urban proposition.

The architectural counter to these artists' examples of live/work is the house and studio that Gail Hood and Joseph Houston Adams designed and built to contain their family and their architectural practice. Completed in 1991, the Adams Architects House and Studio was designed as an explicit architectural model and an urban proposition. It consists of a pair of three-story buildings on a single corner lot, 66 feet wide and 100 feet long, at the corner of Rochow and D'Amico Streets in the Buffalo Addition. This had been an obscure neighborhood just off the Allen Parkway-Waugh Drive intersection until the construction of Jenard M. Gross's Rincón apartment complex in the late 1990s.

What makes the Adams Architects House so compelling as a model is that it addresses the basic programmatic problems involved in live/work. It joins a house for a family with three children to an office that has to accommodate employees, visitors, and off-street parking. By opening the interiors of both buildings in section, the Adamses created a sense of spaciousness within compact limits (each building is a 32-foot square in plan). By offsetting the buildings on the lot, they avoided having either crowd the other or give the impression that the lot was being overbuilt (which now seems like a quaint sentiment, given what developers have done to the neighborhood). This offset also allowed the Adams to link the two buildings with a low bridge structure: a carport facing Rochow Street and an interconnected set of stairs and decks facing their backyard. The bridge structure enabled them to clearly separate live and work, manage on-site car parking in a way that looks residential rather than commercial, and screen the rear courtyard from the street while facilitating quick access between the studio and the house (the Adams' youngest child was still a baby when the complex was completed). The intelligence, civility, and discretion of the Adams Architects' spatial organization; their ability to increase urban density without annihilating open space, vegetation, and existing setbacks; and the provision of a work place that is publicly accessible rather than an extension of domestic space are attributes that make their house and studio so persuasive as a model of live/work urbanism.

The home office or home studio represents the type of work space most commonly attached to Houston live/work houses of the 1990s. Such spaces distinguish between work and business. They anticipate that business will not be done at home and that employees, customers, clients, and service personnel are not part of the work process. Peter Waldman's house for the artist and medical illustrator Winnifred Hamilton and the writer Edward Snow, built in 1992 in Woodland Terrace, a 1920s-era neighborhood, was designed to provide Ed Snow's primary work space and Winnie Hamilton's home studio within the volume of the house, although at opposite ends of the house's L-shaped plan. Snow's study is a loft overlooking the street as well as the living room. Hamilton's studio is more secluded, overlooks an interior garden, and was designed so that it could be used without air-conditioning. Nearby, in Norhill, the Barcelona architect Pia Wortham and her husband Joan Callis designed a house and studio for Wortham's mother, the artist Elena Casi Wortham, completed in 1994. The Casi Wortham House incorporates Elena Wortham's studio in a separate back building, linked to the main house by a covered deck. In these two instances, live/work was feasible in restricted neighborhoods because the work component did not entail doing business at home; the work spaces were extensions of domestic space

Val Glitsch designed three houses in the 1990s spatially developed around different interpretations of the live/work condition. The Bennett House, designed for an artist and her husband in the West End and completed in 1992, combines dwelling and work spaces in one building. Glitsch differentiated between the live and work sectors sectionally, volumetrically, and materially, so that outside as well as inside the distinction between the two is clearly legible. Glitsch did the reverse at a house and studio in the 1400 block of Kipling Street in the Montrose Annex Addition of 1997. She sequestered domestic spaces in a slender two-story house at the back of the lot, stationing a two-story gatehouse — incorporating the entrance, garage, guest room, and a studio workshop — at the front of the lot, with an outdoor garden court between the two buildings. Neither of these houses involved doing business at home, although Glitsch leased the Bennett House

when her clients were unexpectedly but temporarily transferred out of Houston, and lived and conducted her practice there until their return. In 1998, Glitsch and her husband, the builder Gary Inman, built a three-story sliver house at 3314 Lake Street, very close to the Ferndale Addition. In 2001, Glitsch added a work component to her homestead: a separate, two-story building that faces Colquitt Street, around the corner from the house. The two building sites adjoin at the rear of the L-shaped lot. Even more than the Adams Architects House and Studio, Val Glitsch's studio maintains an independent identity, yet is easily accessible from her house. Like Bill Anderson, Val Glitsch has had the opportunity to work out variations of live/work arrangements, applying them to different site conditions and different requirements for how the working and living components should relate.

The backyard studio represents another point of access to live/work status. Robert Fowler has designed several back buildings, notably his own architecture studio, located behind his house on West Bell Avenue near the River Oaks Shopping Center. Fowler's studio is a virtuoso fusion of the arts of the geometer, the carpenter, and the sheetmetal contractor. Natalye Appel Architects are responsible for a live/work building that isn't, strictly speaking, a house. The Lowe-Booker Studio of 1999 at Chandler and Parker in the West End combines two studios for the owners — one a sculptor, the other a jewelry maker — with a guest house. Likewise, the O'Connor Guest House at 2214 Fairview in Glendower Court of 2000 by Stern & Bucek Architects combines a home office with a guest house, further expanding the range of live/work applications.

Cameron Armstrong, in the Hart House at 1211 Malone Avenue in the West End of 1999, produced a two-story front building, detached from the house but joined to it by a canopy-roofed walkway. Although designed as an artist's studio, the front building is adaptable for office or residential uses. Armstrong implicitly interpreted mixed-use to mean not simply the combination of non-residential with residential uses, but the ability to use a building flexibly for different purposes as circumstances change. Such flexibility is one of the most attractive characteristics of the live/work phenomenon, and one that, so far, has been tied to the identification of live/work in Houston primarily with houses rather than commercial construction.

Several recent developer-built complexes explore the potential for live/work beyond the scale of the house. Although the 33-story Houston House apartments of 1966 in downtown Houston, designed by the Washington, D.C. architect Charles M. Goodman, contains several stories of non-residential lease spaces, it remained a local anomaly, much like the Isabella Court or Westbury Square. The implicit lessons of all three are beginning to be heeded. The South End Lofts at Elgin Avenue and Jackson Street in the South End of 2000, designed by Peter H. Brown for Caspian Enterprises, provide living and working spaces for residents in the same building: the work spaces are at sidewalk level, the apartments above. The first phase of Post Properties' three-block Post Midtown Square City Apartment Homes of 1999 by the Dallas architects RTKL, located in the 200 and 300 blocks of Gray Avenue, are consciously based on New Urbanism planning principles. The complex combines a ground-floor layer

Zero Commute

Notes for the 2002 RDA home tour, April 6–7

4409 Mount Vernon Street
1995, alterations and additions, Phillips•Wild

In 1995, Kathy Wild and Irving Phillips raised the roof on a townhouse that Kathy Wild, an interior designer, had acquired before her marriage to Phillips, an architect. They replaced a free-standing one-car garage in front of the two-story townhouse (designed by the architect Jim Powers in 1973) with a four-story sliver. The new addition contains a second-floor living room, a third-floor study (initially the couple's design studio), and a fourth-floor roof deck and rooftop swimming pool. In 2000, Wild and Phillips bought the adjoining townhouse and converted it into their office and studio, making their dining room the pivot point between live/work.

4310 Hazard Street
1992, Richard W. Payne, architect

Houston's best-known architect/photographer, Richard Payne, designed this compact house to serve as his home, office, photo studio, and personal photo gallery. Set on a busy street and hedged-in by buildings on three sides, the house nonetheless achieves a feeling of seclusion. An adroitly designed front garden court, screened from the street, enhances this sense of isolation. The court is an outdoor room, connected to the inside of the house through large windows yet providing privacy from the street.

2122 Persia Street
1996, Taft Architects

John J. Casbarian and Danny Samuels of Taft Architects architecturally symbolized the vocation of their clients as artists by capping the roof of their two-story house and studio with north-facing skylights and by cladding its exterior walls with zinc and aluminum-coated steel panels, the "tin house" look that in Houston symbolizes "artist." Taft isolated individual studios for the their clients in either wing on the second floor of the U-plan house. The ground floor contains the couple's living space, focused on a central loggia and patio shielded from the street by the garage, with its witty roll-up door of chain link.

of retail, restaurant, and business space with three floors of apartments. By configuring the buildings around sizeable mid-block courtyards, integrating the necessary multi-level parking garages, and designing the public sidewalks as spacious promenades, Post Properties and RTKL outdistanced other developers by bringing something that was genuinely urban, new, different — and "traditional" — to the Houston market.

Live/work as the basis for domestic architecture in Houston is still so limited in application that it can only be described as marginal. Whether the South End Lofts and Post Midtown Square are harbingers of a trend, or whether they will join the ranks of the Isabella Court and Westbury Square as relics of a Houston that might have been, remains to be seen. What this survey demonstrates is the tenuous but persistent tradition of mixed-use urban architecture in Houston. Architects have played a key role in this phenomenon since they not only designed such buildings but were often the ones who worked and lived in them. Because architects conceived of their houses as potential models and as urban propositions, these isolated examples have made a difference by identifying alternatives to the exclusively residential housing options offered by the market that will work in Houston. Yet in a city that is extraordinarily dependant on the market for determining what kinds of housing are available, the purpose-designed live/work alternative remains the special province of architects, artists, and other non-conformists with the resources to build on their own in neighborhoods that, to most middle-income Houstonians, seem too exposed to the kind of city Houston really is. ■

Interior view, Fowler studio (Robert Fowler).

619 Asbury Avenue
1996, Rob Civitello/Local Architects

Architect Rob Civitello and his wife, writer Tricia Tusa, were able to buy a pair of lots in the West End on which to build their house, which contains a third-floor writing studio. Civitello deftly shaped the house to step, shift, and curve in subtle offsets as it rises to a first-floor living room, carried on steel beams and concrete piers above the ground. Bridging with delicate precision emerges as a theme of the house, with its second-floor steel bridge fabricated by George Sacaris Design Studio, and its rooftop terrace above the floating living room.

615 Asbury Avenue
1999, Rob Civitello/Local Architects

Built next door to the Tusa-Civitello House, this house and studio for a photographer demonstrates how different houses by the same architect can be. The ground floor of the house is one big room, uniting entry foyer, kitchen, eating, and sitting areas. The second floor is divided between a photo studio and office above the entrance and the master bedroom and bathroom. Civitello incorporated architectural artifacts that his client had acquired to give the house a playful yet simple feeling that contrasts with the more complex shaping of space characteristic of his family's house.

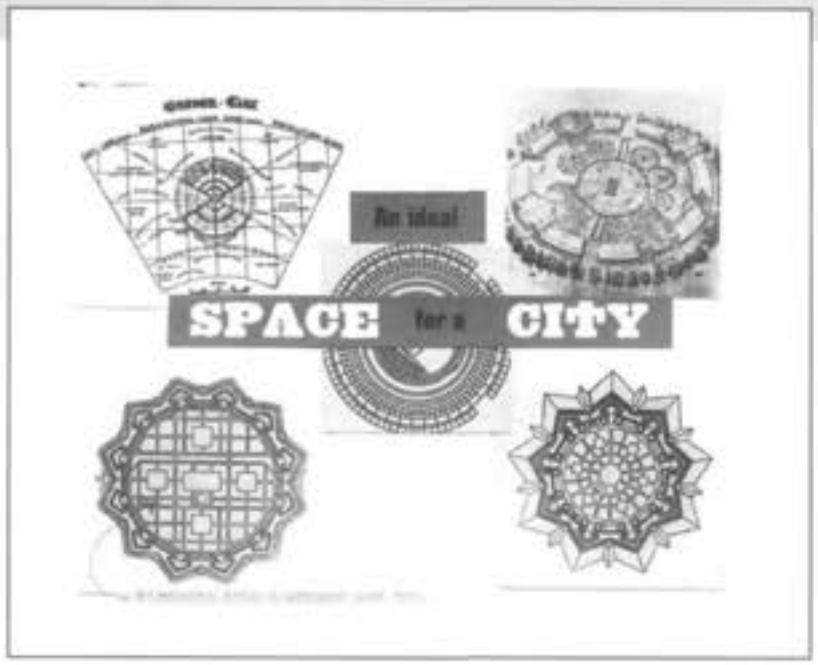
2309 Park Street
2001, Nonya Grenader, architect

Rather than combining living and working in one building, architect Nonya Grenader designed two free-standing buildings on one small lot. The front building is a two-story house containing a spacious top-floor living space in which the owner can shelve his extensive collection of books. The back building is a one-story office building, from which the owner operates a family-owned management business; it is designed to be a one-person work space or to accommodate employees and business meetings. Grenader deftly managed views from both buildings to open the interiors to natural light yet screen them from surrounding buildings.

1904 Decatur Street
2001, MC^2 Architects

Architects Chung and Choung Nguyen designed this live/work house in the Sixth Ward Historic District to respect its setting amid peaked-roofed Victorian houses with front galleries. The house contains two stories of living accommodations. The third floor, with its long distance views of the downtown skyline, is the husband's writing studio. The back yard contains a one-story studio wing designed to eventually contain the wife's ophthalmology practice.

— Stephen Fox

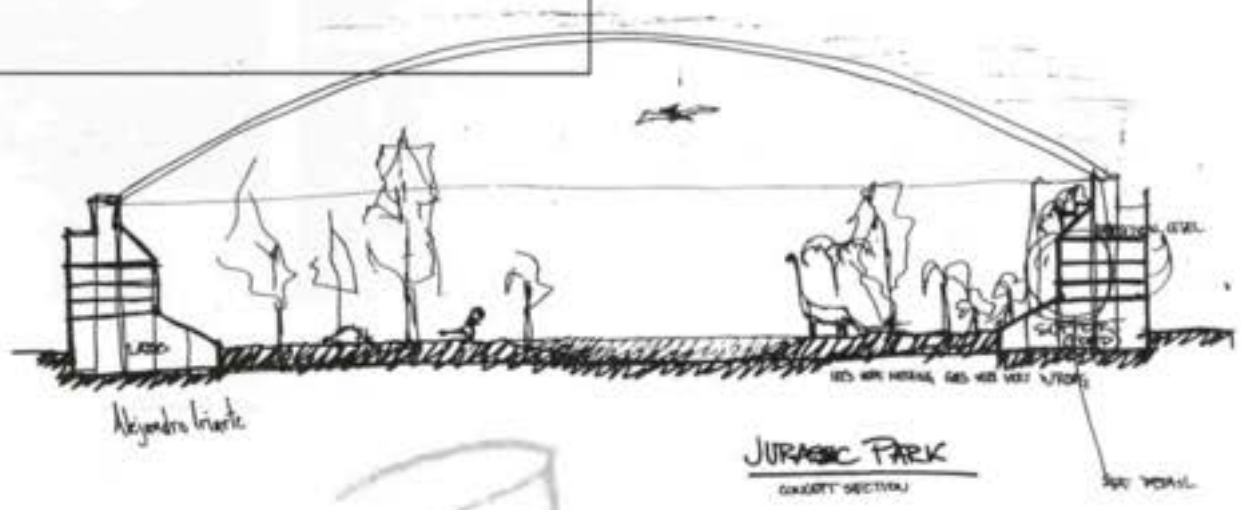


Dome Again

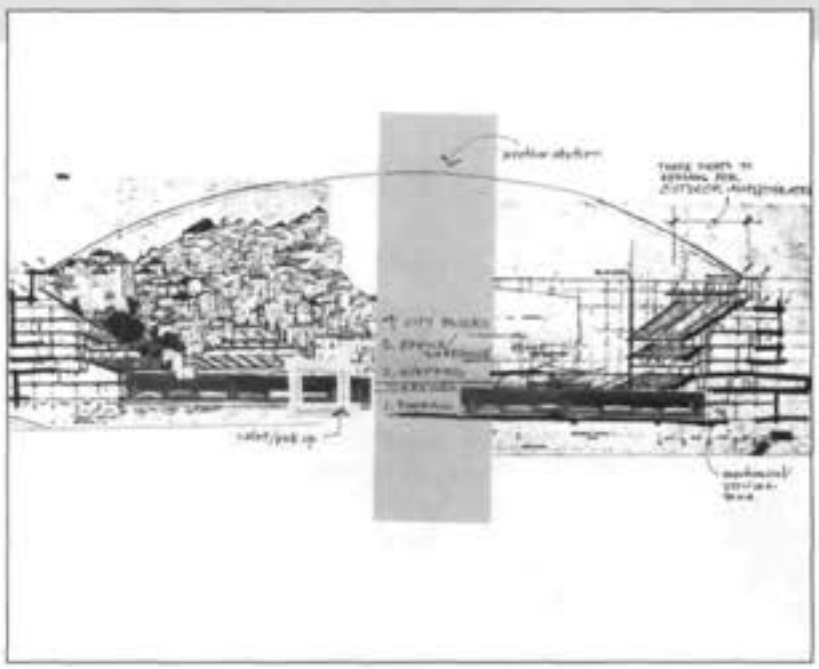
Judge Roy Hofheinz, the father of the Astrodome, used to proclaim it the "Eighth Wonder of the World," and in 1965, when the Dome opened, you could see his point. Houston was Space City, its team was the Astros, and its air-conditioned stadium looked like the future.

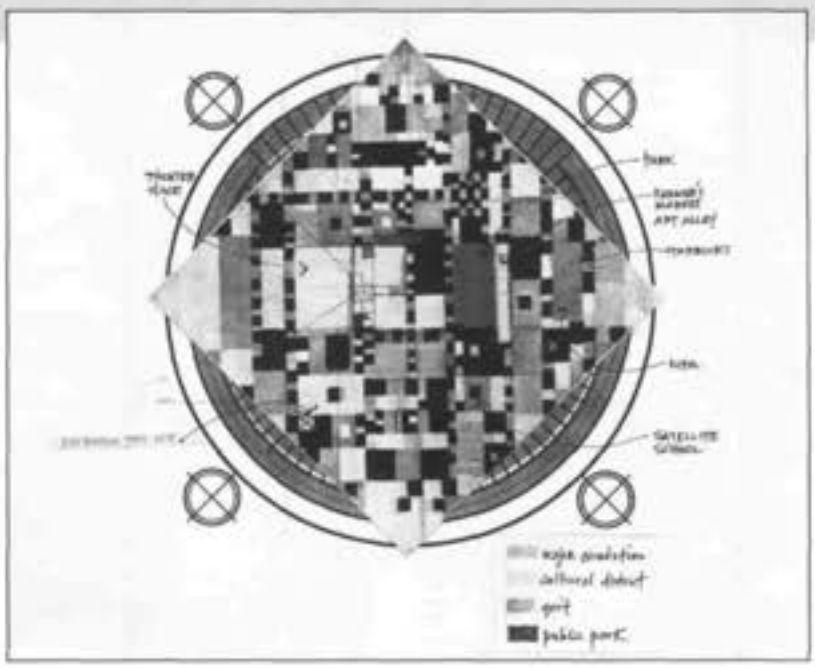
That future came and went. The Astros moved to a spiffy new faux-historic ballpark. Pro football and the rodeo will soon take up residence next door to the Dome, at the new, retractable-roofed Reliant Stadium. And with those major tenants gone, the mighty Astrodome — where Billy Graham preached, Muhammad Ali fought, and Elvis writhed — is left to host high-school football games. From that low point, preservationists worry, you can't fall much farther.

So what do you do with an underused wonder of the world? Houston's Olympic boosters have proposed remaking the Dome as a track-and-field stadium. But why stop there? Last summer, *Cite* asked readers to rethink the Astrodome, and the Rice Design Alliance sponsored a charrette along the same lines. Here we show three of the resulting ideas — updates for a space-age marvel. ■



Alejandro Iriarte, working alone at the charrette, grappled with the idea that the Dome is a lumbering behemoth, unable to hold its own against a new breed of sleek, tough competitors. And if the Dome is a dinosaur, well, why not fill it with more of the same?





PRIMER BUILDING WORKSHOP, THE TEAM OF LARRY ALBERT AND KERRY WHITEHEAD, CHRISTENED THEIR CHARRETTE PROJECT "ASTROCITY." (IT RHYMES WITH "ATROCITY.") PRIMER PROPOSES SELLING INDIVIDUAL LOTS THAT FORM A CITY-IN-A-STADIUM. BESIDES THE USUAL URBAN AMENITIES — SCHOOLS, SHOPS, STARBUCKS — ASTROCITY RESIDENTS WOULD ENJOY GUARANTEED GOOD WEATHER. MAYBE, THE TEAM SUGGESTS, YOU COULD EVEN ADJUST THE CLIMATE SO THAT DIFFERENT QUADRANTS OF THE DOME CORRESPOND TO DIFFERENT SEASONS. BUILDING COSTS WOULD BE LOW, THEY NOTE. INSIDE THE DOME, YOU WOULDN'T EVEN NEED A ROOF.

DAVID MANICA, OF HOK SPORTS VENUE EVENT IN ST. LOUIS, IS THE LEAD DESIGNER OF RELIANT STADIUM, WHICH HE SEES AS THE ASTRODOME'S SPIRITUAL DESCENDANT. WHEN RELIANT OPENS, MANICA LIKES TO SAY, "HOUSTON WILL REDEFINE THE STADIUM EXPERIENCE — FOR THE SECOND TIME."

ONE DAY, IN AN ENGINEER'S OFFICE, MANICA SAW A PHOTO OF THE DOME UNDER CONSTRUCTION. ONLY THE STEEL FRAME HAD BEEN ERECTED. "THAT WAS THE BEST PART OF THE ASTRODOME," MANICA SAYS. "I THOUGHT, 'LET'S KEEP THAT. IT'S GORGEOUS.' "

IN THIS DESIGN, MANICA STRIPS THE DOME TO ITS ELEGANT STEEL BONES, THEN CLADS THEM IN HEAT-RESISTANT GLASS, AND FILLS THE CLIMATE-CONTROLLED BOX WITH ROCK-CLIMBING, WHITE-WATER KAYAKING, AND SUCH — THE EXTREME SPORTS PLAYED BY PEOPLE YOUNGER THAN THE DOME.

Courtesy Contemporary Arts Museum

Vito Acconci's *Convertible Clam Shelter* (1990).

Shock Architecture

Uncomfortable? You're supposed to be.

"Vito Acconci: Acts of Architecture," Contemporary Arts Museum, Houston, September 29–November 25, 2001. Organized by the Milwaukee Art Museum. Guest curated by Dean Sobel.

BY SUSIE KALIL

Vito Acconci knows how to make your skin crawl. In the history of '70s performance art, he will be forever remembered for *Seedbed*, the exhibition in which he masturbated beneath a closed wooden ramp while fantasizing about the people walking above him. A sound hookup relayed his mumbles and moans. In *Following Piece*, he randomly chose people on the street and trailed them for hours until they reached their homes or offices. In other works, he bit his own flesh, killed cockroaches on his stomach, and burned off his chest hairs with a lit match.

If those descriptions unnerve you — and they should — it's because Acconci was tampering with accepted borders: control and dependence, mine and yours, public and private, home and body, inside and outside. Given those concerns, it's not surprising that the performance artist turned to architecture. Nor is it surprising that his works retain the power to shock.

For the traveling exhibit "Acts of Architecture," curator Dean Sobel, the director of the Aspen Art Museum, concentrated on Acconci's works from the past 20 years — not performance art, but physical objects, or plans for physical objects. "Instruments for action," Acconci calls his zany pieces. Each demands the viewer's absolute involvement.

Adjustable Wall Bra (1990-91) is a humorous jumble of sex, comfort, and regression, all packaged as a multipurpose piece of furniture. The immense plaster, canvas and steel-reinforced structure is large enough to serve as a chair, bed or room divider. But to understand the work, you must do more than stand in front of it and observe. You're expected to climb inside the padded cups, where you hear a taped clatter of stereo sounds and deep breathing. Similarly, in *Convertible Clam Shelter* (1990), two halves of a giant clam shape open, allowing you to recline, take shelter, or snuggle into the soft, womblike interior.

Much like a playground jungle gym, *Tele-Furni-System* (1997) invites you climb from floor to ceiling on TV monitors encased in steel armatures. The monitors, which simultaneously play cartoons, soaps, commercials, and news, serve as building blocks in the network of stairs, benches and landings. By choosing where you stand, you choose what you watch — and by extension, you choose how you fit into the social world.

Acconci asks that you put your body on the line — or at least think about your body and its relation to the social world. *Shirt of Pockets/Jacket of Pockets* (1993) is a long-sleeved garment made by stitching together dozens of transparent zippered pockets. The naked chest underneath is visible except for meager protection of consumer items tucked inside the jacket's pockets: a pack of Camels, a floppy disk, sticky notes. What you buy affords you precious little protection — an anti-commodity sentiment that harks back to an era when artists regarded themselves more as priests than professionals.

Since 1990, Acconci has devoted most of his energies to architectural projects — usually projects that push the boundaries between inside and outside, public and private. In collaboration with a team of architects and project managers, the Acconci Studio, he has designed radical, playful buildings and parks. The projects were displayed as maquettes, mounted on a chain-link fence that wound through the exhibition.

In *Project for Marienhof, Munich, (Circles in the Square)*, Acconci addressed an "accidental" plaza created by World War II bombing. He proposed a new plaza, dense with spheres that rise like bubbles — cities within a city, open tubular structures in three sizes, bunched together and interlocked. "From the spiraling walkways around the Garden-Sphere," he writes, "you can access other spheres, other globes, other worlds." Inside the Skate-Sphere, skateboarders appear like ghosts behind transparent fiberglass ramps. Inside the Aviary Sphere, people walk around birds, below birds, and even above them.

With *World in Your Bones (MAK Center, Los Angeles)*, Acconci imagines a shelter you screw directly into your skeleton. "Like a turtle, you carry your home on your back...." he writes. "Your backpack telescopes, it opens like a fan.... you are your own house. Visitors can enter your house, they get under your skin. Not everyone is invited inside.... You learn to live with your second skeleton: it moves as you move, like a shadow, a mirror image, a dancing partner, a double...."

Many more such concepts clamored for attention at the CAM, where the show felt crowded, but not all of Acconci's ideas are so wondrous. Some are mundane, and others hermetic. But the show proved that his best efforts have real staying power. He examines not only the difference between stasis and change, but also the oppositions between private and public, between self and the world at large, between our hidden obsessions and our daily passage with one another. ■

Anatomy of a Failure

BY BRUCE WEBB

Technology and Place: Sustainable Architecture and the Blueprint Farm by Steven A. Moore. University of Texas Press, 2001. 260 pages, illus., $19.95.

By most accounts the Blueprint Demonstration Farm, which was built on the campus of Laredo Community College in South Texas beginning in 1987, was a disaster. Set up as a joint venture between the Texas Department of Agriculture, the Center for Maximum Potential Building Systems, Laredo Junior College, and the Texas-Israel Exchange, its avowed purpose was to explore ways to benefit farm workers who were being displaced by the industrialization of the agriculture industry in the Rio Grande Valley. It began with the best of intentions. In fact it could be said that over the four years of its existence, it imploded from a surplus of good intentions and conflicting paradigms. Steven Moore, an assistant professor and director of the Design with Climate program at the University of Texas in Austin, finds important things to learn even in a failed experiment.

The project is closely identified with its architect, Pliny Fisk, and his wife, Gail D.A. Vittori — founder and co-director, respectively, of the Austin-based nonprofit Center for Maximum Potential Building Systems. They saw the Blueprint Farm as an opportunity to further develop their ideas about sustainable architecture and technology. Fisk, a graduate of the University of Pennsylvania with degrees in both architecture and landscape architecture, learned from Louis Kahn and Ian Mcharg, the two great masters of that university's school of architecture. The Mchargian systems approach to landscape planning — that is, using a matrix of overlapping, descriptive factors such as geological formations, climatic conditions, and vegetation patterns — is woven into Fisk's concept that the Farm was to be a synthesis of architecture plus farming. The low-tech, environmentally sensitive buildings he designed for the project have a simple beauty reminiscent of the work of Louis Kahn, perhaps as it might have appeared in a design-build project. The editors of *Architecture* magazine thought enough of the project that they devoted a feature article ("Blueprint for Survival") to it in May 1991.

But this book is much less about architectural design than the contingencies of power and politics that architecture must negotiate. Because the project was conceived (at least to Fisk) in comprehensive and integrated terms, it depended upon cooperation and agreement among the individual members of its constituency. Despite national interest in the experimental farm as a promising and pioneering example of sustainable planning and design, it lasted for only four years (1987-1991), during which time the tenuous coalition among the participants steadily deteriorated into institutional confusion and rancorous territorial disputes, which Moore argues were philosophical in origin. The Farm also became isolated from the people who were to be served by the project. As Moore succinctly summarizes it in his postmortem, "Although the project achieved almost cult status among those who support sustainable technology, the project failed to develop a community of local supporters. As it neared completion in 1990, the state suddenly withdrew operating support, the Israelis retreated, and Laredo Junior College locked the gates."

Moore uses the Blueprint Farm as an opportunity to venture into the theory-practice dilemma, focused here on a philosophical discussion of issues concerning the meaning of place in an increasingly technological world. Combining theory with the practical (and politically messy) story of Blueprint Farm was a primary interest. As Moore, who was a practicing architect for 20 years before entering academic life, puts it, "Much of the academic literature I encountered, while of intellectual interest, simply ignored the conditions of architectural production.... It didn't take me long to figure out that my formal study of architecture would necessarily bridge the ever-widening gulf between those who interpret construction and those who construct."

Moore has an academic's enthusiasm for dialectics, and much of the book centers on the fundamental opposition between modern and postmodern concepts of place and technology — a conflict he mediates by referencing Kenneth Frampton's critical regionalism theories. (Frampton provided a foreword for the book.) Having used Frampton thus, Moore then swerves from his precursor, nominally recharacterizing Frampton's ideas as what he calls "nonmodern": "I am suggesting that we renovate Frampton's terminology and rename the emerging hypothesis as a proposal for regenerative architecture." Where Frampton's theories are descriptive and intended to establish a theoretical position, Moore is more interested in moving along to prescriptions or calls for action, which he does in his "Eight Points for Regenerative Architecture: A Nonmodern Manifesto," a kind of pattern language for sustainability.

Unfortunately, to follow these ideas, it's necessary to navigate some incredibly turgid writing. The book appears not to have fully emerged from a previous life as a dissertation, a form that requires high-flying philosophical language and demands that ideas and observations be framed by the writings of acknowledged authorities. (Moore mines heavily from the German phenomenologist Martin Heidegger and sociologist Bruno Latour.) In discussing his renovation of Frampton's critical regionalism, Moore explains himself this way: "Critical regionalism must be removed from its roots in dialectic logic and critical theory and grafted to a dialogic hermeneutic construct. In other words, I am proposing to transplant Frampton's hypothesis from an alienated logic dependent upon transcendental or oppositional interpretations of reality to a conversational logic or relations dependent upon emergent and collective interpretations of reality." Readers should beware; this is not for everyone.

For me, the most valuable part of this book is Moore's analytical reconstruction of the Blueprint Farm in terms of an intense and complicated social-political dynamic. In that sense, it embodies the network of contingencies that circumscribes architecture in the real world. This same kind of analysis could be useful in examining other projects, including more successful ones, to show how conflicting interests and intentions are made to cooperate, however briefly, however tacitly, in order to achieve and sustain a physical and social construct. It's not surprising that the Blueprint Farm failed. What is more remarkable is that anyone put so much effort into finding out how and why. And what it all means. ■

Gran Teatro and domed Capitolino Nacional in Havana Vieja.

Learning from Havana

BY WILLIAM F. STERN

Havana, as I discovered on a recent trip to Cuba, is unlike any other large city in the western hemisphere. Contrary to its popular image as a city on the verge of ruin, suspended in time somewhere before 1960, the city has a wholeness of grace and beauty that can hardly be found anywhere else in North or South America. The paucity of new development since the 1959 revolution has preserved this Caribbean city as a masterpiece of architecture and urbanity. But Havana is not stagnant either, and continues to evolve as a delicately knitted fabric that incorporates centuries of building growth into a virtually seamless whole.

The last half of the 20th century has not been so kind to North American cities. Mega-development and redevelopment projects, products of rampant speculation and commercialism, abetted by an ever expanding and indifferent urban freeway system, have fractured the cohesive fabric of cities. Central and South American cities increasingly are experiencing similar dissolution; moreover, these cities struggle with heavily populated communities, impoverished, neglected and barely integrated into their host cities.

Such is not the case with Havana. Imagine a city without multi-lane freeways arbitrarily cutting one part of the city from another, where one era of building melds into the next with virtually everything still there, period by period, place by place. Imagine a city where distinctive buildings from the past survive not as isolated monuments but as parts of a richly intricate urban whole. Imagine this, and you can begin to visualize Havana.

Clearly, Havana has been lucky. Fidel Castro was never particularly fond of cities, and after the revolution invested far more in the rural areas of Cuba. He never built monuments to himself, nor did he feel moved to wipe out the architectural evidence of the colonial period, the period of the so-called republic, or the officially vilified years of Batista. He simply left it all alone. There never was a wholesale program to erase the past, as sometimes happened in other communist capitals, such as Beijing or Bucharest. In Havana it was simply a case of benign neglect, and for the most part, the government left Havana's buildings to deteriorate. Movies such as *The Buena Vista Social Club* and *Strawberry and Chocolate* evocatively capture the image of a crumbling, romantic city, which shows up again in Robert Polidori's seductive photographs of Havana's decaying Beaux Arts and Art Deco mansions and townhouses.

But Havana is not a relic, nor is it completely crumbling. Perhaps the most prominent preservation project in the western hemisphere can be found in Havana Vieja — the area that adjoins the port and is most associated with the colonial period, which lasted until the end of the 19th century. In 1982, UNESCO declared Vieja a World Heritage Site, but restoration lagged until the 1990s. After the collapse of the Soviet Union, Fidel and company, badly short of cash, resorted to a capitalist ploy. By encouraging foreign investment that included the expansion of tourism, the government was able to direct funding to the restoration of Havana Vieja. This work has been entrusted to the city historian, Eusebio Leal, who directs a large team of architects and has virtually unlimited power to set the direction of Vieja's restoration. Leal also runs the state-owned company Habaguanex, which restores and controls endangered buildings that have been given new life as hotels, restaurants, shops, and businesses — mostly catering to tourists. Half the income from these properties supports Vieja's ongoing restoration.

Havana, though, is much more than Vieja. From its colonial heart, the city grew well into the first half of the 20th century. In the sprawling neighborhood of Vedado, the heart of Havana in the 20th century, one still finds lushly planted boulevards with an eclectic architectural mix of large houses, apartment buildings, and elegant reinforced-concrete office buildings dating from the 1940s and '50s. Well into the '50s, Havana continued to fan out with suburban neighborhoods that mirror the planning and architecture of American cities such as Los Angeles, Miami, and Houston. These neighborhoods are replete with extraordinary examples of modern design, all still standing, if a bit tarnished.

Unfortunately, Leal's vast network of restoration does not go beyond Havana Vieja, for obvious economic reasons and political reasons that are not quite as clear. But others are calling for action. In particular, scholar Eduardo Luis Rodriquez, author of *The Havana Guide: Modern Architecture 1925-1965*, has made a strong case for the restoration of Havana's 20th century legacy.

It can be argued that the American trade embargo, a policy that effectively keeps Fidel Castro in power by keeping out significant American influence, only hurts the Cuban people. But ironically, this estrangement may be all that stands in the way of an invasion of American-style development. Already, investment from Canada and Europe has introduced unattractive hotel buildings, and more are planned. And what if the U.S. eventually ends its absurd policy of embargo and isolation? Will a flood of American investors, including Cuban exiles in south Florida, sweep away whole neighborhoods for blocks of commercial and residential urban renewal? This need not be the inevitable conclusion. The Cuban government should stay in the driver's seat, and set in motion a comprehensive plan to protect and restore Havana — a revival similar to that in Havana Vieja, only on a city-wide scale.

In many ways, Houston and Havana are opposites, but closer examination reveals similarities. Houston was born of a 19th-century laissez-faire capitalism and still embraces its principles of unregulated growth. Havana began as a colonial city, but in the 20th century its growth was not unlike that of Houston's, spurred by capital investment to become the vibrant commercial and political capital of Cuba. Until 1960, the same kinds of market forces and commercial interests that dominate Houston dominated the development of Havana, and in all probability the city would look very different today if Fidel had not come into power. Over the 40 years that Castro has dominated his country, Houston had its most extensive period of growth, and it was during those years that the city changed most dramatically. Today, the two cities represent radically different systems of city government. In Havana, decisions come from the top, from a government tightly controlled by a few. Houston's government is democratically elected to represent its citizens, but in reality business interests dominate the decision-making process. The results are obvious. Houston's lack of zoning, its weak preservation ordinance, and leaders who have promoted road-building over alternative transportation systems have all taken their toll. As a result, we are left with a fragmented city where mediocre commercial and residential development surrounds shrinking islands of urbanity, and where noteworthy architecture and protected neighborhoods are increasingly threatened.

Houston could learn from Havana, in particular, a lesson that places equal value on the past as it does on the future, and where the sanctity of established neighborhoods is respected even as development encroaches. Eusebio Leal and his group prove that planning and preservation can be sources of renewal and capital growth. We learn that unregulated development can and must be balanced with planned development and a comprehensive vision of place. Though it is impossible to turn back the clock and revive the city we have lost, we learn from Havana how graciousness, vibrancy and a sense of history are conditions of urbanity. Above all, we learn about respecting the delicate threads that hold a city together in both time and place. ■

Because not all works of art are made to go on the wall.

Egg Vase, Marcel Wanders, 1997

SUNSET SETTINGS

Carolyn Brewer's Sunset Settings is a retail showroom providing classic modern furniture and accessories to Houston. Open since 1995, Sunset Settings provides the public, as well as architects and designers, a source for classic modernist pieces while introducing innovative contemporary designs. In addition to furniture from Herman Miller for the Home, Kartell, ICF, Cassina, Vitra, and many others, Sunset Settings also provides lighting, glassware, flatware, and china.

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