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Cover:

A huge steam cloud in Kendall Square, Cambridge, Mass., buffets the sculpture "Earth Sphere" and seems to be supporting it. The sculpture is the centerpiece of Galaxy Fountain, a collaborative work created by sculptors, landscape architects, engineers urban designers and an artist who works with steam. Galaxy was installed last winter; during the warmer months, water jets create clouds of mist around the sculpture. Photo by Thad Tercyak. Courtesy Cambridge Redevelopment Authority.

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Holding Steady

Places, like lives, evolve; sometimes uncertainly, sometimes abruptly, sometimes to good ends, sometimes for naught.

Places, though, carry our lives within them. They give structure to where we spend our time, what and whom we encounter, how much sky we see, how much green surrounds us, and how tightly or freely we conceive the community. Places form an armature for the imagination.

Because they affect so many, places deserve our attention. We need to see to it that the pace and scale of change is set to an appropriate measure. The multiple interests that converge in location must be transformed into palpable, imaginable places, places that many can inhabit and care for. Then, when such places emerge and attract our affections, we must learn how to keep them.

We must learn to hold steady those ideas about places that nurture and sustain a viable sense of community. But holding steady does not mean standing still. It means charting a course with resolution and consistency. Neither does keeping places mean embalming them in a moment of time. Places are sturdier than that. Keeping places means making deliberate judgements about sizes and uses and the quality of the investments that are made; fusing energies of change with a steady vision of communal purpose and identity.

In this issue we trace the handing on of such a vision from generation to generation of civic leadership in St. Louis. We also listen to the musings of a group of professionals confronted with an industrial path through the landscape, a singular vision that no longer has a singular purpose; we look through the selective eyes of a photographer at the ravages of extractive landscapes; and we wonder how plants and animals can find their place in the midst of relentless development enterprise. More intimately, we see in the work of two artists an attempt to use natural and industrial processes to turn new attention to instants of time that highlight our presence in place.

-Donlyn Lyndon

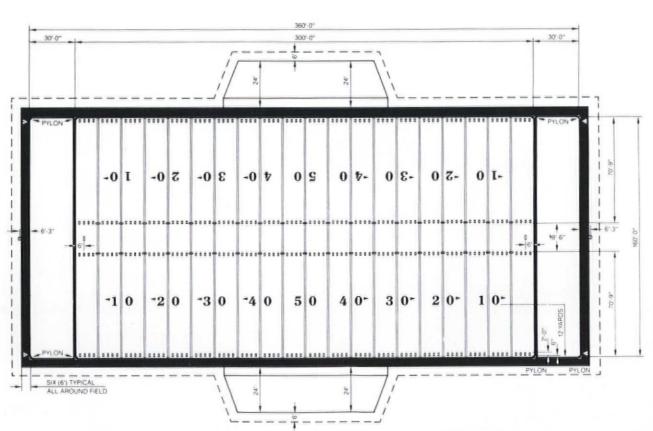
Run It Down the Field Again, Fellows

How many of us can measure, without a ruler, that good old American yardstick, a yard? Or pace off, exactly, one hundred yards? Or explain to a city boy the size of a 200-acre farm?

How we deal with territory—the comparative size of yuppie tracts in suburbia, the debatable size of a dove-shooter's field, the space it takes to swing a cat—set me to wondering: Is there a universal yardstick for describing complex environments?

I got one answer in Brazil. My wife and I were inspecting the pulpwood plantation developed by Daniel Ludwig, that amazing American adventurer. He had floated a giant power plant and pulp paper mill from Japan, across the Indian Ocean,

Grady Clay



For the record: the dimensions of a standard football field. Courtesy National Football League. around the Cape of Good Hope, across the Atlantic, up the Amazon and into drydock by the Jari River. There they sat, turning out 900 tons of fine white paper pulp every day—one-third over rated capacity.

Finally our guide uttered the magic words: "Each of these plants is as long as three football fields."

That was the key to ubiquity, to universal imagibility! Every sports-loving audience in the U.S. surely must have the size, shape and dynamics of football field writ indelibly upon its visual psyche—a national unit of psycho-geographic size and shape. (Dimensions: 120 yards long, including end zones, by 53 yards wide, or 360 x 160 feet. It comes to 57,600 square feet, or approximately one and one-third acres per football field.)

This is not the place to delve into how this imprinting came about, but to look at its penetration into popular imagery. Football field pours off magazine and newspaper pages, not by any means limited to the sports page. It cascades through TV travelogues and travel magazines. It has emerged, along with such timeless phrases as "head-high" and "knee-deep," as a near universal unit of space and dimension. It is to space what the 60second commercial has become to time, the paragraph to newspapers and the hour (as in "five-minutes-before-the bour") to National Public Radio.

Let us first allow the expert T. Boone Pickens a few words on choosing targets for corporate takeover: "Concentrate on the goals, not the size of the organization. You can't measure a place by size, unless it's a football stadium." (Fortune, Feb. 16, 1987.)

Now to embellish our point with a random scattering of examples. We zoom in modestly, then shift to a wideangle lens. A giant radio-telescope in West Virginia is "half the length of a football field in diameter." (Gideon Gill, Louisville *Courier-Journal*, Sept. 13, 1986.)

The type of oil barge that gets pushed between New York, Providence, Boston and Portsmouth, N.H., "is considerably larger than a football field and carries 150,000 barrels of oil; at 42 gallons of oil per barrel that is more than six million gallons or six million dollars worth of oil" (1986 prices). (The Boston *Phoenix*, Sept. 2, 1986.)

A "chunk of farmland the size of a football field just outside St. Charles, Mo.," that once was surrounded by chain-link fencing, was designed for "the world's first field test of a living, genetically engineered microbe," but in 1986 the Monsanto company side-tracked the project. The fence is gone. (Keith Schneider, "Biotech's Stalled Revolution," New York Times Magazine, Nov. 16, 1986.)

The glacier at the base of Mt. Rainier "is about a football field thick." (Commentator on National Public Radio's *Nature Scene*, Sept. 14, 1987.)

The "fabulous new \$80 million Birmingham (Ala.) Turf Club" has a seven-story clubhouse/grandstand that accommodates 20,000 spectators "and is large enough to cover an entire football field!" (BRPC Comments, Jan./ March 1987.)

The U.S. national forests "were born out of a nation's horrified reaction to the unauthorized logging that left Michigan a stump patch and sent the prime areas of Wisconsin and Minnesota down the Mississippi as lumber rafts bigger than football fields." (Wallace Stegner, Los Angeles Times, Nov. 20, 1988.)

Six hundred feet—"about two football fields"—has become the standard distance for billboards to stay back from a public highway, according to Jefferson County (Ky.) regulations. As a result, billboarders have adopted "junior billboards" in an effort to avoid the two-football-field limitation. (Angelo B. Henderson, Louisville Courier-Journal, May 26, 1987.)

In Venice, Italy, the famous tourist destination plazas "vary in size, some little more than a courtyard, others larger than two football fields." (Lennard and Lennard, "Stepping Out in Urban Design," Boulder Pedestrian Conference, 1985.)

Outside Washington, D.C., the project director of Tyson's Galleria II, E. Wayne Angle, "estimates that, in an automobile-oriented environment, 600 feet is about as far as Americans will walk before getting in their cars. That's the length of two football fields without end zones." (Joel Garreau, "The Emerging Cities," Washington Post, June 15, 1988.)

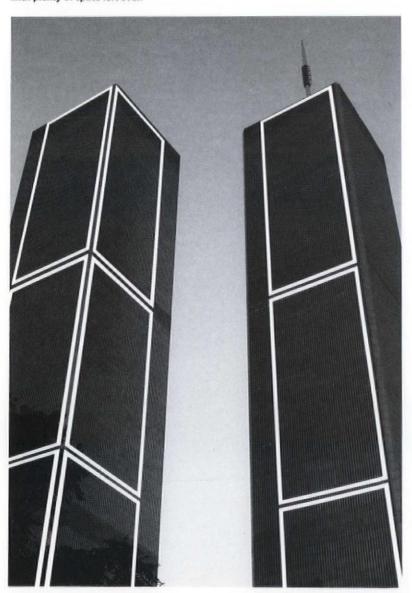
If you "Turn historians loose in a room as big as two football fields and filled with old documents...there's no telling what they'll turn up." (Charles Wolfe, Louisville Courier-Journal, Feb. 15, 1985.)

Now, moving one football field upscale we come to the new cruise ship S.S. Norway which "is longer than three football fields." (Denver *Post*, Oct. 6, 1986.)

The flight deck of the aircraft carrier Theodore Roosevelt, on entering service in 1986, measured in at longer than three football fields. (Los Angeles *Times*, Oct. 26, 1986.)

An underground tire fire in Greenup, Ky., burned "as many as 200,000 discarded tires in an area the size of three football fields" along the Little Sandy River. (Associated Press, June 8, 1988.)

The Recycling Center at San Rafael for Marin County, Calif., has an indoor facility "as big as three football Each facade of the World Trade Center has enough room for three whole football fields, with plenty of space left over.



fields equipped with machines to process varieties of recyclables." (Sunset, May, 1988.)

Harlequin Plaza, a spiffy adjunct to offices in Denver's eastern suburbs, is about the size of one football field. The new entry to Candlestick Park, San Francisco, is about the size of three. (George Hargraves, landscape architect, San Francisco; author's journal, May 25, 1988, Washington, D.C.)

On their 46,000-acre Big Cypress Reservation in south Florida, the Seminole Indian tribe in 1987 set up a \$4 million, 5,600-seat bingo hall "the size of two football fields." With this and other bingo operations, plus tax-free cigarettes, the Seminoles have become "one of the nation's most prosperous tribes." (Associated Press, March 22, 1987.)

"A conventional store (i.e., supermarket) now covers about 22,500 square feet. 'Superstores' may run 50,000 to 100,000 square feet and often include many additional services—pharmacies, video rentals, even bank branches. 'Hypermarkets,' rather like a supermarket crossed with a discount retailer, cover 100,000 to 200,000 square feet (that's four football fields)." ("How to Save \$2,500 a Year in the Supermarket," Consumer Reports, March 1988.)

During construction in 1956, "the largest dock in the gulf Intercoastal Waterway system from Mexico to Florida" was built "the length of four football fields." (New Orleans *Times-Picayune*, Nov. 18, 1956.)

The 1986 corn harvest looked to be so huge that in Central Illinois a grain elevator owner built an outdoor storage bin "the size of five football fields." (Associated Press, Aug. 18, 1986.)

During the construction rush occasioned by arming up for the Vietnam War, Ruscon Construction Company in 1967 built a 400,000-square-foot building at Charleston, S.C., for making helicopter engines. It "could hold ten football fields under one roof." (Grady Clay, Right Before Your Eyes, Chicago: Planners Press, 1988.)

In Florida, a report on terrorism says the "minimum safe distance" from an exploding ammunition truck is "the length of 12 football fields" in all directions. (Los Angeles *Times*, May 4, 1986.)

Walter Sullivan (reporting for the New York *Times*, Sept. 25, 1985) observed that inside Meteor Crater, Calif., "twenty football games could be played simultaneously before two million onlookers" (some of them, no doubt, quite uncomfortable).

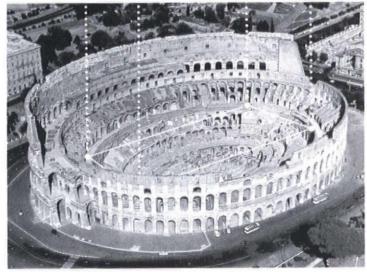
United Parcel Service at its Louisville (Ky.) Air Park, planned "a \$16 million expansion [which] will nearly double the size of the main sorting building to almost 900,000 square feet—enough for 20 football fields." (Louisville Courier-Journal, Apr. 3, 1988.)

Some eager describers switch dimensions from horizontal to vertical, to wit: A new resort swimming pool in Puerto Rico is said to be "nearly two football fields longer than the Empire State Building is high." (New York *Times*, Sept. 14, 1986.)

Disaster looms in football-field dimensions: "CORRECTION: In last October's Almanac, we stated that South American rain forests are being destroyed at the rate of one football field per second. In fact, this is an often quoted figure for the destruction of tropical rain forests. Though estimates vary, one researcher says that South American rain forests are destroyed at the rate of one football field every five seconds." (Conde Nast Traveller, May, 1990.)

Columnist Erma Bombeck certified how things go in the Heartland of America with this tasty morsel: "With





How the Roman Coliseum stacks up against an American football stadium (Memorial Stadium at the University of California, Berkeley). Top photo courtesy University of California, Berkeley. Bottom photo courtesy the Italian Cultural Institute. all the flap about nutrition, Americans devoured 71 football fields of pizza in a day last year." (Sept. 16, 1986.)

As a final note, it should be observed that football field itself is only one ingredient in the territorial game. If we add its accoutrements—special access roads; V.I.P. parking; public parking lots; space for hawkers, pitchmen, charity exhibits and caterers for tailgate parties; if we were to include room for garages, associated gymnasia and occasional Tent Cities and motel complexes—we would end up with a 50- to 200-acre operation, plus half mile traffic jams. Now we're talking real size...say, a hundred or so football fields.

Besides offering food for thought, the *football field* serves other functions almost too numerous to mention: as a battleground, an ego test plot, a betting venue, a fashion showplace, a reunion site, a coming-of-age ritual ground, a yardstick in multiples of ten, and—for a host of Americans—the site of the largest crowd gathering in their lifetime experience.

There is here operating a rule of some sort, namely, that the wide and booming world of multi-mega-superblock and of multi-use complexes, annexation areas and redevelopment intervention zones continually outstrips the powers of advertising writers to accommodate its shifts and scene changes. Football field is a familiar tool for cutting that expanding world down to human conversational scale.

Requiem for the Medical Dental Building

Detail of cornice and sculptural elements. All photographs courtesy Arthur Allen.



Vancouver's Georgia Medical Dental Arts Building - one of three Art Deco buildings in western Canada - was demolished last May to make way for a larger officeretail complex. For a year before that, the city engaged in a vigorous debate about the architectural merits of the building, the merits of architectural preservation and even the merits of dentistry. Arthur Allen, a Vancouver architect and a leader of the battle to save the building from destruction, forwarded to us news clips and transcripts of radio interviews in which the debate was conducted. From those, we have excerpted a range of comments on the demolition of the building.

The issue is not whether the new building is "better" than the old one. The point is that the old one has been there all this time and forms an important part of our collective civic memory. A city without a past suffers amnesia, and Vancouver is fast becoming a world-class center for architectural Alzheimer's disease.

—John Davis, letter to the Vancouver Sun, May 11, 1988.

City Council's condemnation of the Class-A heritage Medical Dental Building was accompanied by some strange reasoning. The Art Deco structure should go to the wrecker's ball because some people suffered pain in that building, according to Alderman Philip Owen. Maybe he had a bad childhood experience at the dentist. But think of all the patients who found joy, happiness and even life there-good news from the obstetrician, successful treatment for their ailments and relief from pain in the neck. If the building is to be destroyed (and that is not proven), then at least the knockers-down should come up with a better reason.

—Editorial, Vancouver Sun, July 16, 1988.



By now most people know a good deal about the three terra-cotta nurses high on the corners of the Medical Dental Building. Many people also know, or have felt vaguely, that these nurses are indeed twentieth-century gargovles, placed there in 1929 to remind us that it is now the wonders of modern medical science, not the mysteries of medieval superstition and magic, that will save us from evil spirits In the case of the Medical Dental Building, its charm and inner beauty rest to some degree on the fairy tales that can be told about its ornamentation.

A few people know, for instance, that the decorations, including the nurses and the panels around the arch at the main entry, include symbols and pictographs of scientific medicine, Christian belief and faith, and medieval and ancient magic and superstition. This fascinating mixture of motifs could indicate that the doctors and dentists who occupied the building in 1929, or possibly the artists and

architects engaged by them, put their tongues in their cheeks and have ever since advised viewers that in case of illness they should try medicine, prayer or magic in suitable proportions....

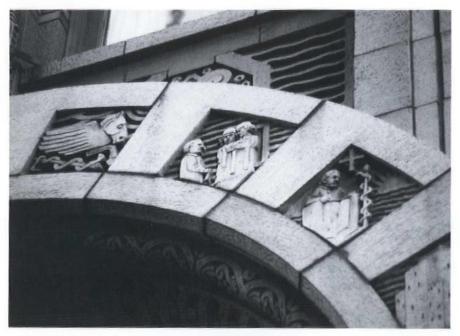
Who in his or her right mind would deter evil spirits by placing large and expensive gargoyle-nurses high on a building, and then place 10 snakes, the symbol of evil itself, writhing all over the main entry? That's enough to force the conclusion that dentists really are sadists and that they enjoy intensifying the already deathly fear of children arriving for tooth extractions.

Does anyone know that at the entrance the caduceus, a rod with two snakes entwined on the shaft, is a symbolic mistake? A shaft with twin serpents is a symbol of Hermes or Mercury, gods of commerce, not healing or charity.

You may know that Hippocrates, the father of modern medicine, was the first person to proclaim that epilepsy was not a condition of demonic possession but an illness that could be treated by medical procedures. However, Hippocrates lived and worked at a time when people believed firmly that epilepsy (otherwise known as falling sickness) could be cured by snatching the skin from a live snake.

Discarded snake skins found in the countryside were left there, it was said, by snakes that cast off their skins, leaving them to epileptic pursuers, while the serpent escaped, in this case without its skin. Aware of these beliefs, it seems Hippocrates fed biscuits to snakes at a temple near his clinic to keep them nearby just in case his patients should doubt his newfangled ideas.

The diagnosis: The Medical Dental Building in Vancouver is suffering from epilepsy, the falling sickness. The cure: Remove the caduceus of com-



Detail of entrance arch.



The caduceus: symbol of healing or of commerce?

merce from the entrance and install a caduceus of the healing arts.

—Arthur Allen, letter to the Vancouver Sun, May 8, 1988.

The loss of the Georgia Street monument had to represent more than the loss of a tiny lobby, a warren of small dentists' and doctors' offices and a creaky elevator. But what? What was lost?

Beauty? Poke any beholder in the eye and you'll get a different reaction. To preservationists, the Art Deco style of the Georgia Med was a time and lifestyle preserved, the sculpted terra-cotta nurses were genuine art treasures.

But 20 years ago, I used to receive angry letters from an activist who saw those statuesque nurses as public vulgarity. Thousands of Vancouver pedestrians, some of them actual churchgoers, passed that building daily and slowed down deliberately to look up the nurses' skirts. Beauty was in the eye of the leerer, he claimed.

Like many, my most vivid memory of the red brick building has to do with pain, a hellacious toothache that Dr. Wes Muncie eased with a quick flip of his forceps. But on Saturday night, I spoke with a woman who had only fond memories. Her wedding ring had been made by a jeweler on the top floor, and it was emotionally important to her.

When the Devonshire Hotel hit the street...artist Dave Webber photographed it and had 10,000 copies of a color poster in souvenir shops the following morning. But Webber saw no market in a Georgia Med poster. "I love the place and I'll miss it, but there's no broad emotional attachment like the Dev. Who ever honeymooned in a medical building?"

—Denny Boyd, columnist for the Vancouver Sun, May 30, 1989.

The hoopla was certainly more than the ugly old trollop deserved, but watching a 60-year-old structure crumple in 15 seconds holds understandable fascination....

The careful preparations leading up to the building's destruction were too eerily like the arrangements for a high-profile prison execution. Remove the window glass; shave the prisoner. Mount protective scaffolding; ready the chair. Set the wires and the detonation drops; check that the flow of current is unbroken so death will be swift....

Always, there are the curious onlookers: 30,000 in the last hour of life for the Georgia Medical Dental Building; a handful pressing at the glass of the observation room on death row and sometimes thousands outside, counting down the minutes with dread or glee.... As with the Ted Bundys and the Gary Gilmores of the world... we will relive the presence and the demise of the Georgia Medical Dental Building through fictional earthquake movies, documentaries and year-end news recaps....

Mourn if you want to, but progressive cities look forward — not behind. Let our "heritage" be the subject of full-color coffee table books, which in the usual way of things these days, tend to be celebrated at their publication and never opened thereafter. Let the preservationists finger picture pages tipped with gold filigree and mutter under their breath about days gone by while the rest of us get

on with living and working in tomorrow's world.

—Nicole Parton, columnist for the Vancouver *Sun*, May 31, 1989.

As an architect I spend all day building them so it's neat to see them come down.

—Nigel Pages, architect witnessing the demolition, quoted in the Vancouver Sun, May 29, 1989.

Are we going to blow up our part of the world?

—Travis Latham, 6, witnessing his first building demolition from atop his father's shoulders, quoted in the Vancouver *Sun*, May 29, 1989.



Entrance arch.

SPEAKING OF PLACES:

Questions to Ask a Space

Ronald Lee Fleming

Pondering some of the banal, bleak and dreary public spaces we have created in the past several decades, I concluded that it might help commissioners, city planners and members of boards that review design proposals to have a set of questions to ask when evaluating a space. Some of these questions, which follow, relate to conditions I observed in Albuquerque's Civic Plaza. But, in fact, most could be asked of spaces anywhere.

- 1. Do the configuration and size of the space support the functions that were planned for it?
- 2. Does the space have a complexity that allows it to be enjoyed by a variety of users?
- 3. Conversely, is it simple enough to be memorable as an integral space?
- 4. Is there a clear sense of direction across the space to popular destinations on the other side?

- 5. If one were blindfolded, would one encounter obstacles in passing across the space?
- 6. Can an elderly person sit in the sun and feel safe?
- 7. Does the space support a defined palette of colors appropriate to the cityscape?
- 8. Can one comfortably eat outdoors, or watch a concert, or do both at the same time?
- 9. Can a small child find sources of amusement in the space? Are there design clues that can help a lost child find its way out of the space?
- 10. Does the space avoid complex level changes, sunken areas and hidden alcoves that might encourage antisocial behavior?
- 11. Conversely, does it provide a variety of feelings of enclosure that sustain various levels of intimacy?
- 12. Does the space include a location where people go so they can be seen by others?



- 13. Are the materials in the space easily maintained or replaced, such as stonedust or gravel?
- 14. Can a handicapped person easily traverse the space, find comfortable places to rest within it and use the drinking fountain and restrooms?
- 15. On a sunny afternoon, can you buy a snack, a book, a balloon, or a city map?
- 16. Does the space provide a clear sense of destination for pedestrians?
- 17. Is the space designed to support special events? Does it have electrical outlets, inserts for kiosks and removable bollards to block off areas?
- 18. Can you play games in the space, for example, bocci, shuffleboard, or chess?
- 19. Is the space accessible to fire trucks, utility equipment, or catering vans? Can these vehicles easily negotiate the space without damaging it, and are the paving, utility outlets and land-scaping resilient enough to stand up to this traffic?
 - 20. Can you see across the space?
- 21. Is there information that tells you what was there before?
- 22. Are there narrative elements connecting various parts of the space?
- 23. Does the space encourage you to savor moments of contemplation?
- 24. Are there elements in the space that help you to measure time and the passage of the seasons, to understand the movement of the planets or the evolution of the area's geology?
- 25. Is there flora that is native to the place?
- 26. Do the works of art in the space have meanings that are accessible to the general public?

The Albuquerque Civic Plaza.

Photo by R. Lujan.

Courtesy City of Albuquerque

Redevelopment Division.

- 27. Does the space reduce the impact of the visual cacophony of its surroundings? Conversely, does the space strengthen a vocabulary of design elements that are used (or could be used) appropriately throughout the surrounding area?
- 28. Do the design elements in the space relate to the human figure?
- 29. Does the human figure create a sense of dimension in the space?
- 30. Do the intricacies in the space sustain interest; are they worth considering five or six times?
- 31. Are the building materials, building finishes and structures in the space of the type a child would wish to touch? Can one see where these touches, accumulated over time, have left a visible trace?
- 32. Are there design features in the space that the community could add to over time?
- 33. Are there design elements that encourage one to linger in the space? For example, are there moveable chairs so one can define his or her own space? Are there comfortable benches in the shade on a hot day and in the sun on a cold one?
- 34. Are there elements of continuity that reinforce the overall design character of the space and establish a pattern that is discernable by pedestrians, not only from a bird's eye view?
- 35. Does the space avoid arbitrary shapes or objects out of scale to their relative importance in the design?
- 36. Does the space allow the viewer to enjoy its intimate details?
- 37. Can you hear special sounds in the space: the rustle of leaves, the thud of horseshoes, the trickle of water, or the music of a band?
 - 38. Is there relief from the hot sun?
- 39. Do the design elements used in the space include arts and crafts particular to the region?

Designers who find good answers for these questions will be well on their way to creating better public spaces. However, I believe that most designs can be improved through concentrated review by a discerning group of potential users, who also should ask these questions. The space may then succeed in transcending its physicality, becoming an environment of meanings and layered uses that create and sustain a feeling of place. With that feeling, I hope, will come a sense of community proprietorship for the space.

The author wishes to acknowledge the assistance of Richard Sertick, of the City of Albuquerque Redevelopment Division; Gordon Church and Christy Williams, of the Albuquerque Arts Council; and Cheryl Barton, of EDAW's San Francisco office, for their assistance in developing these questions and preparing this article.

Economics, Politics and City Design

I know little about the technical aspects of urban design. I know nothing about the technical aspects of architecture, construction or other items related to development.

But I have been mayor of St. Louis for more than eight years, and I was a member of the Board of Aldermen for six years before that. So I do know something about how cities work, how people think, how politics works and the underlying economics of the city.

The Mayors' Institute for City Design helped me to organize my thoughts about how development affects the economy and how development and design work together to accelerate the economic impact of that development. It helped me to understand—and to persuade others—that what makes a city successful is the quality of the environment it offers.

I want to talk about the economics of cities, the economics of development within cities and the politics of development. I want to tell you the story of a success, the story of a failure and the story of a project whose outcome is yet to be determined. I want to share with you some of the experiences I've had as a mayor of a city that has had its share of difficulties.

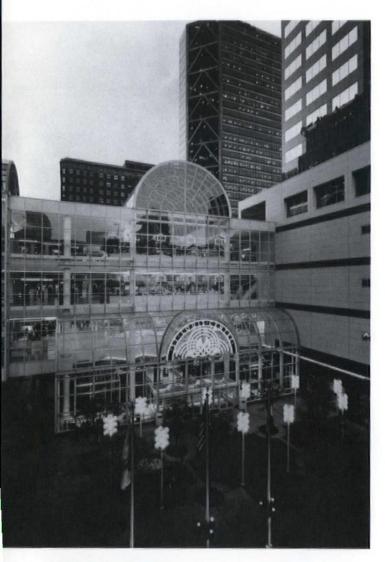
From Basket Case to Turning-Around City

Here is a thumbnail sketch of St. Louis: The city is the heart of a metropolitan area of more than 2.5 million people, but it has just under 405,000 residents, down from nearly one million in the mid-1950s. It experienced a period of rapid decline during the 1960s and even greater decline in the 1970s, during which, according to the 1980 Census, 27 percent of the population left.

The national news media picked up on these figures: The New York Times called us "the gateway out" and the Wall Street Journal said we were a "genuine basket case." Time offered this advice: "The last man out should turn out the lights."

The following articles by Vincent C. Schoemehl Jr. and Tom Martinson were inspired by a Midwest regional meeting of the Mayors' Institute for City Design, held in Minneapolis in October, 1989. Schoemehl's article is an edited version of a talk be gave at the meeting. Martinson's article is an expanded version of comments he made at the meeting.





St. Louis Centre, a downtown shopping mall opened in 1985. Photo courtesy St. Louis Convention and Visitor Commission.

Facing page:
The Gateway Mall runs west
from the Gateway Arch
through Memorial Plaza and
the Civic Center.

During the 1980s we reached a period of equilibrium and approached stability; the population reductions we saw were the result of the shrinking size of households. We turned the exodus of jobs and businesses around in 1985 when we opened two major urban shopping districts downtown—St. Louis Centre and Union Station. We have doubled the amount of commercial and office space in the downtown core and have gradually added employment.

The media are talking differently now: Architecture proclaimed us "the turn-around city of the 1980s." I would like to tell you that pronouncement is true. But I think we are "the turning-around city of the '80s."

We haven't made it yet, but St. Louis has made substantial progress and laid the groundwork for growth during the 1990s that I feel will be superior to any period of growth and recovery since the city hosted the World's Fair in 1904.

Fiscal Pressure and Development

American cities face pressures that do not exist in the cities of western Europe. For example, Bologna, Italy, receives 99.5 percent of its budget from the central government. That is true throughout most of Europe. This places local political jurisdictions in a strong position to argue for good design and preservation, a luxury American mayors don't have.

There is an incredible amount of economic and political pressure placed on a mayor to produce revenue to run the city and to produce jobs for its residents. The per capita income of St. Louis residents is about 40 percent that of people living in the surrounding suburban ring. Out of the city's \$328 million annual budget, \$45 million is spent on indigent health care. With the remaining funds, we must run the government, provide police and fire protection, collect trash, pave streets and inspect buildings.

Another pressure is that St. Louis, like most older American cities, is landlocked. The city has not been able to expand its boundaries since 1876 due to a provision in the Missouri Constitution. Therefore we must provide economic and community resources for our residents within a limited geographical area. Since all that area is heavily developed, we have no new sites for expansion of industry or large-scale residential developments.

These imperatives have their consequences. They lead to decisions that have long-term implications for what the city looks like, how it works and how it feels. Yet those decisions are made because of very short-term economic pressures.

The strategy that St. Louis follows is similar to that of many major cities. We want to bring people into the city core for entertainment, leisure and employment. Bluntly stated, we want them to empty their pockets in the city so we can take our share. Property taxes provide only eight percent of our income. About 75 percent of the budget comes from taxes collected from business activity, such as sales and earnings taxes.

I sympathized with former New York Mayor Edward Koch when he got kicked around by the design community because he permitted intense high-rise development. I don't think there was any understanding of the political pressures under which a city operates. If someone had told Koch, "I want to build an 80-story building," he would have said, "Why not make it 180 stories?" He would have said that because he was dependent on buildings like that to run drug rehab centers and homeless programs and to provide housing and other services that were never the intended purpose of municipal government. We have made our American cities informal mechanisms for the redistribution of wealth.

As long as we pursue a national policy of placing extraordinary pressure on cities, cities will inevitably end up taking aberrant forms because we are forcing cities to find methods to finance services they are not equipped to provide. Cities were not created to serve as mechanisms for the redistribution of wealth. Central governments are established for that purpose. In our nation, state governments are supposed to help.

It was my great misfortune to become mayor 90 days after President Ronald Reagan was sworn in. I inherited a \$50 million budget deficit and then faced a 50-percent cut in federal funds. As an unreconstructed Democrat, I believe that the Reagan legacy will not live forever and that one day we will re-think the role of cities and how we are going to fund services. We have to recognize there are consequences to public policy and that cities cannot be what they cannot afford to be.

Blinking at the Gateway Mall

The first urban design issue I confronted as mayor, the Gateway Mall project, turned into a debacle. In 1927, the concept of building a mall eight blocks long and one block wide from a new courthouse in the civic center to the Old Courthouse, closer to the river, was proposed. The Gateway Arch, proposed in 1947, sits on axis with the Mall, which



was then envisioned to extend to the Arch and was renamed the Gateway Mall.

The city had acquired about half of the land for the Mall by the time I became mayor, but the conventional wisdom then was that cities could no longer afford to invest that amount of land in open space. A developer who had purchased some of the buildings that remained in the center of the proposed Mall asked me to look to the private sector to see what could be done to provide the remaining open space. We did, and allowed the developer to tear down three buildings, arguably of very significant historic and architectural value, and to put up, on half a block, a rather undistinguished building. The other half-block remains open as part of the Mall.

The mistake was not tearing down the older buildings or putting up the new building. The mistake was blinking.

I did not realize in 1981 that I was the custodian of a community vision that went back to 1927 and I had no right to abandon that vision without a lot of thought and community consensus. And, in fact, the consensus for change would never have arisen. We were trying to "jump start" the city's economy and made a decision based on the political milieu that existed at the time.

Mayors have a sacred trust to maintain the continuity of vision and thought that has gone before them. We can try to add to that vision and give momentum to it, but we cannot change it lightly. Trying to change that vision was a big mistake, probably the biggest I have made as mayor.

Keeping Sports Downtown

St. Louis is building a new convention center and stadium downtown. But to get the project this far, I went through a long battle that cost us the St. Louis Cardinals football team, which moved to Phoenix.

When the Cardinals' owner first asked for a new stadium, the former county executive of St. Louis County said he would build it 19 miles from downtown.

I was absolutely convinced the city has to be the custodian of the community's culture. You cannot take the major assembly buildings of the community and spread them over the metropolitan area, send people in every direction and still expect them somehow to identify with the city as a whole.

An example is our baseball team (also called the Cardinals). We are fortunate that 30 years ago one of my predecessors enforced the decision to build a new baseball stadium downtown. It has fit into the fabric and made an incredible difference in the way the city works and the way it attracts visitors: It has given us a focal point and is a reason for suburbanites and people from throughout the Midwest to see downtown St.

Q: Is there anything you could identify as an architectural element that is special to St. Louis? Is there something unique about the city that should be expressed in its architecture?

A: I am going to bide behind ignorance because conversation in which I become an architectural critic is very dangerous. The important thing to recognize is that cities are not going to be fortunate enough to elect mayors who are architects or design experts. But what we, as political animals, can be adept at is picking up ideas from other people.

I have found that the most successful way to determine whether or not architecture is appropriate or successful for a city is public discussion. The biggest mistakes are made when there is no public discussion, no public debate and when you're in an incentive-driven environment in which a developer is controlling all the decisions.

If I could leave two words carved in stone to my successors, they would be "patience" and public "discussion."
Mistakes are made when you don't adhere to these two things.

—Comments by Mayor Vincent C. Schoemehl Jr. at the Mayors' Institute for City Design, Minneapolis, October 1989.

Busch Stadium, where the Cardinals baseball team plays, brings people downtown after business hours. Photo courtesy St. Louis Convention and Visitor Commission. Louis. Last year the team drew more than three million fans to the heart of the city, where they used our hotels and restaurants. They make use of our downtown, and that has helped our economy.

Looking at the situation for baseball made me determined not to allow the construction of a competing facility in the far reaches of west St. Louis County.

So I made a very unpopular decision—I filed a lawsuit to block the building of its football stadium. That lawsuit triggered the owner's decision to move his team. I was widely construed to be the village idiot, the guy who had run the football team out of town. That was laid squarely on my plate by the media, the owner and the county executive.

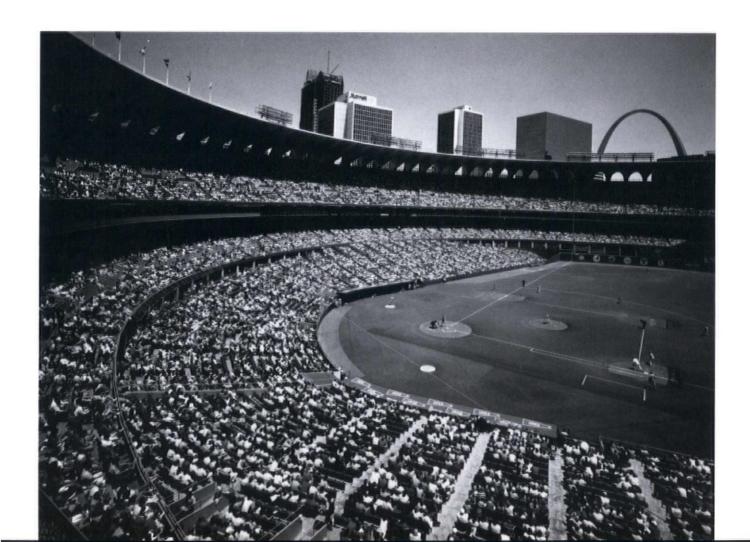
Time heals all wounds. Once we survived the departure of the football team, we found a person (already 49-percent owner of the New England Patriots football team) willing to form a partnership and apply to the National Football League for an expansion team for St. Louis.

Then we proposed that a new enclosed stadium be built downtown and attached to our convention center. I could not allow the underlying economic pinnings of downtown to be stolen away by a suburban community. Yet, at the same time, we needed support from that suburban community to build the stadium because the city could not afford to spend \$225 million on a stadium itself.

It was only in the crisis of the moment that we were able to create a political atmosphere in which a Republican governor, a Republican county executive and the business leadership would help the Democratic village idiot who had just run the football team out of town. We persuaded St. Louis County (under a new county executive) and the state government (under the governor's direction) to pay 75 percent of the cost. (Meanwhile, we are expanding our convention center, doubling its size.)

So we will end up with the fifth largest convention center in the country and a 70,000-seat stadium paid for mostly by the state and county. No one would have predicted this outcome, and no one would have believed it.

Not only will the stadium and convention center be built, they will also be well designed. We are putting them through



a series of community design reviews. We are bringing in architects and urban planners from around the country to give us their opinions. I would recommend this series of design reviews to other cities because by bringing in people from outside you get honest opinions without fear of retribution.

Driving a Hard Bargain

As part of his idea to build the football stadium in the suburbs, the former St. Louis County Executive tried to lure the St. Louis Blues hockey team out of its facility in the city to the new county stadium. In response, the City bought the arena in which the team plays and assembled a group of business leaders to buy the team.

The arena is on the western edge of the City and adds nothing to the fabric of the City. It sits in a sea of surface parking. People drive there, pay to park, watch the game and then get back into their cars and head out on one of the highways to go home. So we are going to tear it down and build a new arena downtown. In February, 1989, a representative of the Anheuser-Busch brewing company (which is based in St. Louis) told me the company was willing build the new arena. No public money would be required because the company would fund it privately. All I had to do was agree to the demolition of nine turn-of-the-century warehouses, all of them listed on the National Register of Historic Places, so the company could build a 16-acre parking lot next to the arena.

Having recovered once from the claim of being the village idiot, I figured I could do it again. I said no.

It was the most unpopular decision I have ever made, and I've made some unpopular decisions. I had to lay off city employees—when I became mayor there were 10,400 and today there are 4,600. I had to close a city hospital. All of those decisions paled by comparison: You have never experienced the wrath of the constituency until you've experienced the wrath of an outraged hockey fan. Wisely, I had waited until after the election.

This issue is not resolved and I don't know how it is going to come out. Anheuser-Busch refused to proceed unless it



City workers plant flowers in the median of a St. Louis street. Photo courtesy City of St. Louis.

Daffodils, Petunias, Marigolds and Roses

Driving to City Hall one day along Gravois Avenue, one of St. Louis' main streets, Mayor Vincent C. Schoemehl Jr. decided something had to be done. "City streets do not have to look like runways at the airport," he said. So be launched an effort to plant trees along the street from downtown to the city limits.

The Gravois Avenue story has been repeated throughout St. Louis, once known as the "city of trees." By the 1960s, coal-smoke pollution had killed all but 93,000 of the city's trees. But in the past few years the city has added 183,000 trees to its inventory, planting them along major streets, in public areas and in residential neighborhoods.

Beautification efforts did not stop there. Starting in 1985, the city began planting daffodils along the four freeways that converge downtown. The daffodils created such an impression (they reportedly can be seen from jets landing at the city's airport), they were planted in street medians, public areas and vacant lots, as well.

could tear the buildings down. We advertised for other developers for the arena, received five proposals and have narrowed those down to two.

Nor is the fate of those nine turn-of-the-century historic warehouses clear. Because rehabilitating them is a big project, it will require a lot of money. And now they are viewed as my problem. The day before my first conversation with Anheuser-Busch those warehouses were not my problem. They were there, occupied and just part of the city. Now all of a sudden, there are 1.2 million square feet of space emptied of tenants in anticipation that the city would raze the buildings.

In another way these buildings have been a problem since 1917, when they were purchased by Washington University. Under the Missouri Constitution, the University pays no taxes on the buildings. I had hoped the University, with its renowned school of architecture, might try to help solve the problem we face now, but to date it has not been much help.

This issue gives testimony to the fact that a mayor is custodian of a city only for a very short period in its life. Although I am the third mayor in the history of St. Louis to be elected to a third term, I do not believe for a minute that I can do anything that will change the course of the city's history more emphatically than institutionalizing a respect within the city government for the city's heritage. No one development project, not even a spurt of economic development, will be as effective in shaping the long-term course of the city.

Cities are like rivers, they are here forever. Mayors, even of relatively new cities, must recognize that they are temporary custodians of something that is going to be here for a long time. We have to protect what came before us and prepare for what is going to come after we are gone.

All new streets in St. Louis, and streets that are rebuilt, have medians installed and are planted with flowers. Since 1988, the city has installed 120 specially designed terra-cotta planters on street medians. Red petunias are planted on streets running east-west, and yellow marigolds are planted on streets running north-south.

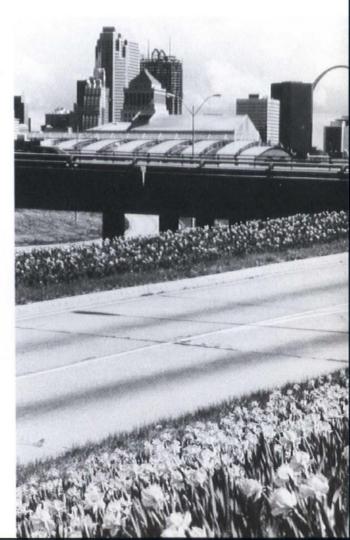
This spring, Operation Brightside, a non-profit, privately funded group Schoemehl started to spearhead the city's beautification efforts, planted 13,500 rose bushes along one of the interstates. The roses will bloom from May through August, just after the daffodils are finished.

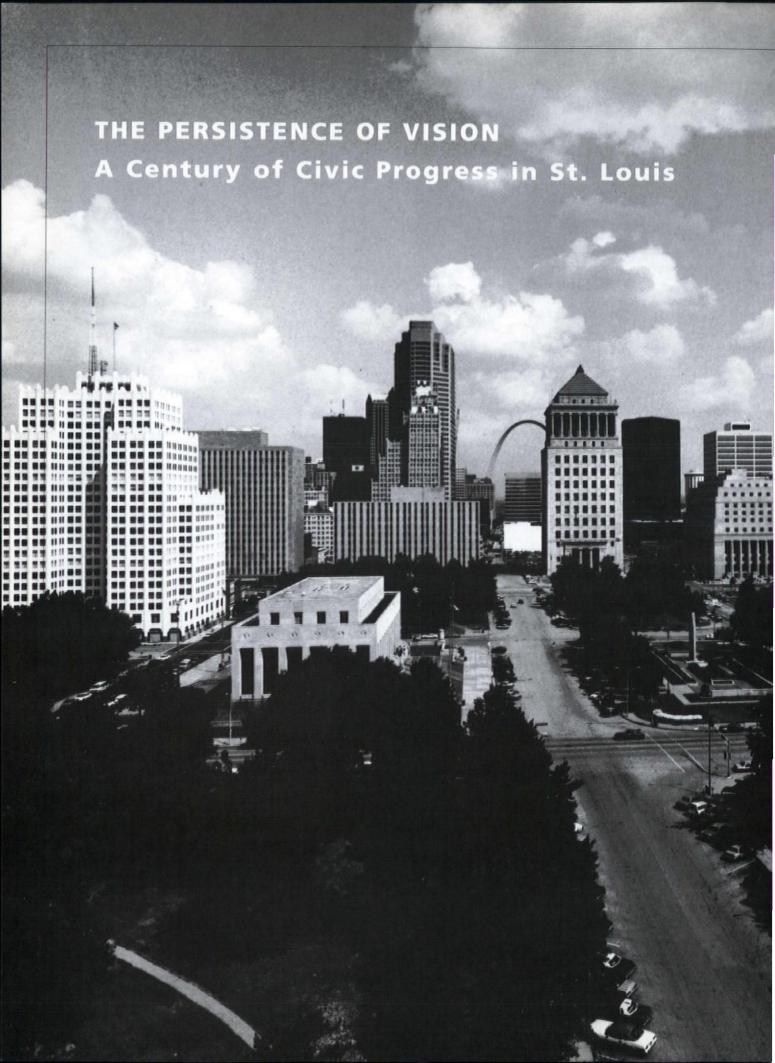
Some people are questioning the city's efforts. "It is controversial because many residents don't know why we plant flowers and shrubs in a time of fiscal crisis," Evelyn O. Rice, the city's parks director, told the St. Louis Sun.

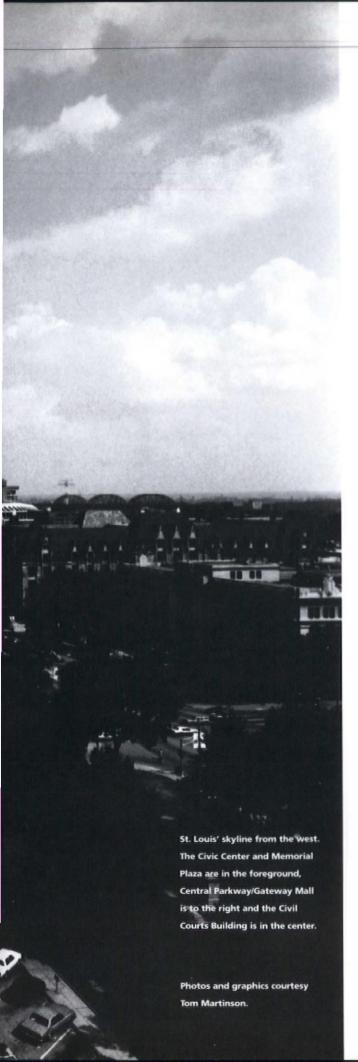
But, she said, "The philosophy for the whole thing is that everyone deserves beauty in their lives."

-Todd W. Bressi

Daffodils greet motorists approaching downtown St. Louis on an interstate highway. Photo courtesy City of St. Louis.





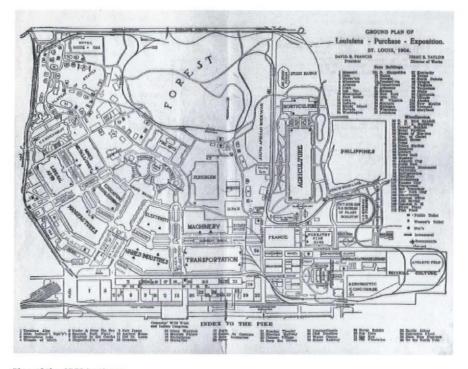


We often overlook the role local traditions play in shaping the life and growth of great cities. There are conventional ways of taking the pulse of a city—such as tracking population changes, observing physical artifacts and measuring economic activity—that are easier to describe and understand. Yet these alone often do not explain why a city is able to sustain visionary civic achievement over decades, even centuries.

St. Louis has overcome periodic episodes of great crisis and self-doubt to build a remarkable civic legacy of a monumental public landscape, which has been developed slowly but consistently over the last century. The city has been able to build over the long-term and upon past achievements, in spite of national changes in planning fashion, because of a continuity of tradition that has been passed down through successive generations of civic leaders.

These traditions owe their origins to a unique local self-image, rooted in the pioneer origins of the city. Because civic leaders base this self-image upon a collective sense of "what's right for St. Louis," they have been able to develop visionary civic plans through widespread consensus. And even though the self-image appears to be appreciated most strongly by the city's business leadership, its themes and sensibilities seem to be well understood by municipal officials and even members of the general public.

Like many cities, St. Louis bases its fundamental self-image upon its economy, climate and ethnic composition. But transcending this is a self-image rooted in three historic assumptions: St. Louis has a leadership role to play in the nation, the city is an oasis of culture and order, and while the population is cosmopolitan, citizens embrace a special personal identification with



Plan of the 1904 Louisana Purchase Exposition grounds in Forest Park.

St. Louis itself. Together these comprise a transcendent self-image that forms the basis for twentieth-century civic progress in St. Louis.

The roots of these assumptions are still clear to most St. Louis leaders. As recently as 1919, St. Louis was the fourth-largest city in the nation, and it has long been a major mercantile and transportation center. Its natural cultural domain has long dominated the West, and not just as the last outpost of civilization in the nineteenth century: It is still widely and proudly recounted in St. Louis that until the Giants and Dodgers moved to California in 1960, the St. Louis Cardinals were the "home" baseball team for the western half of the United States.

St. Louis was an early seat of federal government and has supported an increasing array of educational and cultural institutions (beginning with St. Louis University, established in 1819), providing evidence to most citizens that the city is indeed an oasis of order and culture. While the special citizen allegiance to the city is more difficult to explain than to experience, it is apparent that the alchemy of crisis and triumph experienced through the

history of St. Louis—and the mythic retelling of these events—has bonded many citizens closer to their city.

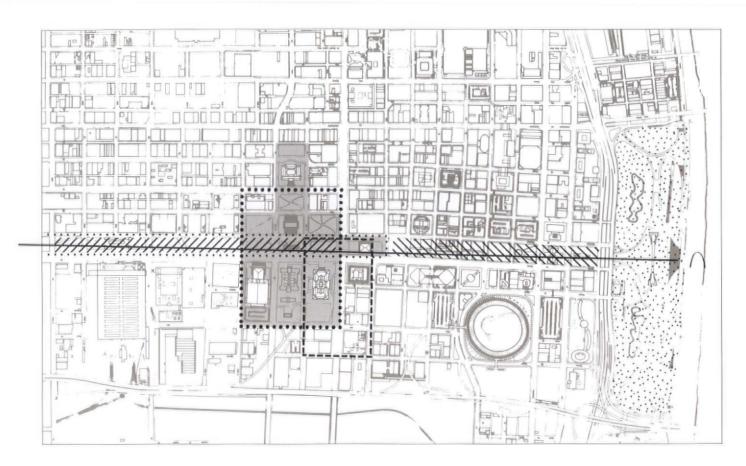
This transcendent self-image is fundamentally different from booster-ism endemic to localities, including St. Louis. This self-image is internally directed and often unconscious, while boosterism is a conscious effort to manipulate outsiders. The transcendent self-image in St. Louis has remained remarkably consistent over the past century, while boosters have changed their promotions to adapt to changing economic opportunity.

Planning as a Civic Instrument

City planning is embedded in the origins of St. Louis, which initially developed along the lines of Auguste Chouteau's eighteenth-century plan. But it was not until the 1904 Louisiana Purchase Exposition that the potential benefits of formal planning were made unmistakably apparent to St. Louis civic leaders.

The immense show covered most of the 1,300-acre Forest Park and included more than the traditional theme structures and international exhibits (organized around a monumental City Beautiful basin). The exposition's most prescient feature was a "Model Street" that suggested an ideal city. Supporting exhibits covered topics such as social and educational betterment, child care, recreation and municipal public works.

The Model Street and exhibits comprised a comprehensive proposal for the physical design and social services necessary for a well-functioning community. This was not merely an exercise, since housing and transportation for more than 100,000 visitors a day had to be coordinated with downtown facilities, five miles distant. The fair was an immense success, made



possible through what we would now recognize as large-scale city planning, and a statement that such planning could be a vehicle for civic progress.

The 1907 Civic League Plan

The following year St. Louis civic leaders initiated work on a comprehensive city plan, which was published in 1907 by The Civic League of Saint Louis. Of the 43 members of the League's six city plan committees, about a third were business leaders, another third professionals (lawyers and architects) and the rest municipal and institutional figures. Most were local citizens, although landscape architects Henry Wright and George Kessler served on the civic center and parks committees.

The 107-page plan applied the comprehensive approach of the 1904 Model Street to a metropolitan scale. While the document featured proposals for large-scale open space systems,

street improvements and a physical transformation of central St. Louis, it also called for small-scale, neighborhood improvements and addressed recreation, health and education issues.

The plan focused on three elements in central St. Louis that neatly parallel the city's transcendent self-image and define today's monumental public landscape: the riverfront, the Civic Center and the Central Parkway and Kingshighway.

"The River Front As It Should Be."
At the beginning of the twentieth century, the Mississippi River was St.
Louis's front door to the rest of the country. Most civic leaders considered it a dreary, industrial embarrassment, hardly appropriate for a city that saw itself as a prominent player on the national scene.

The 1907 plan proposed a radical transformation of the riverfront. Docking and shipping activities would continue but hundreds of individual warehouses along a half mile of the

Central Riverfront
(1907 Civic League plan). Now
Gateway Arch grounds.

--- Civic Center Plan 1 (1907 Civic League plan).

• • • • • Civic Center Plan 2 (1907 Civic League plan).

Memorial Plaza (1922-24).

· · · · · Central Parkway

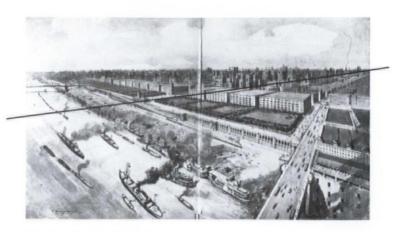
(1907 Civic League plan).

Gateway Mall, west section, 1911+.

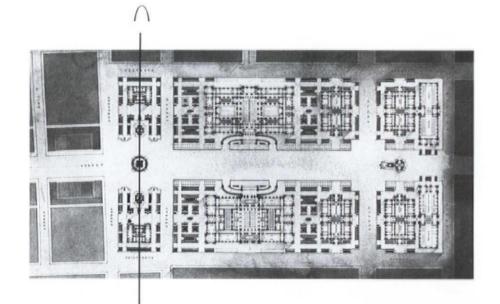
Gateway Mall, east section, 1954+.

Gateway Arch.

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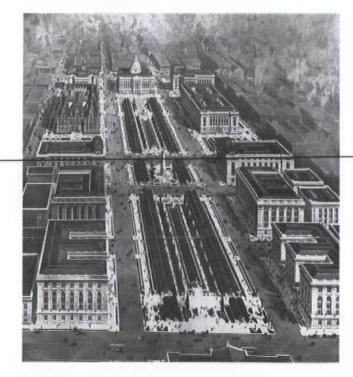


"The River Front as it Should Be." From the 1907 Civic League Plan.



Alternate plans for the Civic Center. The second plan, which was chosen, is below. From the 1907 Civic League plan.

Lines through drawings indicate Market Street and Central Parkway/Gateway Mall axis.



central riverfront would be replaced with buildings with a unified architectural treatment. Railroad lines along the river would be partly located in tunnels and a broad landscaped park would be built on a platform above the tracks, warehouses and loading area. The park would be bordered by a uniform row of commercial buildings along the downtown edge, a treatment that would be proposed for the Chicago lakefront in Burnham's 1909 Plan. A monumental terminal would be built in the park and on axis with the historic Old Courthouse.

Unlike the subsequent Chicago plan, the Civic League plan was not identified with a single professional planner. Rather, each plan committee apparently secured its own design and drafting services. "The River Front As It Should Be," issued by the Street Improvements Committee, was designed by Wilbur T. Trueblood, a member of the committee, and presumably reflects the committee's view of an appropriate front door for a city with national aspirations.

The Civic Center. Reflecting the second element of St. Louis' transcendent self-image—the city as an oasis of culture and order—the Civic League proposed that a monumental "Public Buildings Group" be constructed in the center of downtown.

Unusual for a comprehensive city plan, the proposal provided a pair of detailed, alternative master plans "of apparently equal merit," both designed by a team of J. L. Muran, William Eames and A. B. Groves. Both plans featured Beaux Arts public buildings arranged in formal groups around the new City Hall, which had been completed in 1896 at 12th and Market streets. The new buildings would include police, jail and court facilities.

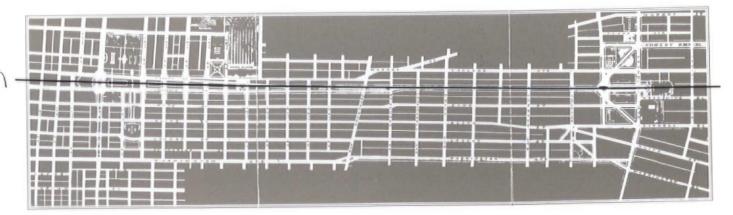
The ostensible reason for developing two schemes was for purposes of comparison, especially in the determination of land acquisition costs. But it is clear that these schemes also represented "practical" and "visionary" alternatives. The first plan would cost less—land acquisition would cost \$2.3 million for the first plan compared to \$2.6 million for the second—and provided for very functional relationships among the existing City Hall and the proposed criminal justice buildings.

The more visionary and expansive second plan was chosen.

Reading between the lines of the committee's report, two objections to the first plan seem apparent. The plan recommended expanding the Civic Center by taking land east of 12th Street (now Tucker Boulevard); this would have infringed upon blocks likely to be needed for future commercial expansion. Moreover, the civic center would be cramped, and the committee report noted that the design would be short-sighted if ample "breathing spots" were not provided.

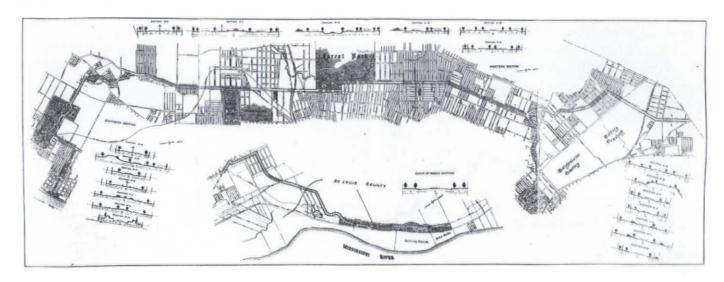
The second plan provided those "breathing spots," room not only for more public open space but also for civic structures that might be added in the future. But it had other strengths. Perhaps just as importantly, it proposed erecting the public buildings group west of 12th Street, which would allow development of a monumental axis connecting with the Cass Gilbert-designed Main Public Library.

The Central Parkway and Kingshighway. Still larger in scale was a vast system of parkways and boulevards intended to connect the city's



Plan for the Central Parkway from the Civic Center to Grand Avenue. The City Plan Association, 1911.

Route of Kingshighway. From the 1907 Civic League plan.



ethnic neighborhoods with each other and with the city's heart. Earlier municipal parkway systems served as models—especially that of Kansas City, whose planner, George Kessler, was a member of the Civic League's Inner and Outer Park Committee.

The city-wide scope of this network indicates the basis of the third self-assumption: the "cosmopolitan" population resided in well-defined ethnic enclaves — German, Irish, Italian and African-American. It was these enclaves that Kingshighway interconnected, and which the Central Parkway — developed in more detail by the private City Plan Association in 1911 — was intended to formally connect with the center of thes city.

Even compared to the monumental scale of St. Louis today, the Central Parkway plan was extraordinary. It began at the Civic Center at 12th and Market streets and extended two miles west along Market Street to Grand Avenue, where St. Louis University, a symphony hall and several theaters comprised a cultural core. From there, diagonal streets formally connected to Lindell and Forest Park boulevards, which then extended west to Kingshighway.

Kingshighway crossed through the city on a roughly north-south axis, beginning and ending at the Mississippi River, and passing by or through almost all of the city's major parks along its 25-mile length.

The Continuity of Civic Leadership

Expressions of St. Louis's transcendent self-image abound in the city's literature and in conversation. It is often described as a sense of "what's right for St. Louis," a recurrent phrase so ubiquitous as to seem unremarkable locally. Yet, even though the city's transcendent self-image provides a basis for reaching consensus on civic issues, its influence on citizens and civic leaders probably is unconscious.

However, once decisions on visionary improvements are made, citizens and civic leaders seem very conscious of traditions and the lineage of individual projects and plans. The city's leaders benefit from a continuing institutional memory found especially in private clubs and civic organizations.

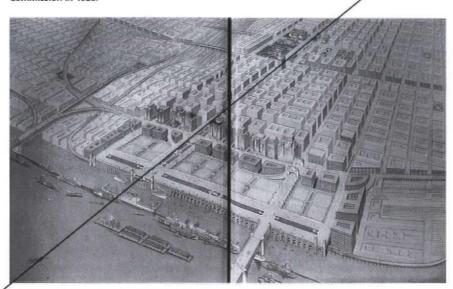
Suburban private clubs have tradtitionally been favored spots for informal Saturday afternoon discussions of St. Louis civic affairs. But city-wide, fully-representative dialogue has occurred almost completely within a hierarchy of official private and public organizations.

For example, the Civic League (the private organization that published the 1907 plan) was constituted to address overall betterment of the city and its environs. The City Plan Association (another private civic organization) was established in 1910 to study and define issues raised in the 1907 plan. Specific projects were entrusted to quasi-public bodies like the Plaza Court House Committee, appointed to oversee the building of Memorial Plaza in the 1920s. City government, through its City Plan Commission, has provided legal continuity.

Since the early 1950s, the institutional memory of metropolitan St. Louis has been carried forward by another private organization, Civic Progress, whose membership consists of chief executives of major St. Louis corporations. So the city's traditions and visionary civic decisions are formally passed on from generation to generation, and at the highest levels of corporate power.

Civic Progress members seem most likely to articulate "what's good for St.

Central Riverfront Plaza, proposed by the City Plan Commission in 1928.



Louis" in terms of a transcendent selfimage. They seem keenly aware of not only the city's history, but also its triumphs and failures in the national arena. They exhibit a strong and continuing sense of cultural stewardship, particularly in their roles as corporate contributors. They often personalize their identification with St. Louis recounting, for example, how when recruited from elsewhere for a senior executive position in St. Louis, they were assured they would be "indoctrinated" as a St. Louisan, a true citizen.

Civic achievement in St. Louis is the beneficiary of continuity over decades. This, rather than the city's economy or presence of prominent individual figures, is probably the crucial ingredient in explaining why St. Louis has been so successful in accomplishing its large-scale, long-term visionary goals.

The Necessity of Time

The value of having enough time to wait for a window of opportunity can be seen in the 60-year effort to transform the Mississippi riverfront. After the 1907 proposal, riverfront development took a back seat to comprehen-

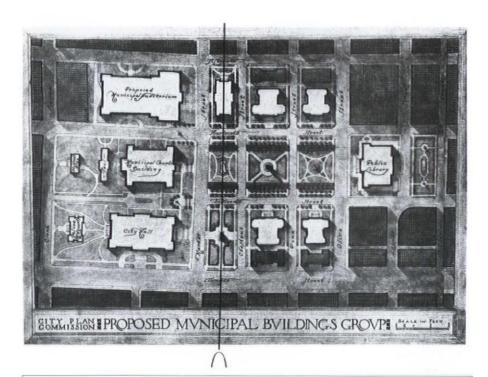
sive planning and major civic ventures like Memorial Plaza. But periodic area plans kept the idea of a radical transformation alive.

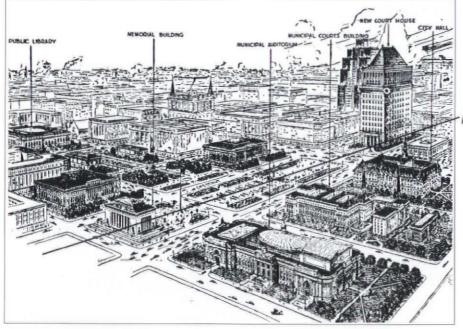
A 1928 Central Riverfront Plaza proposal by the City Plan Commission indicates very little conceptual change from the 1907 proposal. The space was still to be defined by a uniform line of commercial structures to the west, and a ceremonial monument was proposed instead of the earlier passenger station. Although the idea of a landscaped park was dropped and replaced with a plan for parking lots, the site was still to be cleared of buildings and stand as a grand open space.



The central riverfront as it appears today.

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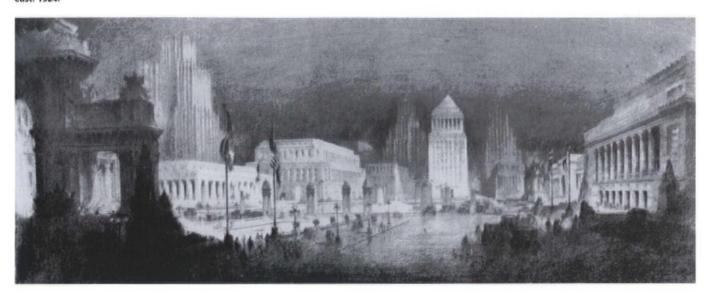
Revised plans for the Civic Center. Above: 1919 "Municipal Buildings Group" plan by Harold Bartholomew. Below: 1930 plan by the Plaza Court House Committee.

During the Depression and war years, redevelopment of this kind was out of the question, but the notion of riverfront redevelopment evolved into the idea of a national Western expansion memorial. Congress established a U.S. Territorial Expansion Memorial Commission in 1934, a concept that was kept alive in Congress by Rep. Leonore Sullivan of St. Louis. Works Progress Administration funding and a 1935 municipal bond issue provided money to clear the 40-block riverfront site. Finally, in 1947, the federal government staged a competition, which was won by Eero Saarinen. Twenty years later, and 60 years after the transformed riverfront was first proposed, Gateway Arch was completed.

A contemporary visit to the Arch grounds and riverfront area reveals a remarkable similarity between the 1907 concepts and the completed development. Both are a unified treatment of the half-mile central riverfront, with rail lines partly tunneled. The Monument as realized is a quantum leap over the 1907 station (or 1928 proposal), but located exactly on the same Market Street axis. While Saarinen may have been trying to establish the same axial relationship, he might have been guided by another factor: The monument is located between two bridges across the Mississippi, at the midpoint of the ceremonial riverfront.

The broad landscaped park, designed by Dan Kiley, is approaching lush maturity. It is visually bordered on the west edge by a wall of buildings regulated to maximum height by code (though not executed as uniformly as proposed in the 1907 plan). Even a scissors-shaped roadway proposed in the 1907 plan for below the monumental terminal has been realized in the shape of a formal set of stairs leading to the riverfront.

Hugh Ferriss' rendering of Memorial Plaza, looking east. 1924.



Memorial Plaza: Development of the Civic Center area, now known as Memorial Plaza, was substantially completed about 25 years after the 1907 plan. In this undertaking continuity had another ally: the absence of short-term expectations for results, which allowed repeated redesigns to fine-tune improvements.

Establishing the Civic Center apparently was a high priority among civic leaders, for the city's first official plan was the detailed 1919 "Municipal Buildings Group" master plan by Harland Bartholomew. The scheme, which follows the second Civic Center plan from 1907, encompasses 14 blocks, five of which were to be open plazas. Following the historic assumption in the city's transcendent selfimage, the plan develops a literal focus of culture and order: Govern-ment buildings ("order") are drawn into a larger composition including the new public library ("culture"), plazas and historic memorials.

Intensive master planning of the Civic Center began in 1922, after consensus was reached on the final location for a new civil courts building at the northeast corner of Market and 12th streets. Planning was under the direction of the Plaza Court House Committee, a municipally appointed body. As an indication of the civic committee's thoroughness, the initial area study was completely redrawn to depict the final design for the Civil Courts building, which was completed in 1930.

Planning continued on Memorial Plaza into the late 1920s, as Hugh Ferriss developed a series of atmospheric sketches, which remarkably anticipated the eventual environment. The district was essentially completed with the opening of Kiel Auditorium in 1934 and the Soldiers Memorial Museum in 1938.



The maturing landscape of the Gateway Arch grounds.

PLACES 6:4 31





Above: The site of the Central
Parkway/Gateway Mall, looking
west from the site of the
proposed Civic Center, before
either the Parkway or Civic
Center were constructed.
Below: View of Central Parkway/Gateway Mall looking west
from Memorial Plaza and the
Civic Center.

Central Parkway and Gateway Mall: The remarkable row of public monuments along Market Street-at first called Central Parkway but now known as Gateway Mall-also owes its origin to the 1907 plan. But unlike the riverfront and Civic Center, Gateway Mall has been developed largely in conjunction with other projects. The first three blocks of Central Parkway west from 12th Street were completed along with Memorial Plaza in the late 1920s. Not until the 1960s was the Parkway extended farther west, when the city used federal urban renewal funds to link Memorial Plaza with Aloe Plaza, in front of Union Station at 18th Street.

Since the 1960s, Central Parkway has been expanded east from 12th Street towards the river, but it dates to the 1950s or earlier. Several of the 1947 national expansion memorial contestants recognized the potential of an axial open space extending along Market Street, but the concept was apparently first formally proposed in a 1954 study by St. Louis architects Russell, Mulgardt, Schwarz, van Hoefen. The plan was donated as a "civic contribution" in the tradition of the professionals who assisted the 1907 plan committee and was intended to "stimulate citizen interest and to serve as a guide to future progress."

This easterly stretch also has been built on a piecemeal basis, as part of renewal projects or as a result of private donations. In a rare display of impatience, civic leaders in 1982 decided to fund the four remaining blocks by in effect selling half of each block to private developers, who would be required to retain the half adjacent to Market Street as open space.

Yet to be started is the Parkway's westerly reach, which would link Kingshighway, the neighborhoods and downtown. To some extent, post-war Looking east from the Morton May Amphitheater, in Gateway Mall, towards the Gateway Arch.

construction of the east-west expressway, U.S. 40, has removed the functional need for the Central Parkway. But the idea is still alive in the minds of some St. Louisans: During hearings on the 1987 Downtown Plan, one member of the public recommended against buildings at the west terminus of Gateway Mall (at 20th Street) so that "we can someday extend the Mall all the way to Grand Avenue."

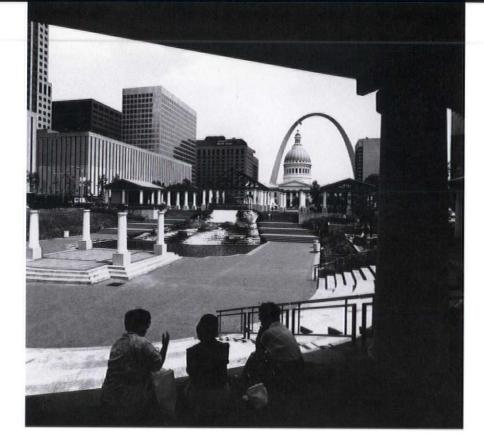
Lessons from Tradition

St. Louis has been able to develop a remarkable, monumental public realm during the last century despite experiencing extraordinary social, physical and economic changes and despite periodic shifts in planning fashion.

Local traditions have clearly played a central role in this transformation:
St. Louis is self-absorbed, with a strong sense of its identity. This identity is rooted in a transcendent self-image, which holds that the city has a national role to play, that it is a center of culture and government, and that its citizens have a special identification with the city.

These deeply held assumptions about the city remain today. St. Louis has continued to play a national role, positively and negatively. In the 1950s and 1960s, it was a leader in urban renewal and achieved an ultimate municipal symbol in the Gateway Arch. In 1970s it was declared "dead" by experts, a national model of all that had gone wrong with our cities. The city's renaissance in the 1980s, reflective of a conscious effort by its public and private leaders to reassert St. Louis as a national player, has won it recogntion as a "comeback city."

St. Louis also continues to treasure its image as a cultural center, supporting world-class institutions like the Missouri Botanical Gardens, St. Louis



Zoo and Cardinals baseball team. And St. Louis is proud of its role as a cosmopolitan city. The concept of monumental public space is a half-century out of fashion, but Gateway Mall continues to thrive as the site of major annual ethnic festivals and traditions.

This self-image has been the foundation of a vision for St. Louis's public realm has been passed down through generations of leadership in a network of private civic organizations and has provided a resonance for specific plans and projects. The combination of these three forces—identity, vision and leadership—has made it possible for St. Louis to accomplish large-scale re-ordering of its urban landscape.

Postscript

In 1987, the city issued a new 20-year downtown plan, coincidentally timed to guide development until the centennial of the 1907 Civic League plan. It is largely a reflection of 70 interviews with business and cultural leaders and elected officials. Not coincidently, the plan reaffirms the basic concepts of the 1907 plan, expanded and enhanced to address the issues and opportunities of late twentieth-century St. Louis.

Especially in response to this era of developer-driven civic progress, the 1987 plan affirms the primacy of the public city through a quote from the introduction of the 1907 plan:

"...the city must be made attractive, which means clean streets, pleasant homes, good transportation facilities, parks, boulevards and stately public buildings. A city can not, in the modern sense of the word, maintain a high commercial standing unless it maintains, at the same time, a high civic life."

Research for this paper was supported by the Design Center for American Urban Landscape, University of Minnesota. The author acknowledges David Gebbard for encouraging this study; Glen E. Holt for his observations about St. Louis, and Nicole A. Zotaley for advice on format.

Place Defined by Time and Light

In the legends of nearly all cultures, the process of creation is inextricably tied to the dawning of light. Worship of light is woven through the whole of human existence. Receptivity to impressions of light and place are fundamental manifestations of human intelligence. "All things that are," wrote Ezra Pound, "are light." If the earth can be regarded as the body of the world we share, then light is surely this world's spirit.

My art works with the concept of time marked by light and shadow in the urban landscape. My work is about the cycle of relationships among humans, earth and sun.

The sculptures I build acknowledge that there is a pattern in nature and so in our lives. Sunrise, high noon, sunset. The work responds to light: Broad planes whose surfaces are covered with diffraction gratings chart the sun's daily passage in ever-changing spectra. Massive mirror fields cast reflected light onto shadowed walls, illuminating the dark surfaces with vast jewel-like patterns that shift east as the sun arcs to the west.

Though my work has appeared in a variety of locations—from an open field adjacent to a highway in Denmark, to Helsinki's busy shopping district, to the facade of Boston's fortress-like City Hall—I have approached each place with a single aim: to create a circumstance whereby time is linked to light. This circumstance might—by way of drama, beauty and grandness of scale—jar loose the temporal geocentrist illusions of those who pass by, and rekindle instead an awareness of the larger realm of action by which our lives are profoundly affected.

It is in this extended understanding of "place," I think, that a true sense of community is found. We grasp, if only for a moment, some truth in the bigger picture.

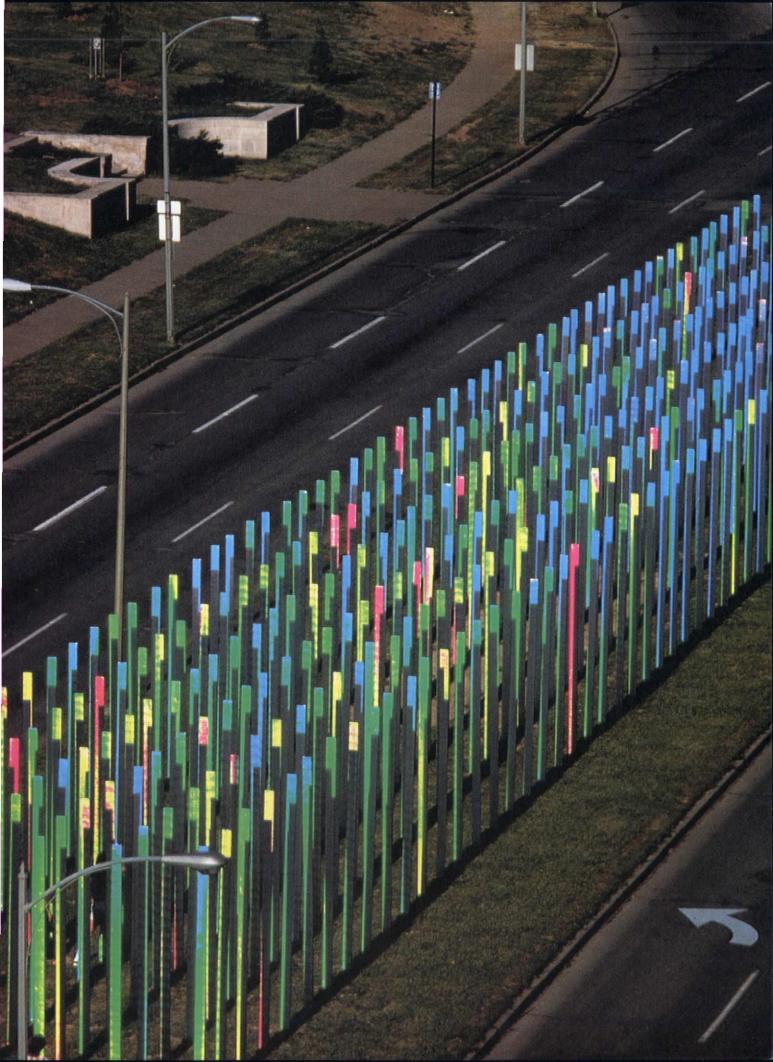
In my initial visits to a site, I look for the common, shared places. A lake in a city park in Ankara, Turkey; heavily trafficked bridges in the center of Savonlinna, Finland; the median of a major boulevard in Kansas City. I look for ways to bring to the most casual observer an intimate awareness of light's passage across all surfaces and the parallel passing of time.

When I have chosen a specific site, I collect whatever information about it that is available. I photograph the environment and any significant structures; obtain construction blueprints, aerial photographs, topographical maps and any architectural or struc-

Brush Creek Solar Field.

Nelson-Atkins Museum of Art;
Kansas City, Missouri; 1979.

Five hundred 16-foot high
diffraction-surfaced poles made
a virtual forest of light in
the median strip of Brush Creek
Boulevard—a main traffic
artery that borders the museum's south lawn. The eastern,
morning sun illuminated the
field for traffic entering the
city; the western, afternoon sun
illuminated the field for traffic
leaving the city.



tural plans. I try to familiarize myself with the physical orientation of the site and/or structure, in the latter case paying particular attention of the positioning of doors, windows and skylight openings relative to the sun's angle through the day and year.

I am looking, at this investigative stage, for an idea that I can bring to the space—an idea that will reveal itself in the dynamic between the sculpture and the site or building. If I can establish such a relationship, the sculpture will create patterns of light that literally activate the space through their movement and by conveying information about place.

Once I have assembled all the site documentation and conceived an idea, I execute a series of photomontages that comprise a study of the sculpture in its specific location, including the range of its response through the day and through the seasons of the year.

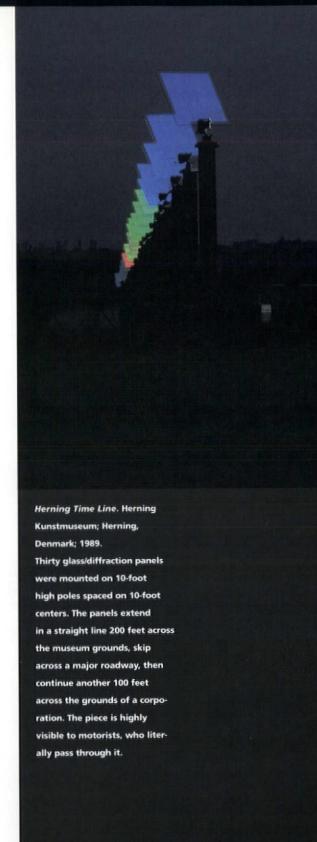
When working drawings are complete, we begin to build. My fabrication studio is in an old electrical substation. The main area is a massive open space that is flooded with natural light throughout the day. I have installed multiple overhead cranes and put all the equipment and work surfaces on wheels. I have enough storage area to put every-

thing away if I need space and enough work area to have all the equipment out if that's what I need. Since I never build the same thing twice, the space has to change completely to meet the demands of each new fabrication.

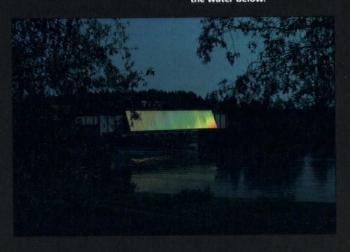
I am a hands-on artist. I take enormous pleasure from the physical work of building. It is not in my nature to give that pleasure away to someone else. I have a crew of tremendously talented young sculptors who work with me, but I am the one who welds all the critical joints, sets up the drilling jigs and checks and re-checks every dimension. By the time we load the fabricated elements onto flat-bed trucks (which we pack and drive ourselves), I have inspected every square centimeter of every surface.

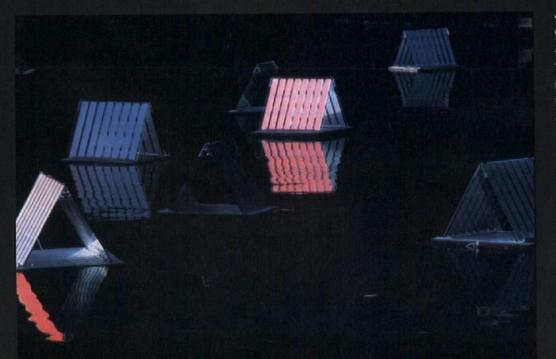
Paying Attention to Earth's Progress

Every setting—whether natural or largely humancreated-marks time uniquely. Yet in our world, the Western world, in the latter part of the twentieth century, few people other than farmers pay attention to a day's subtle play of light and shadow. Though I have traveled extensively throughout the world and have been to some of its most remote spots, I have chosen to live and work in the American Midwest.



Hopeasalmi Sun Plane.
Pyrri Art Centre; Savonlinna,
Finland; 1989.
This diffraction panel was installed on the south-facing side of a steel railroad bridge in the center of the city.
The dramatic response of the diffraction surface is many times magnified and enhanced by the reflection in the water below.





Ankara Lake Planes. Cankaya **Culture and Art Foundation**; Ankara, Turkey; 1989. Thirty floating elements were placed on a lake in a park. Each element was constructed of panes of glass surfaced with diffraction gratings. The panes were angled to maximize their response to direct sunlight and also to catch light reflected off the lake surface. The lake surface served as a mirror for the elements as well so the images of light and color were multiplied several times over.

Color/Light/Memory. Contemporary Art Center; Kansas City, Missouri; 1988.

Twelve conical piles of raw pigment—red, yellow and blue—were arranged in a grid pattern in an otherwise dark and empty gallery. A powerful strobe light, timed to flash every 15 seconds, was installed



above each cone. The vision of color was so fleeting that it appeared to viewers to have occurred more in imagination or memory than in reality. In the darkness after the lights has strobed, the ghost image of whichever pigment the eyes were focused upon during the strobe would appear to float up and away from the form.

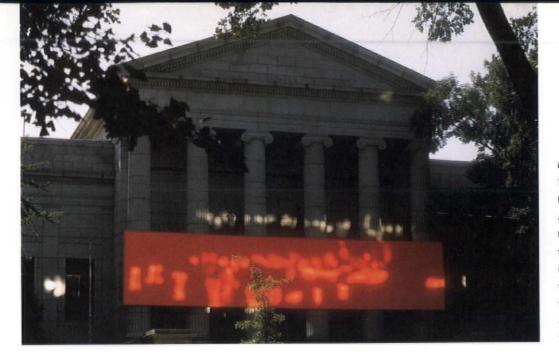
where my studios sit very squarely on the planet's surface. What this location offers is the sky, which is as important as the land. There is little to obstruct the long view; one is everconscious of the changing quality of light. In the Midwest there is a sense of grand space, and also of private space.

I build on a large scale and in very public spaces, but I consider each sculpture as it will be encountered by an individual— just one person, passing into the sculpture's domain with no previous information about what it is, certainly with no knowledge that the circumstance is regarded as "art."

I relish the sense of these private encounters, and have had the good fortune to witness a few.

A month after the opening of an exhibition at the Minneapolis Institute of Art, I had returned to photograph the installations. I watched a man and woman walking along the sidewalk beneath Red-Orange Fluorescent Board.

They were engrossed in conversation, but they stopped talking when they caught sight of the intensely illuminated surface. For a few moments they stood and stared. Bright mirror reflections danced everywhere across its surface. The couple turned to find the source of light and saw the banks of mirrors across



Red-Orange Fluorescent
Tracking Board. Minneapolis
Institute of Art, 1983.

A high red-orange fluorescent
board was installed across
the pillars of the Institute's
north entrance. Reflections
from mirrors installed on
towers across the street took
approximately two hours
to cross the receiving board.

Yellow Mirror Towers.
Minneapolis Institute of Art,
1983.

Four towers faced with yellow mirrors were placed at different locations around the Institute, where they reflected sunlight onto the high white walls of the building. The towers were placed so that each was activated at a different time of day. The effect upon the walls was one of yellow jewellike fragments of light that wove their way across the walls with earth's rotation.



the street. After hesitating they cast their gaze upward to the sky. They didn't have to know its name to know its nature. The circle of contemplation was complete. I could see in their faces the great joy of connection. Every time I set a new work in place, I feel the same joy.

A young Danish man crossing the Olavinlinna bridge in Savonlinna, Finland, heard me speaking English with my crew. He didn't know I was the artist and he didn't care. He only wanted someone he could speak to.

He grabbed me by the arm and directed my attention to the diffraction plane on the next bridge, the Hopeasalmi Sun Plane, which at that moment was projecting across the water's surface a particularly vivid spectrum. He was exhilarated by the phenomenon and he wanted badly to explain it to anyone who could understand him and would listen. He walked me back and forth across the bridge and explained again and again in broken English why the surface emitted color and why that color changed with our changing angle of perception. Other pedes-

trians were stopped all along the bridge's length, pointing at the diffraction surface, pointing at the water, pointing at the sky. My involvement by that time was immaterial.

I create the circumstance, but once it is in place, the community that surrounds it takes ownership. I receive occasional "field reports" by mail or phone call: "Today is the winter solstice, December

Painted Tree Shadows.
Helsinki City Art Museum, 1982.
The shadows of 40 trees lining
the Esplanade were captured at
noon on May 20 with white
paint. The trees were barren of
leaves. A week later they leafed
out, and for the remainder of
the summer the full green trees
stood in contrast above their
winter silhouettes.

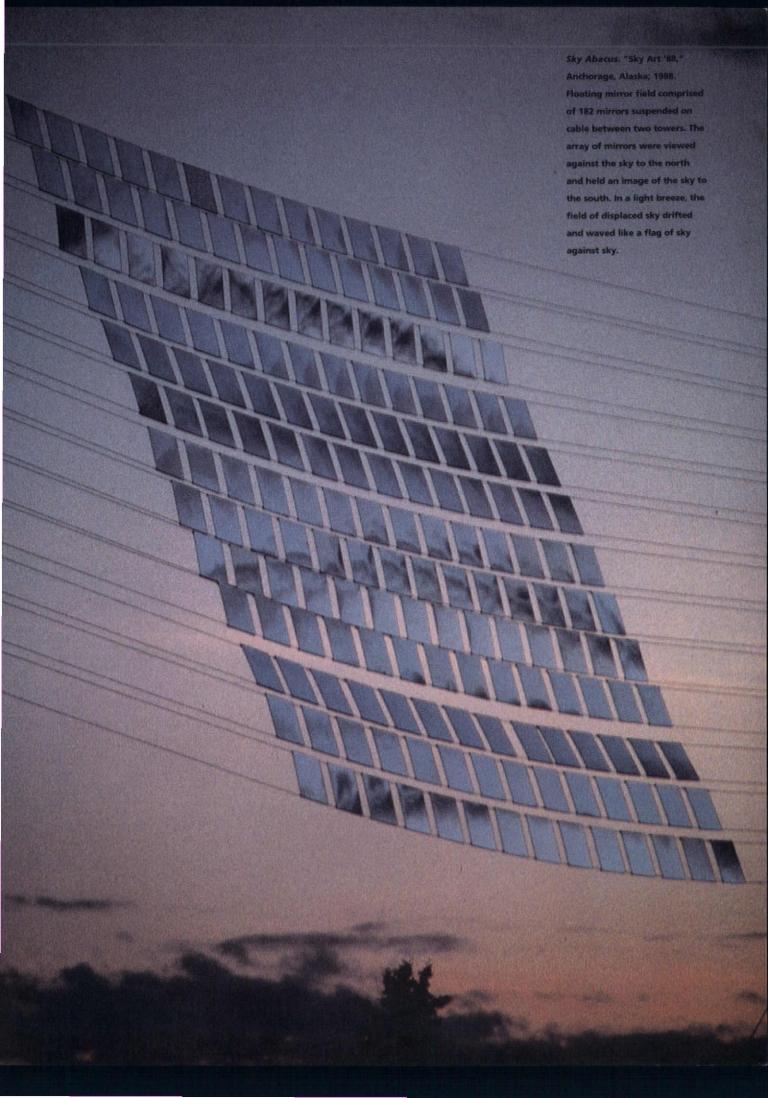
21, and I wanted to tell you the entire surface was absolutely ablaze with brilliant color when I drove in from the south at noon."

The work requires no translation. It speaks to a phenomenon of which all Earth's inhabitants are aware. We share a pattern of light and darkness that results from the very specific relationship of Earth to Sun. This relationship manifests itself in two essential elements of time, which have been called "day" and "year." Over the course of a day, the Earth completes one spin on its axis, which tilts at an angle of 23 1/2 degrees from vertical. Over the course of a year, the Earth completes a journey around the Sun, tracking in an elliptical orbit with an average radius of 93 million miles. On Earth, the course of both events is mapped out daily in increments of light and shadow. My sculptures are conceived as simple instruments for charting all this progress.



Tram Shadows. Helsinki City
Art Museum, 1982.
Tree shadows were painted on
the sides of four tram cars,
selected because they came together (converging at the
marketplace each morning and
evening) and ventured far
afield (their routes covered four
different districts of the city).







Steam Heat: Winter Fountains in the City

Steam is a phenomenon of the winter city. It issues from virtually every opening: manhole covers, grates, roof vents and chimneys. The cities of the Northeast seem to be "cooking": Canal Street in New York looks like a geyser field in Yellowstone. Oddly, most people do not notice these eruptions, even when the surging steam temporarily blinds them.

When I arrived in Boston from California I was mesmerized by these earthly clouds. Most people assume steam belongs underground as a public utility; yet, revealed and released at ground level, it can become a public amenity. Making steam visible is somewhat like undertaking an archaeological dig, exhuming what is beneath in order to bring it to light. Just as they peer into an excavation to see history unearthed, people look at steam art as though seeing steam for the first time.

For me steam art is part of the gratuitous gesture that is art, perhaps best illustrated by Duchamp's Ready-Made, the "Bicycle Wheel." Now an icon of the Modern era, Duchamp's piece goes nowhere and carries nobody. The generative idea-energy of the "Bicycle Wheel" has covered enormous conceptual ground by merely going around and around on its axle screwed to a kitchen stool.

While steam art is physically dissimilar from the "Bicycle Wheel," it constitutes non-work and the medium is just as familiar. This utilization of steam as art rather than as utility embodies some of the irony associated with found objects, whose appearance remains unchanged but whose context bequeaths their artistic significance. In this sense, steam fountains in the city can be regarded as geysers, ordinarily associated with the wilderness, that have been placed within a new context. An "urban geyser" is evocative of Duchamp's oxymorons: "timid power."

Steamshuffle.

Such a transformation of context inevitably exposes the city to the mysteries of "untamed nature": creation myths, superstitions, dark powers and the unknown (and therefore feared). Accounts by the early explorers of Yellowstone National Park include descriptions of the ways that local Native Americans regarded the geysers and fumaroles. Some believed the roarings were caused by infernal spirits forging weapons. Warriors believed that

In the winter, steam clouds issue from manholes, grates and other openings.



standing in the spray would make them invisible to their enemies.

I became interested in steam as a human-made element in addition to its presence in nature. Steam's history as a source of mechanical energy is difficult to research; steam, particularly as clouds, fares better as an inspiration for painters and poets.

Particular aspects of this history have been of immeasurable importance to me in developing an aesthetic for steam. For example, the inventions of Hero of Alexandria (who lived in the first century A.D.) used steam to cause bronze snakes to hiss, temple doors to open and close, and vessels to spin. These magical inventions inspired me to design kinetic glass objects based on the same principles.

In a more fundamental sense, Hero serves as a model because he placed technology at the service of art. Hero's Pneumatica reappeared in translation during the sixteenth century, providing the technology for the trick and joke fountains of Baroque Italy and Austria. Among the extravagant water effects at the Villa d'Este is the Owl Fountain, based on Hero's description of "Birds Made to Sing and Be Silent Alternatively through Flowing Water." One of the most amusing accounts of these water theaters is by Charles de Brosses, who visited the Villas of Frascati in 1739 with a group of friends: "... there is an especially good little curving staircase where, as soon as you are part way up the way, the water jets shoot out, criss-crossing in every direction, from above, below and from the sides."

Manet's painting Gare San Lazare (1873) provides me with additional conceptual groundwork. While Victorian England bemoaned the desecration of the English landscape by industrialization, French painters appeared to accept the bridges, viaducts and factories as part of the sundappled landscape of picnics and poppies. Only Manet seemed to ponder these changes.

Gare San Lazare appears to be a casually posed picture of contemporary life in Paris. A woman and child are seated outdoors. The woman is looking toward the viewer with an open book in her lap; the child, with her back to us, is looking at an enormous cloud of steam made by a passing locomotive, itself just outside the picture. The natural cloud has been replaced by a machinemade one and is presented here as a fit subject of human interest.

This concept—that a non-natural phenomenon could be a subject of inter-



est to people-was developed and nurtured by writers, artists and critics in the '60s and early '70s. Of particular importance to me were steam projects by Robert Morris, who created art works by using "non-art" materials and forms. In Steam Project (western Washington state, 1971-1972) Morris explicitly de-emphasized the possibility of steam as having meanings associated with art objects. Instead, he emphasized that steam should be understood as pure phenomenon.

Morris not only changed perceptions of what art is, but also examined the contradictions in the way we perceive the physical environment. He used steam—white, powerful, billowing and finally dissipating into the atmosphere and becoming invisible—to pose questions central to our perceiving both art and life.

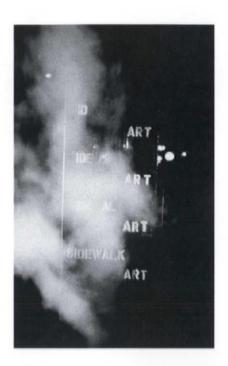
Steam fountains and works are seen against and within the space of their settings; they make the space visible, giving it dimension. Steam envelopes the space: The elements in the space and the behavior of the people there become interconnected and sometimes indistinguishable. Yet tension is created between steam's large scale and forbidding presence, which keep the public at some distance, and its capacity to be penetrated bodily.

While public art has assimilated the Minimalist canon by using natural elements as phenomena, it has expanded the meanings these elements can convey to include references to specific sites, histories and uses. What differentiates my work from Morris's has to do with intention: Morris presented steam as pure phenomenon; for me, steam has a potent capacity to evoke meanings gathered from the circumstances of its place and time.



Centerbeam, created by the Fellows of the MIT Center for Advanced Visual Studies and installed on the Mall, Washington, D.C., 1978.

Season-specific fountains, such as Winterbreath and Galaxy, offer a complete gestalt: the geyser followed by the spring, both with their origins in the natural world and both available in the modern city. The geyser connotes power, mystery and the sublime; the spring connotes beneficence and gaiety. They together can create ritual places within the city where the public might meditate, fantasize and play. Such fountains are not commemorative of great events or individuals but rather of the site and the culture of the people surrounding them. They celebrate myths of reaffirmation and seasonal renewal that more fully integrate us within ourselves, our lives and our civic spaces.



Steamshuffle

Steamshuffle is a temporary installation, presented in Cambridge, Boston, Pittsburgh and Philadelphia between 1981 and 1987. As pedestrians walk past each of the eight glass panels, they activate photocell beams that activate a dramatic eruption of steam and sound events. Visitors can read poems, written by Emmett Williams especially for Steamsbuffle, through the condensation that forms on the panels and can hear voices reading them, as





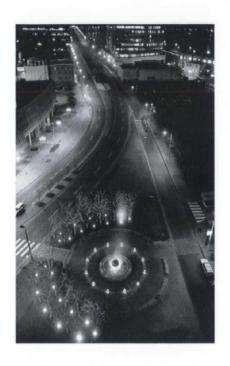
well as tones, chords and live radio broadcasts.

During the evening, strobe lights pulsate on the panels, "freezing" the clouds momentarily and changing the mood of the work.

One of the most rewarding aspects of touring Steamshuffle has been to watch the crowds discover the work for themselves. While some quietly read the poetry, others become exuberant upon discovering that their movements activate the steam and sound. The

electronically controlled response to people's behavior sets up reciprocal interactions among art, the public and the surrounding spaces. Language from commercial signage and radio, steam and electricity from public utilities, all systems available in the urban environment, are reordered to form an art experience that can be understood and enjoyed by a wide public audience.









Galaxy Fountain

A small, intimate fountain in which steam and water operate seasonally, Galaxy was completed last fall in Kendall Square, Cambridge, Mass. The fountain celebrates the natural elements of earth, air, fire and water within a sophisticated steel and chrome setting. The concept and design were by Otto Piene, Director of the Center for Advanced Visual Studies, Massachusetts Institute of Technology.

The "Earth Sphere," fabricated by Joe Davis, floats on a cloud of steam during the winter and water mist during the summer. Illumination is through 12 "Moon Lights," which encircle the basin and are designed to resemble the phases of the moon. Lights below the "Earth Sphere" illuminate the clouds upon which the sphere appears to float. A compass is set into the plaza flooring.

Left:
Galaxy Fountain.
Landscape Architect: The
Halvorson Co., Boston.
Engineer: Fay, Spofford
and Thorndike, Inc.
Urban Designer: Monacelli
Associates, Cambridge.
Water Fountain Consultant:
CMS Collaborative.

Right: Winterbreath Fountain.

Winterbreath Fountain

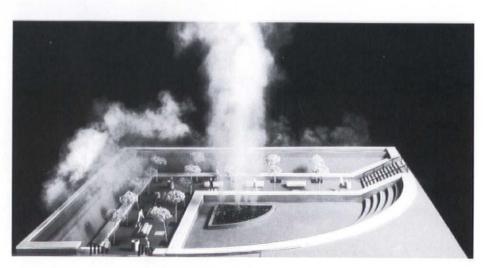
As a permanent fountain, Winterbreath, designed for Boston's Government Center Plaza (next to City Hall), will use some of the ideas developed in Steamshuffle. The site is a brick-faced amphitheater, nearly 6,400 feet square, whose water fountain is to be refurbished. The steam and sound components would be installed for winter operation.

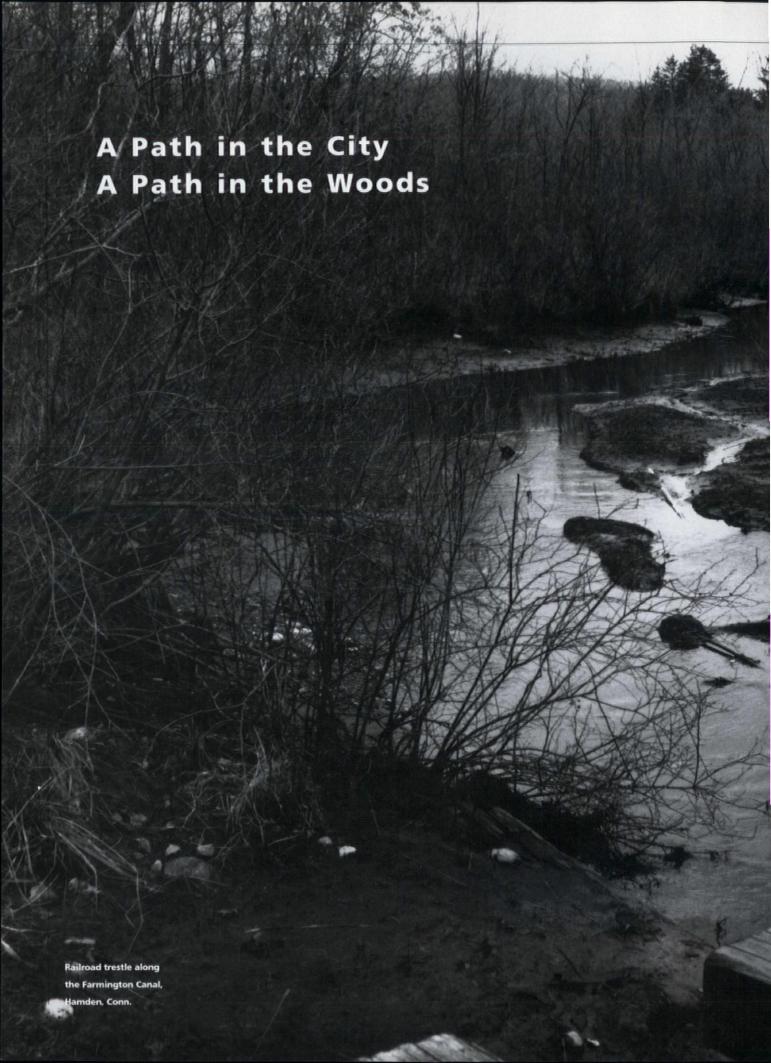
Christopher Janney (a sound artist who also collaborated on Steamsbuffle and Galaxy) and I felt the shape of this site and its use as a performance space should be underscored by the steam and sound. Fanshaped jets of steam along the two right-angled sides will form a curtain. In the wedge-shaped raised center area, eight individually valved tall jets will create a fast-paced display. Both systems will respond to pedestrians stepping on a series of pressure-sensitive panels set flush with the brick walkways.

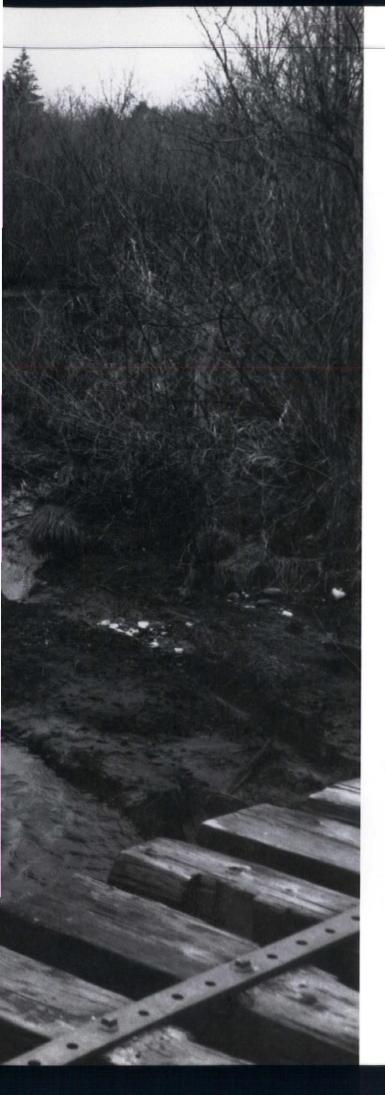
The sounds will include a synthesized composition of spoken texts from Boston history: vendors' cries, political speeches, songs, excerpts from diaries and music from the Scollay Square era before the site was razed to build Government Center. The fountain will also mark the hours with a brief steam and sound event, including a five o'clock whistle.

Our intention is to evoke history as oral tradition, in contrast to the abundance of figurative sculpture commemorating great men and events of the past. We hope to dignify popular culture and to make public participation a necessary part of the fountain's operation.

Winterbreath will enliven the enormous plaza during the winter months; with its participatory element it will extend democratic principles, particularly significant to the symbolic meaning of its site.







The Farmington Canal in Connecticut is an example of a landscape for modern America.

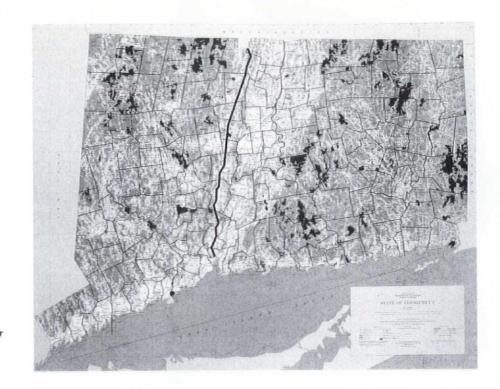
It is a 25-foot to 100-foot wide corridor that runs through downtown New Haven, through the campus of Yale University, through neighborhoods of different ethnic, social and racial composition, and out into the suburbs. It was first used for a canal, which was abandoned, and then for a railroad, also abandoned.

There is now an opportunity for redefining the corridor's role in terms appropriate to the twentieth century. Local governments are purchasing almost 15 miles of the route, or easements along it, in New Haven and the outlying communities of Hamden and Chesire.

The challenge is that the corridor passes through many communities, each of which has different expectations about how the corridor can serve its needs. This poses the question of how a continuous corridor can be woven out of such diverse parts.

The corridor also presents an opportunity to shape a new kind of American city. Just as the high-speed rail corridor from Boston to Washington is becoming the spine of a Northeastern megacity, this abandoned canal and railroad corridor can be the spine of a linear city at a different scale. It can unite downtowns, neighborhoods, small towns and parks that have become isolated in our increasingly diffuse, auto-oriented landscape. It can forge new connections at a scale defined by slower forms of movement, such as walking and bicycle riding.

What follows are excerpts from a discussion among a dozen professionals—architects, landscape architects, writers on landscape, artists and a cultural geographer—who were posed with the following question: Looking at the corridor from your own professional point of view, what is indispensible in the way we ought to go



Path of the Farmington

Canal and railroad corridor
through Connecticut.

Courtesy Diana Balmori.

about its design today? The object of the discussion was to identify, by talking about the Farmington Canal, key issues involved in designing a landscape.

The discussion was part of a larger series of conversations, called "Cold Spring Two," that grew out of a concern that it was time for the profession to re-explore its role and to plot a future course for landscape design. The concern was not only that landscape had begun to interest other design professions, but also that the landscape profession itself was becoming interested in theoretical issues.

Earlier in the symposium, the participants wrestled with the problem of defining landscape in terms relevant to today's design work. The nub of the debate was whether it is possible to separate the natural from the artificial in the landscape. This part of the discussion is summarized in a short essay focused around the question of whether a path in the woods is artificial or natural.

The theoretical issue of what relationship with nature will inform landscape design is critical. Shifts in our relationship with nature and our understanding of it are expressed first, perhaps, in the landscape.

One way of forcing the issue is to tackle a design in a particular place with a particular set of problems that nevertheless have a general applicability. This was what we hoped to accomplish in the two days of conversations, which led from a path in the woods to a path in the city.

"Cold Spring Two," was convened by Diana Balmori in conjunction with the Architectural League of New York and Dumbarton Oaks in May, 1989. "A Path in the City" is an edited transcript of discussions that took place on the second day of the symposium. "A Path in the Woods" is a reflection on discussions that took place on the first day of the symposium.

The first day of discussions was held under the auspices of the Round Tables in Landscape Architecture program at Dumbarton Oaks, organized by John Dixon Hunt, Director of Studies in Landscape Architecture. Participants were: Marina Adams, landscape architect; Gerald Allen, architect, Gerald Allen & Associates; William Burch, professor of natural resource management, Yale University; Warren Byrd, Chair,

A Path in the City

Division of Landscape Architecture, University of Virginia; William Cronon, professor of history, Yale University; Rosalie Genevro, Executive Director, Architectural League of New York; Frances Halsband, FAIA, architect, R.M. Kliment & Frances Halsband; Catherine Howett, landscape architect and professor, University of Georgia; Hunt; Peirce Lewis, professor of geography, Penn State University; Naomi Miller, Professor of Art History, Boston University; Susan Nelson; Mark Simon, FAIA, architect, Centerbrook Architects; Barbara Solomon, artist and landscape designer; and Elyn Zimmerman, sculptor.

Overhead view of model of the corridor's path through New Haven.

Courtesy Diana Balmori.

Maintaining a Trace

Frances Halsband: You absolutely should not erase all traces of what was once there. Maintaining some visual reference to the fact that this was once a railroad line and a canal is imperative. We need to have some connection—I am hesitant to say this first because it sounds as if I am interested only in history, and I do not mean that. As architects, we too often erase all traces and start over as though we are the first ones ever to have been on a site. I do not think that is good for the culture at large, even though it is a lot of fun.

Gerald Allen: Is it never good? That kind of categorical claim that it is never appropriate bothers me.

Halsband: In this place it is an absolute good. If we were out in a field or forest, I would not give that answer.

Barbara Solomon: How much of a trace?

Halsband: That is where the art comes in. You could have any kind of poetic evocation of this thing.

Warren Byrd: Are you to retain a memory of the corridor's form or of its use?

Halsband: I am not going to tell you how to do it. That is your art, your poetry.

Byrd: The difficulty is in overcoming nostalgia. What would typically happen is somebody would take an old locomotive and put it off to the side and paint it black or red.

Halsband: We do not want to see big locomotives painted black or red and sitting out there, but a trace could be a pretty slight thing.

William Cronon: There has been a U.S. Forest Service policy for more than a decade to remove all human structures, all construction within wilderness areas. The question of whether that is good is creating a very lively controversy right now.

This is probably most interestingly being played out in the White Mountains of New Hampshire, in the wilderness area called Great Gulf, one of the most historic hiking areas in North America. People have been visiting there for a century and a half seeking an outdoor experience, and they have been constructing buildings, paths and bridges there as well. In most other contexts we would try to preserve that long history; yet the imperative of a category called wilderness is in this case trumping the category called human artifact.

Allen: I can still imagine that there might be cases in which you would want to obliterate the past entirely. I would feel more comfortable if we were to say that one ought to look at what the past was, try to understand it and see if some of it is worth keeping for current purposes.

Byrd: Somebody has to make value judgements along the way. That is where decisions about what to keep get tricky.

Allen: But surely the value system would begin by knowing what it was, knowing what you are dealing with and knowing what to do. Nobody would argue against doing that.

Halsband: Well, we all agree that not to think of the history at all is bad. Follow your own lights once you have thought of it.

Following Ian McHarg

Catherine Howett: The beginning of being able to create a good design for this complex system is to know it as thoroughly as possible. We would have to look closely at all of the givens—the topography and the vegetation, the wildlife, hydrology and the role that this place plays in the larger systems of the city and possibly of the region. I guess a kind of McHargian analysis would have to be a starting place.

Warren Byrd: That is a typical starting point from landscape architecture's perspective, the site analysis. What is interesting to me about that is how relatively blindly we do that now. We automatically do it in any project, yet each project is so different that it is not of the same value or desirability in each case.

I have always liked Kevin Lynch's definition of why you do site analysis, which is that you do it for a particular purpose. You have to know why or to what end that particular piece of land is going to be used. Otherwise you waste time doing a lot of analysis that is not so important.

Howett: I would hesitate very much to see it put aside as a methodology. But, as a profession we have never examined what is the basis of the evaluation: How do we assess the importance of any of those pieces of information? McHarg leaves us in the lurch. It's not enough to place all those layers of information on top of one another and look down on them.

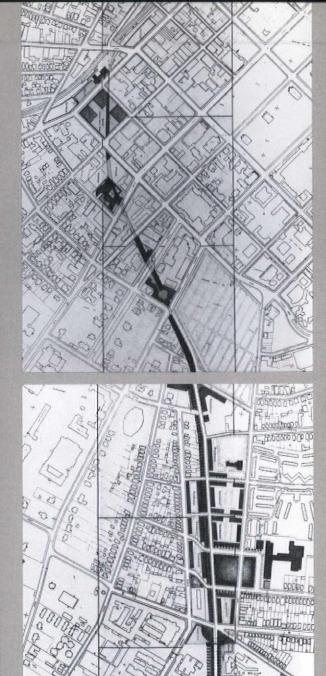
Byrd: Well, that is giving everything an equal value. There have been other methods developed that give more weight to some qualities than others. But even so, it starts to remove you from the art of designing. What I object to most about that approach is the premise that the design would come out of this pure analysis.

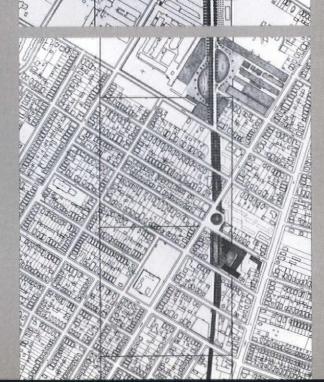
Gerald Allen: Site analysis is meant to be an analytical tool, not a design Proposal for design of the corridor within New Haven. Courtesy Diana Balmori.





The corridor passes through New Haven commercial and residential districts. Courtesy Diana Balmori.





tool. That is the sort of thing that happens when architects prepare a functional relationship diagram of the building, and all of a sudden it becomes the plan, which is absurd because you can take any functional relationship diagram and make 50 different plans out of it, all of them quite different from each other.

Byrd: Take this project, for example. Because it is completely manipulated land, a lot of the basic natural information is of less importance here.

Allen: And an awful lot you can simply know instantly.

Looking for Comparisons

Naomi Miller: The history of the site and the purpose it once served seems like the starting point. But I think I am less nostalgic in some way and I would look to more recent models.

I cannot help but think of this problem in terms of the Southwest Corridor Park, which was built in Boston and is incredibly successful. Not too many people in Boston even know of it or go there. It is about three-quarters of a mile long and has a different width at different points, from about 25 meters up to a city block. All traces of its former function have been banished. But there is a wonderful variety of terrain, vegetation and usage. It connects Tent City (a very controversial proposition to begin with) and the Back Bay Station, then goes on to Massachusetts Avenue. It goes through so many different socioeconomic strata that you wonder how it could succeed.

Frances Halsband: But you could tell they kept the line where it was.

Miller: Yes, but the line changes. You cannot see a direct line because the path has been so designed and is so varied. You go there and you have to ask, what has been here before?

It is a puzzling park when you visit it for the first time. You are not sure whom it is serving, what it is, or what it is connecting. Suddenly you are going off into the South End. Suddenly there is a basketball court.

The corridor's lack of clarity and purpose is interesting, but it is not exactly welcoming if you do not know where you are.

There has to be some kind of a definition to make a park like that used. It is too non-specific and it serves too many different groups. One does not know what exactly is going to happen over time.

Warren Byrd: Isn't that part of the essential dilemma of a park that exists to make or preserve open space, but does not have enough values assigned to it to draw people for a specific purpose?

Miller: Exactly. An open space is only important where you have a certain density, and it is going to be used. And so far the few times I have been to the Southwest Corridor Park, I have noticed that it is very underused.

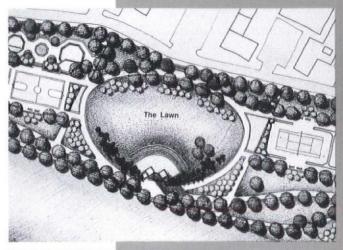
Peirce Lewis: Does the Chesapeake and Ohio Canal inform this problem?

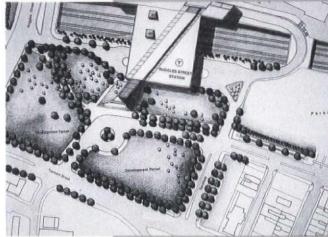
Diana Balmori: Yes, since it also has a very urban section. A very interesting thing about the C & O Canal is how it has been able to generate a new life around itself, although it is not truly working as a canal any longer.

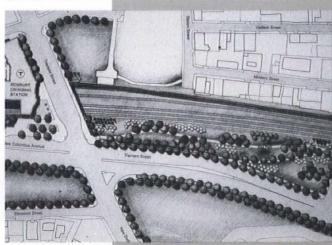
In the Connecticut case, the corridor attracted a whole set of activities; for example, munitions factories sprouted up along the line when it was a canal. The working-class neighborhoods along the line feel that when the railroad was working and the canal was working and all that industry was generated along the corridor, those were good times.

Byrd: There is also a 50-mile-long converted railroad corridor from Alexandria out to somewhere way out in the farmland, that was converted over the past ten years. It seems to be wildly successful and it cuts through all sorts of different conditions and towns. It is just simply for bicycling and walking. They were going to incorporate equestrian, but that got to be a conflict. I think the beauty of it is people can take it for the full duration, which very few people do obviously, or take it for little jaunts on the weekends.

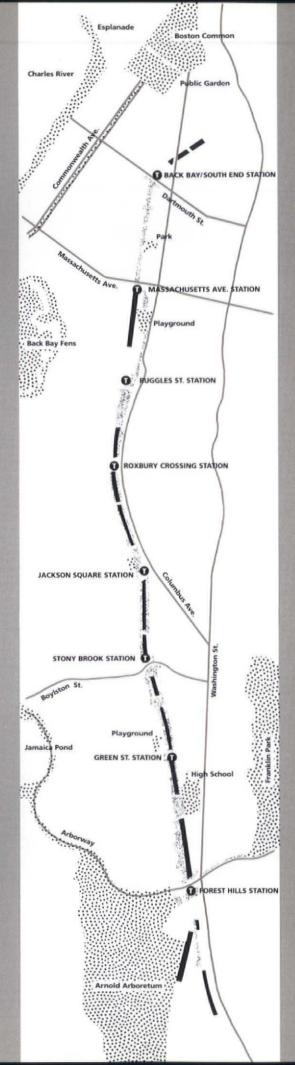
Path of Boston's Southwest Corridor Park, which runs outward from South End Station.







Detail of Southwest Corridor Park plan. Courtesy Sasaki Associates.



The Corridor as an Archetype

Peirce Lewis: Why are you intervening in this process to begin with? What is your purpose? What do you perceive as your task?

William Cronon: One circumstance is that the railroad company that owns the land wants to sell it off and parcel it, so that the line will be lost unless there's some dramatic intervention justifying its continued existence as a line.

This is very much a generic railroad problem, so there is an urgency about figuring it out. Is there a value, an imperative in preserving these old corridors, and if so, what is it?

The Corridor as a Historic Document

Peirce Lewis: I don't look at this railroad line as something that should be manipulated or designed. I look at it as a piece of evidence, part of a larger matrix of material. In aggregation we call this material landscape, cultural landscape, which I see as an exceedingly complicated historic document.

Because of the importance of communication and transportation in the evolution of North Atlantic culture, I see this railroad right-of-way as an extraordinarily powerful piece of information that we need to know about if we are going to know about ourselves. It is a way of looking at our culture, which conventional written documents do not allow us to do.

I would fall back on conventional geographic terminology. We talk about the study of places and distinguish between site and situation, site being the actual real estate and situation being the location of something in a larger context. I think one must talk about that railroad right-of-way in the context of the culture and society in which it was created, for which it was created and which it inevitably altered.

This corridor should not be parcelled off because it is a unique, irrevocable piece of information about ourselves, our society and the way we came to be the folk that we are, for better or for worse, but without making value judgements about whether we are good or bad people, or whether this is a good or bad railroad line. It is a railroad line and it happens to be intact. To allow it to be chopped up into parcels would be equivalent, I suppose, of turning the National Cathedral into a festival mall.

Catherine Howett: You can document the corridor, put it in a book; you can put bronze plaques up where it was. But the idea that you ought to save it because it is a bit of canal and railroad history is very radical.

Topography and Economy

Warren Byrd: One of the fascinating things about railroads is that the site has to be so level, so flat, that it just carves its way through an uneven landscape. I would be interested in the way it does that, either in a very topographic way or just by carving its way through neighborhoods. And I would try to pick up on that if it exists; I would also be interested in sing the metaphor of a river as a system or a corridor that moves through several communities of different types and around which the communities organize themselves.

Rosalie Genevro: Besides that, it seems this kind of project offers a perfect opportunity to make another kind of statement. Railroads, while they were economically progressive and moved the country along, were also an incredibly brutal act on the land when they were first planned, through the very act of making the bed level.

Byrd: That could be very interesting under the right circumstances, where you have a combination of preserving part of what the railroad was culturally, and yet reclaiming some of the land as it might have been before the railroad carved its way through.

William Cronon: As far as the wasteful use of the land, actually I picture the railroad as the least wasteful of all the major transportation means, certainly compared to the automobile.

Gerald Allen: One of the things that makes the railroad in New Haven so hard to work with is the fact that it is so economical and so tucked away that makes it hard to use as a public space. The corridor assumes a rural character in Hamden, less than 10 miles from central New Haven.

Courtesy Diana Balmori.







Recording the Past Will Change the Future

William Cronon: Were I to tackle the problem of trying to design something back into this corridor, at the forefront of my mind would be change: Change in the past and the present and in the future. I would also have a didactic purpose because in addition to being a historian, I am an academic. I would want to teach people moving through this corridor something about the diversity of pasts and peoples that this line represented.

We historians look at everything around us as documents that we read in order to figure out what the past looked like. We do that not out of nostalgia for any particular moment in the past, but as a sort of continuing record of change. What happens in all landscape is change.

What is interesting about this corridor is that it was a failed canal that then became a railroad, which was moderately successful. The railroad's intention was to create a deep hinterland. For New Haven that would be akin to the hinterland that New York and Boston and Providence had. But New Haven never really succeeded, it never became the great industrial center that the designers of that railroad would have wanted it to be, and now this corridor has become an abandoned strip of land.

It is important to understand something about both this strip of land and the city. People moving through the corridor can learn something not only about the past geography of this community but also about the social geography of the present, and that raises questions about the future.

The diversity of communities through which the line passes is a reflection of the diversity of the history through which the city itself passed. There is a stretch early on in the line that is lined with a whole series of factory buildings and foundries built in the first half of the nineteenth century. It would be great somehow to represent their relationships to the water that once existed in that corridor. Other stretches are lined by what were clearly railroad factories, which have a very different relationship to the land.

The question is, can one preserve the diversity of change that is represented by the corridor and not lose track of the simplicity of the line itself? My utopian use of the land would be to turn it into a streetcar corridor. This would preserve the function the corridor always had while maintaining the relationship to leisure, or to people, that a park is supposed to have.

This idea has all sorts of interesting social consequences. The danger, which is I think the hardest problem—and it is not a historical imperative so much as a political and economic imperative—is that whatever you do with the corridor is going to change the class composition of the communities along this line.

Suppose we turn it into a streetcar corridor. Instantly, you would have the beginning of gentrification along that line, particularly wherever the streetcar stops were. It would begin to reproduce streetcar suburbs.

In a sense, I am drawn to the gentrification consequences. Streetcar suburbs, to my mind, are the most benign of American urban forms. I would rather live in a streetcar suburb than in an automobile suburb of the twentieth century because of the close sense of community that streetcar neighborhoods created.

But in another sense that is what the black neighborhoods have every reason to fear from innovations designers are likely to produce. That comes back to this question: Is there any way to freeze the social geography of the corridors so that you do not bring about class conflict? I do not think there is. But that means we really have to regard ourselves as social imperialists who are like the urban planners of the '50s and '60s moving out black neighborhoods, putting them in somewhere else so that the middle-class could reclaim districts for itself.

That would be the very likely consequence because the urban corridor, as a biking and pedestrian corridor, is a middle-class corridor, nine times out of ten.

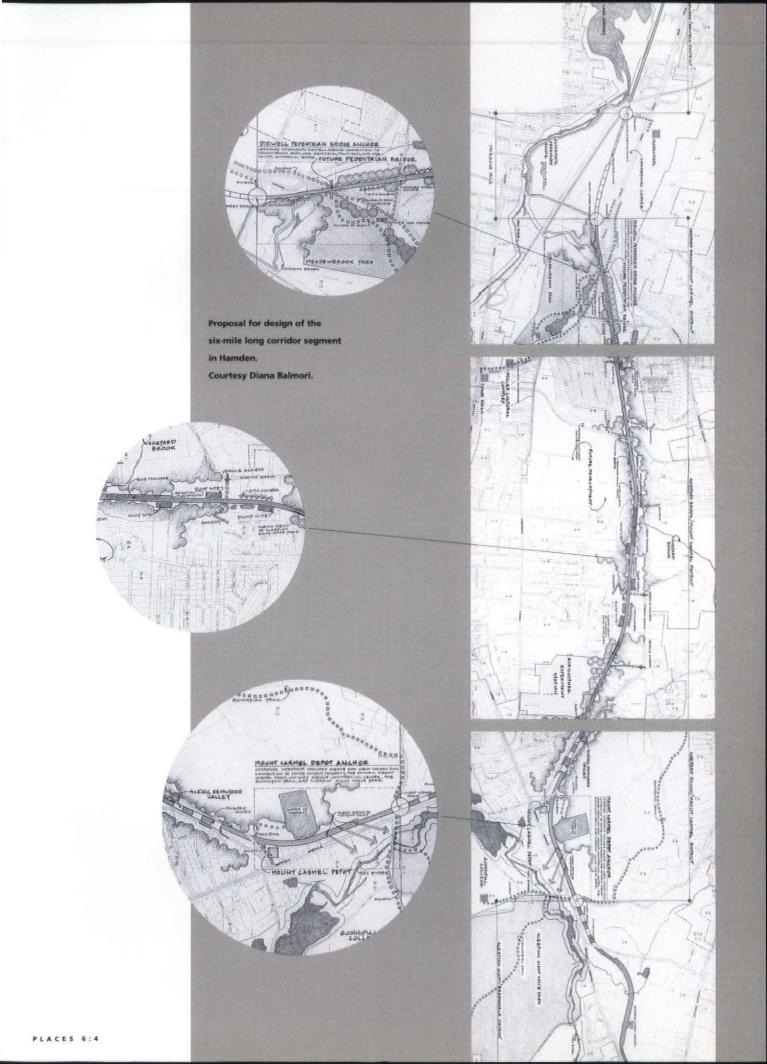
Focal Point, Connector, or Edge?

Gerald Allen: Parks and open spaces usually have been focal points, more or less in the center of individual neighborhoods, and places to which all the community comes. The question is, is a linear form essentially a wrong form for a park?

Warren Byrd: The issue concerns territoriality and who feels ownership.

Naomi Miller: This corridor is really almost an edge, and it is trying to bring together different sections of the city as in Boston, where the South End feeds into the Back Bay and there are meeting points.

William Cronon: The problem is confronting the separation of different neighborhoods and trying to do something about that. It is like breaking down barriers.







Park or Boulevard? A Question of Sociability and Safety

Diana Balmori: There are many organizations in Connecticut that have already stated what they want this corridor to be. Some want it as an open space recreation corridor that allows people to move on foot and by bike along it. They see it as a continuous corridor, on which, eventually, you could go from New Haven, Conn., to Northhampton, Mass.

Warren Byrd: Were there common denominators? Did everybody agree on walking and bicycling or not?

Balmori: People along one particular section want a road through the corridor. The walkway and biking would be something secondary to be done along the road's sidewalk. People along another want the corridor to be for walking, mainly because they feel that it could connect people in their own neighborhood.

I found little interest in turning the corridor into a park as such, but the moment I started talking about it becoming urban and more like a boulevard than a park, everybody became interested. The more paved and the more urban I described it, the more people responded to it. This applies to city officials, as well as the two black neighborhoods through which the corridor passes. They associated safety with boulevards and danger with parks.

Byrd: It also sounds more social, in a way, when you talk about a boulevard. It is more about community.

Balmori: And about city. What the blacks objected to most was the idea of an Adirondack-type trail running through their neighborhoods.

Naomi Miller: You rarely see a black person on the Southwest Corridor Park. I do not think I ever have.

William Cronon: A boulevard is a bright-light district and hence desirable because the bright lights are associated with safety. Also, I think, a boulevard is historically closer to the function of that corridor. The corridor has never been a recreational space. It was always a central spine of the city, and so a light rail line with some kind of commercial use that does not destroy the leisure potential of the corridor would be in my mind actually historically appropriate.

Gerald Allen: It also may be formally appropriate, which is the point I was trying to raise about the Southwest Corridor Park.

Catherine Howett: Although people are saying the historic remnant has a value, the new value is that these corridors become opportunities to introduce nature or green space into a downtown area.

Cronon: What I would deeply regret is ending up with a paved road, which can easily be a highway that would destroy all the opportunities that are there. The art, the designer's challenge is to mix these functions in a way that does not destroy the park.

The real problem is that it is socially utopian for someone to think they can create a benign, safe corridor through that particular strip of land, unless we revolutionize the city.

A Microcosm of American Diveristy

Susan Nelson: This particular problem to me is uniquely American. This railroad corridor is sort of a microcosm of America, a country where various groups and different things are connected together.

It is difficult to be a designer in this country because there are so many different groups of people and value systems. You have to be dealing with that constantly. Our history is one of trying to resolve things among different groups. We try to have one value system; we have a Constitution and feelings about liberty and justice and that is what unites us all. But as individuals we have so many distinct value systems. So a challenge for a corridor is to tie all these together.

It would be important to clarify the purpose of the corridor or to be very simple about its intention. The C & O Canal is beautiful in its simplicity; there are not a lot of different purposes being applied to that corridor. It is a very open space that is clearly recreational and serves a need people in the city may have for a place to get out and walk or ride a bicycle.

Designing from Desire

Barbara Solomon: Instead of all these "oughts" why not have desires? People should not forget to play. Your desires can be as strong as your oughts.

My desire would be to turn it back into a canal, with bars on both sides. Whoever wanted recreation could have that it in each different place.

Catherine Howett: That raises the question, whose desires?

Solomon: I have found that if somebody has a very strong desire other people catch it. That is what artists find very often. If artists have a great desire to do something, everybody loves it and then they are very proud of it and they adore it. And they do not damage or vandalize it.

Frances Halsband: This is very important. I think a lot of what we hear as the wants and needs of the community are just...

Solomon: ...oughts, oughts, oughts.

Halsband: You go to people and they do not know what to say, so they try and think up something. The most disconnected people in the community are often the ones that come and speak out at these meetings. If you ask somebody to have an opinion, well sure, they will rise to the occasion and have an opinion. But if you have a real vision you can get people to go along with it.

Naomi Miller: There is education potential in a problem like this when you have an opportunity to work with people. People do not automatically have desires, and so you try to give them some idea of the possibilities.

Diana Balmori: The professional puts in a visual, understandable form a series of options that help people think more broadly about the problem. People might come up with something that is totally fresh and new from just being shown a series of options that they have not been able to make con-

crete because they have not been trained to make images.

But seeing several options immediately sets people thinking about possibilities and sometimes encourages people to re-combine those options or to produce new ones.

Peirce Lewis: But a sizeable number of the people whom you are addressing, or for whom you are going to be designing, are not going to be able to comprehend these images, no matter how simple a graphic is. And they are probably not going to come to your meetings either. The people who come to those meetings are the people who are going to be the most immediately affected by the project.

Allowing for Adaption

Diana Balmori: Perhaps designers should not ever intend to produce a fixed finished model, but rather understand that a landscape is something that is going to continue to change so that there is not a specific form that should be legislated and fixed.

Peirce Lewis: I must say that is one of the most encouraging things I have heard in the past several days, not just here but elsewhere. It seems to me there always has been a very strong tendency within the design profession to become totalitarian, to think that it knows best. Now I hear you say that you are going to allow for and, as a matter of fact, expect and are happy with this unintended landscape. This pleases me endlessly.

Making Room for Change

Diana Balmori: Landscape by its very nature deals with change. The fact that you are using living things and living elements makes you have to be able to think in terms of change over time. Architecture is not like that. It has a very finished moment. Although the building might age, it has a very clear finished moment.

A number of comments have proposed taking change as a principle of design, that is, allowing for change and designing for it. Perhaps this may be the starting point from which we are to envision the design activity in landscape: that it allows for change, it has no fixed moment, it will therefore be a moving target, that it starts off from a particular point, but it will continue to be something perhaps very different as it moves along.

Frances Halsband: That is the current dilemma in architecture as well, that there are no more grassy sites where you put up the perfect building. You are adding to or you are thinking about what comes next, and so I think it is the same.

Gerald Allen: Even as the landscape allows for change and in many ways is about change, it is also place. Landscape is not a thing. It is not the perfect building. It is a place. It is place and change equally.

Catherine Howett: The problem with that comparison is that it tends to make us identify landscape with organic nature. There are many building projects that ought to embrace the values of a commitment to an open-ended process, rather than to a finished master plan that puts most of the chips on values of form, composition, clear structure and organization that are meant to last and probably will.

But places that are enduring can incorporate change; making places enduring means people can come to them 10, 30, 80, 100 years later and still find value and still make it a part of their place.

Allen: It is arguable that the only way you can endure is by changing.

Howett: Actually, I was referring to the notion of autonomous architecture and the authority of the designer. There is a kind of arrogance in saying, I am planting this tree, and by damn, it better be here 300 years from now.

Allen: Nature has an amazing way of taking care of that, though.

Peirce Lewis: It certainly is not an ignoble mood, to want to plant a tree that is going to last 300 years. Isn't this part of the human condition to want to create something that is going to endure beyond our own life span?

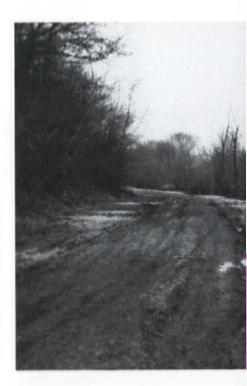
Warren Byrd: You want to plant this tree to last 300 years, but it is more again within that framework of whether the tree has a meaningful purpose or expresses some larger idea that can be potentially enduring.

William Cronon: Maybe it also is a question not only of planting a tree, but also whether you are going to create a space in which a tree could last for 300 years.

Allen: Maybe another thing to do is to make the place so nice that subsequent generations will want to help it endure, take up the torch.

Susan Nelson: That is where you hope that the decision to plant the tree is really reflecting a value among many people, not just the designer. That might be something more far reaching.

A Path in the Woods



Is Mimesis, or art as imitation of nature, still appropriate or possible in landscape design?

Until the twentieth century, mimesis was based on the concept that nature is radically distinct from human artifice. But our contemporary view of nature is different in two ways. First, we now perceive nature not as "out there" but as here in us; we are part of it. Second, there is no longer any place on earth where we can see the old kind of nature, that is, nature that humans have not touched or modified. Therefore, the aesthetic tradition of imitat-

Segment of the canal/railroad corridor in Cheshire.

Courtesy Diana Balmori.

ing nature as "other" has lost all meaning. With that notion defunct, the theoretic base hitherto used by much of landscape design is undermined.

Yet it can be argued that designed landscapes are still mimetic efforts. The path from the front door of a house to the front gate is simply an artificial version of a track through a woodland or a meadow. Even the woodland path was made by humans;

the artist's that intention distinguishes what is merely useful from what is both useful and aesthetic. Hence the path in the woods can be considered something useful while the path to the front door can be considered something useful that has undergone an aesthetic transformation.

The artist's intention is always related to conventions of perception. In the past, art was mimetic of a cul-

you've had," says sculptor Elyn Zimmerman.

Mimesis continues as an important aesthetic tradition but with an important distinction. The motor and soul of the old mimesis was that by experiencing nature as "other," there was an "other" from which we learned.

Nature was unveiler of the nature of the universe. There is nothing now that says that looking into ourselves



therefore, it is an artifact and not nature. Once humans are seen as a part of nature, there is no way of separating their work (so-called artiface) from nature.

Are intentionally designed landscapes separate from incidental creations, such as the path in the woods? Is one art and the other not?

The utility of a design might not have anything to do with whether it falls short of being high art. The path to a Japanese tea house is both utilitarian and sculpted. Bridges can be considered as art and not art. Perhaps it is tural convention that saw nature as untouched by human beings. Of what is it mimetic today?

"When I think of wanting to make a pathway, I bring it down to experience. Sometimes you will suddenly come upon a path in the woods; possibly an animal track or one made by people walking. The feeling you have there you keep in the back of your mind and when the opportunity comes to actually make a space, it's the kind of feeling that you want to have happen again. On a very practical level, you're reiterating experiences that

and our works is not the real way to unveil the universe. The nature we observe now is more complex. Given this shift in the definition of nature, the question we must ask is whether mimesis is still a valid metaphor for the relation of our art to our nature. from

"Colstrip,

Montana"



Photographs by

David Hansen

Essay by

Paul Shepard

Digging for Our Roots

Modern culture seems about to make a change in its interactions with the ties that bind humankind with the earth. What wisdom shall guide it?

Both science and religion may have been coopted and subverted; they have become creatures of an exploitation mentality. In a secular society perhaps only art can deal with the problem of evil, But the art that can do this must exorcise its own cankers.

The 500-year tradition of the landscape arts would seem to have a redeeming potential, something that could be enhanced as part of a new ecology. But the sources of those arts are the same mathematics that made Lewis Mumford speak of "Galileo's crime." Christopher Hussey makes it clear that the painters took poetry as their source, geometry as their lever and gave us the picturesque.

The vendors of landscape, being censors and guides of the eye, narrowly defined the notion of "scenery." The painters' evocations of the old poets gave us what would become calendars, doing for the mind what Muzak would do for the ear.

Marshall McLuhan associated this sty in the beholder's eye with the invention of perspective and the picture frame itself—an insider's view through a window in a wall, concealing more than it showed.

We still suffer from this legacy, for out of it came the sorting of the world into the beautiful and the unbeautiful according to a pastoral imagery that has stood for what is good in nature since the time of Theocritus and the authors of the Psalms, and an "enclave" mentality that leads us to preserve nature by partitioning it into parks or wilderness areas. Conversely, this perceptual lock on landscape aesthetics conditioned us to surrender willingly all that was unbeautiful to industrial ravagement.

Artists can rhapsodise and paint the debris of the miners and loggers, provided they stick with the language of limners' manuals-the basic circle, line and triangle - or dallies with color complements. An educated elite can then admire, in the name of aesthetic abstraction, such abuses as waste, poison and death. The rest of us must make do with the picturesque, wherever scattered groves remain or sublimity

Burlington Northern switching yard and power plant.



Coal strip mine and abandoned farm.

is not upstaged by ski lifts, towers and gondolas.

But the artist who would break from the stranglehold of scenery and yet avoid the various "traditions" that represent nature as colored retinal images is in a quandary. If one shows the "ugly" reality, "nature" vanishes and the patron turns away. If one opts for abstraction, disavowing mere "subject matter," the risk is making evil attractive.

Evil? In On Photography, Susan Sontag protests that surrealism is a cruel abuse of real events. She asks whether we are free to enjoy old photographs of suffering people-however excellent the photographs may be technically-simply because we have forgotten the peoples' names and circumstances. These photographs, she wryly remarks, "nourish aesthetic awareness and promote emotional detachment."

Do time and distance make the anguish of people or the landscape acceptable? Should we admire such photographs solely as objects? No, Sontag insists. This "surrealistic enterprise" places the final distance between the observer and the occasion. Talk about form or balance or line if you wish, but there is no escaping the subject.

The abuse of nature in the name of aesthetics has not been limited to art. At the same time open-pit mining began in earnest at Colstrip, Erhard Rostlund wrote in Landscape that clear-cutting forests produces a more beautiful prospect than selective logging or than not cutting the trees at all.1 An Olin Chemical Co. advertisement in the Saturday Review read, "If You Think It's Beautiful Now Wait 'Til We Chop It All Down."2 Today, at the Kennicott mine in Butte, signs along the highway say, "Historic Site Ahead," and "Technological Marvel -Bring Your Camera." Since humans purposively cut down the land, it follows that the result must be beautiful.

The visitor's astonishment in places like this is an intoxicating distillation of our national power and will to dominate. Like the smoke from the Four Corners power plant, the open-pit mine is an entity that could be seen from the Moon. We associate the vertigo we experience at the pit's edge with the exhilaration of our national and industrial success. The camera comes next, for it will turn that havoc into the two-dimensional replica that can awaken an echo of the almost obscene ambience or, for an audience, provide a concatenation of pure visual enjoyment.

The Morality of Hanson's Colstrip, Montana

When David T. Hanson presents us with aesthetically pleasing photographs of earth at the Colstrip open-pit mine, Cézanne, Constable and the Hudson River School are far away. Claude, Virgil and Theocritus have vanished, as though landscape itself had disappeared.

There are various ways to consider photographs such as these. They could be, as Sontag says of images of Depressionworn families on the road, a reprehensible exploitation of this place purely for our visual pleasure.

But I do not think
Hanson is trying to flush
away an outworn romantic
idea and replace it with
visual abstractions or symbols of power. Indeed,
there is a link between his
photographs of these raw
earth layers and the heart
of Tennyson's objections to
the neo-classic logos of
rationalism, capitalism and
industrialism.

Somewhere under all the husk of Romanticism's sentimental excess there lurked a deeper design. Linear thought has so dominated the Western world since the time of Copernicus that its rationality and mechanism deprived modern culture of the very terms of an alternative. Romanticism was an effort to recapture a lost paradigm, an organic view of creation, a sense of the earth as a living being.

If the land is an organism, what does it mean to cut down a forest or cut open the land? And how do Hanson's photographs escape the moral outrage Sontag expressed against parading distant wounds for casual use in art?

The answers are not simple. First, it must be clear that this new paradigm or organic sensibility is not simply another ideology, but a new seeing. It addresses the problem of how humans perceive nature and their own identity.

Although the issue Colstrip raises is similar to that raised by the photographs Sontag criticized, its status is different. Her rage against the pictures of starving people as coffee table amusement was a critique of the whole of Renaissance and literary humanism. The very arrogance and pride of humane morality helped sustain a sympathy for downtrodden people, at the same time widening the gap between the human and the nonhuman. That hubris had never completely wilted before the cold hearts of the makers of the Industrial Revolution and its modern representatives.

Yet the wounds of the earth are a similar matter.

During the classic phase of environmentalist ideology from about 1964 to 1976 (as distinct from the earlier natural resources conservation movement), Leo





Coal strip mine and railroad tipple along Armeil's Creek.

Marx's influential book The Machine in the Garden examined the ecological movement as a conflict between "pastoral" ideal and progress. If that were a complete analysis the issue would have become merely a choice between competing styles of consumerism. But the shift proposed by the ecological movement was more revolutionary. It addressed "mind and nature" and the preconscious assumptions of cultural style, the reawakening of a mythic understanding.

Both the Romantics and ecologists urge us to abandon the Enlightenment's logic and obsession with binary divisions, such as separating the beautiful from the useful or rescuing nature by preserving enclaves of it (as Leo Marx would put it, of understanding the world as a machine). Once we do that, the problem of surrealist irony may disappear. Art might recover the importance of content, locality and participation.

As we begin to accept the story of humans as part of the larger story of all life on earth, perhaps we need to search for obvious targets, as Mother Teresa does in working among the worst of the sick and dying, and as Hanson does in photographing Colstrip.

For the most part, Colstrip is not only a ravaged but also an invisible place. So that we do not misunderstand, Hanson has virtually excluded people from his pictures. Like Cézanne at Mont Ste. Victoire, we are drawn to form and color, to the brink of the alienated mood Sontag chastised. Hanson starts with the degree of dislocation that an ambivalent culture finds aesthetically acceptable.

We seem at first invited to scrutinize a juxtaposition of mining and the human environment it creates. But do they truly have this apartness? The lack of people in the photographs prevents a certain kind of distancing: The absence of other "selves" makes our involvement as viewers that much more undeniable, just as the absence of a self in the animal dreams of young children makes the dreamer's presence more vivid.

What we see has neither the emblems of romantic technophilia nor romantic grandeur; it is not even a landscape in the customary sense. We are pulled up short by the estrangement caused by the objectification and abstract detachment of these photographs. Just who is the wounded and the wounder?

Compare these photographs to Alexander
Hogue's painting of rural
Oklahoma during the Dust
Bowl era as Mother Earth
Laid Bare. It was a primitive effort that must have

brought abusive chuckles from the avant garde enemies of subject matter and content. Hogue's evocation of prudery in redressing a land denuded by the plow was quaint, but one knows he had rape in mind.

Something horrible, an act we have commited upon ourselves, is at hand in this evisceration. We have begun to escape the metaphor of the earthorganism as poetic convenience and to recover its meaning in homology, in a common ground differing only in expression.

Healing the division of the world into what was pictorially aesthetic and what was not begins with the act of attention. Our eves, educated in Anglo-Americanized Italianate escapist pastorality, still glide quickly past the "ugly." There are plenty of geographer-traveler-writers who tell how "interesting" it all is, providing relentless humane description. Such endless fascination with ourselves and our works also educates the eye, but its perception is that of linear analysis. Obstensibly value-free and demythologized, it actually is a perverse enchantment, its mythic core the body of stories of domination that define the West.

Digging for Our Roots

Hanson's Colstrip, Montana series is a worst-case scenario that alters our awareness and casts attention to a violence that shakes our complacency.

Nonhuman life—animals and plants—is difficult to perceive anew because its identity is clouded by Romantic humane individualizing and "Disneyfication."

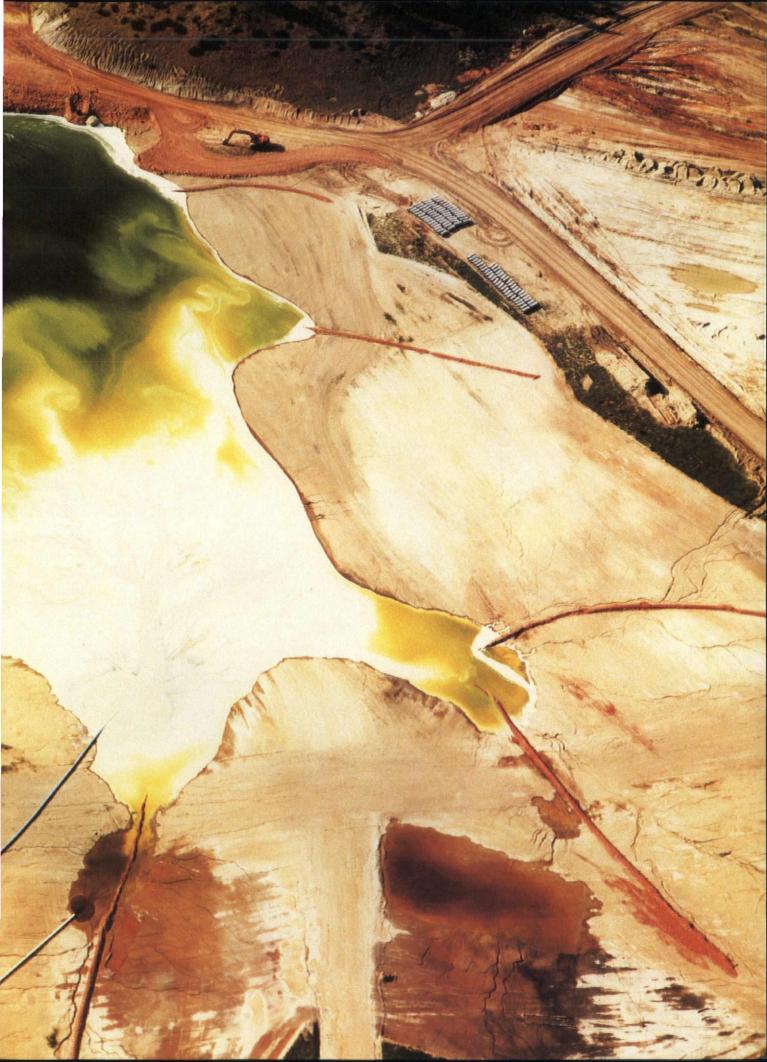
Instead, the new reality emerges as a raw, elemental renewal, sensitive to air, water and earth.

There is a paradox in backing off from life to get close. It is a precursor of a new consciousness: a world of beings bound by infinite and mysterious acts of connection, created from the Earth, itself a being.

There is no dichotomy between the mineral and living. Such is the wisdom of all stories of creation. The Peabody Coal Co. made no acknowledgement of this when it removed coal from the earth, but the geology of its cut speaks of the Earth's anatomy. The Rosebud Formation, a 24-foot-thick seam of coal-the remains of an incalculable host of plants-is uncovered 100 feet below the surface.

That 100 feet, the "overburden," is misnamed. The real overburden is three thousand years of human estrangement from nature, nurtured by bizarre fantasies of human identity. "Rosebud" could









Mine road and power lines.



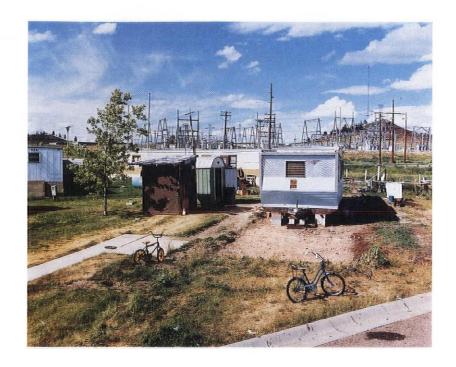


Abandoned strip mine and unreclaimed mine land.





Unreclaimed mine land.





Abandoned trailer space off State Highway 39.



In the pit, after a coal blast.

not be a more ironic name, for the whole black mass is mummified plants that once swayed in the surge of a tidewater sea covering the center of the continent.

More than any other understanding it offers the perspective of time. At this under-surface, sixty thousand times a thousand years ago, a swamp hid the last dinosaur bones, now visible again. Below this cadaverous mass, tan and gray sandstones and mudstones that give much so of the color to Hanson's photographs were accumulating when something monstrous struck the planet.

Hidden in these gray rocks is a thin layer of iridium dust, the remains of the impact that changed the history of life. Dust, blasted into the sky, surrounded the Earth for months. In this twilight the plants died, dragging their animal dependents into oblivion with them. A minor scavenger form survived, giving rise to the birds. And within the ecological vacuum, our furry quadruped ancestors rummaged in the ark, eking out their survival on the bodies of worms and bugs.

When the Rosebud was still a marsh of living sphagnum, the continents had not drifted apart and together were an island in a world ocean. On Pacific atolls, Margaret Mead once observed, an island is the symbol of limits. On Pacific atolls islanders know about bounds and have a sense of scale in their affairs. Seen from space, Earth is an island. That view is surreal like Hanson's photographs and is less a staircase to new frontiers or a means of dismissing the Earth than an effort at insight, a prelude to recovery, a reminder of our limits.

Like space travel, the surrealist vision trods upon dangerous ground, for, as Sontag says, it is a callous denial of the passion of lives lived and a celebration of forms, postures and compositions. The visual allure of photographs like Hanson's is addictive, says Sontag, and can turn us into image junkies lusting after "an amorous relation, which is based on how something looks" instead of what it means.

But risk can have its rewards. If we can avoid translating Colstrip's awesome forms into admired geometry we may see beyond either forms or pictures. Hanson's lens is sharper than blades of bulldozers and giant shovels, for it enters our heads to open seams, to look for grounding. (Where has the acid rain from the 133 million tons of coal removed from Colstrip fallen? How many shabby ex-mining towns are there, and what living death haunts them?)

In inviting us to look in order to perceive truly,

Hanson traffics in the colors of poisonous effluents, like a shaman curing with the glands of toads. He asks us boldly to exercise a kind of hue-delight as a means rather than an end. At first we are reminded of the mineral brilliance of Roman Vishniac's microphotographs of translucent slices of minerals, at the other end of the size scale. But the conjunction of detailed captions and the series of images links Hanson's work with the narrative arts instead of painting. It is Our Story, a recovery of social and ecological sooth too long repressed by the industrial -technical era. We are awakened to patterns collecting us in a violent tale of time and place.

Notes

- 1. Erhard Rostlund, "The Changing Forest Landscape," *Landscape* 4:2, 1955.
- 2. Saturday Review, April 8, 1967.

IS NATURE GOOD?

The great majority of land use changes evoke no controversy. Of course, there is general and subdued grousing on the op-ed pages: "Where have all the flowers gone?" and "Gonna get gridlock," and so on. And environmental advocacy groups and local neighborhood associations should be credited for doing excellent work in exercising various conservation agendas.

But conservation as a social force is still effective only on the margins, only on behalf of the endangered attractive mammal, a spectacular view, or any natural resource that can match up well in a cost-benefit analysis. Regardless of local and specific successes, the world and the country continue to lose habitats and species daily.

The real problem is simple: A democratic majority cannot agree that a problem exists, that the collective human self-interest is threatened when native plants and animals are displaced by people in the course of making places for themselves.

The question really is: Is nature *intrinsically* good rather than *instrumentally* good? If portions of the ecosystem (rain forests, for example) must be left undisturbed to ensure survival of the whole ecosystem, then making a balance between the portions that are needed by nature and the portions that are needed by humans is a crucial design problem.

As yet, no value system or general theory allows discussions that satisfactorily balance the land requirements of humans and of wild nature. What I want to do is interject an argument based on floral and faunal rights into the discussion of place quality, and to discuss who should be responsible for assuring those rights.

Capitalist and Utilitarian Approaches to Environmental Management

Each of us has a particular set of attitudes toward and expectations from our environment. At one extreme, we may take a position that leaving the smallest possible human footprint is the appropriate way to regard wild nature; that a single high rise with parking beneath, located on the northernmost point of a particular site, is the correct way to house people and preserve nature. Even so, most of us take it as a given that we will house and feed people. Even the most parsimonious environmental plan does not deny that.

Most everyone prefers to do the right thing. Few Americans will argue that deriving income from the real estate market is morally wrong. John Livingston, in an excellent book with the off-putting title *The Fallacy of Wildlife Conservation*, suggests wildlife management must follow a utilitarian path and generate income in order to persevere. Such strategies therefore protect products of ecosystems for which people will pay to hunt or observe, but not ecosystem *processes* that, if healthy, would continue to generate products that would not necessarily be economically or aesthetically satisfying. It is like building an ark and inviting only friends: The uninvited cannot vote themselves a place on board.

Such utilitarian ethical positions often are called upon to support the capitalist philosophy, "if I am better off, then society is better off." But this ethical egoism fails to satisfy a second requirement that no one be worse off. In those now frequent cases in which people have been enjoying land either directly—visually or recreationally—or vicariously on behalf of wildlife, and that land is legally bulldozed and built upon, real disbenefits may be alleged.

Complaints about such changes focus on the legal and political rules that convey property rights to the owner and the susceptibility of such rules to creative and, hence profitable, manipulation. The deep roots of property law hold the intended invasion and colonization of nature's territory as lawful. The contents of the place (excepting valuable minerals) are also property and may be appropriated at will. Nowhere in law are rocks, soil and water legally described as a place named "Nature"; nor is there a constitution that declares the purpose of nature.

Developers make the further rationalization that they provide a needed good, such as housing; the savvy developer will insist that human demand drives the bulldozer, not greed or avarice. Consequently, as long as the human population grows, plants and animals will be exterminated so that rights and privileges customarily enjoyed by people will continue.

I myself make an interesting rationalization. The nearly one acre on which I live was forest until 1952. I was not party to the economic decision to convert the land to house and garden. Therefore, I take comfort in not personally having invaded and subjugated the previous floral and faunal community. Fortunately, perhaps, for our collective conscience, most residential location decisions are being made by professional planners and corporations. The individual goes blameless.

The problem for developers of housing in particular is correctly to anticipate the expectations of new owners and renters regarding the floral and faunal components of the grounds of new developments. To obtain some notions of what attitudes might prevail in a typical new subdivision, we may look to the attitudinal research of Stephen Kellart.2 Despite what might seem to be expected findings that higher education and income levels correlate with high levels of knowledge about animals, two of his conclusions interest me. First, in any population of potential homeowners, only about one-third may be expected to know anything about endangered species (the animals, not the law). Second, whatever concern may exist for animals is reserved for those phylogenetically "higher" animals that are aesthetically attractive. An endangered mammal will generate high levels of public support. An endangered snake will not.

Consequently, even though we all want to do the right thing, future owners cannot be relied upon to provide answers to the questions: Should I put houses on this site? If so, where should I put them?

The Failures of Ecological Planning

Many of us are conditioned by the environmental rhetoric of the 1970s to believe that nature is good when it is diverse, stable and productive. We exalt in its climax. But it is fair to assert that borrowings from ecology have yet to produce a normative theory that serves not only as a basis for action but also permits unequivocal rejection of bad environmental design proposals.

McHarg's Design with Nature appears on most lists of basic landscape architecture writings and established the ecological inventory as the initial phase of site development.⁴ The ecological inventory serves as the basis of a vegetation plan, which is a normative geographic articulation of a site planner's prescription for the future of a project's natural environment. The vegetation plan is the hoped-for "best fit" between nature and humans; comfort is taken when the species lists that dominate the legends of such plans are long and include rarities.

The goal is to express "objective" criteria for leaving portions of a site "natural." Displayed on countless such documentsare plans about what to leave "natural" and what plants to install. Sometimes plans are concerned with more than aesthetics; they express the designer's concern for nature, which could be regarded as a form of atonement or reduction of cognitive dissonance in the sprawl of urbanization.⁵

Having learned that insulating nature causes species losses, a question arises: what should the minimum size of natural areas be? Several studies propose nature reservations in the five- to ten-acre range, which are a hard sell in today's real estate development market.⁶

Even though nature might be "best" when large and intact, incursions of development are rationalized under the broad stewardship ethic. The difficulty of evaluating environmental impact has compelled even prominent ecologists to take the side of the developer in cases in which impact is conceded but a "scientific" judgment is made that the impact is not adverse; that is, the proposed development does not impair the "goodness" of the place.

Lynch's Tests for Goodness

In A Theory of Good City Form, Kevin Lynch dismisses several categories of form-generation growing out of planning theory and suggests that form may not be critical at any development scale. What is critical is whether the human inhabitants enjoy continuous growth and development.⁸

Lynch lists five criteria (vitality, sense, fit, access and control) and two meta-criteria (efficiency and justice) as performance dimensions of human settlement quality. The five criteria map neatly onto ecological parameters for niche and community survival; that is, they may be employed in the design of a subdivision, an arboretum, or even an aquarium. And as Lynch points out, the two meta-criteria are themselves aspects of each criterion. In each case one asks, "What is the cost (in terms of anything else we choose to value) of achiev-

ing this degree of vitality, sense, fit, access, or control?" and "Who is getting how much of it?" 9

It is ecologically reasonable to assert that to destroy the plant or animal's "performance dimensions" is to destroy the organism. If plants and animals have value only in their use to people (instrumentally), then any conversion of land will consider these values lost as "opportunity costs." That is, the value of the new houses or shopping centers is greater than the opportunities forgone. On the other hand, if plants and animals have an *instrinsic* value, then some extra-market system must arise to embrace values which money does not measure. It is in the principle of justice where I believe the opportunity to lie.

Nature and Justice: How Much Nature is Enough?

Many of us have embraced the "spaceship earth" notion, which emphasizes the relatedness of air, rocks, soil, water, plants, animals and people. It seems evident that humans are a population of biological organisms that are successfully extending their range; nevertheless, the special case of our humanity imposes the special condition of duty toward other creatures (as individuals, not as abstract populations). The question then becomes, "How much land should be left for the present occupants?" Or, "What are the rights of animals and plants?"

Taylor's principle of distributive justice proposes: Half is fair. ¹⁰ Perhaps we would ask the lion's share, but the metaphor points in the right direction. Interestingly, Howard Odum ¹¹ has used the same figure as a rule-of-thumb answer to a similar question: How much of an ecosystem should be preserved to effect its persistence?

A complication in this simple logic occurs when we consider the intended use of the land. Whether the need is basic is a critical point. As a biological organism, we may include housing among our basic needs. Would be feel the same about converting a natural area to a hamburger stand or a water slide as we might about houses?

Taylor's principle of mimimum wrong would require that we both minimize the triviality of the non-basic need and minimize the area taken for it. This principle further recognizes that the human species has developed an extensive culture: Land uses such as art museums do not insure survival, but are nonetheless basic to our fulfillment as a species; that is, they could be considered "good" in terms of Lynch's performance dimensions.

Taylor's principle of redistributive justice suggests that providing compensation is an ethical response to non-basic land uses. For example, four vacation dwelling units per acre cover about 50 percent of the ground. Requiring that the remaining soil grow plants that function as habitat or nourishment for animals seems reasonable. Requiring higher density (and more profitable) developments to reserve equivalent quantities of land (perhaps elsewhere) also seems reasonable. Excesses of non-basic vegetation (that is, vegetation that does not serve the endemic fauna) such as grand sweeps of lawn, allees and sparkling fountains might require compensation as well.

A legal mechanism commonly used to protect urban open space or landmarks is intriguingly applicable in this situation as well: Transfer of Development Rights. Successful TDR systems depend on a method of recording development transfers, such as a land banking account. A simliar legal rationale could be used to establish environmental justice transfers, and a similar accounting mechanism could keep track of them.

The Shape of Nature's Half

During the last 15 or so years landscape architecture has looked to ecology to provide the land development value system that economics, law and political science could not. Employing a vocabulary that includes terms such as "diversity," "stability" and "productivity," landscape architects attempt to identify the most "valuable" land for special attention, such as preservation, and undertake the necessary development on the rest. Believing those areas "less valuable" provided all the rationalization needed to send bulldozers to the site.

Non-specific vegetation plans, that is, the map outlines of Nature's half, recognize that the plants that were on the site prior to development might resume if given the opportunity. The design challenge then becomes creation of the physical form of the container in which we wish nature to go about its business while we go about ours. (This is somehow more comforting to us than the equally reasonable notion of designing containers for ourselves in a "natural" setting.) The physical linkages between the containers and human development then yield to the principles of landscape ecology.

I do not suggest that ecologically significant sites be left to these principles, nor sites significant from other perspectives (botanical, zoological, anthropological, etc.). In these cases, there are organized interest groups with their own scientists, lawyers and foundations, all of whom would welcome a chance to negotiate with the developer.

I can think of three possibilities for applying the science of landscape ecology to the design of an ethical vegetation plan. Assume first that a reserve has been created under the criterion of distributive justice. Then, under the criterion of redistributive justice, there are several types of restitutions that could be considered:

Functional shakkei. This means applying the Japanese concept of "borrowed scenery" in a functional context. Where vegetation on an adjacent property can be seen by humans, it probably can be seen by animals (many of which use vision as the primary source of environmental information) as well. This places a new level of significance on that most-oftenheard design studio criticism: "You failed to consider the regional context."

The technique for applying this concept this seems too simple to mention, but this is it: Push the green blotches that are part of newly developed areas into the site lines of existing green blotches.

Invisible reweaving. This is a phrase tailors use to describe a process by which they repair holes in fabrics. The tailor selects matching colors of thread and weaves a patch into the fabric by imitating the original pattern.

Landscape ecology gives us the tools for recognizing the particular plaids of a landscape. Ecologists can similarly analyze the patches and corridors of the landscape for size, distance apart and width and orientation of connections. A ruling mosaic for the particular landscapes in which we live and work may be recognized and committed to memory much like a tailor in Scotland would know his plaids.

Fractals. The word, coined by Benoit Mandlebrodt, 12 caused quite a stir in many disciplines. Short for fractional dimension, the concept is most easily understood in the following examples: A line has one dimension. A plane has two. For a serpentine line, Mandlebrodt would assign a dimension of between one and two. A sheet of paper has two dimensions. A box has three. Crumple the paper and the resultant form is assigned a dimension of between two and three.

Thomas Jefferson made an early fractal translation of the British garden style in his Virginia landscape. Complaining that Virginia was too sunny and hot to open great lawns on which to arrange islands of trees, he instead arranged islands of shrubs under the pines.¹³

What I am suggesting is that most of the green blotches on vegetation plans are only two dimensional. Yet, we know that plants and animals have adoped elegant strategies for arranging themselves in three dimensions. A beginning cure for this nearsightedness would be the introduction of a vegetation analysis and plan that stratifies the vegetation into at least the well-known herb, shrub and canopy layers. Studied as abstractions, these patch-and-corridor diagrams may suggest linkages of facilities designed for humans that complement the endemic biogeographic patterns.

But, Is a Zoo a Good Place?

Invoking the concept of the world as a "megazoo" concedes that the planet will become fully domesticated (in the normal sense of this word). Indeed, it is frequently argued that this has happened already. We are heartened by the accommodations of people to nature in some places, but lament the loss of species requiring large areas of habitat or those susceptible to even small human incursions.

In places where development is occurring, on a site by site basis, application of the "Half is Fair" principle can retain a significant functional natural environment and can accommodate future conversions to cities and farms. It is very likely that we will grow to like a landscape shaped by "Half is Fair" as long as the performance dimensions of vitality, sense, fit, access and control are well met, and as long as it is just.

Notes

- 1. John Livingston, The Fallacy of Wildlife Conservation, and Peter Jacobs, "Environmental Strategy and Action," Human Settlement Issues 6 (Vancouver, B.C.: University of British Columbia, 1981).
- 2. Stephen R. Kellart,
 Public Attitudes toward
 Critical Wildlife and
 Natural Habitat Issues
 (Washington, D.C.:
 United States Department
 of the Interior, Fish and
 Wildlife Service, 1979).
- 3. E. P. Odum, "The Strategy of Ecosystem Development," *Science* 164 (1969). This was an influential document in the development of an ecological determinism that described nature as a purposive system.
- Ian McHarg, Design with Nature (New York: Natural History Press, 1969).

- 5. The leapfrogging of development and attitudes about development ensures that a segment of the populace is always dissatisfied. Also, as Percival and Paul Goodman point out in Communitas: Means of Livelihood and Ways of Life (New York: Vintage, 1960), alienation frequently accompanies growing up. Landscape architects likely exhibit a similar set of attitudes: the common denominator of the craft is the aesthetic traditional. Even if a development violates ecological determinants, it can be well received if it is "stylish."
- 6. See A. L. Sullivan and M. L. Shaffer, "Biogeography of the Megazoo," Science 189 (1975); and E. L. Goldstein, M. Gross and A. L. Marston, "Biogeographic Approach to Greenspace" Landscape Research 10:1 (1985).
- 7. Bob Scarfo reminds us that we are quick to forgive a developer who employs a landscape architect. This is a win/win situation in which, if the development is successful, the influence of the landscape architect is credited. If it is unsuccessful, the developer is blamed. See Bob Scarfo, "Stewardship," Landscape Architecture 77:3 (Washington, D.C.: American Society of Landscape Architects, 1987).
- 8. Kevin Lynch, A Theory of Good City Form (Cambridge, MA: MIT Press, 1981). 9. Lynch, p. 119.
- 10. Paul W. Taylor, Respect for Nature (Princeton, NJ: Princeton University Press, 1986). Note, however, that Japan remains 80 percent forested at a population density 20 times that of the United States. The Japanese seem comfortable trading density against open space.

- 11. Estimates in the 30 to 50 percent range are common, but exact definition of "persistence" precludes application. This particular estimate came from my notes on a lecture by Howard Odum at the University of Pennsylvania in 1974. An early version of this material was presented at CELA 86.
- Benoit Mandlebrot,
 Fractals (San Francisco: W. H. Freeman, 1977).
- 13. Peter Hatch, "Thomas Jefferson: Gardener and President," *Progressive Farmer*, July 1985.

THE INTERNATIONAL ECOLOGICAL CITY CONFERENCE

Berkeley — Imagine what environmental activists would say about this: in the middle of a national forest, next to a pristine mountain lake, a new town with homes and jobs for 2,500 people is being built on what used to be a 1,100-acre ranch.

Turns out they like it. In fact, the project (Cerro Gordo, outside Eugene, Oregon) was praised last March at the International Ecological City Conference as an example of how cities should be built. The Conference was a gathering of activists, designers, planners and public officials interested in building "ecocities," or cities that strike a better balance with nature.

The ecocity movement starts from the premise that cities are "out of sync with healthy life systems on earth, and [are] functioning in nearly complete disregard of [their] long-term sources

of sustenance," writes Richard Register, president of Berkeley-based Urban Ecology, a conference sponsor.

But this is no back-to-nature ideal; cities are recognized as essential to human culture. "Something is very right about our life in cities," writes Register. "We are putting together amazing projects and creations, big institutions and small inventions, exploring arts and sciences, ourselves and our universe, together. Cities serve this sociability and may well be 'natural' to us."

Cities may be natural, but the conference made clear that the ecocity would demand a fundamental restructuring of the way we arrange our homes, work places, shopping and leisure activities over space. This would be necessary if we curtailed the use of automobiles, which, ecocity supporters rightly pointed out, give us remarkable mobility but exact an enormous toll in wasted time and energy.

Such a restructuring would also be necessary if our hypermobile society were to respect local natural character and ecological constraints. We would need to forge closer connections to the sources of energy, food and water that sustain us and to the flora and fauna that surround us—connections that would demand new approaches to architecture and landscape design.

The difficulty has been translating this vision into real places. Cerro Gordo is an idealistic attempt. Cars, the scourge of any ecocity, are banned. A thousand acres of the site will be left undeveloped. The town center is situated to avoid wildlife migration

paths. The town will produce enough food to meet most of its needs. The first industry makes trailers for bicycles—an efficient, ecologically sensitive means of transport.

The conference reported on more modest efforts in existing cities; the degree to which ecological thinking has penetrated day-to-day design issues is impressive. Revolts against freeway construction are still alive. Community gardens can be found all over the country. Greenbelt and creek restoration projects are cropping up in older cities while newer cities are likely to preserve wetlands and include open space networks from the start.

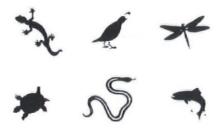
But these are only fledgling first steps towards building ecocities. Most have resulted from grass-roots political action, of which ecocity supporters are justifiably proud, but has not triggered fundamental changes in suburban sprawl or urban overbuilding. Moreover, signficant environmental victories like tougher air and water quality standards and recycling amount to little more than crisis management.

The problem, and the opportunity, lies in the fact that cities are shaped by an accumulation of unrelated decisions that are made every day by local governments, businesses and individuals—decisions that range from zoning changes to planning approvals to renting a new store or buying a new home.

To influence these decisions, the ecocity movement must focus on next steps, not ultimate products. It must help us answer questions such as, should vacant urban land be used for mixed housing and commercial development, or for community gardens? Will a skyscraper atop a transit station be a useful concentration of density, or a further isolation of the megalopolis from the resources that sustain it?

For the answers to be convincing, they must translate principles of ecoci-

Banners in downtown Berkeley are one of the few reminders of the city's creeks, most of which have been buried in culverts.



ty design into a concrete vision of how familiar neighborhoods and streets could be transformed—visions residents could embrace and act upon.

The ecocity conference suggested relationships among nature, resources, the economy and people that would be the foundation of new communities, and a new sense of place. But to engage people in its ultimate vision, the ecocity movement must speak the language of place in the most specific terms possible, and in communities that already exist today.

-Todd W. Bressi



Painted curb markers show the original routes of Berkeley's creeks. Each creek is assigned a unique logo (above).



Curves and speed bumps in the Milvia "slow street" discourage auto use.

WILL "LE MICKEY" PLAY IN PARIS?

Paris—At first the idea of a Disneyland located in France seems unlikely, if not downright unpatriotic. In a country whose cultural pride and self-assurance are unequaled, Mickey and Minnie's \$2.9 billion invasion spread across nearly 5,000 acres appears too fantastic. Why import a surrogate American Main Street, a reproduction Mississippi riverboat, or animated versions of Grimm's fairy tales to Europe? Isn't such fantasy the stuff of Hollywood? Don't people travel to Europe because it's real?

Euro Disneyland, planned to open in 1992 (coincident with further development of the European Common Market and the connection of Great Britain to mainland Europe by highspeed rail), is France's opening bid to become the recreation capital of Europe. An open expanse of countryside is being converted to support a new cash crop: tourists. Through clever financing and adroit operation, Disney, an entertainment giant made wealthy by theme parks, movies and allied product sales, stands to enhance profits greatly while teaching new generations of Europeans to sing: "M-I-C! K-E-Y! M-O-U-S-E...!

The numbers are incredible. Proected attendance for the first year is 11 million. But this is for only the first theme park, a 500-room hotel and 595-visitor camping ground. When complete, Euro Disneyland will have two theme parks, a total of 18,200 hotel rooms, 2,100 camp sites, a 15-acre "entertainment center," 173 acres

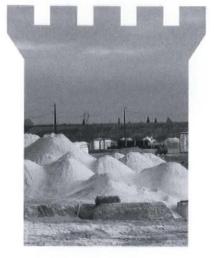
of offices, 185 acres of corporate park structures, two golf courses, 2,500 single-family homes, a 23-acre shopping center, a water recreation area, 3,000 multi-family residences and 2,400 time-sharing units!

Can this cultural invasion succeed on land so proudly and resolutely French? To ask the question is to be unaware of the pervasive legacy of Hollywood around the globe. "Le Mickey Mouse" is no stranger to France. Neither are the artifacts of Disney's formula village, whose five basic parts will be replicated here: Main Street U.S.A. (Victoriana), Frontierland (Wild West), Adventureland (Children's stories), Fantasyland (Le château de la belle au bois dormant) and Discoveryland (Future).

Architectural elements will be executed and staffed with the same skill and professionalism that characterize all Disney operations, but there will be adaptations for the French climate. Provisions have been made for indoor promenade spaces that will adjoin Main Street. The Japanese solution of enclosing all of Main Street was rejected as unsatisfactory. Snow White's castle will be even taller and more magnificently elaborate than her other three residences in the U.S. and Japan; at the suggestion of an eminent American architect, Euro Disneyland designers borrowed ideas from medieval chateaux in France. The enhanced castle still terminates the entrance view but arrival to the new theme park will be through a giant profiled hotel (The Magic Kingdom Hotel), reminiscent of the Grand Floridian at Disneyworld in Orlando, which in turn is reminiscent of the Del Coronado in San Diego.

In addition, there is a 577-room Hotel New York designed by Michael Graves, a 1,000-room Sequoia Lodge designed by Antoine Grumbach, a 1,000-room Hotel Santa Fe designed by Antoine Predock, and Robert A.M. Stern's 1,000-room Newport Bay Club and 1,000-room Cheyenne Hotel.

The underground service network, which is the maintenance miracle of Florida's Disneyworld (the result of lifting all public space one story above the water table), will not be replicated. Nonetheless, this new village will abound in enough technological



marvels to influence construction throughout France.

The French may not need to develop new appetites for non-stop recreation fantasy. From experience with café life, they already know how to graze. But their vacation habits will have to change if Central France is to become a destination. So far, public response to Disney's architecture depends on a familiarity with imagery translated from film. Will the public response in France to these "real" places be the same as in the U.S.? It will all be beautifully made and Made in France, but will this be a sufficient lure to generate return visits?

The U.S. is in many ways a fantasy of Europe, a place where imagination did run wild. Perhaps it is fitting to have a fantasy U.S. built in France, especially since construction began during the bicentennial of the French Revolution. American consumerism has breached many cultural boundaries. Perhaps this surrogate village, built to honor the consumer, is a valid



From these humble beginnings, the \$2.9-billion Euro Disneyland will rise. Photos by Hugh Hardy. cultural undertaking on a continent where political walls now topple almost daily. Just seeing people disposing of so much income is miraculous proof of a valid economic system.

Who knows what Disney may unleash by this economic phenomenon in the the French countryside? Now that Paul Goldberger of the New York Times has equated the Disney Corporation with Cummins Engine, Johnson Wax and IBM as a patron of "big-time architecture" and found the results add an "intellectual and aesthetic challenge" to the Disney experience, why won't France find this aggressively American, high-brow/low-brow mix a destination must?

Besides, whatever the new-found alliance between Disney and architecture, how could the French sneer at having a good time?

"M-I-C! K-E-Y! M-O-U-S-E...! —Hugh Hardy

TEACHING TIMES SQUARE A LESSON

New York—Times Square is the heart of New York's glamorous theater district but it is also rife with prostitution, drugs, poverty and, in recent years, vacant theaters. Recently one long-vacant theater re-opened to tell the story of its history and to teach a lesson about how to revitalize cities.

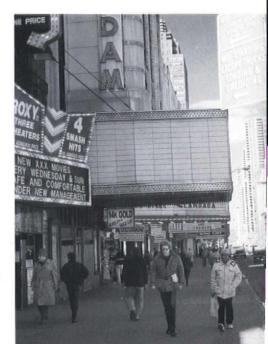
Since the early 1980s, the statechartered 42nd Street Redevelopment Corporation has been advancing plans to improve the area by replacing the T-shirt and electronics stores, fastfood stands, video arcades and peep shows with prime office and retail space. Several apartment hotels and a block of mostly low-rise office and loft buildings would be replaced with skyscrapers. Just this April, the state finally succeeded in condeming the property it needs.

Theories abound as to the reason for delay: politics, bureaucratic red tape, Manhattan's overbuilt commercial real estate market. Whatever the reason, the area has been in limbo: Property owners, uncertain how redevelopment will affect their holdings, have been hesitant to invest in new projects or even routine maintenance. One result is that six of nine historic theaters in the redevelopment area have closed.

Last fall, frustrated with the uncertainty, the Durst Organization, a real estate development and management company with interests in a number of properties near the redevelopment site, acquired long-term leases for eight 42nd Street theaters and began refurbishing them. This winter the company donated the use of one theater, the Victory, for the staging of *Crowbar*.

Crowbar, the first theatrical production at the Victory in 60 years, draws New Yorkers to an easily overlooked building in a frequently avoided neighborhood. The play, populated by ghosts of the theater's former owners, performers and audiences, explores the history of this once-filled house. The unrenovated interior aptly functions as the set: The audience sits in the stage area and the actors parade among the seats, up and down the aisles and across the balconies of the empty house. Images of the changing façade evoke the spirit and mystery of the theater's 90-year history.

Crowbar is the latest "site-specific" production from En Garde Arts, a company that describes its work as emerging from "an appreciation of the spatial possibilities, historic traditions



The block of 42nd Street that would be redeveloped.

and artisitic resonances of distinctive sites." Inspired by unusual New York City locations, Anne Hamburger, En Garde's founder and producer, commissions playwrights, composers and directors to create works that interact with and cast new meaning on the places where they are performed. Previous pieces have been staged in Central Park, in guest rooms at the Chelsea Hotel and in various windows of a building in Tribeca.

The well-attended production of Crowbar (its limited engagement has become an open-ended run) demonstrates the Dursts' point that the area would do just fine without the redevelopment plan. In fact, since 1984, private developers have started at least 10 major hotel, office and retail projects in the blocks just north of the redevelopment site. (Most were aided by tax or zoning breaks.) By opening the Victory and planning movie theaters and nightclubs for their seven other 42nd Street theaters, the Dursts hope to show that renewal is possible without government intervention.

Efforts to revitalize Times Square could take a cue from the success of Crowbar, which celebrates Times Square's role as a place for arts and entertainment. The redevelopment project does call for preserving the landmark theaters, but at the cost of surrounding them with 50-story office buildings. This will change the physical character of Times Square and threaten its role as a theater district.

Times Square's spirit is embodied in its buildings but is lived on its streets, screens and stages. A player in *Crowbar* describes the Victory Theater in the early part of the century as a "wild, outlandish place." This wildness is characteristic of entertainment districts, and has long been the nature of 42nd Street. Perhaps it's time to consider how New York could build upon, rather than destroy, this tradition.

-Andrew Mandel & Jacqueline Thaw



Detail of theater interior.

Courtesy the Museum of the

City of New York.





The facade of the Victory
Theater at the turn of the
century and today.
Left photo courtesy the Museum of the City of New York.

A THIRD LIFE FOR THE READING TERMINAL MARKET

Philadelphia—When the Reading Railroad wanted to erect a downtown terminal on the site of a farmers' market in 1893, it had to make a deal: The railroad could build the terminal if it also provided space for the market.

Reading did just that, and the marriage of farmers' market at street level and railroad terminal above has been a success. Although the terminal closed in 1984, the two-acre market still serves 70,000 customers a week.

Now the Philadelphia Convention Center Authority finds itself in the same situation as Reading was a century ago. The Authority is buying both the Market and the landmark cast-iron and brick Terminal so it can incorporate the Terminal's three-acre train yard (covered with a glass and steel vault), into the convention center it is building across the street.

Philadelphians are not so sure history can repeat itself.

The question is whether a public authority charged with building the world's most expensive convention center can understand the subtleties and opportunities of an Old World market—which the Authority is buying reluctantly, at best, because it stands in the path of the convention center.

Preserving the Market is not just a bricks-and-mortar issue. It means more than keeping the Market open during construction and afterwards.

Preserving the Market means preserving its use and its ecology. Markets require constant vigilance and protection from exploitative forces like rising real estate values and politics. A good market is unpredictable, just as human behavior or the shape of a potato is unpredictable. Yet public bodies want predictable projects when forecasting income or loan paybacks, or when evaluating political opportunities.

Shoppers fear the convention center will pressure the Market into becoming a tourist attraction and turning away from its traditional role—providing fresh foods from surrounding farms and exotica from afar.

Convention-goers will want sandwiches and souvenirs, not fresh vegetables, and the shopkeepers and management may have a hard time resisting.

The Market has been owned and managed by the Reading Company, which has maintained it as a place where small, independent agricultural producers (including Amish vendors from Pennsylvania's famed Dutch country) can sell their goods directly to the public. No chain stores have been allowed; the Market has sought owner/operators who are directly accountable for what they sell and whose livelihood depends on the interest they take in their products, customers and

Market operations. The mix of stores has emphasized fresh food sales, not take-out or restaurant meals.

Protecting this turf will not be easy. The Authority will hire a local real estate manager to oversee the Market's operation; an architectural consultant will monitor its design during the construction above. The City Council will assume some oversight responsibility.

Although these entities are sensitive to the character of the Market, critics say the arrangement is a recipe for disaster: Too many parties will be involved in running the Market, but its future will not the primary concern for any of them. Instead, they want a non-profit, public corporation (such as the one that operates Seattle's Pike Place Market) to run the Market.

Most important, the Market's mission must be clearly understood and explicitly defined, they say. Otherwise, no matter who runs it, the Market could become just another downtown specialty "festival" mall, a parody of the agricultural character and producer-consumer relationship that gives the Market its vitality.

-David O'Neil



Pretzel-twisters make homestyle treats for Reading Terminal Market patrons. Photo by Burk Uzzle. Courtesy the Reading Company.

Diana Balmori

recently established her own firm, Balmori
Associates, after serving as principal for landscape and urban design at Cesar Pelli and Associates.
She also is visiting critic in landscape at Yale University. Current projects include campus courtyards at Princeton, Vassar,
Wake Forest and Yale and a design manual for the National Rails to Trail Association.

Joan Brigham

is an environmental artist and Associate Professor of Fine Arts at Emerson College, Boston. She has degrees from Harvard University and Pomona College and has collaborated with many other artists to produce internationally exhibited participatory environmental works.

Grady Clay

is an author, instigator and picture taker operating out of Louisville, Ky., where he served for years as Urban Affairs Editor of The Louisville Courier-Journal and, to 1984, as editor of Landscape Architecture. His latest book is Right Before Your Eyes. He is working on a gazetteer of generic, human-made places of North America.

Dale Eldred

is an artist living in Kansas City, Missouri. His permanent sculptures can be seen in cities and museums around the world. He also has collaborated on a number of events and performances, including a New Year's Eve celebration in Boston, museum openings and ballets.

Ronald Lee Fleming

is a preservation advocate, urban planner and design critic. He is a co-founder and president of The Townscape Institute, in Cambridge, Mass., a public interest organization concerned with interpreting and enhancing the meaning of places. Recent work includes collaboration with artists, craftsmen and landscape architects on highway corridor design.

David T. Hanson

is an instructor in photography and landscape architecture at the Rhode Island School of Design, where he has taught photography, art history and critical theory. Major photographic series include Minuteman Missile Sites, aereal views of launch control facilities within the High Plains landscape, and Waste Land, an investigation of hazardous waste sites.

Hugh Hardy

is an architect, lecturer, author and founding principal of Hardy Holzman Pfeiffer Associates, where his work has included the renovation or restoration of numerous cultural facilities and landmarks. He is a Fellow of the American Institute of Architects and active in New York's Architectural League and Municipal Art Society.

Andrew Mandel

is a professional musician and freelance writer living in New York City.

Tom Martinson

is principal of a city planning practice based in Minneapolis. In 1986-87 he was project planner and principal consultant, with John M. Woodbridge and Charles W. Moore, for the 1987 Plan for Downtown St. Louis.

David O'Neil

is general manager of the Reading Terminal Market in Philadelphia and is a consultant with the Public Market Collaborative in New York. He is treasurer of the Schuylkill Center for Environmental Education.

Vincent C. Schoemehl Jr.

is Mayor of St. Louis, the only the person to have been elected to that position three times, and a native Missourian. His economic development efforts have won national recognition for revitalizing the city's diverse neighborhoods—and have resulted in a balanced city budget.

Paul Shepard

teaches at Pitzer College and the Claremont Graduate School. He is author of *Man in the* Landscape and, most recently, *The Sacred Paw:* The Bear in Nature, Myth and Literature.

Arthur Sullivan

Arthur Sullivan is professor of urban and regional planning at Texas A & M University and is director of the A & M campus in Koriyama, Japan. He is currently researching the physical forms of nature preservation in the U.S. and Japan.

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Donlyn Lyndon, Editor Center for Environmental Design Research 390 Wurster Hall University of California, Berkeley Berkeley, CA 94720

ALL FOR

The purpose of Places is to rally discussion. Places asks those who have developed ways of caring about places to share their ideas, and it seeks to stir the imaginations of those who have not yet realized their interests are at stake. Places is provocative, causing us to see places in new ways and eliciting comment on issues that are embedded in the places where we live. To engage the many dimensions of place, many voices must be heard: Those who traditionally have created designs for places, those who study society and place, and those who inhabit and otherwise experience places—designers, scholars, scientists, artists, politicians and citizens. We seek contrary and divergent views so that many issues will be brought to light, and to reveal the plural nature of place.

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