# ESIGN

DIALOGUES WITH: RICHARD STEIN ERICH SCHNEIDER-WESSLING ANTON ALBERTS PETER CALTHORPE

ON-KWOK LAI Green Design Praxis

SUSAN UBBELOHDE The Myth of the Vernacular

ANDROPOGON Restoring Nature

SUSANA TORRE on Women in Design

DIANE GHIRARDO The Complete Los Angeles

RICHARD CLEARY on New Classicism

SYLVIA LAVIN on Imagining Ancient Egypt

**Eight Dollars** 

Architecture

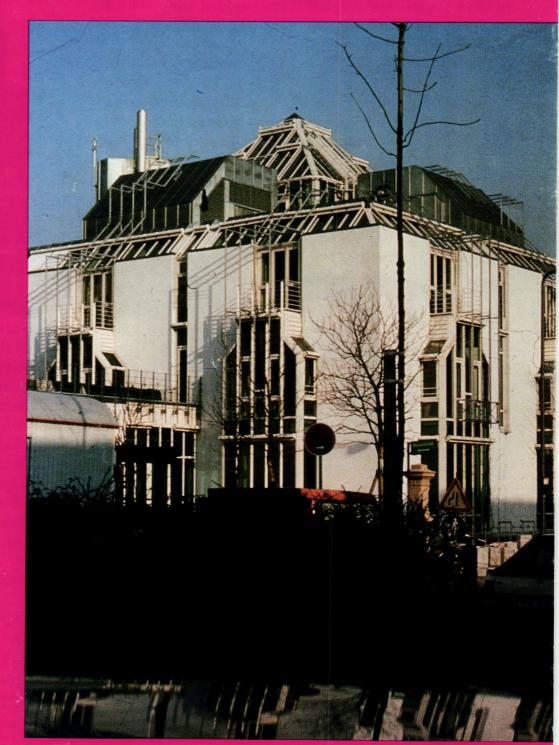
Urbanism

Landscape

Design



# BOOK REVIEW



ECO-CHIC THE UNFASHIONABILITY OF ECOLOGICAL DESIGN

Issue 20 - Spring 1991

# "I Lost My Valance", "And Then I Lost My Shirt"

Chicago... "My client fell in hours trying to identify the prodlove with a drapery treatment ucts, I substituted furnishings in Casa Vogue", said designer from our local showrooms. My Molly Offerwall, "and asked me client had a screaming snit fit and



to finish her living room along the same lines. After spending one hundred and twenty billable

refused to pay. They asked why I didn't call LIMN for help researching the products and questioned my credentials. From now on I'm faxing LIMN at (415) 543-5971 for help with any unidentified

furniture products, and I'll let them take care of all the ordering as well."



## "My Interior Was Stolen By Aliens"

Santa Fe... Architect Dan Freehand learned the hard way that sophisticated building design can't compete with an interior designer on the rampage. After completing his masterwork, a residence that absorbed seven years of continuous labor, Freehand was approached by several prestigious architecture magazines for a story. But when he returned to the site with a photographer, an unknown decorator had retrofitted the sleek contemporary abode with a potpourri of pink lace, puce carpet, and reproductions of the furniture at Hearst Castle. "My reputation is down the drain", said the despairing architect. "I'll never forgive myself for not calling LIMN Company as a resource and supplier of furnishings."

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Architect Eats It In Boston !

"I'm afraid I'll lose my license."

**Boston... When architect Bobby** Muncher landed the remodel for **Computer Conniption**, he thought his firm had finally arrived. One hundred and forty three ergonomically perfect but extremely ugly chairs later, Muncher (brother of film director Michael Lucas. best known for "Blood Orgy of the Leather Girls") asserts that he'll have to start munching upholstery in order to survive. "I'll had no idea computer people could be so picky," says Muncher. "All I have left in the world are these chairs—I hope they're nutritious."

Muncher wishes he'd called LIMN, the contemporary furniture resource in San Francisco, for suggestions.

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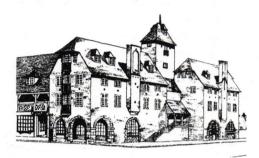
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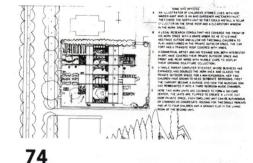
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## Eco-Chic: The Unfashionability of Ecological Design

If only Andy Warhol had lived longer he might have made a silkscreen print of the famous satellite view of the earth that has come to symbolize ecology consciousness. "Famous for fifteen minutes" would have been a fitting epithet for last year's revival of Earth Day. Ecology, as it has entered the information chain of mass media, rather than becoming the central issue to which everything else is connected, is treated just as superficially as any other novelty that helps to sell advertising.

A year after Earth Day, the overriding importance of the economic cataclysm fomented by junk bonds and savings and loans extortions, combined with the new militarism spawned by the Gulf War, have crowded out environmental issues as a high priority. Imperatives for economic growth and military "defense" now attract more advertisements than strategies for sustainable environments. The popularity of the Gulf War has in fact been used to usher in some astonishing legislation that will cause great setbacks for the environment, such as legislation favoring new highway construction over public transportation and the National Energy Security Act, which would authorize more offshore drilling and the exploitation of wildlife reserves. To affect government policy, the earth will need soldarity for more than a day or a week-Earth Decade would perhaps be better timing. Considering the short-term commitments of most media to the matter of ecology and especially to ecology as it relates to design, it is with a certain sarcastic pessimism, yet inspired by a critical and transformational attitude, that DBR addresses it as "Eco-Chic."

Ecology was previously "fashionable" in the late 1960s and early 1970s, although the formal results, such as the wood-butcher houses or the polyhedron domes with their intended lack of aesthetics, were never mistaken for chic. The energy crisis of 1973–74 was quite effective in frightening those who control the codes to require energy conservation measures, leading to an eventual savings of 35 percent in successive years. But despite President Carter's well-publicized gesture of installing solar collectors on the White House and the appearance of many design competitions for energy efficiency, ecology never became a lasting ethic among designers. In the deregulated 1980s, when the price of fossil fuels was lowered, standards were relaxed, federal funding for alternative energy research was severely cut (for example, funding for photovoltaics was cut 75 percent), and the Reagan administration unceremoniously removed the token solar collectors from the White House.

Architecture and urbanism contribute immensely to the pollution of the environment. In the interviews and articles that follow, positions about buildings and urban life are sketched out in an attempt to locate the responsibility of designers and planners within the mounting environmental crisis. Ecology in design never really became fashionable, and maybe it is best that it resists the whole notion of fashion, as fashions are doomed to rapid change. If sustainability were to become chic, it might discourage the creation of an ecological design ethic. On the other hand, to assume that ecological design must be unaesthetic, or that works with ecological priorities necessarily lead to good design, or that works conceived within the fashion system should not be considered, is counterproductive. Ecology, during the Earth Decade, should be seriously defended as the central, but not the sole, criterion in the design of products, buildings, landscapes, and cities.

#### **Richard Ingersoll**



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## LETTERS

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To the Editors:

I agree with Martin Filler that good critics (like himself) should be able to change their minds. But the point I was trying to make in my lecture on Mumford and the architecture of the machine age was that his judgment was torn by unacknowledged but fundamental contradictions. On the one hand he preferred pure, simple, and changeless forms, like the American silos or the Monadnock building, for aesthetic and ultimately for moral reasons. But on the other he believed in the evolutionary adaptation of architecture to varying social and economic conditions, a conviction based precisely on the pragmatic grounds that, as Filler points out, he had learned from Patrick Geddes. With that pragmatism, however, Mumford also imbibed Geddes's utopianism, a conflict of ideals that neither prophet could fully resolve.

Mumford's failure to reconcile or even understand the contradictions in his thinking contributed greatly, in my opinion, to stunting the social critique of modern architecture in the United States, a shortcoming that I hope the thoughtful, candid, and eloquent voice of Martin Filler may help to rectify.

> —Richard Pommer Solow Professor, History of Architecture New York University

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## DIALOGUE: Richard Stein

Richard Stein wrote the fundamental *Architecture and Energy* (1977), a book still unsurpassed in its analysis of architecture's relation to ecology. This interview was conducted in April of 1990 in Stein's office in New York one month before his untimely death. Richard Stein's exemplary work for social and environmental causes will be sorely missed.

DBR: You have been active in environmental issues for many years. How did this begin?

RS: In the 1960s many architects became concerned about ecology and started the Committee for Regional Development of Natural Resources in the AIA, which I chaired. The AIA at that time was receptive to rethinking the fundamental relationship of how we construct buildings and balance resources. This led to interesting policy statements on environmental ethics, including positions on when one doesn't build. New York City, for example, presented itself, and still does, as an alarming case of how density affects the air and water. The city's buildings' diurnal cycle of heating and cooling has been reversed turning the city into a massive heat sink. The absence of green areas adds to the buildup of heat. Even potentially beneficial wind patters are upset by the city's heat buildup.

My own involvement was increased after designing a laboratory at Washington University for Barry Commoner. In the early 1970s Commoner and Margaret Mead organized a symposium on all aspects of the energy question. I prepared a study explaining energy performance in buildings. From my research it became clear that a minimum of 25–30 percent of energy in buildings was used unnecessarily. Since 40 percent of the nation's energy budget is allotted to buildings and perhaps up to half of it is used unnecessarily, you can see what kind of impact this analysis could have.

DBR: When I ask architects today if ecology is part of their criteria for design, they usually reply that they do whatever the law requires, but that's all. After the initial support, why didn't ecology consciousness catch on?

RS: Ecology challenges certain architectural commissions and has an immediate impact on jobs and clients. Most developers consider environmentalists to be the natural enemies of their projects. When they're forced into it, however, they use ecology as a great selling point. In the 1970s, due to the energy crisis, I had been unduly optimistic that we would start building in a more ecological way, but the profit motive has been much too strong. Many advances in technology, such as photovoltaics and low E glass, could greatly improve energy performance, but research has slowed down on their development and application. The Department of Energy has little funding, there were no conferences in the 1980s, and, after four or five years during which the AIA's Environmental Committee received no funding, it was absorbed by the Regional and Urban Design committee. The energy glut of the 1980s led to a sort of apathy-it's interesting that it occurred at the same time as the advent of junk bonds, isn't it?

Unfortunately, waste seems to trigger the U.S. economy, and I don't see that the economy is willing to change. There is something tremendously inelegant about the chain of waste that occurs from the production of a building to its use. We should not forget that up to 10 percent of the annual energy use in this country goes into construction, production of materials, and maintenance of buildings, and at least 20 percent of that is unnecessary.

DBR: Would you say there has been any progress in reducing energy use?

RS: The 1980s was a regressive period. Regulatory agencies that were established in the 1970s and had had a good effect were weakened even though they are still on the books. The 1970s building codes improved energy efficiency 35-50 percent. The application of insulation standards determined by the Department of Energy resulted in significant savings. The 75 quadrilumium BTU's used in the U.S. in 1977 remained unchanged through 1986. In that ten-year period it appears there was no significant increase in national energy use. This was due to the tightening of energy standards in new buildings and to the new standards of car performance that came from foreign competition.

## DBR: Where are the greatest inefficiencies? Are high rises necessarily at fault in the balance of resources?

RS: You have to calculate the entire daily cycle of a person to evaluate energy performance. It can happen that people concentrated in high rises have much less need of ground transportation. When compared to suburban development, you need forty times the amount of area and roofage to

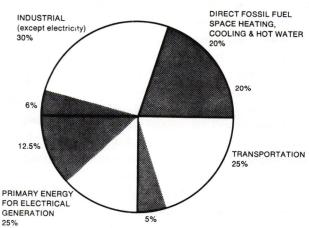
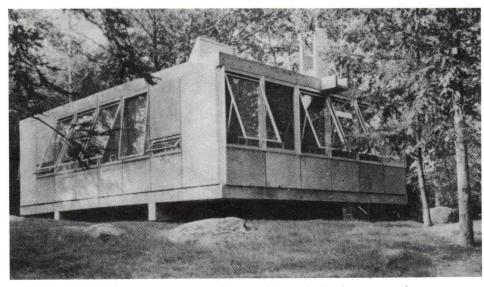


Diagram showing the major divisions of national energy use. Shaded areas indicate energy use affected by architectural decisions; Richard Stein, 1977. (From *Architecture and Energy*.)

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Photograph of administration building using a wall system of precast, insulated concrete panels, Wiltwyck School for Boys; Yorktown Heights, New York; Richard Stein, c. 1960. (From Architecture and Energy.)

support the equivalent of an eighty-story building. City dwellers use less energy per capita than suburbanites, whose homes have gotten to be as large as five or six thousand square feet. Spec builders feel it's to their advantage to build bigger houses because the profits increase with the square footage, but this is fundamentally wasteful and has led to an abominable aesthetic from coast to coast. Houston, where you have both inefficient high rises and predominantly suburban residences, would be an example of how not to live in the city—just because it can be done doesn't mean that it ought to be!

High rises are not inherently wastefulbut the way they are built is not efficient. The relentless presence of air-conditioning supposedly made things much simpler to build, reducing buildings to sealed boxes. It is, of course, cheaper to build this way, but over the life span of the building the energy costs for heating, lighting, and airconditioning will far exceed any initial saving. The side effect has been that once you divorce a building from the way it works to the way it looks, then a phenomenon such as postmodern facadism can occur. If we had ecologically sounder building regulations, say on the order of Sweden, where no dimension can be greater than 20 meters from wall to wall,

huge, wasteful structures like the World Trade Center could not be built. This would, of course, greatly upset the economics of the real-estate field. The California State Office Buildings built under the energy-efficiency program of the late 1970s, although they didn't all function as perfectly as planned, appear to be among the most humane examples of an alternative to the big building in this country.

## DBR: What should architects do to help combat global warming?

RS: Ecology should become a fundamental consideration in all architectural design. To achieve at least a 20 percent reduction of

There is something very satisfying about something done right, when there is a good fit between the means and the ends—this is what should underline the aesthetics of architecture.

carbon dioxide and other global warming gases during the next twenty years, we will have to reactivate the mechanisms that arose during the energy crisis and help articulate the public's discontent with very large buildings and wasteful ways of life.

A reduction of 30–40 percent of national energy use is quite possible through such things as energy-efficient lighting systems, thermal windows, proper orientation, and a return to the 55-mile-per-hour speed limits. There should be greater support for research on solar, wind, and geothermal energy, and the shift from coal to natural gas should be encouraged where it has not yet happened.

Frank Lloyd Wright's blending of buildings into the landscape, or even the underground buildings of the 1970s, made gestures to ecology that were, however, sometimes overly extravagant. There is a community in Vermont called Newfene, for instance, set up in 1974, that was based on self-sustaining technologies with elaborate solar collectors and generators; but since all of the people worked in nearby cities, whatever they gained through the efficiency of the buildings was lost in the commute. Ecology consciousness was poorly thought through when it was initiated. Solar collectors became badges of good intentions of environmental concern, but were oversold as problem-solving. To install a solar collector on a basic building can often have a distorting effect for the building's function-the Madera School in Washington, D.C., for example, put in collectors along the south that inhibited light and ventilation into the building. One could have just resorted to history: exposure to the outside environment can be good on its own-there are simple ways to build without purchased energy. I have had many discussions with clients over operable windows. Even with the possibility of air-conditioning, people should be given the option to open the windows.

There is something very satisfying about something done right, when there is a good fit between the means and ends this is what should underline the aesthetics of architecture. An energy-efficient building should be so pleasing that you would not have to adjust any of your physiological standards, including taste.

#### DIALOGUE:

## Erich Schneider-Wessling

Erich Schneider-Wessling was born in 1931 in Wessling, near Münich, and teaches at the Kunsthochschule in Münich and at MIT. After working with Richard Neutra in Los Angeles in the 1950s, he set up his own practice in Cologne. His work has been widely published since the late 1950s. During the past two decades he has mixed practice with organizing activities mostly concerned with ecology. His recent energy-efficient projects include the Landeszentralbank in Weisbaden (1983-1986), the Exhibition Hall for Bayer AG in Leverkusen (1986-1990), and the City Center for Kaarst near Düsseldorf (1988-present). He wrote the essay "Architecture in the Solar Age-An Architecture of Reality," which appeared in Das Solarzeitalter (The Solar Age), edited by Hermann Scheer (C. F. Müller, Karlsruhe, 1989). DBR conducted this interview with Erich Schneider-Wessling in Cologne on December 12, 1990.

## DBR: When did ecology first become important for your work?

ESW: I was lucky to have worked with Richard Neutra in Los Angeles for a few years in the 1950s before returning to practice in Cologne. Neutra was an extremely climate-conscious architect. This attitude came directly out of a European tradition-in school our education focused on how you could house people with adequate means; this sense of economy led to an intuitive interest in not using artificial climate and lighting. We were very concerned in Neutra's office with passive heating and cooling, long before it came to be called that. Neutra's Moore house, for example, is a desert house designed to be free of air-conditioning. It works with a system of coordinated overhangs and louvred air passages. In winter, the lower position of the sun shines under the eaves; in summer, very cheap shading devices and extra boards on the overhangs combine with the reflecting pool to cool the house naturally. The air passages are positioned below the windows on one side of the house and above the windows on the other to take advantage of the updraft caused by rising heat, which is drawn across the pool.

This kind of research into passive systems both in America and Europe has since been discouraged by the increasing availability of cheap energy. I can speak from experience here in Germany, where I found it was much cheaper in the 1960s to use plain glass and energy-intensive heating rather than expensive insulation glass. According to a cost-benefit analysis, the difference of the cost of investment recouped from energy savings would have paid off only after 60 years! So it was decided to use the budget to build a bigger house rather than insulating it. Because energy was so cheap at the time, it was cheaper to build an energy-wasteful house. Now, of course, oil is ten times as

expensive and when the energy crisis hit, we had to retrofit the house to be more energy efficient.

## DBR: What can architects do on the design level to help reduce the spread of greenhouse gases in the environment?

ESW: We must use less energy for building and for living. I think a building that is energy efficient gains in beauty in proportion to how well it meets other criteria. For example, a building that instead of being 30 feet deep is 90 feet deep, needs one-third the amount of energy for heating. And it's potentially more interesting, perhaps arranged like a loft building with an interior cavelike area and with glazedover outdoor areas in a sort of winter garden. It gives you a choice between environments, between the most sheltered place and the most exposed. Something like the glazed-over street in the Amsterdam City Museum, which functions as both a street and a gallery, could serve as an example of the latter. Such a section cuts down the energy demand considerably since only one-fourth of the surface is exposed. These glazed-over spaces in our climate can serve a great public function as spaces for communication. It's not Italy here, you cannot comfortably gather in outdoor spaces during much of the year. Modern techniques allow us to arrive at such solutions.

To me, good design results from the harmonious balance of seven interrelated factors: economic means, technology, nature, climate, site, the individual dweller, and communication. Human needs can be seen as the major form giver, but I would say that form follows function only if you understand function not as exclusively stemming from the users but as a very complex system of facts in which the new major factor is the ecological question.

The problem is not the technology but



Interior view, housing project; Berlin; Erich Schneider-Wessling, c. 1985. (Courtesy of Erich Schneider-Wessling.)

the marketing: how to convince the client to spend more money for passive technologies. What does he get from it? You might argue that over time the savings in energy will offset the expense, but this does not convince those involved in the development process who want more short-term profits: if it doesn't pay back as much as the invested money then it just doesn't pay in a capitalist project.

DBR: This would imply that much of the ecology-conscious architecture that has been built has been merely good intentions. How can it be brought within the reality of the market?

ESW: Right now ecological alternatives are not economic, but this is above all a political question. Therefore I decided to be politically active since my work as an architect was not enough to make a difference. In America you find

that among intellectuals there might be great discussions about ecology, but they have little impact on politics. In Europe, the situation has rcently been a little bit better because of the sucess of the various Green parties. Of course the German Green Party, which during the 1980s became surprisingly powerful, has just suffered a major defeat, losing all of its seats in parliament.But it accomplished its task already, because the other parties have now taken up Green topics.

I began my organizing activities in the 1960s. In Cologne we started a movement called *Urbanes Wohnen* (urban living). This was typical of the spirit of 1960s activism, and led to three years of intensive research about prefabrication, energy-saving, citizens' participation, and reintroducing nature into the city. As we live in a moderate climate that is not always favorable to outdoor living, we began to think along the lines of Buckminster Fuller's and Frei Otto's ideas for encapsulating the city. We also were influenced by Yona



Exterior view, Landeszentralbank; Wiesbaden; Erich Schneider-Wessling, 1983–86. (Courtesy Erich Schneider-Wessling.)

Friedman's theory of housing that allowed individual expression within a multistoried frame—structures where individuals can fill in over time. Within this scientific research we defined primary tasks, one of which was ecology. In the 1970s we gained some political support with such people as Willi Brandt and other progressive politicians. One of the outcomes was the "Landstuhl" experiment for a colony of solar houses near the Swiss/French border in Pfalz. (Today, however, this initiative has been completely compromised by allowing nonsolar houses to be mixed in.)

I am currently working with a new lobbying group called Eurosolar, which has representatives from all political parties (not just the Social Democrats), and is mobilizing opinion for better energy policies. This group was founded two years ago and is really starting to grow, and has already led to some subsidies for solar housing that will eventually influence the market. We have, of course, to contend with the other so-called clean-energy group—those lobbying for nuclear power. Among the other topics we promote are traffic reduction, the reduction of energy used to produce building parts, and research on ecological modes of construction. Then there's alternative energy production, where the Americans are much more advanced with wind power and photovoltaics.

DBR: Many would argue that the energy-efficient house is less important than the issue of where people live and the amount of energy they use for transportation.

ESW: The ecologically sound house is only one point in our theoretical program and cannot be treated separately from the others. The best energy-saving house, for instance, is no house at all! But you have to consider that people need shelter if you talk of urban planning. The singlefamily house produced during the Adenauer period in Germany, which was intended as a bastion against

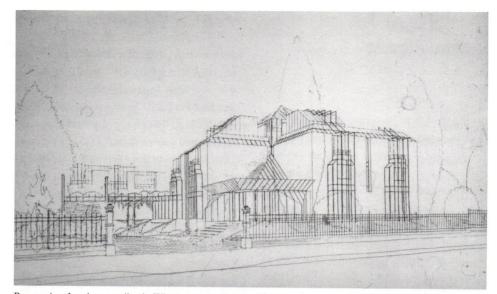
communism, resulted in devastating the countryside and clogging the roads with traffic. In reaction to this, the Urbanes Wohnen program was concerned with the issue of density, while also considering the problem of overcrowding (the "rat effect"-how many rats can be placed together before they start biting each other). We coined the slogan "individualization is the basis of communication." You cannot communicate in a democracy if you are not safe as an individual. In our research for good housing forms, one of the major concerns was transportation. We developed dwelling patterns with the optimal use of public transportation, and, influenced by the "white bicycle" experiment in Amsterdam, we made a proposal to eliminate individual means of transportation. In our model, seven families had the use of one automobile, which would serve only for extraurban travel. According to this model, buildings are more compact and have less surface area, and thus need less heating (cooling of course is not an issue in our climate). So while it was not our major concern to think of energy saving, that became a clear by-product of our model. Energy criteria came later with the energy crisis. We experimented with solar technologies on individual houses and transferred our knowledge to larger-scale projects. Banks, for instance, were well aware of the promotional possibilities of making energy-saving buildings and were among the best patrons for such projects.

## DBR: Do you feel optimistic that architecture is going to respond to the ecological question?

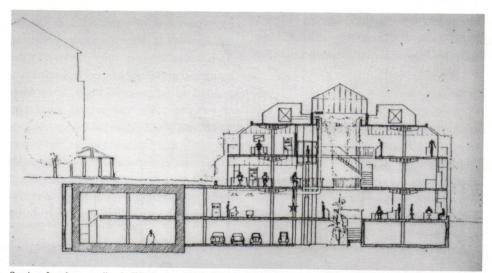
ESW: Thinking of the greater whole, I am a little bit afraid that laws will be developed that have the consequence that buildings will have less windows and more insulation but become very uncomfortable, at least in the realm of quality of life. It's so easy to pack the walls of a building with 20 centimeters of foam glass; but foam glass is so expensive to produce! We have to think of more appropriate devices for human needs on one side and ecology on the other. I'm a little afraid that it will be reduced into over-simplified applications. For example, a law saying that for each square meter of building you are allowed to spend only 80 kilowatt hours per year instead of the normal 120. So what do they do? Put in less windows and more insulation. But this is not comprehensive of basic design relationships. My ironical answer has always been go back to the quantity of built area per person of the Chinese, which is four square meters per person, then you need only a tenth of the energy you need for forty square meters, which is our standard.

DBR: But it's a lot easier to legislate insulation than the way people live. Such an alteration in dwelling density would proably require a major revolution and new forms of authority that we would find oppressive.

ESW: Exactly. But you could work through the lobbying process and advertise



Perspective, Landeszentralbank; Wiesbaden; Erich Schneider-Wessling, 1983–1986. (Courtesy Erich Schneider-Wessling.)



Section, Landeszentralbank; Wiesbaden; Erich Schneider-Wessling, 1983-1986. (Courtesy Erich Schneider-Wessling.)

a new lifestyle. You asked me if I was hopeful; I'm not very convinced, but I feel it is possible to promote an alternative. I'm not hopeful if we don't do anything, but if we act politically, I think it could lead to a beautiful way of life in the city with no traffic noise and lots of enclosed winter garden plazas and streets, and buildings where you can withdraw to inner chambers to feel cozy and secure. I think that if we are able to show people how they can change their lives, we might have good results. Take the 19th-century European city blocks—they have not been occupied as intended: the interior gardens have all been

compromised by garages and internal structures that spoiled the concept. Now, some architects have proposed introducing a secondary traffic system that penetrates the blocks to restore the interior gardens. This has happened in Barcelona, but I'm more familiar with the program in Münich, where a group that descended from Urbanes Wohnen has been going from block to block, developing with the people who live there a community plan to transform each block. People can be convinced to accept change, especially if they are involved in the decision.

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## DIALOGUE:

## Anton Alberts

Ton Alberts was born near Antwerp in 1927 and was educated in Amsterdam and Paris. He is the founding principal of Alberts/Van Huut Architects, Amsterdam. His firm has gained wide notoriety with the completion in 1987 of one of Europe's most energy-efficient office buildings, the NMB Bank headquarters on the outskirts of Amsterdam. His firm has also built major office buildings in Amstelveen, Bunnik, and Grooningen, all in the Netherlands. Alberts has written several articles in Dutch on "organic architecture," a book on yoga, and a book on "organic architecture" (Organisch Bouwwerk) to be published this year in Dutch and German. DBR conducted this interview with Ton Alberts in Amsterdam on December 10. 1990.

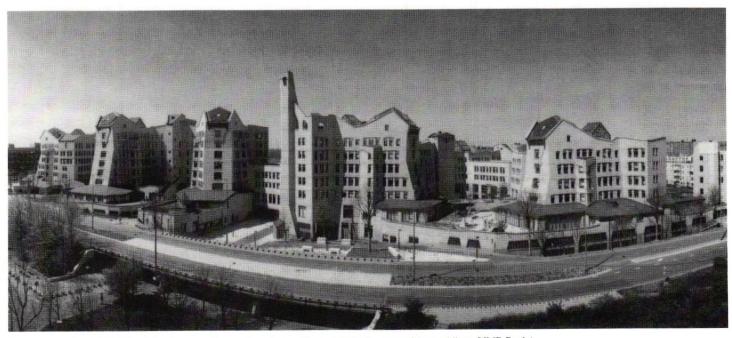
## DBR: How did you come to have an ecological criterion in your architecture?

AA: It dates back over twenty years ago when I became aware of the effects of pollution—we were talking about the problem of pollution even before the energy crisis of 1973 began. I have personally been involved with environmental groups, such as Greenpeace, for a long time. It is only in the last few years, however, since we finished the NMB Bank on the outskirts of Amsterdam, that people are starting to recognize that such a thing as ecology is possible in architecture. The first few years of my practice were dedicated to figuring out how the profession worked, but after that I began to do research toward a more environmentally sensitive approach. This was stimulated by a commission for a church in Leeuwarden-a sort of ecumenical church for Catholics and Protestants together. We had designed some complicated brickwork that made the bricklayers complain. This led to talks with the workers, in which we explained that the more difficult process would result in something more beautiful. Two weeks later we came back and were amazed that the bricklayers had been persuaded to our point of view. They said, "Yeah, now we understand what you mean, and we like doing it the hard wayit's really a job for bricklayers and makes us remember our younger days when we worked more like that." What a difference! They had acquired interest, even love, for the project and the other construction

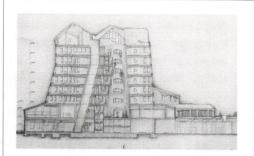
workers also started to like the job. This changed the whole atmosphere of the building, even after the construction was finished. The way you make something makes a difference, if you make it with fun, with pleasure, with love. This experience was also the beginning of our more ecological approach to design and led to research on the atmospheric differences in materials. We now always talk with the workers and discuss why some materials are better than others.

DBR: Ecology as you define it, then, is not just a scientific notion of a building's relation to climate and energy, but also a social question?

AA: I'd say it's a social and philosophical one. The scientists can tell us what pollutes the world, and then give us substitutes which perhaps will later prove to be another form of pollution. They might say now we must use alcohol instead of gasoline to run cars, only to find that in twenty years we will discover polluting consequences of the alcohol. I don't think the answer to the ecological crisis is in science. We have to find new ways of living together, and with this a new philosophy. I felt isolated in my opinions until about



Fish-eye-lens view of NMB Bank headquarters; Amsterdam; Anton Alberts, 1987. (Courtesy of Anton Alberts/NMB Bank.)



## The NMB Bank

The NMB Bank, designed by Alberts and Van Huut, is located in Bijlmermeer, an outer district of Amsterdam. It was completed in 1987 and is allegedly Europe's most energyefficient office building. It is also one of Europe's strangest looking office buildings, having as many irregular angles as the cabinet of Dr. Caligari. The ten towers, which vary in height from three to six stories, are arranged in a serpentine pattern on a site adjacent to the intersection of an elevated freeway. The battered slopes of the towers and their nonaxial alignments serve to deflect the sound of the traffic from the office windows; the shape of the towers also helps to reduce

three or four years ago, about the time the NMB Bank opened, and when Gorbachev was brought to prominence, and Chernobyl happened. All of a sudden most of Europe was forced to think in a different way and I don't feel so isolated anymore.

DBR: The style of the NMB Bank brings immediately to mind the anthroposophist architecture of Rudolf Steiner. Was this project a conscious development of his priciples?

AA: I feel connected to Steiner, but don't think that he alone represents "organic" architecture. In our office we sympathize with a broad group of architects of the Art Nouveau period, such as Gaudí and Van de Velde. Rudolf Steiner merely completed ideas that were already underway. We definitely like what he says and what he built, but don't think that he is the only source. Art Nouveau was really conceived in the same way that we are working. There is of heat loss due to wind factors. Despite their irregular forms, the towers were constructed of mostly precast elements. A computer-coordinated integration of active and passive heating and cooling systems helps reduce energy consumption to seven times less than that of the average Dutch office building (96 kwh/sq. m./year, versus 700). This adds up to a savings of \$1.5 million per year in energy costs. When considering the rather steep \$147 million total cost (\$273 per sq. ft.), however, this impressive saving does not add up to shortterm economic compensation.

One of the most innovative features of the design of the NMB Bank is the indoor use of flowing water and plants to naturally humidify the air. Rainwater is gathered on the roof and sent through "flow forms" to help reoxygenate and purify the water. Sculptures with reflective surfaces are used throughout to boost natural lighting. Although the windows only take up 25 percent of the wall space, and even though Holland does not have a sunny climate, ar-

course a local tradition, the Amsterdam School of Michel de Klerk, to which we are also clearly responding.

DBR: The NMB Bank is a bizarre-looking building. If one were to follow an ecologically sound way of building, do the results necessarily have to look like this?

AA: No. But let's not forget that the building is extremely functional. The sloped sides, for instance, were determined through an analysis of how to deflect the traffic sounds of the nearby freeway without reflecting them across to the neighboring buildings. The slope on the interior deflects the indoor sounds as well. Everything is very functional, but I wouldn't claim that there are no other ways to solve the same problems. It is the architect who makes the form, in cooperation with constructors and acoustic engineers.

DBR: Is it possible to design a more sym-

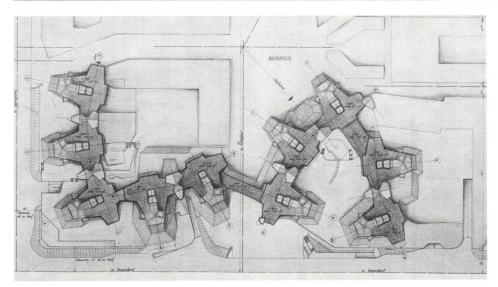
tificial lighting is needed only a third of the working day. The offices have a free plan, without partition walls, but are visually interrupted by the central core of services that breaks the space into five sub-spaces for eight to ten employees each. Each tower is capped by a pentagonal solar device and has a top-lit atrium at its core around which are open, easily accessed stairways that communicate between floors; the elevators that serve each tower have become secondary means of egress. About 2 percent of the budget was reserved for landscaping, which includes various gardens over the parking structures, internal plantings, and a nursery to replenish the gardens. The main lobby, a double-height space with skewed-"dancing"-columns, typifies, as do the canted corners of all the windows, the avoidance of right angles throughout. This is in keeping with Rudolf Steiner's precepts that there are no right angles in nature. Alberts and company aspire in the NMB Bank to an architecture that uses organic shapes to achieve a truly organic integration of functions.

metrical parti or conventional form that is still ecological?

AA: Yes, in the materialist sense. But I say truly ecological buildings are organic, which is a special way of including social and physical phenomena. Otherwise you only work on the material level. Of course it's necessary to have good, pure food, but people cannot live by bread alone. You need more, you need art, spiritual ideas, human development—you need beauty, it's a basic functional human need. Then, inspired by beauty people might consider their spiritual problems and develop a new kind of philosophy.

## DBR: But can humans agree upon what beauty is?

AA: I'm not sure. If we can believe the survey on architectural aesthetics carried out at Delft University last year, which asked nonprofessionals to rank buildings



Site plan, NMB Bank headquarters, Amsterdam; Anton Alberts, 1987. (Courtesy of Anton Alberts/NMB Bank.)



Main entrance, NMB Bank headquarters, Amsterdam; Anton Alberts, 1987. (Courtesy of Anton Alberts/NMB Bank.)

by nine Dutch architects (including Aldo Van Eyck, Wim Quist, Carel Weeber, and Hermann Hertzberger), the NMB Bank was ranked highest, with 91 percent favorable opinion.

DBR: But I bet if you asked architects, the order of the survey would be reversed.

AA: But I don't build for architects, I build for people!

DBR: Many people believe that urban organization, more than building technology, is the major issue in ecology. How do you see yourself fitting into an urban strategy?

AA: The strategy is to learn to live more together—to live in towns again rather than driving an hour in your car. It's difficult to change that. People are afraid of this because they don't like the sounds of their neighbors. They want the isolated bungalow in the forest where they can't even see their neighbors. But I think that's a very egoistic principle. We have to live together with half a million other people, and we must learn to take care of the other people around us. Instead of saying, "He's doing drugs, I don't want to see him," we should realize that "he" is one of us. It's difficult, but we can't go on closing our eyes to this sort of thing. Both the good and the bad belong to us. One small example of policy might be the bicycle lanes that have been instituted in Holland. It is possible to take your bike anywhere, and aside from being the least polluting form of transportation, it is often the quickest—and also good exercise.

The NMB Bank has already had a positive change on its social context. It is located in Bijlmermeer, a famously alienated modernist housing complex of the 1960s. The form of our building and the process through which it was built has inspired a local change of attitude—people could not believe that you can build in a such a different way and for the same price.

## DBR: What's the best advice you could give those who want to design more ecologically?

AA: I would advise architects, no matter how unfunctionalist our work looks, to be strictly functional. (It's strange that most people do not think of our office as functionalist because they imagine functionalist buildings are rectangular.) Be so functional that you can forget the past and can be freed from the ways it was done in the past. Try to find the new solution for these problems. In the NMB building, for instance, like all large office buildings, we had to have an air system, part of which humidifies the air, and we asked, isn't it possible to cut down the expense of the system by doing its job with plants? The "biosystem" we invented collects the rain water on the roof and then channels it through the building with "flow-forms" which purify the water while humidifying the air in imitation of nature. The water eventually is given to the plants, while John Wilkes's "flow-forms" provide sculptural delight. It cost the same as a conventional system, but it's much more natural, and more beautiful.

## DIALOGUE: Peter Calthorpe

Peter Calthorpe studied at Yale's Graduate School of Architecture. Starting practice in 1972, he has had a long and honored career in both planning and architecture, combining experience in both disciplines to elaborate an environmental approach to development in our time. His published work includes a Sierra Club book, *Sustainable Communities*, with Sim Van der Ryn, and *The Pedestrian Pocket Book* with Doug Kelbaugh (Princeton Architectural Press). This interview with Peter Calthorpe took place on November 15, 1990.

DBR: Ecology was a major issue in the 1970s. Prompted by the energy crisis, it affected governmental and market considerations. What has happened since then to the interest in ecology in architecture?

PC: I think ecology is becoming even more relevant today than before. For instance, ecological considerations drive all the airquality standards in the Los Angeles basin, which will be fundamentally controlling growth, or the regulations controlling growth in the Sacramento area. If anything, ecology is just going to gain more and more force. Sacramento is now the fastestgrowing county in California, and its whole general plan is addressing the ecological issues: the urban-limit line to preserve open space, transit-oriented development to cope with air-quality standards, and so forth, so I don't see what your question is about-ecology is definitely in.

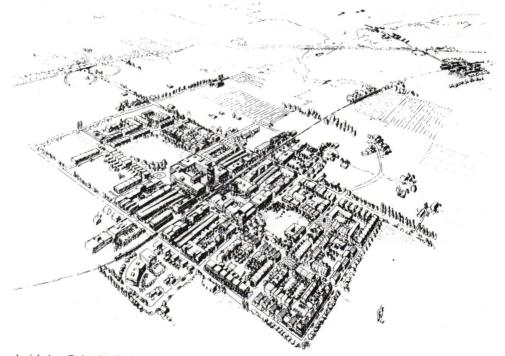
## DBR: But why isn't it essential to an architect's design criteria?

PC: I think ecology is very important to the larger culture, but architects have gotten smaller and smaller in their thinking, and they are only concerned about their individual projects, rather than thinking about the larger community or the context. When

they do think about the context, the best they can do is be cynical, and accept things the way they are rather than challenge the status quo-the lessons of Learning from Las Vegas: "This is the way it is so let's make a game of it." Or you have the postmodernist attitude, which has been quite progressive in terms of urban design, but very regressive in terms of architecture. If a context has already been a healthy urban one, then you can do decent urban architecture, but if the context is suburban, which is typically the way things are in the United States, the best you can do is see your project as an isolated urban event. That's very different from the role that architects used to play when there was a clear sense of unity between planning and architecture. If you trace the history of architectural theory, there has never been a schism between a vision of urbanism and the architecture. If you go to the Romantics, such as those inspired by Ruskin, you find that the Gothic revival had its urban equivalent in the garden cities movement of Unwin and Parker. In the same period you had the Beaux-Arts tradition with a clear unity between the theory of architecture and the theory of urban design. Then

came Garnier as the first modernist, where the architecture was embedded in a vision of planning and townscape, and Le Corbusier, who developed simultaneously a design language for both architecture and urban design. The same goes for Frank Lloyd Wright's Broadacre City. Only currently do we see architecture as these isolated events that really become nothing more than packaging.

Architects used to be comprehensive thinkers for the culture they were a part of. What guides us still is a broad combination of these leftover visions-a bizarre mix of Broadacre City and Ville Radieuse. So what do we have now? On the one hand, we have Rossi and Krier, who have become protagonists for new urbanism, with an architecture that is part of that sense of urbanism, and this strain of the neo-Rationalists seems to me within the tradition of comprehensive thinking. But American architects too easily let go of those greater responsibilities, or quite honestly they modify them, saying, "Learning from Las Vegas is a version of Broadacre City," buildings therefore have to function as billboards in the landscape of automobiles and parking lots. That's a larger vision-but



Aerial view, Pedestrian Pocket proposal, showing clustered jobs, housing, shopping, recreation, and child care; Peter Calthorpe, 1989. (From *The Pedestrian Pocket Book.*)

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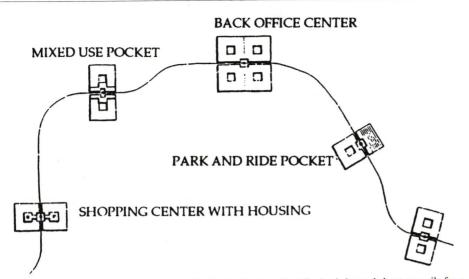


Diagram showing variation in use and size of Pedestrian Pockets. Each Pocket is located about one mile from the next; Peter Calthorpe, 1989. (From *The Pedestrian Pocket Book.*)

it's not one you have to adhere to. So why isn't ecology chic? Because architects are a bunch of wimps who refuse to take on the larger issues.

DBR: So you would accuse architects of essentially avoiding ecology as an urban issue?

PC: You can't conceive of architecture without a context. An office building that sits in a mixed-use center, with a relationship to retail shops, to a park, and to neighboring housing, is a completely different program than an office building that sits in a sea of parking out in some office park and relates only to an arterial.

DBR: Your program for a more ecological urban design for the suburbs, the Pedestrian Pocket, is really as much a social program as an ecological one.

PC: If you're going to be a comprehensive thinker you can't put everything into separate little categories. You can have the same problem with environmentalists as you have with architects. Lately they've become myopic and too concerned with their little piece of the game. Nobody's trying to formulate a more comprehensive vantage point. If something is more ecologically sound but doesn't work socially, it's stupid. Just as something that works socially but not economically can be stupid.

DBR: What do you think about the ecological experiments in architecture during the 1970s?

PC: I participated in that and I think that fundamentally it got lost in technology rather than design. There were and still are some potentially profound things in it. For example, natural lighting instead of artificial lighting really changes the fundamental characteristics of buildings. If you want natural light, you have to have high ceilings and narrow buildings-it changes the character of architecture tremendously. Now natural light also saves a great amount of energy, but what's more important-whether it's more benign for the people working there or that you're saving x number of BTUs? I think that's a false question.

DBR: But the ecologically inspired architectural movement got a bad name because of its inelegance and its righteousness.

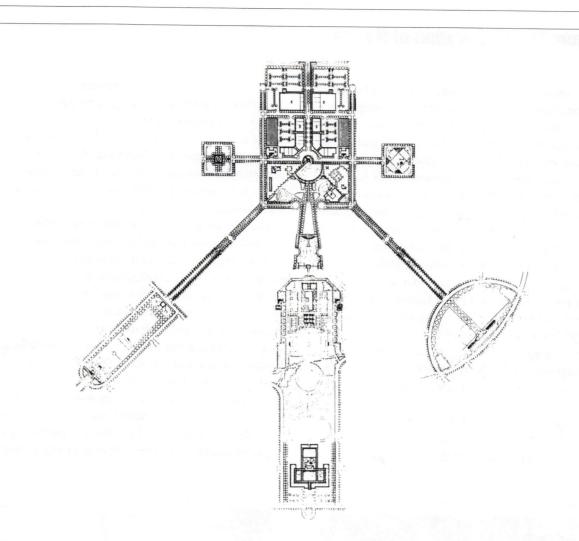
PC: I think it got a bad name for the same reason you'd give one to Deconstructivists: because they are only concerned with one dimension of a problem. Just as ecologycentered architecture was only concerned with saving energy, so Decon is only thinking of how complex the form is. The point is to become more comprehensive in design and not become a formal or ecological specialist.

DBR: Yet with the frightening news of the ever-widening ozone holes, how is it possible that architects do not become more engaged in this functional issue of environment?

PC: Because architecture is dominated by people like Peter Eisenman and Philip Johnson who are only interested in media and not solutions. It's time to change the subject. This can be done: when Dan Solomon and I led a symposium in Berkeley on the Pedestrian Pocket idea it was really the first time that the architecture professors and those in planning started to get to know one another. There's a lot to do and there's a lot being done; it's just not being approached by those who've decided they're going to operate in a strictly formalist dimension.

DBR: What about the market? Don't you think the market is always conservative in changing its attitude toward what architecture should be? Many of those interested in solar architecture could not make it marketable.

PC: The architecture won't change until the context of architecture changes its influence on architecture. I helped develop Title 24, which is the energy standard for California. When people become myopic about something, they become extremists. The reality is in the climate zone we're dealing with; you don't need to get all fussy about passive solar. You just do a well-insulated building and plant good shade trees on the street and you're 80 percent of the way there, so why fuss around with the next 20 percent. Every one of those houses, whether they've got Tromb walls or passive solar, generates eight to ten trips a day in an automobile, which consume 30 percent more of the energy they can potentially save with a passive solar system. So the real issue is whether or



## Laguna Creek Ranch, Sacramento, California

The development of Laguna Creek is one of dozens of urban plans by Calthorpe Associates that uses the Pedestrian Pocket concept. Currently under subdivision according to the new regional plan for Sacramento, Laguna Creek is a model of a more townlike suburban development—compact, mixed-use, and pedestrian-oriented. This 800-acre site includes single-family residences, townhouses,

not there's some place nearby to walk to. You don't need an expensive infrastructure, such as light rail. An alternative mixed-use community can still be 100 percent automobile accessible—70 percent of all household trips are to local destinations, so the real foundation is to capture those trips. This not only would help solve the air-pollution problem but also is probably desirable in terms of people's time and lifestyle. Even with carpools you still need apartments, neighborhood retail, offices, civic buildings, and recreation facilities brought together to enhance convenience and identity. The plan clusters five parkcentered neighborhoods, totaling 2,300 units, around a 65-acre lake, community recreation park, and town center. The town center combines an additional 1,000 units of higher-density housing with 90,000 sq.

a mixed-use arrival point for people with multiple destinations. The new guidelines for Sacramento are based on bus lines that feed the lightrail system. The private sector is quite happy with this mixed-use planning as it gives them a lot of flexibility. They're also very happy to get a clear sense of direction about what they can do, and in that respect the development community has been fairly happy to go along with the new plan. Communities, such as ft. of shops, 150,000 sq. ft. of office space, and three urban parks. The mixed-use center is designed as a traditional town in which streets are convenient and comfortable to walk, parks form a public focus, and the real life and vitality of a small town can be rediscovered for all age groups. River West Developments of Sacramento is the project developer.

Marin County (north of San Francisco), that have felt the impact of no growth or slow growth on their property values are the strongest opponents to these sort of plans. The general plan documents for most of our areas need to be rewritten to curtail the sprawl. The good news is that we have a model of what can be done—the Sacramento County Plan has been put into action. It's not a matter of if, it's a matter of when.

## Andropogon: The Restoration of Nature

Andropogon Associates (Carol Franklin, Colin Franklin, Leslie Sauer, Rolf Sauer) was founded 16 years ago in Philadelphia with the intention of using design to restore the natural environment. The name "Andropogon" refers to a common grass found in the Atlantic northeast, that is the first plant to grow spontaneously on a natural site that has been disrupted. Andropogon's ecological site designs have included public parks (restoration of Central Park's North Meadow), large institutions (campus planting at the University of Pennsylvania), housing subdivisions, condominiums, highway landscaping, and corporate office parks (Dupont Agricultural Products Department, Wilmington, Delaware).

"Corporations," says Carol Franklin, "own and manage approximately 25 percent of the land in the United States ... however, despite new and more stringent environmental regulations and despite good intentions on the part of planners, government officials, concerned corporate management, and the efforts of conservation organizations, such as the Wildlife Habitat Enhancement Council, corporate development is responsible for continued and unacceptable environmental losses."

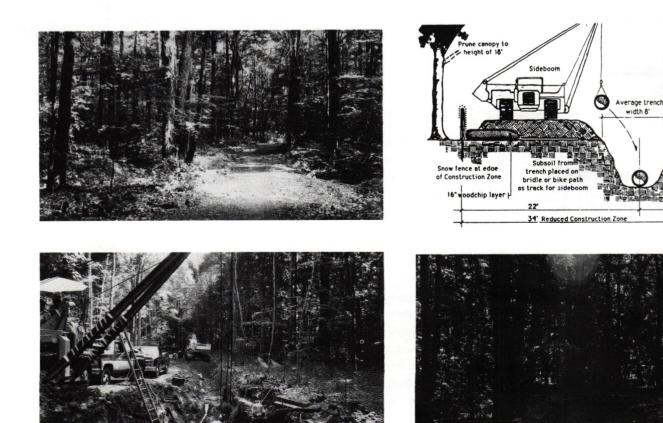
One of Andropogon's more challenging jobs is a revegetation program using native plants to cover New York City's Fresh Kills landfill, probably the largest dump in the world. Andropogon is also working to preserve the Eastern Deciduous Forest, which stretches from Maine to Georgia, by advising clients and concerned citizens to restore indigenous flora. "Every project," in Carol Franklin's words, "should have a restoration component. When disturbance is uncontrolled, deterioration accelerates and natural systems diminish in diversity and complexity."

At the Loantaka Brook Reservation in Morristown, New Jersey, Andropogon was asked to ensure that a 36-inch gas pipeline would disrupt the woods as little as possible. The conventional method of laying pipe would cause serious soil compaction, vegetation loss, and an unacceptably large opening in the tree canopy. Andropogon's design realigned the pipeline with an existing bike path, where a seam already existed in the tree cover. The zone of disturbance during construction was reduced from a typical 75 feet to 34.5 feet, and work was carried out on top of displaced soil dug from the pipeline trench. The upper soil layer was dug up in discrete blocks from the forest floor, stored alongside the trench, and replaced when the trench was filled to guarantee the continuity of soil microorganisms, woody root socks, and seeds of herbaceous plants. The tree canopy was maintained, and six months later the area around the path showed resprouting of shrubs and small trees and a thick regrowth of ferns and wildflowers.

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#### **Richard Ingersoll**

## Unpacking the Green Man's Burden

Recent Ecological Publications

Life in the late 20th century has become an intermittent vigil over the Green Apocalypse. In 1985 mass media first reported the presence of a hole in the ozone layer over Antarctica during the summer months (later recognized as holes) and linked it to the escape of chlorofluorocarbons (CFCs) into the atmosphere. As the holes grow larger, more dangerous levels of ultraviolet rays are permitted to enter the biosphere.

In 1986 the Chernobyl nuclear-power plant disaster was of such grave proportions, spreading radioactive contamination over most of Europe, that the Soviet government was obliged to rescind its policy of secrecy and reveal the story to the world, an act that contributed substantially to the success of Gorbachev's *glasnost* policies. Aside from the probability of future such accidents, a solution for safely storing the radioactive wastes from nuclear plants has yet to be discovered.

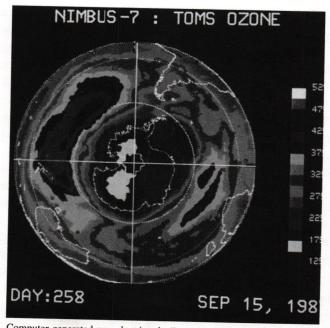
Six years of the 1980s were the hottest

in the 100 years of recorded climate; the summer of 1988 brought record heat waves around the world and public testimony by meteorologists and other scientists that the accumulation of carbon dioxide and other mostly human-produced gases in the upper atmosphere was increasing the greenhouse effect, causing irreversible global warming (in January of this year the announcement that the median temperature of 1990 was higher than that of 1988 was preempted by the "hotter" news of the Gulf War). Continuing temperature rises are predicted to cause, among other things, the melting of the polar ice caps, the raising of sea level by as much as three to seven feet, and chaotic weather conditions. The litany of environmental horrors

also includes acid rain, indoor pollution, soil depletion, aflatoxin infestation, and widespread extinction of species.

General awareness of these problems is almost as great as the inability to deal with them, and as an ironic compensation, the members of the information society have been awarded the narcissistic privilege of observing via mass media the probable extinction of their own species. For the first time since the appearance of the atomic bomb at the end of World War II, the collective doom scenario of industrialized nations has changed from one linked to human hostility and the destructive capacity of weaponry to one of annihilation through human complacency: life is now threatened by industrial civilization's alteration of the natural environment. The environmental crisis, once treated as the paranoid delusion of Boy Scout-types who fetishized nature, has become as common a news item as wars or financial scandals, and the apocalyptic prospect that human life and consciousness will terminate within three or four generations has become as "normal" as the necessity of maintaining nuclear arsenals.

There are, of course, solutions to this multifaceted environmental dilemma, as

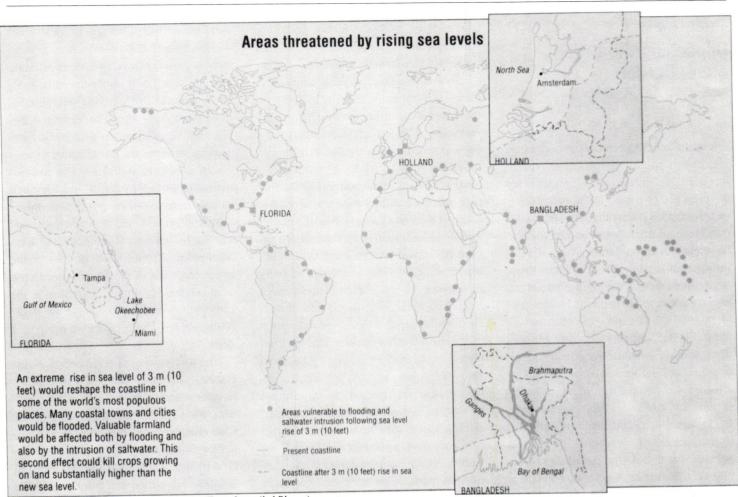


Computer-generated map showing the "ozone hole" over the Antarctic. (From Imperiled Planet.)

there have always been solutions to the world's historical problems. But, as ever, there is great controversy in demonstrating how the means will justify the ends, especially since in this case the outcome for most Westerners would necessitate a significantly reduced standard of living. Until ecology becomes the transcendent issuethat is, until natural disasters due to environmental instability set in-ecology will be compromised in the political realm by economic, social, and military priorities. The inertia caused by competition with other political issues has helped contribute to the emphasis of the Green Apocalypse as the central ideological ingredient in the ecology movement-the longer we delay ecological reform the closer we get to heat death.

The first wave of Green Apocalypse literature, which included such earnest calls to conscience as *Only One Earth* by Barbara Ward and René Dubos (1972) or the Club of Rome's *The Limits of Growth* (edited by D. Meadows, 1972), was accompanied by the unanticipated oil embargo of 1973, which added extra urgency to the ecological rhetoric. During the past three years a second wave of ecology books, many of them updating their apocalyptic

> precursors, has appeared. There have also been innumerable trivializing tracts, most of which appeared in conjunction with Earth Day last April (a revival of the original Earth Day in 1970), offering 101 ways "you can save the planet," obviously using the best of intentions to exploit a ready, guiltridden market. The ecological impact of these books is akin to stopping the spread of nuclear weapons by building bomb shelters. A major difference in the more important new books is their sensible, less evangelical tone. This can perhaps be attributed to the real political power of ecology during the last 20 years; the ecology lobby in the United States successfully mobilized in support of the Environmental Protection Agency and the



Map of areas threatened by rising sea levels. (From Imperiled Planet.)

Clean Air Act in the early 1970s, both of which are currently underfunded and ineffectual, and in Western Europe Green political parties have won substantial victories (Green parties won 18 seats in the Italian parliament in 1979, 4 percent of the vote in France in 1981, 7 percent of the vote in Belgium in 1981, 8 percent of the vote in West Germany in 1987, and have more representatives in the European parliament than the Communist parties; in the last two years, however, they have suffered major losses). While several in the new batch of ecology books continue the grim apocalyptic tradition, others have been conceived more dialectically, fitting ecology within a scheme of political and intellectual history.

The apocalyptic strain in ecologism has led to a totalizing Green ethic that presupposes that the rights of all things in nature are as important as, or even more important than, human rights. The consensus among ecologists is that the anthropocentric worldview should be replaced by biocentrism. To make an undesirable analogy, just as British representatives of the colonial "white man's burden" believed in their mission to civilize local populations "for their own good" with the imposition of European culture and institutions, so many of the ideologues of ecology now believe in the righteousness of a planetary mission of nature conservation and stewardship. The most eloquent and sympathetic proponent of biocentrism is James Lovelock, who in 1969 originated the Gaia theory that the planet is a single living organism (The Ages of Gaia: A Biography of Our Living Earth, 1990). Lovelock, who in 1974 was the first scientist to recognize the exponential buildup of CFCs in the atmosphere, tells of the dramatic transformations of the earth over eons and is anything

but an alarmist about the current crisis. With typically British understatement he muses, "If the world is made unfit by what we do, there is the probability of a change in regime to one that will be better for life but not necessarily better for us."

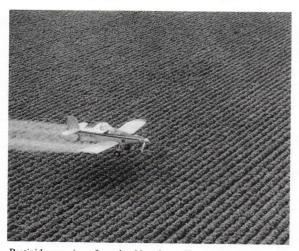
More prosaic, though much more outspoken as a crusader, is Jeremy Rifkin (*Entropy: Into the Greenhouse World*, 1989, coauthored with Ted Howard), whose analysis of the environmental crisis in terms of entropy provides a compelling explanation of the technological path to imbalance and chaos. Entropy, or the second law of thermodynamics, is the theory that matter and energy can only be changed in one direction, from usable to unusable. Thus there is no such thing as a renewable resource, and the only way to delay the ul*timate chaos of heat death is to reduce the* amount of entropy.

The work of Norwegian philosopher

Arne Naess, who in 1973 proposed a theory of "deep ecology," has become fundamental to a growing faction of the ecology movement. Deep ecology questions any claim to dominion that humans might have in the realm of nature, since they are merely members of a "biotic" community. Deep ecology, entropy, and Gaia have become the major ideological concepts of an ecology-minded worldview which is often proclaimed as an antihumanist cosmology. The tendency of those carrying the "green man's burden," to conceive of biocentrism as free of class or value, however, has led to a major dispute about the political nature of ecology since

it overlooks the conflictual processes of **4** human decision making.

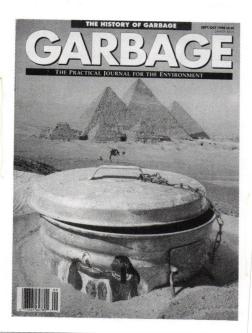
Among the new books, the most comprehensive and current descriptions of the environmental crisis can be found in Imperiled Planet: Restoring Our Endangered Ecosystems, assembled by Edward Goldsmith and the other editors of The Ecologist magazine. Goldsmith's Blueprint for Survival (1972), was a guilt-inducing exposé belonging to the first crop of apocalyptic bestsellers. While the schedule for the apocalypse has been changed, the factors causing it have not: overpopulation, overindustrialization, overuse of chemicals in agriculture, and the rampant exploitation of natural resources. Imperiled Planet is beautifully illustrated with 250 color plates, and at first glance might be mistaken for a coffee-table book about wilderness-that is, until one notices that the rivers are an acid-green color due to chemical wastes, or that the golden desert is being filled with drums of nuclear waste. Invoking Gaia in the first chapter, 90 percent of the book is devoted to agricultural and natural habitats, leaving just a bare outline of the problems of the urban habitat. It offers a geographical compendium of environmental conditions, such as mangrove swamps, coral reefs, rangelands, savannahs, and describes the major elements of each ecosystem along with a list of injustices, such as the salination of the soil or the disappearance of species.



Pesticide spraying of cropland by plane. (From Imperiled Planet.)

Although *Imperiled Planet* believes the environmental imbalance originates from industrial processes, much more attention is given to how to restore the equilibrium of the profaned wilderness or landscape than to analyzing the urban society that is its nemesis. Architecture and urbanism indeed play a key role in the crisis, responsible directly or indirectly for roughly 70 percent of total energy use, yet are typically avoided by ecologists, as if nature was the only issue in ecology.

In a final chapter on solutions, the authors, who until this point have been content to shock with depressing statistics and horrific snapshots of environmental degra-



dation, formulate some recalcitrant demands that reveal a general lack of understanding of economics and politics. The imperative that economic growth be stopped completely, for instance, would require a system of repression much greater than anything the Khmer Rouge tried to impose in Cambodia. Just as unrealistic (at least in the United States, where corporate executives determine policy) is their slidingscale amortization tax, which favors products which are designed to last the longest, and a greenhouse tax, which favors whatever reduces greenhouse gases. Decentralization and the em-

powerment of community are rhetorical components of their program, along with the optimism that informed people will voluntarily follow the four Rs: recycling, reduction, reuse, and reclamation (the only part of their solution that seems immediately applicable). Imperiled Planet is an informative but predictable product of the "green man's burden," and ultimately one feels bludgeoned by its dogmatism; the editors of The Ecologist would be well advised to read Garbage, a new magazine (published in Brooklyn since 1989, editor Patricia Poore) that addresses many of the same issues without losing its sense of humor. Garbage considers entropy to be a cultural and political phenomenon and not just an offense to nature.

The End of Nature by Bill McKibben artfully captures in chilling detail the alarming transition from an optimistic belief in the control of nature and an ever more bountiful future to a profound disenchantment with material progress. This essay first appeared, as did its prototype, Rachel Carson's Silent Spring (1962), in the complacent pages of The New Yorker. The narrative subtly reveals how so many aspects of daily life, such as food and transportation, are deeply intertwined with the environmental crisis. After reading the book, one will not only feel remorse about eating beef, but will feel obliged to develop a conscience about rice as well. As he describes the origins of the theories of ecological imbalance, such as Svante

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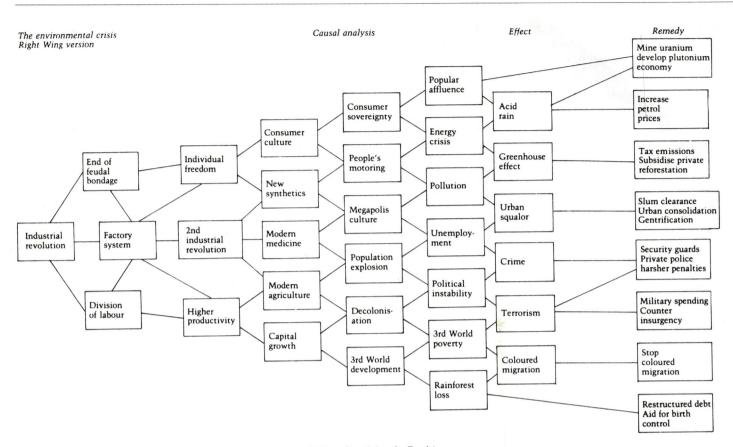


Diagram depicting "Right Wing version of the environmental crisis." (From Sustaining the Earth.)

Arrhenius's 1884 thesis on the greenhouse effect, and investigates the complex sources of troublesome trace gases, such as the methane from anaerobic bacteria hosted by termites, rice paddies, and cattle dung, McKibben also lets fly many wellplaced homilies about overdevelopment: "the way of life of one part of the world in one half-century," he accuses, "is altering every inch and every hour of the globe." But The End of Nature is much more than just a yuppie guilt trip; it is the finest attempt to date to redefine the fundamental relationship between human consciousness and nature. The romantic notion of the autonomy of nature as a timeless, self-replenishing unity-a view promoted in the writings of McKibben's mentors Henry David Thoreau and John Muir-is no longer tenable. The effects of human industry and knowledge are so pervasive that there is nothing in what was once thought of as the natural world that has not in some way been altered by human artifice. From the most obvious impact of pollution in the air, land, and waters, to the less perceptible effects of the rapidly expanding genetic engineering industry, humanity and nature have been welded back together into a Faustian bond.

While the subject matter of The End of Nature may seem ghastly, the book is a delight to read because it personalizes the disaster course. We learn of Thomas Midgley, a researcher at General Motors, who as the inventor of both the chlorofluorocarbon (CFC) bond used for refrigerants and plastics in 1928, and the tetraethyl lead gasoline additive, unwittingly contributed more than any other individual to the global crisis. With a lump in the throat we observe the failure of activists like Jeremy Rifkin to prevent the use on crops in 1987 of Frostban, the first commercial "designer gene" bacteria to be released outside the laboratory and now irreversibly part of "natural" evolution. We accompany an Earth First! activist on a demonstration to block the construction of a new road through the Kalmiopsis Wilderness of southern Oregon. Perhaps the greatest dash of pathos, however, comes from the author's confession that he and his wife, faced with a future in which temperature levels and sea levels will be constantly rising, decided against having children. Although intended as an example of humility in the transition from an anthropocentric worldview to a biocentric one, one wonders if this is as much a sacrifice as it is an indulgence. While McKibben has done an excellent job of exposing what a mess industrial society has made of the world, he has in the process grown so distrustful of humanity that he cannot find the solution in society, and even denies himself participation in its continuity.

Rachel Carson's reports of arctic penguins filled with DDT catalyzed public opinion against the pesticide's use, eventually resulting in the halting of its production. For McKibben, however, the complexity of carbon dioxide emissions, CFCs, methane gas, nitrous oxide, and the other pollutants that now besiege us is so great

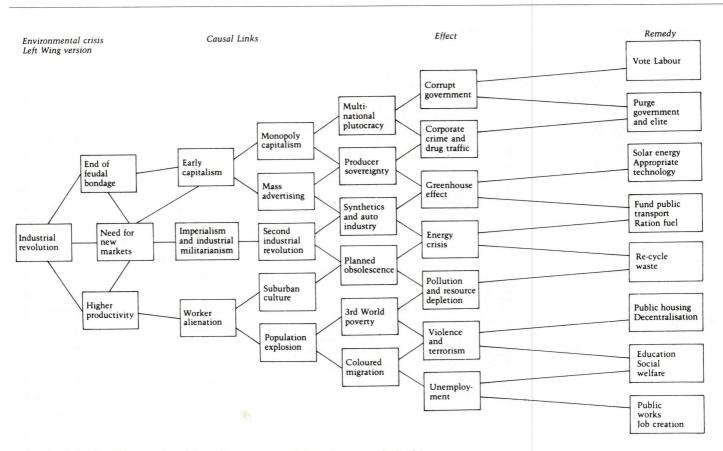
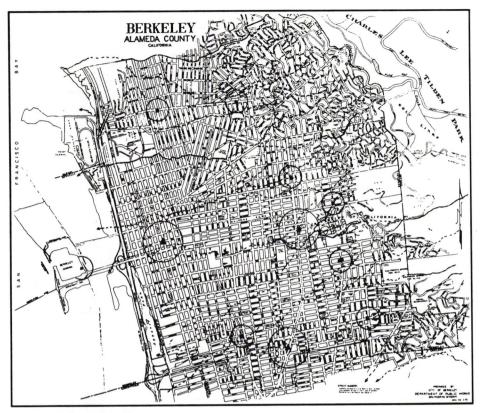


Diagram depicting "Left Wing version of the environmental crisis." (From Sustaining the Earth.)

that it is impossible to see a similar political solution-the Montreal Protocol in 1987 that led to banning CFCs by the year 2000 is as far as international bureaucracies will endeavor to go. He whimpers a hope for voluntarism, which in the light of the recent overwhelming support for the destruction of Iraq in defense of a way of life based on fossil fuels, seems especially ridiculous: "If we now, today, limited our numbers and our desires and our ambitions, perhaps nature could someday resume its independent working." Perhaps if McKibben allowed himself to have children he would become more tolerant of the human condition; his exasperated position, in which humans are the cause of the problem but cannot be organized into a solution, is characteristic of the paranoia of the "green man's burden."

Ecologism is often favorably compared to abolitionism, yet there is some irony to this, since defense of the environment is often unsympathetic with the continuing struggle for equal opportunity. Dave Foreman, the decommissioned leader of Earth First!, became infamous for his comments that the poor in Eritrea should just be left to starve as part of a natural process. Such unregenerated social Darwinism is symptomatic of a movement founded upon action that has not considered itself historically. The most important new contributions to the literature, then, are those that attempt to situate the ecology movement historically. Aside from Donald Worster's Nature's Economy: A History of Ecological Ideas (1977), which examines the thought of the naturalists Gilbert White, Thoreau, Darwin, and Aldo Leopold, there have been few sources that seriously considered the ideological ramifications of the ecology movement. Two new books, Anna Bramwell's Ecology in the 20th Century: A History, and John Young's Sustaining the Earth: The Story of the Environmental Movement—Its Past Efforts and Future Challenges, deserve special attention as the first attempts to make sense of ecology as a political discourse.

The greatest shock in Bramwell's book does not come from descriptions of environmental degradation but from the revelation that the Nazis were the first radical environmentalists to achieve political authority at the state level. Somehow the world is still not ready to accept that Dachau was not only the site of a notorious death camp but also of an experimental organic farm, and ecologists will doubtlessly feel squeamish about this historical patrimony. In her history of ecology, which begins with Ernst Haeckel, the German zoologist who coined the word in 1866, Bramwell analyzes how the idea has served both the left and the right, alternately abandoned by the left for being too objective in its adherence to immutable natural law, and disavowed by the right for its irrational belief in the authority of nature. Her thesis is that the contradictions surrounding the use of ecology qualified it by the early 1970s as an independent political category on a par with socialism, liberalism, or conservatism. Among her many polemical presentations



Map of Berkeley in 1987 and its centers. (From Ecocity Berkeley.)

is the discussion of the ethnicity of ecologism as the prerogative of those of Protestant Northern European origin, which gives an uncanny sense of genealogical continuity to the notion of "green man's burden." Starting with Haeckel, ecologism sought to defend the desire for the sovereignty of the natural world; Haeckel proposed that "if the laws of biology were followed, the result would be a humane, efficient, peaceful state."

While the holism of Haeckel remained the dominant interpretation of ecologism in the 19th century, having a nearly religious essence, the other parallel strain of ecologism, derived from the guilt and fear of projected scarcity, was conceived more politically and would have a greater impact in the 20th century. The anarchy of Peter Kropotkin, who originated the notion of "bioregionalism," offered a theoretical escape from the physical and social devastation of monopoly capitalism through the resistance found in the values of peasant culture. Marx, who Bramwell claims despised nature, is nonetheless quotable: "As long as men exist the history of nature and the history of men mutually determine each other." Engels, on the other hand, in <u>The Dialectics of Nature</u>, revealed that the problem was not man's attempt to master nature but his inability to master his own nature as an animal. While Bramwell dismisses Marxism as too anthropocentric to be ecological, the Marxist analysis of waste, exploitation, and alienation are probably more important to ecologism than she allows.

Much of Bramwell's book unravels the complicated connections among scientific, literary, and political figures, primarily in Germany and England. Reformist, collectivist, and protofascist trends are unearthed in intellectual groups such as the one gathered in Ascona involving D. H. Lawrence, or that at Dartington Hall, or in the fraternal brotherhoods such as the Kibbo Kift Kin, to which Patrick Geddes, Julian Huxley, and H. G. Wells belonged. Bramwell dispels the notion that there was a generic fascist ecologism before launching into the ecologism of the German Nazis. She claims the ethnicity of the issue was stronger than its political ties. Rudolf Hess, Hitler's deputy, and Walther Darré, the minister of agriculture, helped establish two thousand biodynamic farms, based on the organic principles of Rudolph Steiner.

Nazi Germany was also the first European country to establish nature reserves. Nazi slogans such as "blood and soil" and "a new era is upon us which will be the era of the peasant" fit well with ecologism. That both Hitler and Himmler were vegetarians and believed in animal rights also created a natural affinity. Much in the way that Leon Krier would like to reclaim Nazi architecture as autonomous from its circumstances, so Bramwell would like to dissociate Nazi ecologism from Nazi war crimes to recuperate workable solutions, such as peasant-oriented land reforms. But

surely the greater lesson is how seamlessly ecologism can fit into fascist politics: it is not uncommon to hear, when confronted with the complexity of environmental problems, that it will take a dictator to impose a solution. Bramwell is highly skeptical of leftist ecology, believing it will recapitulate the stultifying bureaucracies experienced in Eastern European totalitarian states and Western European social democracies. If, she says, the 20th century was the century of socialism (and doubtless many Keynesians would argue with that), then after the failures of socialism, perhaps a new ideology such as ecologism will prevail. So far, however, capitalism has not been very obliging. At the outset she insists that ecologists are apocalyptics and aesthetes who consider themselves among the saved, and in her conclusion she quite self-consciously describes ecologism as a "death wish," requiring a purifying return to primitivism and a rejection of three millennia's worth of culture and institutions. In doing so she adds the heaviest contribution to the "green man's burden."

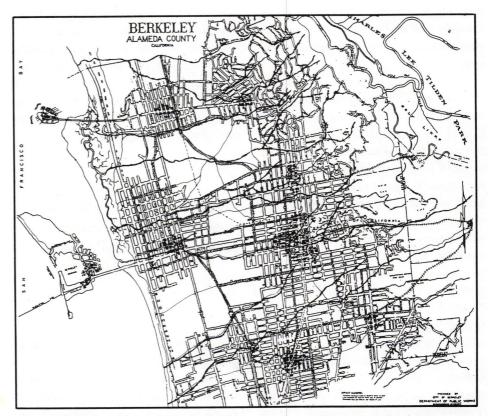
John Young in *Sustaining the Earth* might agree with the apocalyptic proclivities of the movement, but is less inclined to accept it as a "death wish." While covering

Eco-Chic

some common ground of the scientific, economic, and political sources of ecologism, he expands upon the more recent episodes of the ecology movement, giving more consideration to the political process. Eco-feminism, bioregionalism, and the possibility of social ecology are all seriously discussed. As with Bramwell's book, Young's is devoted mostly to mapping the political territory of ecology and provides a useful historiographical index, but it is likewise not without its own ideological offerings. A mysterious chapter early in the book presents an anthropological study of kinship and environmental management on the Fiji Islands, and kinship is resuscitated as a trump card in the later discussions of political tactics. On the other hand, Young does not see ecologism as an independent political category, but rather as an issue bound by traditional left and right categories; in a parallel chart he demonstrates how political interpretations of the causes of the environmental crisis lead to policy decisions.

A central chapter looks at the influence of E. F. Schumacher, whose Small is Beautiful: Economics as if People Mattered (1973) achieved cult status in the ecology movement (and should at least be remembered as the source for the slogan "think global, act local"). Schumacher's "Buddhist economics" and thoughts on appropriate technology have indeed influenced policy at many levels, but the implied sacrifices required by his tactics are analyzed as not necessarily humane or fair. Austerity, for instance, usually makes those on the bottom worse off. Young suggests that any workable strategy must be formed first by a consensus that there is a need for drastic action (such as in wartime), and that there be an equality of sacrifice among classes. He elaborates on Schumacher's economics by suggesting that a Net Human Benefit (NHB) should be a necessary component of any GNP analysis.

In the best critical tradition Young considers the ideological differences between environmental reformism, which tries to repair the planet without changing the system of hierarchy and dominance that has



Map of Berkeley 40 to 125 years hence, showing dense urban clusters with urban agricultural zones interspersed between the clusters. (From *Ecocity Berkeley*.)

produced the crisis, and ecological radicalism, which sees the balance of nature as the uncompromisable goal. Enter Murray Bookchin, the American anarchist, who was the first to suspect deep ecology was a form of ecofascism (Bramwell's book should in fact offer him new ammunition) and has been the most adamant spokesperson for an alternative "social ecology." Bookchin, who has been writing about ecology since 1962, has recently written Remaking Society: Pathways to a Green Future (1989) as an answer to deep ecology, demonstrating that all ecological problems are essentially social problems. In an attempt to demolish the myth of social Darwinism, he reminds the ecologist that mutual aid is fundamental to the evolutionary process. Bookchin has little patience with those who indiscriminately blame humanity for the environmental crisis, finding it to be an instance of blaming the victims, since the greater decisions that determine environmental policy are a question of institutions, class, and power. Thus

a change in lifestyle (the sort of thing advocated by the Earth Day manuals that offer 101 ways to save the planet) will be ineffectual unless accompanied by radical political change that can control institutions, or at least make them accountable. Likewise, ecological policies limited to one region may easily be neutralized by the unreformed practices of another-one only has to think that China has the majority of the world's coal reserves, and is intent on using them. Bookchin, who was greatly influenced by Kropotkin, tends to have utopian fantasies about decentralized, democratic communities, and here Young intercedes to suggest that the kinship model might make the social cohesion of these communities more realistic. The experiences and ideologies encapsulated in Young's and Bramwell's books help lead one to conclude that a major part of the problem in ecologism is the attitude of the "green man's burden." To conceive of the world exclusively in terms of the unity of nature might be scientifically justified, or

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even a form of poetic justice, but it rarely considers social justice and can lead to political paranoia and even forms of fascism.

What seems to be so desperately miss-

Proved in

ing from most of the analyses by ecologists is an honest understanding of the city. Conscientious sustainable communities that retreat from society into a neoagrarian world of restored nature are pure fantasy when soon 90 percent of the world's population will live in metropolitan areas. The city and its powerful civilization cannot be willed away by mere apocalyptic righteousness. This is why designers and planners are so important to any transitional strategy. A book such as The Pedestrian Pocket Book: A New Suburban Design Strategy (edited by Doug Kelbaugh, 1989) is one of the few recent efforts to try to insinuate ecological values into the existing mode of development. Although it may be accused of being reformist, since a true ecologist should not be responsible for any form of growth, the Pedestrian Pocket concept nonetheless offers a practical, transitional alternative to the suburbs not predicated on apocalyptic utopianism. It is quite close to Ebenezer Howard's turn-of-thecentury Garden Cities, though smaller in scale (each pocket is for a population of 5,000) and without the socialist ideology. In a hypothetical Pedestrian Pocket, all buildings, which include a mix of apartments, single-family homes, offices and retail, are within a five-minute walk of a transit station. What distinguishes it from other suburban developments is that the land surrounding this enclave is protected by a regional plan for agricultural uses, and the automobile, though still a component, is no longer indispensable.

Another fairly recent source, Richard Register's *Ecocity Berkeley: Building Cities for a Healthy Future* (1987) envisions a reverse process, the de-development of the existing modern city, with a similar morphological outcome to the Pedestrian Pocket. The city of Berkeley is shown in a 125-year projection, from a spread-out grid system that denies most of its natural features, such as shorelines and creeks, to a series of dense urban clusters, where buildings are built taller and closer together than in the existing sprawl. The natural features are allowed to reemerge and urban agricultural zones are interspersed between the clusters. The automobile becomes less necessary as in each cluster diverse functions are brought into proximity.

A major difference in the more important new books is their sensible, less evangelical tone.

Such a vision, which descends from an infatuation with medieval European cities and the utopian fantasies of Paolo Soleri, is somewhat less realistic than the Pedestrian Pocket because it is more confined by existing real-estate values. It requires alterations to zoning and inventive transfer development policies that will be politically difficult to implement. Yet it is not completely unfeasible: a phenomenon such as the redensification of Melrose Avenue in West Hollywood, where currently there is as much pedestrian activity as automobile traffic, for example, shows that some goals of the plan are occurring spontaneously, without the benefit of an ecological program. One would not necessarily see the difference in a building that has been designed according to a strong ecological criterion; but the ecological city will definitely look different than the sprawl that market-driven development is currently producing. This new ecological urban aesthetic, which still needs more resolution, will in the short run probably become the most powerful tool for engaging politicians, consumers, and the design community in more ecological processes.

The Green Apocalypse is rightfully a reason to despair, and the exasperation only gets worse when it is defined by the ideologies of the "green man's burden." While one shouldn't be duped by corporate and militarist opinions into believing that humans can adapt to the environmental crisis as it worsens, perhaps the healthiest move, a rhetorical gesture that would be most beneficial in restoring faith in human community and political processes, is to add a "post" to the Green Apocalypse, as with all the other "posts" of recent culture that prefix hegemonic phenomena that continue to exist. Post-apocalypse would allow one to acknowledge the Apocalypse's existence without being crushed by the burden of its inflexible, guilt-ridden, and totalizing logic.

THE AGES OF GAIA: A BIOGRAPHY OF OUR LIVING EARTH, James Lovelock, Bantam Books, 1990, 252 pp., \$10.95.

ENTROPY: INTO THE GREENHOUSE WORLD, Jeremy Rifkin with Ted Howard, Bantam Books, 1989, 355 pp., \$9.95.

IMPERILED PLANET: RESTORING OUR ENDANGERED ECOSYSTEMS, Edward Goldsmith et al., MIT Press, 1990, 288 pp., illus., \$39.95.

GARBAGE: THE PRACTICAL JOURNAL FOR THE ENVIRONMENT, Patricia Poore, editor, Old House Journal Corp., illus., \$21.00 per year.

THE END OF NATURE, Bill McKibben, Anchor Books, 1989, 226 pp., \$9.95.

ECOLOGY IN THE 20TH CENTURY: A HISTORY, Anna Bramwell, Yale University Press, 1989, 292 pages, \$14.50.

SUSTAINING THE EARTH: THE STORY OF THE ENVIRONMENTAL MOVEMENT—ITS PAST EFFORTS AND FUTURE CHALLENGES, John Young, Harvard University Press, 1990, 226 pages, \$19.95.

REMAKING SOCIETY: PATHWAYS TO A GREEN FUTURE, Murray Bookchin, South End Press, 1989, 224 pp., \$10.00.

THE PEDESTRIAN POCKET BOOK: A NEW SUBURBAN DESIGN STRATEGY, Doug Kelbaugh, editor, Princeton Architectural Press, 1989, 68 pp., \$9.95.

ECOCITY BERKELEY: BUILDING CITIES FOR A HEALTHY FUTURE, Richard Register, North Atlantic Books, 1987, 140 pp., \$10.95. Susan Ubbelohde

## The Myth of the **Ecological Vernacular**

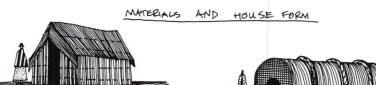
I saw many huts that the natives made. They were all alike, and they all worked. There were no architects there.

Louis Kahn, 1961

This is a story of mythopoeisis, the creation of a myth, for architects. It is a story of disjuncture between the intent of the individual author and the effects of the collective literature, between the stated text and the subtext of image and graphic design. At issue is not whether this myth is true or false, but rather how it has been invented and shaped through a selection of books published between 1963 and 1972.

In the last decade of the 20th century, designers share a myth that vernacular design is a source of truth for the greening of architecture. This myth, not false in itself, was given form by publications that have maintained their power and influence over 20 years later. Collectively, the literature creates an ethical stance, an iconic set of images, and a series of how-to manuals that tie vernacular design with an ecological awareness and responsibility. In House Form and Culture (1969), Rapoport details the attributes of the vernacular with which the myth is constructed: vernacular design has a lack of theoretical or aesthetic pretensions, the designs work with the site and microclimate rather than against, and the architecture displays a respect for people and hence for the total environment.

The second of Rapoport's vernacular attributes is taken up by a number of books that concentrate on design strategies and details. Fry and Drew's Tropical Architecture (1964) states that "we should learn to draw sensible inferences from the past habits and styles of building...that will help us to solve our current problems." This attitude grew naturally from the work of Fry and Drew in Africa and India, but also echoes Brodrick's article from a decade ear-



Eco-Chic

Dwellings made of one material (reeds). Left: Uru dwelling. Lake Titicaca, Peru. Right: Marsh Arab dwelling, Iraq-Iran border.



Dwellings made of one material (mud). Left: Iran. Right: Pueblos, southwestern United States.





Portable tents of sticks and felt. Left: Arab tent. Right: Mongol Yurt.



Two examples from the great range of house forms using thatch and wood as materials. Left: Masai dwelling (Africa). Right: Yagua dwelling (Amazon). Drawings of vernacular dwellings from various cultures. (From House Form and Culture.)

lier, "Grass Roots: Huts, Igloos, Wigwams and Other Sources of the Functional Tradition" (Architectural Review, February 1954). Along with Olgyay's Design With Climate (1963) and Fitch's American **Building 2: The Environmental Forces** That Shape It (1972), this volume turns to vernacular, or "primitive," buildings and settlements to learn climate responsive design strategies, or how to "collaborate" with nature in providing shelter. Their interest in the vernacular is narrowly

bounded-a desire for technical information that has been lost or confused in the industrialized world and with the technological advances of post-war construction.

Fitch's book is a new edition of the second half of his 1948 single volume titled American Building: The Forces That Shape It. In the rewrite for the 1972 edition, Fitch incorporated much of the information from "Primitive Architecture" (Scientific American, December 1960) coauthored by Daniel Branch. Detailed

examples of "primitive" architecture were woven into an argument which originally contained no references to the vernacular at all. In the 1972 edition, Fitch is primarily concerned with the experience of the interior environment (aural, visual, odiferous, and so on), and concentrates heavily on the possibilities of new technologies and research. The "primitive" designs are included to teach basic principles, but instead become objects of fascination themselves. Performance information about igloos and pueblos is compelling enough to overwhelm the caveats in the text about what we are to learn from them. To learn that the temperature inside an igloo approaches freezing and to imagine being comfortable at that temperature virtually unclothed remains in our memories long after the "regular" building science advice has disappeared.

In *Design With Climate*, Olgyay is more methodical and less provocative than

Fitch in his categorization. Selective examples of vernacular design provide evidence that shelter adapts to climate and that each climate develops a regional character in architectural form. Vernacular architecture is shown to operate as a springboard, similar to animal responses to climate. This format follows that used earlier in Jeffrey Aronin's Climate and Architecture (1953) and Olgyay and Olgyay's Solar Control and Shading Devices (1957). The vernacular references are, however, a preliminary discussion included to ground the proposed theory and methodology. Olgyay's real work does not concern an advocacy of the vernacular, but rather the scientific methods which will enable new designs to achieve the same success.

Fry and Drew in *Tropical Architecture* are less interested in developing a theory than a handbook of techniques, something that can sit on the drawing board and an-



Adobe guardians, Acoma pueblo; New Mexico. (From Design With Nature.)

swer the question of how to detail a roof for a tropical climate. Vernacular architecture makes a cameo appearance in this book as images at the beginning of each chapter. The text is a straightforward handbook, and illustrations of the technical points are made with contemporary architecture of the 1950s and 1960s and technical diagrams. Vernacular design is at most referenced in passing. For example, "Old Cairo, old Kano city were beautiful because they had come to terms with their circumstances and achieved harmony. Beautiful but unsanitary. The new part of Kano is sanitary, but it is formless and ugly. It has not come to any solution."

Rapoport's House Form and Culture (1969) and Goldfinger's Villages in the Sun (1969) also pursue the question of how to make meaningful form, although these books are not as technological in content and are less didactic in form. As an anthropologist, Rapoport examines the role of cultural, social, religious, and physical factors that influence the form of housing. He takes issue with noncultural interpretations of form, complaining that "in architecture the climatic determinist view, still rather commonly held, states that primitive man is concerned primarily with shelter, and consequently the imperative of climate determines form." This volley may well be aimed at Fitch, Olgyay, and Fry and Drew, who spend little time developing a balanced view of how to learn from the vernacular. Ironically, Rapoport's discussion of climate as one source of architectural form is so clearly written and illustrated that it has become a standard source for such information, denving in use the theoretical position of the work as a whole.

Goldfinger is not specifically interested in climate, but rather in community design. While the bulk of *Villages in the Sun* seduces us with full-page photographs of Mediterranean villages, the introductory text tries to define the design lessons which can be learned from the same. The most interesting aspect of the lesson is told across the top of the text pages—53 small illustrations are run sequentially, generally pairing a vernacular image with a contemporary design that has learned something from the vernacular example. Goldfinger sets forth neither a theoretical position nor a design manual, but rather a session in "design by vernacular example."

In contrast to these "manuals," contemporary publications took the ecological issues head on and searched for an ethical design behavior, for a means to live in harmony with nature through design. Whereas Rapoport identifies "harmony with nature" as a characteristic of vernacular design, in these volumes it is the dominant force. Perhaps because Architecture Without Architects (1964) was an exhibition catalogue, Rudofsky chose to structure his polemic almost entirely through black-and-white photographs. Much like Goldfinger, he relies on a pithy introduction to set the tone: "Vernacular architecture does not go through fashion cycles. It is nearly immutable, indeed unimprovable, since it serves its purpose to perfection." These images are not as beautifully reproduced as Goldfinger's (they were culled from so many obscure sources), but they are filled with details and visual patterns that appeal to designers.

McHarg's Design With Nature (1969) may be the most influential as well as the most intriguing of these books. It is the only one of these publications that confronts the ecological issue directly and attempts to develop an agenda for the coming decades. McHarg, not coincidentally a landscape architect, is also the only author who posits that the work of designers is about values, not about style, function, or pragmatism. A collection of detailed environmental studies is woven with chapters of mythical ecological narrative to produce a work both dense and disarming. McHarg is direct about his purpose: "This book is a personal testament to the power and importance of sun, moon and stars, the changing seasons, seedtime and harvest, clouds, rain, and rivers, the oceans and the forests, the creatures and the herbs. Man ... must become the steward of the biosphere. To do this he must design with nature." Interspersed among the studies are cultural comments on the value of the pantheism of aboriginal societies such as Native Americans: "Generally the members of these aboriginal societies could promise their children the inheritance of a physical environment at least as good as had been inherited-a claim few of us could make today. Life and knowledge have become more complicated in the intervening centuries, but, whatever excuses we offer, it is clear that we cannot equal this claim." Yet in this, the most explicitly ecological of books, the connections to vernacular design are made only through inference. McHarg has followed the Fry and Drew strategy of bestowing value on the vernacular through full-page photographs at the beginning of many chapters without discussing the image in the text. The pueblo has become an icon and stands without explanation.

The books discussed above have become classics in their own right. The two theoretical propositions, Design With Climate and Design With Nature, have developed strong reputations and arguably have had the greatest impact in the design professions. None of the publications makes explicit the myth of an ecological vernacular, although we tend to imagine that they do. Each, in their own way, contributes to the mosaic of ideas and images which has become the myth. This relationship between vernacular design and ecological responsibility has been created in the realm of the inferential and the collective, through the power of images and a chemistry between the individual texts. While Olgyay and Fitch present vernacular images as straightforward textual illustrations, Rudofsky and Goldfinger present the image as text. They have invited their visually oriented audience into a world of beauty and ethical behavior difficult to achieve in contemporary design practice. In the extreme, McHarg and Fry and Drew reference the romance and the power of vernacular design through images only and make them "sacred" in their use as frontispieces. The pueblos and the woven thatch huts are presented as the implicit answer, both technically and spiritually, to the difficulties and challenges posed in the text. If the values inferred by the images are not enough, Rapoport and McHarg both detail the spirituality and the "harmony with nature" that have been found by the societies who created these works.

This use of repeating images collects the works into a family. As the images such as that of the pueblo begin to operate as icons, the myth becomes a collective belief. The resulting relationship of each of these books to the total myth tends to be metonymic, wherein an associated detail or notion invokes the sense of the whole. Calculating sun angles for a design allows one to feel a bit righteous, since it seems to contribute to the health of the planet and simultaneously connects us to the values of the culture that invented the tipi. Despite the variety of intentions of its sources, the myth of an ecological vernacular has powerful implications for the world of design, for it tells us that architecture can be as exciting as dancing with wolves, and certainly as politically correct.

HOUSE FORM AND CULTURE, Amos Rapoport, Prentice Hall, 1969.

TROPICAL ARCHITECTURE IN THE DRY AND HUMID ZONES, Maxwell Fry and Jane Drew, Reinhold Publishing Corp., 1964.

DESIGN WITH CLIMATE: BIOCLIMATIC APPROACH TO ARCHITECTURAL REGION-ALISM, Victor Olgyay, Princeton University Press, 1963.

AMERICAN BUILDING 2: THE ENVIRON-MENTAL FORCES THAT SHAPE IT, James Marston Fitch, Houghton Mifflin, 1972.

AMERICAN BUILDING: THE FORCES THAT SHAPE IT, James Marston Fitch, Houghton Mifflin, 1948.

CLIMATE AND ARCHITECTURE, Jeffrey Ellis Aronin, Reinhold Publishing Corp., 1953.

SOLAR CONTROL AND SHADING DEVICES, Aladar Olgyay and Victor Olgyay, Princeton University Press, 1957.

VILLAGES IN THE SUN: MEDITERRANEAN COMMUNITY ARCHITECTURE, Myron Goldfinger, Praeger, 1969.

ARCHITECTURE WITHOUT ARCHITECTS: AN INTRODUCTION TO NON-PEDIGREED ARCHI-TECTURE, Bernard Rudofsky, Museum of Modern Art (distributed by Doubleday), 1964.

DESIGN WITH NATURE, Ian McHarg, Natural History Press for the American Museum of Natural History, 1969.

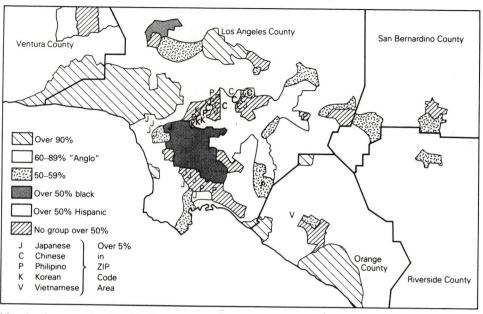
## On-Kwok Lai Green Design Praxis

We are moving into a new era. Aside from the postmodern discourses that surround us, at least two major phenomena characterize our times: globalization of production (and cultural) processes, on the one hand, and, on the other, concern for sustaining life on the planet, advanced by the expanding environmental movements and the international collaborative effort to cope with environmental problems. How, or by what means, we will manage this new crisis is becoming critical for our immediate (and succeeding generations') survival. With this in mind, what will be the context of and implications for "design praxis" in the coming decade? By design praxis, I refer to a wide spectrum of activities that ranges from architectural design and town planning to the sociopolitical mediations and articulations of the New Social Movements (NSMs).

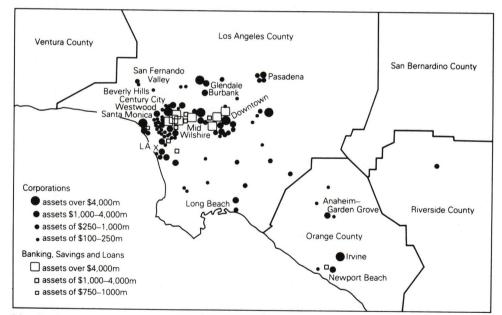
The internationalization of capital and the development of high and information technology allows our production system, whether one calls it late capitalist, postindustrial, or postfordist, to subcontract services worldwide.<sup>1</sup>

Hence, organizations can pursue a spatially unbound location strategy. In this connection, Manuel Castells's recent work, The Informational City, has succinctly depicted the sociospatial consequences of this new "informational mode of development," which centralizes high-level (decision-making) activities in the central business districts, for example, New York; decentralizes back offices to smaller areas, such as suburbs of major metropolitan areas; and diffuses customized activities across segmented markets. The processing of information-"the logic of flows"-has become the dominant force in structuring intra- and interorganizational functioning and networking, which in turn affects the linkages between firms and markets, markets and society.

In other words, organizations have become more powerful in shaping the spatial



Map showing an aspect of the "dual city": distribution of major ethnic groups in the Los Angeles area, 1980. (From *The Informational City*.)



Map showing an aspect of the "dual city": corporate and banking headquarters in the Los Angeles region. (From *The Informational City*.)

form—through changing the production units' location and labor requirements and are beyond the control of "societal logic." In short, organizational logic externalizes its influences without many corresponding controls from the state and society. One of the consequences of such "flows" development is the emergence of the "dual city."<sup>2</sup> This dualism refers both to the contradictory dynamics of growth and decline, and to the polarizing and exclusionary effects of the new logic of the division (or the differential reassignment) of labor—the polarized development of the information-based formal economy and the down-graded labor-based informal economy—within the same locality. The result is a spatial structure (the city) that combines segregation, diversity, and hierarchy. On the other hand, the global flexible production system affects the locality. In the United States, for example, it is the restructuring of household economic activities that shifts to the informal sector, which has strong implications for both local and global politics, manifested in the development of the "quality of life" neighborhood movements in Sunbelt cities, which is "anti- (or managed-) growth oriented."<sup>3</sup> This shares with the development of the New Social Movements (NSMs) across the Atlantic, particularly in the post-*Modell Deutschland* ("German model") era, the quest for sustainable development.<sup>4</sup>

Castells highlights the fact, in his conclusion, that "social meaning *evaporates* from places, and therefore from society, and becomes diluted and diffused in the reconstructed logic of a space of flows whose profile, origin, and ultimate purpose are unknown, even for many of the entities integrated in the network of exchanges. The *flows of power* generate the *power of flows*" (my italics). This analysis is remarkably in line with the postmodernist discourse on the uncertain and tenuous nature of our modernity as depicted by Marshall Berman in *All That Is Solid Melts Into Air* (1982).

More important, the role of people should not be underestimated, as Castells also notes that "the meaninglessness of places, the powerlessness of political institutions are resented and resisted, individually and collectively, by a variety of social actors." Thus he argues that people's actions—societal forces—could be organized locally in response to the global development of the "power of flows." In this respect, the potentials of the NSMs in general and ecological movements in particular should be evaluated.

The globalization of production processes and the concern for the survival of the planet are seen in two distinct but structurally related arenas. First, there are the global strategies to save our environmentally degraded world through supranational institutional cooperation; and, second, there is the growth of self-generated societal forces in the form of the ecological



Photograph of "Antigone" housing scheme; Montpelier; Ricardo Bofill, 1979-. (From Back to the Future.)

protests of the NSMs.<sup>5</sup> In other words, the ecological crisis is the utmost challenge for both sociopolitical institutions, our civilization at large, and "enlightened" individuals.

The crisis can be seen in two separate but related processes: namely, the production process per se, which depletes our natural resources, and the process through which risks are reproduced and multiplied. What results is the politicization of production and the "Not-In-My-Backyard" (NIMBY) phenomenon-the protest movements, not just against nuclear or hazardous installations, but also against genetic engineering (well before the catastrophes at Chernobyl and Bhopal) through which new meanings of, and the search for another form of, Gemeinschaft ("Community") are developed.6 The question is repeatedly posed: "How safe is safe?" Even among experts, no one can provide a convincing answer, except a confused notion of the so-called "acceptable level of risks" that, in most cases, is politically defined, regardless of how carefully the risk assessments are conducted.<sup>7</sup>

To summarize the crisis phenomenon in paradigmatic terms, Lester Milbrath's recent work, *Envisioning a Sustainable Society*, notes that we are now experiencing two opposing belief paradigms of our contemporary world: the Dominant Social Paradigm (DSP), which suggests further exploitation of nature without much control, and its opposite, the New Environmental Paradigm (NEP), which stresses the "limits-to-growth" and pursues a sustainable strategy for future development. Very likely, the future will see a shift toward the new paradigm.

Furthermore, ecological thinking, as highlighted in Arne Naess's ecosophy ("eco-philosophy") and Milbrath's work, cuts across the Left-Right political ideologies. Both capitalism and socialism have destroyed our ecosystem. More important, this thinking goes along with the development of a "risk society"-Risikogesellschaft, a term coined by German sociologist Ulrich Beck-on the way to another modernity in which risks are global and invisible, and multiply at a geometrical rate.8 In actuality, human-made "accidents" have again and again shocked and changed people's Weltanschauung ("world view"), and in fact have led to a separation between the risks we are exposed to and how we manage them. In other words, the state is "still muddling [in the embedded politics of production] but not yet through."9

Design, in most cases, is based on beliefs about facts, and the facts are (re)produced by designing. The belief system is now changing, or, at least, is caught in the turbulence of the synergy of the ecocrisis, risks, NSMs, the globalization processes, modernism-postmodernism, and

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Fordism-postfordism. Design praxis could reinforce this uncertainty, or, conversely, enhance the development of a "self-generating" society, which offers *alternative* solutions for sustainable growth. At this time, how design responds to these changes in the synergetic decoupling-cum-disorganizing processes will determine our future.<sup>10</sup> Should a new praxis be called upon to be practiced in the flows of our fluid and highly differentiated society?

Having outlined the context—or the contradictory conditions—under which designers have operated and will continue to operate, I would like to note some of the conceptual constructs that could foster a new design praxis on the way to another modernity.<sup>11</sup> Before doing that, I will comment on postmodern architecture.

Postmodern architectural projects are often out of scale with the historical conditions of a site, and lead to the submersion of locality by superstar architecture. In the case of Helmut Jahn's high rise in Philadelphia, for example, sensible height limit legislation was altered to accommodate a "world-class" project.12 In this respect, the struggle for land use and other development control conflicts between the large corporations that support postmodern architecture and the general public will intensify in the design-politics arena, in opposition to the calls for alternative policies for sustainable growth.

Perhaps here we might ask: what could be learned from postmodern design, on the way to another utopian modernity? Is it feasible to recycle the postmodernist's Back to the Future? The answer is, seemingly, not on the side of the postmodernists, as they generally reject the notion of planning and utopian thought. Hence, the postmodernists design rather than plan (as the modernists did), and they see space as something autonomous in the sense that they do not care much for the social project. This disregard of many postmodernists for people and community would disqualify them in the formulation of the new praxis. Furthermore, postmodernist style and postmodernist urban design in particular tends to be shamelessly market-oriented. Nevertheless, it should be acknowledged that some of the postmodernist claims are useful in reformulating an alternative design praxis, namely, the critique of the modernist's monofunctional zoning and mass-scale "rational" planning.

The uncertainty and anticipatory character of design practice, as well as the normative and aesthetic matters, should be incorporated in our design praxis for sustainable development. The new praxis should have technical, moral, and utopian dimensions, and the basic values such as security, justice, and compassion, for human self-realization and for a sustainable society.<sup>13</sup> This is distinct from that sort of post-modern architecture which seems to situate itself more in the egocentric domain of the design tradition and turns the social aspects upside-down. Equally important is the obligation of designers and planners to foster



Cartoon showing the problems of centralized distance. (From *Back to the Future*.)

people's self-organized actions, to be involved in a politics of empowerment, of redistribution, and of (local) place. This is in opposition to the nihilistic architecture and ephemerally built environments that are currently fashionable. In pursuing this goal, the new praxis acknowledges the importance of the "mix" of high and mass culture, and the sense of open political culture—the condition of postmodernity—if, and only if, for the benefits of the people and hence not subject to the hegemony of capital.

A new praxis would be composed of four dimensions: First, the basic premise is that the prevailing mode of "civilized" development can no longer be sustained. The transformation of the "dominator society" to pursue sustainable growth will become desirable. In other words, it points to a new role for the designer and planner as mediator for sustainable development.<sup>14</sup> In this respect, an emancipatory practice that empowers citizens to meet the challenges of a

diversified, polycentric, differentiated society in the 1990s should be fostered, so that, as Habermas advocates, "the formative communication of the participants be allowed to compete with the media of money and power."<sup>15</sup>

Second, social learning capability is the major avenue to social change for a "new society" that will function harmoniously and sustainably. The new praxis must strengthen and reinforce the social learning process. To this end, Milbrath stresses that it is important to build a learning governance structure that could facilitate the establishment of the "Systematic and Futures Thinking Capability" (SFTC) through Citizens' Data-Banking, which, according to Castells's thesis, is both necessary and technologically feasible. In other words, social learning should be facilitated through the improved free flow of information, with integrative, critical, systematic, and futuristic thinking not just about the complex, intricate relationships between technology and society, but also

about the synergetic (environmental, social, and cultural) impacts on the bio-community. In short, the capability to monitor the eco-socio-economic development for sustainable growth of all the concerned bodies with democratic participation should thus be enhanced.

Third, as highlighted in the works of Castells, Cooke, Milbrath, and Naess, the direction of societal guidance should be focused more on the development of science and technology, and its synergy, at least, in the political arena. We could learn from the experience of the New Politics16-the ecological movement in particular-which pushes industry and the state to exercise more control and planning through regulation of production, consumption, and exchange, on the one hand; and the creation of new public spaces beyond the technologically structured and defined society, and revitalizing the democratic praxis, on the other. Accordingly, people could foster a new capacity to invent and realize their future, and to politicize green issues and engage in every political discourse, because every political decision has green relevance. In other words, the movements foster a new posthumanist consciousness,17 and as a response to the challenge for one world-to rescue it from the wild growth of both capitalism and communism, at least in environmental terms.

Lastly, our future is unclear in terms of a postmodernist discourse, the risks embedded in our daily life, and the predicaments of the informational mode of development. Because of this uncertainty, and according to Arne Naess's thesis, we need more ecosophy-"one's own personal code of values and a view of the world which guides one's own decisions, when applied to questions involving ourselves and nature"-that accounts for not just the visions on a simple way of living, but also reinforces the momentum for the continuous search for new and better ways of social learning for (the coming of) a sustainable society. Thus the philosophical foundation of design and planning praxis should be articulated on the way to another modernity.

#### NOTES:

1. For a thorough discussion on cultural aspects of globalization, see Anthony D. King, ed., *Culture, Globalization and the World-System* (Binghampton: State University of New York and Macmillan, 1990); Mike Featherstone, ed., *Global Culture* (Newbury, CA: Sage, 1990). Alex Callinicos, a (post)Marxist, argues in *Against Postmodernism* (Cambridge: Polity Press, 1990), chapter 5, that the notion of a break in capitalism, in terms such as postfordist (or postindustrial), is problematic, as the pattern of internationalization is being selectively exaggerated and presented. Thus the concept's explanatory power is very limited.

2. It has been argued that the concept of the "dual city" is problematic and so vague as to be shapeless by Peter Marcuse, "'Dual City': A Muddy Metaphor for a Quartered City," *International Journal of Urban and Regional Research* 13, no. 4 (1989): 697–708.

3. Michael P. Smith, City, State and Market: The Political Economy of Urban Society (Oxford: Blackwell, 1988), pp. 217–24; Michael P. Smith and Joe Feagin, eds., The Capitalist City (Oxford: Blackwell, 1987); on changing city form, see Edward W. Soja, Postmodern Geographies (London: Verso, 1989), esp. chapters 8, 9; P. Cooke, Back to the Future: Modernity, Postmodernity and the Locality (London: Unwin Hyman, 1990).

4. Compare J. Esser and J. Hirsch, "The Crisis of Fordism and the Dimension of a 'Postfordist' Regional and Urban Structure," *International Journal* of Urban and Regional Research 13, no. 3 (1989): 417–37; F. Muller-Rommel, ed., New Politics in Western Europe (London: Westview Press, 1989).

5. See the World Commission on Economic Development (WCED), *Our Common Future* (Oxford : Oxford University Press, 1987); and the potentials of worldwide environmental movements outlined by Zsuzsa Hegedus, "Social Movements and Social Change in Self-Creative Society: New Initiatives in the International Arena," *International Sociology* 4, no. 1 (1989): 19–36. For the NSMs, see Russell J. Dalton and Manfred Kuechler, eds., *Challenging the Political Order* (Cambridge: Polity Press, 1990).

6. Compare Alberto Melucci, Nomads of the Present (London: Hutchinson-Radius, 1989); A . Scott, Ideology and the New Social Movements (London: Unwin Hyman, 1990).

7. Compare The Institute of Chemical Engineers (ICE), Risk Analysis in the Process Industries (Warks, UK: ICE, 1985); H. C. Kunreuther and E. V. Ley, eds., The Risk Analysis Controversy (Berlin: Springler Verlag, 1982). Mary Douglas and A. Wildavsky have concluded that risks assessment is biased, see their Risk and Culture (Berkeley: University of California Press, 1982), pp. 67–82. For a succinct case study on how the "acceptable-risk level" is politically determined, see Lee Clarke, Acceptable Risk? (Berkeley: University of California Press, 1989).

8. See Ulrich Beck, *Risikogesellschaft: Auf dem Weg im eine andere Moderne* (Frankfurt: Suhrkamp, 1986); "The Anthropological Shock: Chernobyl and the Contours of the Risk Society," *Berkeley Journal of Sociology* 28 (1987): 153–65.

9. A phrase I borrow from Charles E. Lindblom's "Still Muddling, Not Yet Through," *Public Administration Review* 39, no. 6 (1979): 517–26. Compare L. P. Gelach, *Protest Movements and the Construction of Risk*, Discussion Paper IIUG, dp. 86–10 (Berlin: Wissenschaftzentrum, 1986).

10. Compare Claus Offe, *Disorganized Capitalism* (Cambridge: Polity Press, 1985).

11. I have borrowed much from John Forester, ed., *Critical Theory and Public Life* (Cambridge, MA: MIT Press, 1985) and *Planning In the Face of Power* (Berkeley: University of California Press, 1989); J. Albrecht and G. C. Lim "A Search for Alternative Planning Theory: Use of Critical Theory," *Journal of Architectural and Planning Research* 3 (1986): 117–31; and John Friedmann, *Planning in the Public Domain: From Knowledge to Action* (NJ: Princeton University Press, 1987), pp. 311ff., for the discussion in this part.

12. See S. Zukin, "The Postmodern Debate Over Urban Form," *Theory, Culture and Society* 5, no. 2-3 (1988): 431–46; particularly, p. 440, p. 443 (n. 3). Compare P. Cooke.

13. See John Friedmann, "Planning, Politics, and the Environment," *Journal of the American Planning Association*, Summer 1989: 334–37; and Milbrath, ch. 4. For similar formulation, in terms of conditions of ideal communication, see Forester, chapters 3, 9.

14. H. Blanco, and M. Neuman, "The Environment as Common Ground: Learning from Practice," *Journal of the American Planning Association*, Summer 1989: 339–41; esp. p. 340. Compare Naess, chapters 1, 5, 7; and Milbrath, chapter 3.

15. Jürgen Habermas, "Modern and Postmodern Architecture," in John Forester, ed., *Critical Theory and Public Life* (Cambridge, MA: MIT Press, 1985), p. 328.

16. Compare Jean L. Cohen, "Rethinking Social Movements," *Berkeley Journal of Sociology* 24 (1983): 97–113; also Dalton and Kuechler.

17. I borrow the phrase succinctly coined by M. Bradbury, "Modernism/Postmodernism," in I. Hanssan and S. Hassan, eds., *Innovation/Renovation: New Perspectives on the Humanities* (Madison: University of Wisconsin Press, 1983), p. 323.

THE INFORMATIONAL CITY: INFORMATION TECHNOLOGY, ECONOMIC RESTRUCTUR-ING, AND THE URBAN-REGIONAL PROCESS, Manuel Castells, Basil Blackwell, 1989, 402 pp., \$49.95.

ENVISIONING A SUSTAINABLE SOCIETY: LEARNING OUR WAY OUT, Lester W. Milbrath, SUNY Press, 1990, 400 pp., \$57.50 cloth, \$18.50 paper.

ECOLOGY, COMMUNITY, AND LIFESTYLE, Arne Naess, translated by David Rothenberg, Cambridge University Press, 1989, 240 pp., \$44.50.

BACK TO THE FUTURE: MODERNITY, POSTMODERNITY AND THE LOCALITY, Philip Cooke, London: Unwin Hyman, 1990, 192 pp, \$39.95.

## Jerrilynn D. Dodds

## Terror of the Year 1000: Architectural Historians Face the Millennium

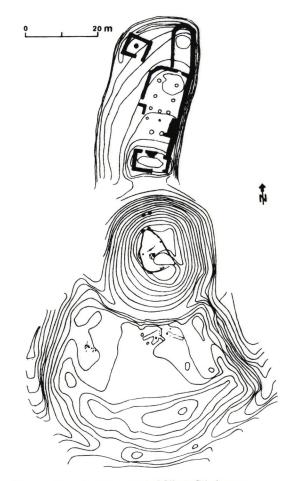
A dilemma for Medievalists has always been that Romanesque architecture began—almost on the nail—in the first years of the millennium. The year 1000 always seemed, to cautious architectural historians, to ring of apocalyptic transformation, of a popular, unscientific and subjective desire to see a new pan-European style of architecture correspond with a date more perfect and authoritative than any yet given to a year of the Christian era.

But it was a text that lulled us into submission, allowed us to begin "Later Medieval Architecture" in various architectural surveys with the year 1000: the oftenquoted declaration of Rodulfus Glaber reads:

At the approach of the third year following the year 1000, it was possible to see almost everywhere in the world, but particularly in Italy and Gaul, the reconstruction of church buildings, even though the greater part of them, very well constructed, did not need rebuilding. A spirit of generous piety motivated each Christian community to have a more sumptuous one than that of its neighbors. One might have said that the world itself stirred to shake off its old garment in order to cover itself everywhere with a white cloak of churches. At that time, almost all the churches of the episcopal seats, those of the monasteries consecrated to all kinds of saints, and even small village chapels were built more beautifully by the faithful.

It's not a bad issue to consider as we approach our own architectural millennium, for the problems at stake present a number of eerie, if not always significant, parallels. Much of the ninth- and tenth-century European architecture available to scholars had grown from a group of culturally disenfranchised courts actively engaged in creating visual images for themselves that made reference to a classical past: to Rome. Morphemes of Roman public and ecclesiastical architecture were used in and out of context, and were laden with specific reference throughout the Carolingian and Ottonian rules: a broken pediment, disengaged columns, a Corinthian capital, a continuous transept, or an octagonal plan. Appropriated symbolic form was the primary carrier of meaning, and-apart from issues like scale and monumentality-style signified largely to the extent that it made reference to the past. These were buildings centered on courtly concerns and that served the predictable preoccupations of authority and legitimacy of the kings who created them, or their followers. On the eve of the first millenium then, a monumental style that used isolated and often mutated classical morphemes created cultural identities for powerful patrons.

What followed in the second half of the tenth century has never been clear. Early



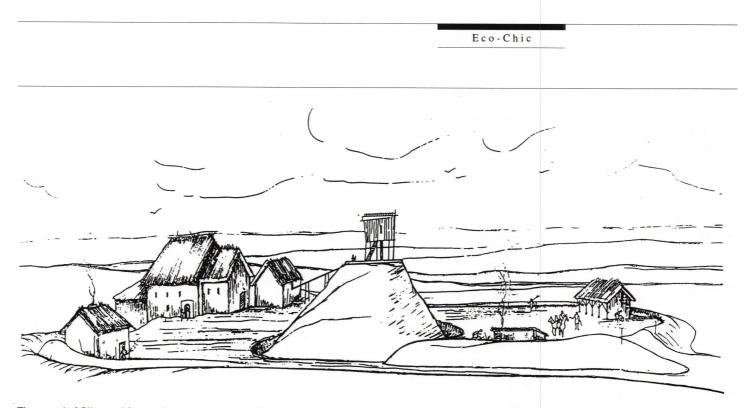
Topographic map of the mound of Olivet; Grimbosque, Normandy. (From *Le Paysage Monumental*.)

historians supposed that belief in the end of the world at the turn of the millennium, the famous "Terrors of the year 1000," brought about an abrupt, fatalistic end to church-building by a people who despaired of their own earthly futures. When this notion was deemed unacceptable by scholars, it was replaced by a vision of a western Europe ravaged by invasion and war, one which-apart from the continuing monumental output of the Empire-only returned to building at the stroke of the millennium: the moment of Glaber's white mantle of churches. The miraculous building spree of Glaber's text, which masked the awful void of negative evidence-that is, the paucity of tenth-century monuments-also had the advantage of bathing the theory of the spontaneous generation of the Romanesque style in the sanctity of the text-as if Glaber's ideologically laden

> dialogue harbored a kind of scientific truth. Though art historians had long ago abandoned the notion of a style of rebirth spawned after the passing of the terrors of the year 1000, the scientific stance still retained the apocalyptic magic.

> Le paysage monumental de la France autour de l'an mil, a work of staggering proportions prepared under the direction of Xavier Barral i Altet, should break the spell. It is the most valuable resource to appear in the entire history of the problems surrounding the late tenth and early eleventh centuries. Its value lies not only in its proportions: 628 pages of catalogue, including regional syntheses and monographic essays concerning individual buildings and sites, and seven synthetic essays-but in its courageous and far-reaching goals. Refusing to offer conclusions, to commit their extraordinary work to one or another polemic of an overwhelmingly formalist discipline, the authors provide the field with a source that will surely change the way we see the year 1000.

The great value of *Le paysage* monumental is its refusal to rehearse



The mound of Olivet and farmyards reconstructed according to excavations; Grimbosque, Normandy. (From Le Paysage Monumental.)

the old problems art historians have posed for generations. The book turns instead to the work of French archaeologists, who have been spending the past two decades discovering the urban and rural built environment of the tenth and early eleventh centuries in France. Barral and his chief collaborator, the distinguished architectural historian Carol Heitz, oblige their colleagues in art history to acknowledge the extraordinary work of archaeologists committed to the careful study of individual sites, an inclusion which will compel us to incorporate their findings in art historical syntheses. Intrinsic to this goal is a challenge to architectural historians to expand their mandate beyond church architecture to consider what archaeology tells us of villages and fortifications, the difficult terrain of the secular world in the Middle Ages. It is by extension then a challenge to art historians to see the High Middle Ages not as the monolithic expression of the church leading a blind populace and a feisty, ambitious, but witless aristocracy, but as a complex social and economic fabric brimming with movement and tensions that were felt in the entire architectural landscape.

Le paysage monumental accomplishes its goals through the presentation of voluminous data. It begins with a long statement of the question by Barral concerning architecture and archaeology of the midtenth through the early eleventh centuries, which interweaves questions posed by historians of the Middle Ages. We are reminded of the studies which chronicled the dispersion of power from royal patron to minor princes and various aristocrats, many of whom minted their own money and ruled their own territories. This, and significant changes in the peasant populations, identify the late tenth century as the scene of social transformations that engendered feudalism. Barral links these developments with the building of fortifications chronicled by archaeologists within the pages of Le paysage monumental, giving physical testimony to an important seigneurial class. He further reminds us of the connection between increased seigneurial profits and the influx of charity to ecclesiastical and monastic institutions, providing a motive and a basis for the financing of a new wave of religious and secular building near the year 1000.

Barral addresses other important themes as well, without attempting to resolve them: the meaning of *spolia* (pieces of older buildings incorporated into new buildings) and the more veiled antique references in tenth- and eleventh-century architecture; town planning; secular housing and village formation; and the relationships between monastic and ecclesiastical reform and the creation of a new architectural landscape. The essay, which synthesizes and introduces the other studies and catalogue that follows, ought to be required reading for all those who enter the world of Romanesque architecture in their survey courses as if it were the miraculous world constructed by Glaber.

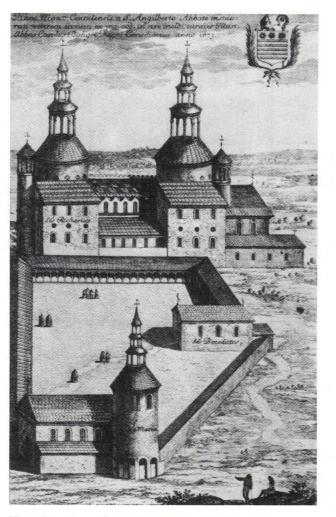
The essays that follow are like splendid Cliff Notes to a lifetime of archaeology reading neglected: Andre Chedeville on urban development, Michel Bur concerning the castle, a wonderfully concise and scholarly treatment of the village and rural habitat by Gabrielle Demains D'Archimbaud, in addition to two more conservative articles concerning religious architecture by Carol Heitz and a survey of the monumental decor by Barral.

The most significant contributions of the volume, however, are the twenty-one regional studies and a fine appendix concerning Catalonia that follow. Each of these studies contains its own thematic essays and monographic studies of important sites, including concise bibliographies, photographs, and plans that bring us the most fascinating material—though not the most scintillating writing—to have been uncovered in the past two decades, which must be seen as a beginning of a golden age of French archaeology.

My enthusiasm for this enterprise thus established, let me turn to a few more complex issues. The volume, prepared in anticipation of a conference commemorating the thousandth anniversary of Capetian rule in France in 1987, is about France alone, and Barral is careful in his introductory chapters to separate the work explicitly from contemporary royalist and nationalist agenda. Yet an enduring archival sleight-of-hand is still at work. The long appendix on Catalonia appears here, according to the authors, because Catalonia once formed part of the Carolingian world. This appropriation-both of Catalonia and the Carolingian world-however delicately handled, situates, by the sheer force of monumental remains, the locus of the birth of Romanesque ecclesiastical architecture within this very French book. Since Catalonia is a domain well-known to Barral, one assumes the material is here because he understands that a study of the architecture around the year 1000 would not be very satisfying without these compelling

and important experiments. And yet their inclusion is only half-hearted because their liminal status in this volume about France denied the Catalonian monuments a full place in the valuable synthetic treatment at the beginning of the volume.

A second issue I see confused relates to the issue of style and Romanesque church building, and here again, Catalonia plays a role. This volume takes a surprisingly strong stand against a preoccupation with architectural style, seeking courageously, and laudably, to distance itself from the endless discourse concerning the formation of Romanesque style in the First Romanesque architectures of the north and south. The term "First Romanesque art," laments Heitz, "is already reserved, perhaps too exclusively, too specifically for a domain which seems to me restricted to



View of the abbey of Centula/Saint-Riquier; 1673. (From *Romanesque Signs.*)

simple stylistic aspects." Indeed, preoccupations with the origins of bay divisions and barrel vaulting, with transverse arches and corresponding verticals, had become the language of the millennium; we had reduced the discussion of an entire moment in history to a dosseret at Montserrat, a straight-edged reveal at St. Benoit sur Loire, or a tiny vertical scratched into an ancient wash drawing of Orleans. But how to talk about Romanesque, which is, in many ways, Heitz's subject, without speaking of style, or defining the word in another way? Heitz reduces his longest discussion of religious architecture to a typological study of a number of northern buildings, tracing the passage from Ottonian to Capetian building, in particular through the mutation of largely imperial forms into the more homogenized morphemes of monumental Romanesque building: westwerk to two-tower facade; annular crypt to ambulatory with radiating chapel. His concern with patronage and the actual use of the buildings has been for many architectural historians a beacon during two decades of formalist frenzy, and this fresh, secure approach is no exception.

But neither is it a good idea to dispose of an entire nascent style with the bath water. The tracing of monumental typology is limited to the tracing of those imperial traditions which were the north's primary contribution to Romanesque. They constitute, not just one kind of functional development, but also the contribution of only one kind of patron. Studies like Le paysage monumental offer the possibility to give voice to the more obscure patrons of southern First Romanesque-the same newly enfranchised nobility and reforming clergy celebrated in Barral's essay. If the imperial architecture of the north bequeathed to the architecture surrounding Capetian rule monumentality, classical orders, Western masses, and elaborated east ends-

that is, elements easily isolated typologically—the contribution of the south, with its more dispersed power structure, was a whole, unvoiced theory of articulation more difficult to pinpoint both from the point of view of typology and of agency.

What these bring to Romanesque as a style was articulated by C. Edson Armi, in a watershed article of 1972, a work unaccountably neglected in this volume.<sup>1</sup> Armi shows that these often small-scale buildings constructed by itinerant masons develop over time an organic aesthetic: an articulation that reinforces the weight-bearing properties of the supports by outlining the transfer of weight from vault to wall to support. These continuous reveals are at the heart of the verticals that delineate the transfer of weight in mature Romanesque buildings; they bring to the monumental, classicizing court-derived styles of the north a unifying aesthetic.

Because that aesthetic is derived from the practice of itinerant masons themselves, we can take Armi's formal argument in a different direction, with the help of the rich contexts offered by Le paysage monumental, into a domain of patronage and social meaning which dignifies the study of style as worthy of the attention of those authors. The flourishing of this masons' aesthetic in relatively modest buildings suggests an abstention, on some level, from detailed formal intervention on the part of patrons. The new seigneurial class did not have a court atelier or intellectuals who might be counted on to mold architecture to hegemonic ideology. Instead, it was the act of building itself that identified them as members of a new kind of power structure, and the act of charity which underlay their interdependence with the church. The distribution of power and wealth created new patrons, created work for new groups of itinerant masons, and a new, relatively free field for the development of their simple, organic vision in a number of modest churches. By the second decade of the eleventh century, the style began to appear in more important foundations, associated with vaulting in the nave, and with adjustments in scale and typology (Ripoll, Cardona). But what dignifies the study of First Romanesque style is not its probable connections with a mature Romanesque building tradition, but the voice it gives to a new group of patrons and the workers they employed, in a period of social readjustment. Style here becomes not a beacon for dating or mapping an evolutionary development, but a structure that links social groups, and reminds us of the relationships that fashion the creativity of a social body.

John France's fine new English translation of Glaber's *Historiarum Libri Quinque* now leaves architectural historians no excuse for interpreting the much-translated single passage above as a dispassionate chronicling of raw historical matter, and thus draws us to an understanding of the role of the church in the formation of Romanesque architecture. We are all now free to read for ourselves what the historian Richard Landis has been telling us for some time: Glaber's literary construction of the extraordinary wave of building just after

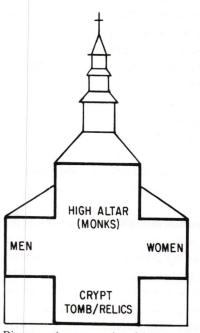
Intrinsic to this goal is a challenge to architectural historians to expand their mandate beyond church architecture to consider what archaelogy tells us of . . . the difficult terrain of the secular world in the Middle Ages.

the year 1000 was surely part of the mandate of his patron, William of Volpiano, who sought, through monastic reform and elaborate building, to create an image of renewal of culture by an enlightened church. It is part of the attempt of the church in France to appropriate and defuse a popular belief in the apocalypse of the millennium, and to put the locus of power and authority in the bosom of the church. Such an agenda on the part of a known builder suggests the extent to which this widely based style funded by the dispersion of power served, and was encouraged by, the church.2 Glaber's vision both appropriated the power of a popular apocalyptic belief and harnessed it to serve the vision of a church at the helm, in control, sowing churches over the countrysidewith the help of a generally compliant aristocracy-as a vision of a renewed age. A deeper reading of how this passage concerning architectural renewal was meant to be understood is one of the fine early moments of Romanesque Signs, Stephen Nichols's much-discussed volume, which has been very little remarked upon by architectural historians. A work far more celebrated for its treatment of texts than works of art, its virtues and problems have been reviewed in the context of a number of disciplines, and I will discuss here only

those arguments that concern architectural historians facing the issue of the millennium.<sup>3</sup>

Nichols's book concerns the notion that a new mode of discourse, both in history and monumental art, was created just before the tenth century, one which sought a means of communication with a wider public. He outlines the language with which the church articulated its social role, a figurative language meant to sweep the whole of contemporary history into the fold of universal history: the "extent to which the physical and social world conformed to the scriptural model." In the case of Glaber's "white cloak of churches," the energetic building appropriated by William of Volpiano is here described borrowing the language of the Transfiguration: the white garments "become the language by which Christ clothes the world in the present age: that is, the Church."

Glaber brings the same authoritative language of universal history to the legends of the frightening destruction and rebuilding of parts of Orleans. The apocalyptic associations of its destruction are evoked, then refashioned, as a way of making the Capetian royal city eligible for



Diagrammatic representation of the tower church Saint-Saveur during the Paschal Mass; Centula/ Saint-Riquier. (From *Romanesque Signs*.)

spiritual reconstruction: for "symbolic homologization with Jerusalem."

Such metaphoric goals shared by Capetians and church reformers remind us of the extent to which, in France, secular, monastic, and ecclesiastical interests were intertwined. The church profited from the dispersion of secular power and the tenuous position in which Robert the Pious found himself on the eve of the millennium, interdict as he was for consanguinity. The Capetian was forced to forge popular links with urban communities and the reforming church to secure a place for his fledgling dynasty. In a sense, it is not the foundation of Capetian rule that distinguished French history near the year 1000, but the weakness of that rule; the dispersion of secular power and the dependence of the monarchy and the budding seigneurial network on the church.<sup>4</sup> Such a dispersal of authority and the attendant dependence on the church for a significant part of the Capetian's popularized legitimizing discourse distinguished France from Germany, where Nichols and Landes recognize the monarchy buttressed its links with its own powerful past while acting out its own quite independent understanding of the significance of the year 1000. And once again Otto III's act of finding the tomb of Charlemagne in that significant year becomes historia-not through court chroniclers-but through a Frenchman. It was the pen of Ademar de Chabannes at St. Martial de Limoges which created for the event an allusive structure so that its meaning might be extended beyond the political and hegemonic metaphors created by both Charlemagne and Otto into a demonstration of the "symbolic unity of the world" in which "ordinary time and space tended to diffuse."

Consequently, although there are problems with segregating modern France archaeologically in a consideration of southern architecture around the year 1000, it makes great sense to look at the area set aside by *Le paysage monumental* in a consideration of the architecture of the late eleventh and twelfth centuries: the buildings we have become accustomed to calling mature Romanesque. They constitute, in their monumentality, structure, and symbolic sculptural programs, a rhetorical form focused at a wide audience much like historia described by Nichols in origin and goal. That is why Romanesque buildings could, of course, be chock-full of symbolic reference, which fixed them as contemporary revelations of divine history (Ripoll possessed a kind of reduced plan of St. Peter's; Neuilly St. Sepulchre, Sto. Stephano in Bologna, and Eunate were wildly divergent copies of the Holy Sepulchre), while they continued to be bound together by formal values that constituted a dialogue that both coexisted with-and gained independence from-the conscious agenda of the patron. The style which had developed with the dispersion of power had now been appropriated for the storytelling of *historia*, the linking of divine and earthly hegemonies under royal and ecclesiastical structures, as a means of controlling an increasingly potent popular world.

Nichol's book concerns the notion that a new mode of discourse . . . was created just before the tenth century, one which sought a means of communication with the wider public.

I take this digression as a reminder that—although others have discussed the serious problems in Nichols's use of certain images in *Romanesque Signs*—he offers the architectural historian a valuable set of paradigms for the analysis of Medieval architecture.<sup>5</sup> None of these depends on the language or craft of another discipline: they only require that medieval architectural historians acknowledge the importance of the commonly held subconscious meanings that form and act upon works of architecture.

Clearly, architectural historians facing

the eve of the millennium have too long huddled in terror around the predictable authority of texts, with their comforting message of the relentless control of an ecclesiastical hegemony over a single unquestioningly attentive popular mass. But in doing so we have only served to reveal our own addiction to a millennium-old hierarchical structure. Indeed, if Nichols sees in the year 1000 the creation of a kind of history intended to fashion a dialogue with a wider public, the year 1000 also saw the birth of a visual world which was at times built by, then appropriated and reconstructed for, the popular gaze. How alien that gaze must be to our habitual discourse to so excite our terror.

#### NOTES:

1. C. Edson Armi, "Orders and Continuous Orders in First Romanesque Architecture," *Journal of the Society of Architectural Historians* 34, no. 3 (1975): 173–88.

2. The best source is R. Landis's forthcoming book: History and Denial in an Age of Apocalypse: The Life and Times of Ademar of Chabannes, Part I, Chapter 4.

3. N. J. Lacy in *French Review* 57 (1984): 867–68; R. H. Bloch in *Speculum* 59 (1984): 421–25; R. K. Emmerson in *Modern Language Quarterly* 44 (1983): 314–17; J. Marenbon in *English Historical Review* 101 (1986): 213; E. Sears in *Art Bulletin* 70: 347–50.

4. I am indebted to many stimulating conversations with Richard Landis for the historical concerns that inform the argument outlined in this paragraph.

5. See Sears.

LE PAYSAGE MONUMENTAL DE LA FRANCE AUTOUR DE L'AN MIL, Xavier Barral i Altet, editor, Picard (Paris), 1987, 797 pp., illus.

THE FIVE BOOKS OF THE HISTORIES AND THE LIFE OF ST. WILLIAM, Rodulfus Glaber, translated by John France, Oxford University Press, 1989, 323 pp., \$84.00.

ROMANESQUE SIGNS: EARLY MEDIEVAL NARRATIVE AND ICONOGRAPHY, Stephen G. Nichols Jr., Yale University Press, 1983, 249 pp., illus., \$35.00 cloth, \$12.95 paper.

RELIGION ET CULTURE AUTOUR DE L'AN MIL: ROYAUME CAPETIEN ET LOTH-ARINGIE, Xavier Barral i Altet, editor, Picard (Paris), 1990, 352 pp., illus.

#### Edward Muir

## An Atlas of Venice

EDOARDO SALZANO, EDITOR

# Venice and the Renaissance

MANFREDU TAFUR

## Venetian Vernacular Architecture

RICHARD J. GOY

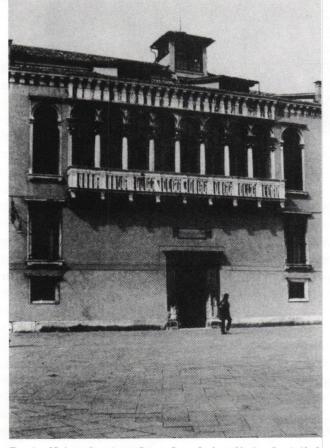
The impossibility of Venice, the city built upon the sea, presented a dilemma to urban planners long before its current ecologic and demographic crises made the survival of what is arguably the world's most beautiful city a matter of international concern. As early as 1560, two dramatically conflicting proposals for the restructuring of the city illustrated in a stark fashion what

have become the leading alternatives in modern urban planning. One scheme came from Cristoforo Sabbadino, a technical expert preoccupied with practical solutions and sensitive to changing political currents, and the other from Alvise Cornaro, a philosophically minded dilettante, a visionary humanist perhaps more interested in shocking his contemporaries with his utopian imagination than in solving real problems.

As the proto, or chief engineer, for the Ministry of Waterways, Sabbadino was responsible for the hydraulic regulations that were critical for the city's survival. In 1557 he drafted a report advocating the enlargement of Venice by encircling it with a continuous quay flanked by newly dredged canals that would promote a salubrious flow of tides through the internal canals of the city and permit the navigation necessary for commerce. For Sabbadino, human intervention in the environment should restore natural processes or, to use his own

words, "preserve nature with art." Sabbadino's proposal reconciled the conflicting needs of economic expansion and ecologic integrity, and, in fact, a part of his ambitious program was completed with the construction between 1590 and 1594 of the Fondamenta Nuove, a long cay that, to this day, creates a distinctive area of the city.

Whereas Sabbadino began by analyzing the hydrologic conditions necessary for sustaining a healthy lagoon, Alvise Cornaro, who lived in Padua, represented mainland interests by advocating agricultural expansion through vast state-subsidized land reclamation projects in the lagoon. In fact, Cornaro had previously been in trouble with Sabbadino's agency after his private reclamation efforts had altered the water level in the lagoon. Perhaps as a counterattack against his Venetian accusers, Cornaro proposed in 1560 that the *bacino* or anchorage basin in front of the Ducal Palace—the very heart of Venice—



Façade of Palazzo Loredan at Campo Santo Stefano; Venice; first half of 16th century. (From *Venice and the Renaissance*.)

be restructured into a kind of fantasy garden. He imagined two artificial islands, one the site for a classical theater, open to all citizens and devoted to instilling military virtues by staging mock battles, and the other the location for a hill topped by a loggia and a fountain of fresh water. Completing a triangulation of views would be another freshwater fountain in the Piazzetta that leads from the bacino to the Ducal Palace and Saint Mark's basilica. In a separate plan, Cornaro further envisioned encircling the lagoon city with a wall flanked by a continuous public park. Cornaro's hubris subordinated common sense to the elevated proposition that humans can improve nature to serve the abstract public good. Had his ideas been followed, the resulting blockage of the flow of lagoon waters would have created an environmental disaster.

Although megalomaniacs are still making big plans for fragile Venice, such as

> those for the now-aborted World's Fair that was scheduled for the year 2000, it is Sabbadino's conception that has survived to this day among those responsible for the future of the city. Sabbadino's heritage can be readily seen in the magnificent new Atlas of Venice, produced by the Venice City Council as the core of a "local urban information system" to be used in planning. The Atlas presents all features neutrally and geometrically, eliminating the privileging of some spaces over others for historical, artistic, military, or industrial purposes. Just as four hundred years ago Sabbadino's ideas served as a prototype for the modern conservation-minded planner, the architects, urbanologists, cartographers, and computer programmers who created the Atlas have also been precocious in devising a system for assembling knowledge about historic cities that has become a model accepted by the European Community and the various international carto-



Palazzo Corner at San Maurizio; Venice; Jacopo Sansovino. (From Venice and the Renaissance.)

graphic societies. The Atlas consists of 178 color photographs from a flight survey completed on a single day in 1982. On the page facing each of these photographs is a line map that graphically represents the same area according to four subsystems: building units, land circulation (squares and streets), waterways, and finite space units (open areas such as private courtyards). In addition to the maps in the Atlas, the Venetian information system includes a catalogue that collates the map with archive records concerning the demographic, functional, physical, structural, historical, and conservation features of the urban forms. Finally, the system makes it possible to produce through the computer virtual models of all the city's buildings from any point of view.

The *Atlas* leads one to see Venice differently from the experience produced by wandering through its streets or studying previous maps and views. One notices how green the city is in the private gardens behind the ubiquitous brick and stone seen from the streets. One notices that some of the most common urban forms are outdoor tennis and basketball courts. And one notices the vast extent of the new industrial zones that fill up 64 of the 178 frames.

Whereas the viewer's enjoyment of the visual and technical panache of the *Atlas* is

not seriously marred by the three poorly translated introductory essays (one of which is so bad that it makes little sense), readers of Manfredo Tafuri's far more intellectually challenging book, Venice and the Renaissance, will be put off by an amateurish translation that makes many technical errors and does little to help the English reader penetrate the obscurities of the author's heavily allusive Italian prose. Tafuri unifies his intensive, often brilliant, sometimes excessively subtle analyses of a series of 16th-century Venetian architectural projects around two concepts derived from contemporary political, religious, and intellectual controversies: mediocritas, the appreciation of the good old Venetian style that was prudent in self-display and valued the equality of all patricians, both in politics and in the exterior embellishments of palaces such as Palazzo Loredan in Campo Santo Stefano, and novitas, the desire of individual patricians to distinguish themselves by emulating Roman and Tuscan styles, by valuing dramatic innovations, and by building sumptuous facades on palaces such as Sansovino's Palazzo Corner at San Maurizio. According to Tafuri, choices made by the patrons of buildings corresponded to their political alliances and their attitudes toward religious reform. Although the proponents of both Venetian simplicity and Roman extravagance often found themselves in open conflict, on some occasions they cooperated, so that the two terms represented tendencies rather than coherent parties or ideologies. The balance between the two differed from one architectural project to the next, producing at the church of San Salvador a curtain of ordinary buildings that camouflaged the selfdisplay of the interior, at the Scuola Grande di San Rocco, a deformed inconsistency in codes of taste, and at the Rialto Bridge, a proto's functional yet aesthetically mediocre solution of alignment problems that recognized how property owners in the way of the bridge needed to be accommodated, whereas the more "Roman" proposals of the architects, including Palladio and Scamozzi, had ignored such mundane practicalities.

Eco-Chic

While Tafuri's semiotically grounded interpretation of Venetian architecture displays a vast learning and sometimes suggests more than it can prove, Richard Goy's Venetian Vernacular Architecture is the more straightforward work of a practicing architect interested in the technical problems of typology, foundations, beams, and bricks found in the secondary buildings of the lagoon villages outside the capital city. Goy gives us a fascinating and highly readable account of how the master bricklayers and architects who preceded him in his craft solved the difficult problems of building in the lagoon. He also provides a survey, well illustrated with his own photographs, of the extant housing in the lagoon islands. The survey could also serve as a walker's guide.

Although Venice has always attracted dreamers like Alvise Cornaro, it was the practical men of the mediocritas tradition-the master artisans, engineers, and architects-who gave the city its unparalleled sense of architectural continuity by appreciating local building precedents and who made the impossibility of Venice possible by respecting nature. Both Tafuri and Goy tend to prefer these men over the dreamers. In our age of environmental disasters, urban renewals that destroy the fabric of daily life, innovations for the sake of innovation, and Trumpian displays of Roman excess, the success of Venice and its sometimes precarious survival can still serve as a model for what the past can teach the present about the future.

AN ATLAS OF VENICE: THE FORM OF THE CITY ON A 1:1000 SCALE PHOTOMAP AND LINE MAP, Edoardo Salzano, editor, translated by Chris Heffer and David Kerr, Comune di Venezia and Princeton Architectural Press, 1989, 420 pp., illus., \$175.00.

VENICE AND THE RENAISSANCE, Manfredo Tafuri, translated by Jessica Levine, MIT Press, 1989, 258 pp., illus., \$35.00.

VENETIAN VERNACULAR ARCHITECTURE: TRADITIONAL HOUSING IN THE VENETIAN LAGOON, Richard J. Goy, Cambridge University Press, 1989, 360 pp., illus., \$85.00.

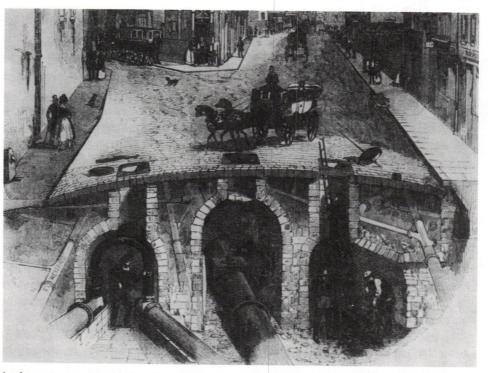
#### Jill Stoner

## **Recent Excavations**

One of the great 20th-century debates concerns the effects of technological advancement on the integrity of cultural fabric. In Notes on the Underground: An Essay on Technology, Society and the Imagination, Rosalind Williams proceeds like an archaeologist, piecing together shards from 19th-century literature, science, and urbanism into a theory about our contemporary technological predicament. In one of her numerous examples from the literature of the technological revolution, E. M. Forster's "The Machine Stops," the protagonist Vashti suffers from agoraphobia and spends time alone in a small cell, "rolling around in her moveable chair, manipulating buttons and switches, sheltering herself from any disturbance." Vashti could easily be mistaken for a late 20th-century woman (the story was written in 1909), who banks, shops, works, and socializes from the comfort and isolation of home through her personal telecommunications

console. This aura of prophecy in the fiction that connects technology to social, political, and spatial images of the underground makes Williams's book one of those rare bridges between academic research and cultural relevance.

Williams presents the technological environment of Forster's story as one which "saps strength." Technology is the political instrument of the state, which sets up an "artificial paradise of the consumer" in order to render the individual physically weak and spiritually bereft. The state survives at the expense of its citizens: "The nemesis of the artificial paradise is the (individual's) loss of autonomy." Such an alliance between political power and scientific development became possible only when technology ceased to be merely an object (or tool) and became so intertwined with its surroundings that the world itself was transformed into a technological environment. Williams demonstrates in clear historical sequence the congruence between developments in the first and second industrial revolutions and the literary images and technical realities of the underground experience.



A subterranean street scene in Paris from *Tableau de Paris*; Edmond Texier, 1852. (From *Notes on the Underground.*)



Large hole left after the removal of leaky gas station tanks; Berkeley. (Photograph by Jonathan Eden.)

The first technological revolution exploited the earth's immediate depths in the pursuit of strategies for more efficient urban living: mining coal for fuel, laying utility systems beneath city streets, and digging transportation tunnels between cities. Into such seemingly banal events Williams folds more obscure evidence, including critical documentation of Dickens as "an excavator who makes a vertical cut into society," and notes on the scientific concept of "deep time." The fictional underworlds of Forster, Victor Hugo, Gabrielle Tarde, Jules Verne, and H. G. Wells freely combined aspects of this period with the image of electrification that characterizes the second industrial revolution. As both a refuge from and a situation for disaster (Williams points out that both technological revolutions inspired premonitions of catastrophe), these worlds below the ground satisfied the 19th-century thirst for sublime experience. That tenuous threshold between fear and delight became accessible not only through fiction but also through such cultural innovations as cave tourism.

Perhaps the most profound aspect of Williams's book is her analysis of the transformation from the sublime to the fantastic in the framing of technological worlds. For while the sublime achieves its power in contrast to the larger framework of the quotidien, the fantastic world is a substitution for the less marketable, preindustrial environment. These fantastic undergrounds, in stories like "The Machine Stops" and Gabrielle Tarde's "Underground Man," are presented either as the paradise gained below the surface of an inhospitable world, or as a technological underground nightmare from which the heroas-individual seeks to escape back to a lost paradise on earth. In both cases a tragic outcome prevails: the utopian undergrounds cannot survive due to limited resources and the absence of ambition, and the hero's escape to the surface allows him only a moment of euphoric contemplation of the blue sky above before he dies. Thus Williams emphasized the underground as a setting for tragedy, an image that can be traced as far back as the Greek myth of Orpheus and Eurydice.

Furthermore, Williams points out that the dimension of verticality characterizes the industrial age in the same way that horizontality refers to an earlier pastoral, or agrarian world. She outlines two types of vertical journeys: the first upward, as described above, away from the oppression of an underground collective toward individual freedom, even if it means death. The second is a journey downward in search of humility, metaphorically through the social strata to experience the realities of working-class suffering in the manner of Dickens's Ebenezer Scrooge, or physically downward in a similar search, as in the H. G. Wells tale "When the Sleeper Wakes."

The latter story is cast in the context of an artificial, multilayered vertical city. The hero Graham asks permission of the ruler Ostrog to travel to the subterranean realm of the proletariat, called "The Labour Company," to see how they live. When Ostrog tells him that he can find out just as well through realistic novels, he replies: "I want reality, not realism." But the realism of Wells's story has become our own reality, albeit in reverse. Premonitions of nuclear disaster have inspired the construction of whole cities underground, this time not for the proles, but for the favored few to survive.

Because Williams uses the image of the underground to focus on the broader question concerning technology, her message adapts to our current ecological crisis, both nuclear and otherwise. Although the image of the underground may itself seem obsolete as a realm of refuge (except to a former Reagan advisor, who suggested that "with enough shovels" we could all survive a nuclear holocaust), Williams argues that "the real surface of our planet is the upper edge of the atmosphere, beyond which lies the frigid and uninhabitable realm of outer space." Our resources are just as limited, proportionally, as the underground of the 19th-century fiction, and the aspect of interiority just as absolute. She demonstrates that proposals such as Paolo Soleri's "Arcology" and Dioxiades's highly controlled urban enclaves bear astonishing resemblance to the imaginary cities that Wells and Tarde conceived almost a century earlier, and may be at best an attempt to cure the problems of technology with more technology.

In the final chapter Williams emerges from under the cloak of historical analysis and literary critique and addresses us more plainly. While the heroes in her examples from 19th-century fiction sought to escape their technologically complete worlds in their journey to the surface, she warns that "both the fictional journey into the social depths and the fictional journey back to nature are in danger of losing their resonance with real-life experience." She describes the pursuit of further technologies as solutions to problems as a retreat into "worlds within worlds," interiors that are ultimately isolating and dimensionless. Like Vashti in her cell, we will have bartered our essentially human social and sensual qualities for a surreality of high-tech convenience and artificial environments. Instead, Williams urges a return to a more basic level of social interdependence, "which is another source of security."

Published three years earlier, Wendy Lesser's The Life Below the Ground seems at first glance to be a model for Williams's more recent book. But in spite of the similar subject matter (Lesser also discusses the stories of Verne and Wells and advancements in 19th-century engineering), the earlier book is more an anthology of observations on the potency of the underground image than a cultural theory about the relationship between that image and the technological phenomenon. Lesser writes in the first person; her tone is consequently more conversational than academic. She explores the image of the underground in its relationship to such diverse contemporary topics as psychoanalysis, crime, the African-American experience, children's literature, and poetry. If the book holds a thesis, it is implicit: in each chapter she demonstrates that the world below the ground, perhaps more than any other image, has the power to connect the imagined with the "real" world.

Particularly successful in this regard is the chapter titled "Poets and Archaeologists: Digging for the Past." Digging implies a descent, and also a quest. In detailed analyses of the Orpheus and Eurydice myth and the poem "Bringing to Light" by Thomas Gunn, Lesser links poets and archaeologists in their mutual quest for the past—on the one hand, the past embodied deep in collective memory, and on the other hand, the past manifest by artifacts of a real but "other" culture. In both forms that which is buried is eternal, in contrast to the temporal, everchanging world above. The poet, as archaeologist, "bridges these two worlds by imitating Orpheus: by descending into the underworld and returning, with his Hades-inspired song, to the surface."

While the title of Williams's book makes oblique reference to the existential voice of Dostoyevsky's underground man, Lesser makes him a subject of her final chapter. Whether he is literally or metaphorically underground is beside the point; he seeks redemption through self-punishment. Unlike many of the characters that Williams discusses, his "excavations" are in search of suffering rather than an attempt to escape from it, for "suffering is the sole source of consciousness." With this in mind, we had better continue to excavate. Lesser assures us that these journeys to the depths will maintain a connection between physics and metaphysics, and, more importantly, between solitude and companionship, for the idea of the underground is inextricably linked to "the ghosts of past passengers." She thus offers the possibility to heed Williams's caution to relinquish our dependence on technology as a source of security, without giving up the more primal archaeological impulse to dig.

Both books, interestingly enough, end with an analysis of Kafka's unfinished story, "The Burrow." Narrated in the first person by an indeterminate digging animal, the tale is typical of Kafka's banal presentation of the deepest existential questions. Lesser suggests (as Williams does not) that the significance of the underground image in the story is that it represents the story itself. Digging then is analogous to the creative process. In this light it is the act of excavation, rather than the underground realm itself, that forges an important link to contemporary experience. It is Lesser's emphasis on digging as an enduring and appropriate metaphor for truthseeking that makes even her discussion of Kafka essentially optimistic.

For both Dostoyevsky and Kafka, the underground in some sense is just one more existential realm. Like castles, prisons, and the nondimensional space of totalitarian bureaucracy, it is a symbol of the unknown, of confinement, and of isolation. For Williams, however, it is the particular historical coincidence of the spatial metaphor with technological advancement that connects the image to some of the more ominous possibilities of modern times. For Lesser, on the other hand, recurrence of the image from ancient lore to the present has only positive connotations—an affirmation of the poetic impulse to seek bedrock in the human spirit.

One could say that the underground is the protagonist in one book and the antagonist in the other. Together, they provide a scholarly and entertaining expedition to the world below.

#### Postscript:

Recently on street corners around the Bay Area large holes have appeared in the ground. Where only a year ago cars were lining up for gasoline, there are now excavations that look ready for mammoth foundations, understructures of caissons or footings upon which to rest a technological edifice of dwelling or commerce. These holes, however, are the evidence of ecological progress, not economic. Old submerged tanks have been leaking hydrocarbons into the soil; the extent of the damage is unclear, and the prognosis for recovery inconclusive.

Legislation has mandated these excavations. They are designed neither to advance technology nor to inspire poetic reflection. As additions to urban topography they appear circumstantial, though some will probably find them aesthetic. As a response to ecological disaster rather than a cause of or metaphor for it, these ventures underground fall outside both Williams's and Lesser's books. Are we at the threshold of a new "eco-archaeology"? That story has yet to be written.

NOTES ON THE UNDERGROUND: AN ESSAY ON TECHNOLOGY, SOCIETY, AND THE IMAGINATION, Rosalind Williams, MIT Press, 1990, 265 pp, illus., \$24.95.

THE LIFE BELOW THE GROUND, Wendy Lesser, Faber and Faber, 1987, 288 pp., illus., \$19.95.

#### Sylvia Lavin

## Images and Imaginings of Ancient Egypt

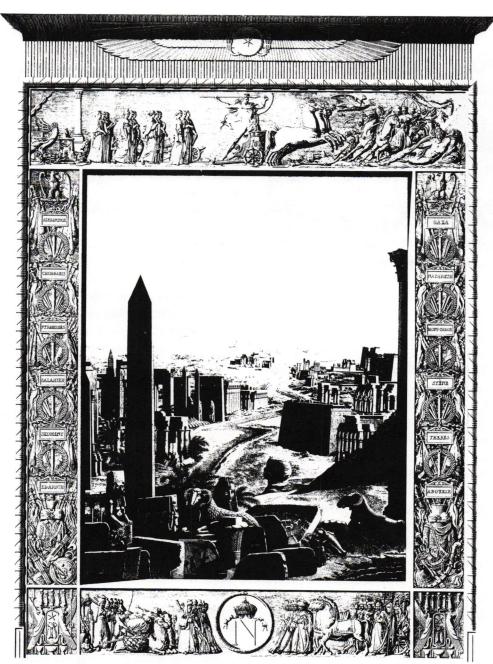
Martin Bernal's Black Athena: The Afroasiatic Roots of Classical Civilization and Monuments of Egypt: The Napoleonic Edition are imposing testimonies to ancient Egypt's pivotal position in Europe's historical imagination. Beyond this parallel, the two publications may appear to have little in common. Black Athena is a lengthy and highly polemical historiographical survey of how the evolutionary relationship between Egypt and Greece has been perceived and conceived since antiquity. Academically ambitious-the inquiry extends to the present but is still only the first of three projected volumes-and politically tendentious, Bernal's goal is to demonstrate the degree to which this apparently benignly esoteric field of classical scholarship has been progressively infected by racism and anti-Semitism.

Monuments of Egypt, a reprint of plates from the Napoleonic Description de l'Egypte, first printed between 1809 and 1822, has different and comparatively modest intentions. Not only nonpolemical but largely noninterpretive, it aspires to reacquaint a contemporary architectural audience with the visual legacy of Europe's first direct confrontation with ancient Egypt. Published by the Princeton Architectural Press in association with the Architectural League of New York and the J. Paul Getty Trust, Monuments of Egypt belongs in a documentary tradition that hopes, above all, to disseminate texts of historical significance with accuracy and elegance. The interest of comparing Black Athena and Monuments of Egypt here, however, lies in probing what their discrepant intentions reveal about the intellectual and political climate in which architecture and design are now practiced and studied.

*Monuments of Egypt* is a two-volume set of 421 plates—31 in color and 78 double plates—that faithfully reproduce the images of antiquities collected in the Description de l'Egypte. The original publication was not only physically monumental, ten volumes in length with some editions including plates as large as 50 by 26 old French inches, but the product of a monumental effort and the producer of monumental change. In 1798, Napoleon brought with him to Egypt an army of scholars and engineers charged with mapping the uncharted land, building what is now the Suez Canal, and performing other duties to secure his effort to export the French Revolution beyond French borders and promote his political ambitions. Ultimately, however, these men added a cultural preoccupation to their military occupation. They measured, drew, and reconstructed the remains of every known, and many previously unknown, archaeological sites, manufacturing thereby what were considered the first "scientifically accurate" images of ancient Egypt ever seen in Europe. These views staggered the general public and sparked an Egyptian architectural and design revival that endured several decades and penetrated several continents. The impact of this publication still reverberates in the modern discipline of Egyptology it helped establish. Moreover, its imagery continues to astound. The plates capture the full cross section of a transitional moment when architecture was still considered a genuine and inspired imitation of nature but was starting to be conceived of as a system of social and conventional expression, when history was still rooted in the Bible but was striving toward systematic objectivity, and when ideas were inching toward both the Romantic and the positivist impulses bequeathed to us by the 19th century. These various modalities appear separately in plates of widely divergent character. They clash on plates of multiple figures. They even uneasily collapse into single images. Whether despite or because these images were generated by political revolution, they provide a glimpse into cultural revolution.

The reprinted plates are bound in the luxurious but demure black cloth with gold lettering familiar to us through the Princeton Architectural Press's earlier reproductions of classic works such as Letarouilly's Edifices de Rome Moderne and Ledoux's L'architecture considerée sous le rapport de l'art, des moeurs, et de la legislation. The elegance and attention to detail associated with books published by this press seem particularly appropriate to this reprint and especially evocative: it reproduces a deluxe edition of the original, a sumptuous and lavishly crafted series reserved for Napoleon's personal use. In addition to making these exclusive images more accessible by removing them from rare-book rooms and reducing them to a manageable scale, Monuments of Egypt also concentrates their impact. The book contains only those plates devoted to antiquities. The lengthy text of the original has been whittled down to endnotes containing the bare essentials of time and place with errors corrected to reflect modern archaeological knowledge and standards of accuracy. Two prefatory essays have been added. C. C. Gillispie's "Historical Introduction" is an informative overview of the creation of the Description, from its inception during Napoleon's military expedition in Egypt to its publication history, mode of production, and physical character. A second essay, by the Egyptologist Michel Dewachter, discusses the provenance of objects depicted in the Description. Works of art pillaged during the campaign became the nucleus of many Egyptological collections in Western museums. The murky history of these spoils, however, enabled the authenticity of some artifacts to rest on claims of having been found in situ during the Napoleonic expedition, claims not substantiated by the publication. On the other hand, objects now lost are known to have existed only because they are represented in the Description. The documentary focus of this essay will appeal most to a scholarly audience, but will nevertheless provide design professionals with an understanding of at least one aspect of the Description's afterlife.

Bernal's *Black Athena* investigates how the civilization that perhaps invented the very notion of afterlife has had its own af-



History and Theory

Frontispiece, Monuments of Egypt, 1809-22.

terlife created, evaluated, and eventually despoiled by invading aliens. The book's concern is not with the visible traces of Egyptian art and architecture but rather with Western uses and misuses of conceptual images of Egypt. Ever since Rome appropriated the Doric order and Europe modeled and remodeled itself after Rome, the postclassical Western world has fancied itself of Greek origin. This became problematic with the awareness that the

Greeks defined themselves as heirs of Egyptian culture. While such a genealogy was controversial even in ancient times, the image of Egypt as the "cradle of civilization" was generally accepted as fact until the late 18th century. Egypt was even venerated for occupying this position: Freemasonry and aspects of hieroglyphic exegesis are only two examples of how Egyptians were esteemed for having possessed the key to divine wisdom. As super-

stition and magic, however, were gradually replaced by the rationalism of the Enlightenment, the Egypt-Greece historical continuum supported by everything from legend to "hard" data was, ironically, gradually discounted. For some, inventing the idea of an autochthonous Greece served the secularizing goal of denying the existence of an original Adam and Eve. For others, ultimately the stronger, preserving the hegemony of Christianity meant substantiating biblical history, which begins with the Jews and not the Egyptians. New discoveries in natural science and archaeology kept historians from protecting this orthodoxy by reducing the chronological priority of Egypt, but not from accomplishing the same goal by denigrating and isolating Egyptian civilization. Progressively, therefore, Egypt was construed as black, Semitic, and culturally effeminate. Eventually, according to Bernal, the codification of racism and anti-Semitism into absolute and fundamental agents of history during the 19th century finally made the Egypt-Greece continuum not only problematic for, but offensive, to European sensibilities. In a desire to demonstrate the racial purity of Northern Europe, classical studies deliberately obfuscated the dependence of Greek civilization on Egypt by simply replacing the "ancient model" of Greek origins with an "Aryan model." Greece was proclaimed to have been invaded only from the north and thus only by peoples of the color of choice. Although in Bernal's view fabricated out of scholarly thin air, this historical subterfuge made any connection between Egypt and a proudly white, Christian, and male Europe appear ridiculous. For Bernal, this derisive gesture of dismissal, motivated by hate and fear and characterized by intellectual dishonesty, occupies the center of much modern scholarship.

Black Athena's concern for the sociology of knowledge, its attempt to deflate the European conceit of cultural superiority, and its emphasis on the impossibility of objective history are all characteristic of recent academic trends. Problematic Western attitudes toward the "primitive" and the

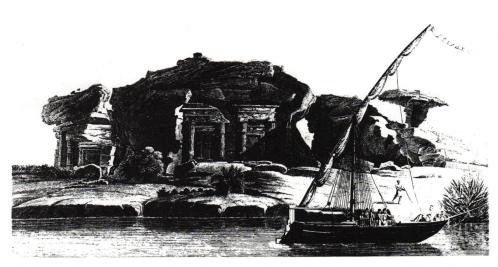


Plate showing caves at the entrance of ancient quarries; Selseleh, Egypt; 1809-22. (From Monuments of Egypt.)

"Orient" in particular have been previously and persuasively explored: these issues, however, were easily dismissed by designating as marginal the fields in which they had been exposed. It is the academically privileged status of Egyptological and classical scholarship that enables Bernal to believe that in attacking them, he is mounting a full-scale attack on the whole of "European cultural arrogance." Moreover, Bernal, who was trained as a Sinologist and came to the subject of Black Athena through a reawakened interest in his Jewish cultural heritage, maintains his attack was made possible precisely by the wider and less biased view he has as an outsider to Egyptology. Although a refreshing departure from the more common scholarly mode of supposed disengagement, Bernal's personal engagement may reduce Black Athena's capacity to radicalize the Academy. It appears to be the source of the book's most troublesome aspect-a failure to distinguish rigorously between history and historiography. Demonstrations of how ideology falsified interpretations of the relationship between Egypt and Greece are interrupted by unabashedly self-confident assertions of how the "fruitful" and "radical innovation" of Bernal's work is finally producing an accurate rendering of ancient Egypt. To shift between the question of how ideology shapes historical perception in general and a personal percep-

tion of history, and to shift so often and so quickly as to elide the difference between such matters, is intellectually inconsistent. These reservations notwithstanding—perhaps even because of them—*Black Athena* contributes to our understanding of the chimerical ambitions of scientific history. By revealing fundamental cracks in the foundations of the academic ivory tower, Bernal persuasively argues for fuller acknowledgment of the political implications and responsibilities of scholarship.

It is what Black Athena and Monuments of Egypt do not have in common that makes their comparison pertinent. Monuments of Egypt presents itself to the reader as a straightforward and unmodified reproduction of its model but is, in fact, a version of the Description from which all explicitly political and contextual material has been eliminated. In addition to the excised text, two volumes of plates on modern Egypt and three on the region's natural history are excluded. When it removed these traces of the aspect of Egyptology that constitutes the subject of Bernal's book, Monuments of Egypt reduced a product of the complex relationship between political control and cultural appropriation to a simple object of and about aesthetic appreciation. This intervention is disguised-the title page of the original precedes the title page of the copy-but its impact is dramatically revealed by the change in title from Description to Monuments of Egypt. If, like many other reprints, Monuments of Egypt hopes primarily to serve as a visual resource for designers-a manifestly Egyptian flavor wafts around what is called postmodern architecture-it fulfills its own agenda admirably. But for those who accept Bernal's thesis even reservedly, Black Athena demonstrates that any view of Egypt extracted from Monuments of Egypt can only be a limited one. The reverse, however, is also true. Covering the full chronological range and probing every academic manifestation of its subject, Black Athena leaves no stone unturned in its attempt to fulfill its political agenda-except the stones of art and architecture. The Description de l'Egypte receives little attention. Egyptian revivals in art, persistent as they were from antiquity to the Renaissance through the present day, and critical as they were in disseminating the academic goings-on identified by Bernal, are not explored. While Monuments of Egypt may inadvertently imply that architects neither read nor have interests that transcend the purely formal, Black Athena, sinning by omission, protects art and architecture from their explosive role in the processes of cultural warfare. Black Athena does not claim to be a work on the history of art, just as Monuments of Egypt does not claim to be a work on the sociology of knowledge. Yet it is the coincidence of these disclaimers that reveals how pervasive the desire to cleanse the arts has been and how strong the longing for their innocence remains. On the other hand, recognizing that these two apparently dissimilar books actually see the arts through a similarly aestheticized and de-politicized lens may help designers move beyond this hope for innocent purity toward more profoundly knowledgeable forms.

MONUMENTS OF EGYPT: THE NAPOLEONIC EDITION, C. C. Gillispie and M. Dewachter, editors, Princeton Architectural Press, 1987, 640 pp., illus., \$90.00.

BLACK ATHENA: THE AFROASIATIC ROOTS OF CLASSICAL CIVILIZATION, Martin Bernal, Rutgers University Press, 1987, 575 pp., illus., \$45.00 cloth, \$15.00 paper.

#### Charles Burroughs

## Villas and Gardens: Between Social History and Metaphysics

These two fine books, James S. Ackerman's The Villa: Form and Ideology of Country Houses and Claudia Lazzaro's The Italian Renaissance Garden, both published in 1990, complement each other to such a degree that one almost suspects collusion on the part of the authors. Both discuss highly self-conscious and often extravagant designed interventions in and/or on landscape, one focusing on an architectural tradition or set of traditions, the other on the environs of the architecture. The exemplary scholarship of each author is combined with lucid and attractive exposition; both books are as accessible to non-specialists and students as they are illuminating to specialists (this has, of course, always been a particular quality of Ackerman's work), and should be especially useful to architects concerned with the interrelations of building and landscape. Lazzaro's book, in particular, is beautifully illustrated, and as the author maintains, is a collaborative project with photographer Ralph Lieberman.

The two books are written from very different situations. Professor Ackerman, the dean of American architectural historians, has written a diachronic survey of the vicissitudes and transformations of what he maintains is a consistent, if somewhat intermittent process, beginning in the ancient Roman world and concluding in our own time; much of the material is necessarily familiar, though there are many pleasures and surprises along the way. This is indeed the distillation of a lifetime of reflection on the relation of buildings to environments and on the socioeconomic aspect and ideological resonances of architecture.

Ackerman's book, accordingly, has a markedly Marxian tinge (he is certainly unusual among anglophone architectural historians in saluting the work, for instance, of Reinhard Bentmann and Michael Müller). Yet he also insists on the persistence in the villa tradition of fundamental building types and motifs established in Roman times, and surviving somehow in vernacular practice or in the collective memory. Here, then, a consistent social historical method and a sense of almost archetypal forms coexist, or perhaps collide, a paradoxical situation that matches the paradoxes inherent in the villa itself, a rural yet urban residence, a retreat from the world yet place of representation, luxurious yet often plain, utilitarian in style if not in fact. It is the collapse of such antinomies in our own time that leads Ackerman to proclaim the present death of the villa, though some of its formal aspects survive.

Professor Lazzaro's book, on the other hand, is the first by one of the leading younger American Renaissance scholars; synchronic in emphasis, it establishes with new precision and extensive documentation the boundaries and character of a coherent epoch of garden design and culture. In particular, Lazzaro insists on the radical distinction between 16th- and 17th-century gardening styles and the underlying principles of each. She notes the reductive landscaping of the later period, with its emphasis on relatively uniform evergreen hedges, often of boxwood, and on the subordination of garden elements to overall perspectival effects and axial organization; on the basis of a wide-ranging command of diverse sources she demonstrates the impact of this style of gardening and modern experience of it on the earlier gardens.

What, then, was an authentic 16th-century garden like? Lazzaro emphasizes organization through compartments, rectangular or square enclosures arranged in a geometrical array. The layout of the compartments might often emphasize particular visual corridors, though the frequent employment of a green architecture of trelliswork to mark major paths or perimeters, served in many gardens to restrict the view or to produce an episodic experience. Moreover, the compartments themselves, typically bounded by low hedges or fences over which it was easy to see, presented a considerable variety of plant material and design. The designed landscape as a whole, in addition, was often marked by the variation of three major elements, the garden of simples with flowers and herbs, the garden of fruit trees and lawns, and the wild garden or *bosco* with forest trees and shrubs, featuring extensive planting of holm oak and other evergreens. These three types might be combined in a relatively geometrical organization, or more commonly contrasted in arrangements characterized by varying degrees of geometricity; on occasion even woodland elements, like the other two, might be arranged in compartments.

The triple organization reflected the vernacular distinction of different types of plants in herb and vegetable gardens, orchards, and woodlots, underlining the utilitarian character or at least resonance claimed by Lazzaro for 16th-century gardens, even the more extravagant; strictly ornamental gardening, in her view, was a phenomenon of the later period, marked especially by the enthusiasm for exotic plants. She emphasizes the introduction especially of beautiful but poisonous plants, like oleander, though the denial of utilitarian importance to poisons seems to conflict with a prevailing image of early modern Italian culture. For all the importance, not always explicit, both authors place on vernacular practice, neither looks beyond the garden or villa to wider patterns of spatial organization and land use. It would be useful to read these books in conjunction, then, with the work of modern or, for that matter, Renaissance geographers and writers on topography.

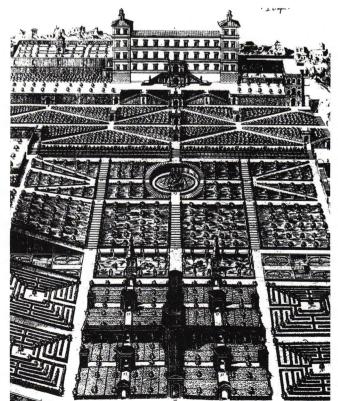
An important feature of each book, needless to say, is the analysis of actual sites and buildings. Such analysis is deepened or even corrected through attention to texts more or less contemporary with the material under review, on country life and/ or garden or villa design (a category to which, needless to say, both books themselves ultimately belong). Lazzaro focuses on books on plants and planting, or on relevant sections in agricultural treatises; she finds little of relevance in architectural writing, except—this is no surprise—in that of Alberti. She is especially attentive to linguistic usage and nomenclature as indicative of shifting and vaguely articulated cultural practices; this is part of a laudable strategy to widen discussion beyond familiar but in many ways atypical villas in order to elaborate general principles underlying interventions of various scale and emphasis.

Renaissance gardening in Lazzaro's account, however, seems to be fundamental to an understanding, not just of the competence(s) underlying garden formation, but also, more generally, of the episteme of the period. She does not use this terminology, however, though she cites Foucault and in general leaves unresolved the theoretical implications of her discussions. She insists on the microcosmic aspect of garden organization: the garden as a model of transcendent order. This is not, however, a matter of the imposition of form on and in passive landscapes. A perhaps belabored leitmotif of the book is the reference to a "third nature," the idea of the garden as a realm constituted in the mutually supportive work of human agency and nature.

A corollary of this is the sharp distinction between the garden as a fictive realm and the other, or "second world," constituted in literature (I'm thinking especially of Harry Berger's categories as developed in Second World: Studies in Renaissance Fiction Making, 1988). Though Lazzaro makes telling use of the Hypnerotomachia Poliphili and Sannazaro's Arcadia in her account of the 15th-century development of the villa as a cultural phenomenon, she refers little to 16thcentury poetry. This is a corollary of her opposition to literary-iconographical readings of gardens, which implies the claim that poetry and gardens constitute distinct discursive fields, requiring distinct interpretive strategies.

Both authors raise the question of the relationship of terrain and text. If Lazzaro, as we saw, regards architecture/landscape and texts/literature as essentially separate loci and media of expression, Ackerman suggests a high degree of continuity. Villa types in ancient Rome and long thereafter fall into two main categories characterized by reference to rival philosophical systems, Stoic and Epicurean. And as he notes especially in his discussion of Georgian England, villa architecture is often frankly symbolic in character, in that it serves to transmit ethical or political messages that may well be articulated, though perhaps differently, in other media.

The contrast between the two authors is especially revealing when they discuss material from the same period. Lazzaro concentrates on the great gardens of central Italy, mainly located in Lazio and Tuscany, with hardly a glance, say, at gardening in the Po Valley or the Veneto, though she makes interesting use of the Reggio Parco in Turin. On the other hand, she makes extensive use of certain north Italian texts, notably Taegio's important villa book (which deserves an English edition). So



Villa d'Este, Tivoli. (From The Villa.)

there is a certain inconsistency; if indeed a relatively extensive competence or set of principles underlies garden design, we would expect to find it filtering north, especially where there apparently was a literature to encourage it.

Ackerman, on the other hand, as we would expect from so eminent a scholar of Venetian architecture, devotes a chapter to Palladio and the villa tradition in the Venetian terraferma; he hardly mentions, and then only in an introductory chapter, the great villas of central Italy, like the Villa d'Este at Tivoli, foregrounded in Lazzaro's book. The explanation for this absence must lie in Ackerman's particular conception of the notion of villa, which he associates with bourgeois culture, referring to the appropriation both of rural land and of associated attitudes on the part of urban commercial elites, for whom the villa was often an investment and source of income, rather than a status symbol or luxury. Support for this view is certainly present in Ackerman's lengthy and very interesting discus-

> sion of contemporary books on rural husbandry, which he finds characterized generally by a materialistic, unaristocratic, even boorish attitude (not least to peasants and women; there is valuable attention here both to class and gender relations).

> Lazzaro does not consider this literature; her interest is focused resolutely on the manipulation of landscape by a somewhat abstract humanity, not on the more concrete relations of social groups and classes. This is certainly justified if only in terms of the economies of book production, and it should be noted that Lazzaro has a keen eye for the representation, literal or metaphoric, of subordinate figures (or figures of subordination) such as laundresses, peasants, miners, satyrs, and the like. Her fine discussions of the great gardens of representation of the 16th century, however, raises questions about the contrasting expression of specific agendas and interests on the part of very

different kinds of patron, whether usurping monarch, or aristocratic cleric, or urban patrician. Thus discussion of the extraordinary investment in statuary and statue gardens on the part of the Roman citizen elite (for example, the Mattei or Cesi who most closely approach the profile of Ackerman's "bourgeois" patrons) might well be related to the by now extensive literature on the ideological aspect of statue collection and display in that city, if not, as I would suspect, to the crucial years in the 1530s of the evolution of the project for a most prominent, sculpture-studded, and ideologically charged designed landscape, the Campidoglio. Lazzaro herself notes the emergence at this time of coherent principles of organization in Roman sculpture gardens.

Lazzaro is surely right to insist on the specificity of the garden as a discursive practice. But this needs to be reconciled with her view that the garden expresses abstract conceptions that are central, even defining, to the culture of Renaissance Italy. This was surely far more conflicted, however, than Lazzaro allows, and it seems to me significant that she finds no rhetorical aspect in garden design, not even developing Elizabeth MacDougall's aperçu about the echoes in the garden of the ars memorativa. Though she identifies emblems here and there, for instance, she is not tempted to discuss whole villa programs in terms of the fashion for emblems and their explication and even theorization in the second half of the 16th century. She does not introduce the concept of inganno (deceit, illusion) crucial in Renaissance epic, not least in reference to seductive but morally and otherwise dangerous gardens (Ariosto does not appear in the index). And it seems to me a priori likely that 16thcentury Italians thought of the familiar doctrine of levels of speech/style when confronted with the omnipresent triple hierarchy of garden elements.

In her emphasis on integrative metaphysical ideas ("third nature"), moreover, Lazzaro underplays her own observation of the contrast in 16th-century gardens between compartmental and axial organiza-

tion. It is perhaps useful here to recall Ackerman's introductory emphasis on a fundamental contrast of distinct modes of relating building to landscape, whether by separation or integration (it would be useful to catalog the devices whereby these and various compromise conditions are achieved); in most cases a degree of more or less tense copresence is evident. In the end, the order of gardens, at least of the Renaissance, as of the cosmology and political conditions that relate to it, might best be described as a concordia discors, whose at least potential instability and pliancy we could then identify as a major theme of certain gardens (one thinks of the reflexivity of Bomarzo).

Recognition of the conflicted, fractured aspect of villas and villa culture leads, in my view, to apprehension of the primary paradox and ideological aspect of the villa tradition, the naturalization of the place of the proprietor in the landscape. There are two crucial, contradictory fictions: one that the house and its owner belong in a particular site; the other that the owner and house are quite separate from that site and its surrounding territory, over which the owner exerts an authority established elsewhere. It is the attempted resolution of these fictions through a remarkable range of architectural and other devices (contrast the Villa d'Este and Villa Rotonda) that gives much villa architecture its particular poignancy. But by seeking to move beyond the boundaries of Lazzaro's and Ackerman's discussions to suggest implications of a reading of both. I have only perhaps demonstrated all the more emphatically the indispensability of each, in any serious study of garden and villa history, if not of Western culture in general.

#### Pierre du Prey

# English Neo-Classical Architecture

DAMIE STILLMAN

My own library, I am proud to say, possesses an autographed copy of Damie Stillman's The Decorative Work of Robert Adam, an essay-length book published in 1966. It has one color plate and 173 blackand-white photographs of varying quality accompanied by informative notes. Twenty-three years later, Professor Stillman has written his long-awaited English Neo-Classical Architecture, consisting of twin folio volumes printed on luxurious stock. The color plates now number sixteen, and the other 391 illustrations are uniformly excellent, though some have a less-than-attractive vintage look. As for the cost, it has climbed sixtyfold. But in other respects, the two books share much in common, especially their typological method, their descriptive stylistic analysis, and Stillman's focus on the contribution of Robert and James Adam.

The careers of the Adam brothers weave in and out of all except the last of Stillman's thirteen chapters, which is devoted to the 1790s, when stars like John Soane, John Nash, and James Playfair were ascending. Occasionally the discussion reaches beyond the 18th century to include such examples as Soane's own mirror-lined Breakfast Room. This fascinating interior is itself perhaps derived from similar Adam effects at the nearby Northumberland House in London, which again demonstrates their pervasive influence.

The first chapter establishes the other end of the spectrum in the mid-century theories of Laugier and Piranesi, which influenced the Adams. Both Robert and James had close ties with Piranesi during their formative years in the 1750s and early 1760s. A case might also have been made for Laugier's influence on the Adams, if only Stillman had expanded his definition of neoclassicism to include the fascinating proto-classical Adam designs for buildings

THE VILLA: FORM AND IDEOLOGY OF COUNTRY HOUSES, James S. Ackerman, Princeton University Press, 1990, 304 pp, illus., \$45.00.

THE ITALIAN RENAISSANCE GARDEN, Claudia Lazzaro, Yale University Press, 1990, 342 pp., illus., \$55.00.



Entrance hall, Syon House; Robert Adam, c. 1761. (From English Neo-Classical Architecture.)

with bark-covered tree trunk columns, reminiscent of Laugier's purported origins of the orders. And with a name like Adam, would it not be fitting for Robert and James to have espoused a primitivistic attitude to an art that respected no boundaries between styles? Their castellar houses in Scotland are just one indication of their flexibility. But Stillman's restrictive sense of classicism permits no such latitude.

Other chapters deal with a succession of topics, beginning with the Roman artistic milieu that inspired triumphs on paper like Robert Adam's grandiloquent nine-footlong imaginary palace design. Under the same heady influence of Rome, a host of other neoclassical architects produced ideal mausoleums, senate houses, and triumphal bridges groaning under the weight of their own classicism. Stillman includes them all by drawing upon his impressive command of archival sources. Perhaps he has tended to credit to Soane's youth certain "dream schemes," which I argue owe their elaborate form to 19th-century hindsight on the architect's part. In this regard my 1985 catalogue of Soane's drawings in the Victoria and Albert Museum would have been helpful. It is not mentioned in the exhaustive bibliography or notes, which otherwise form a wealth of information in their own right.

After the reveries of the artistic Grand Tour comes the next topic: the earliest building projects by the architects recently returned to the British Isles. Robert Adam was not the first to get back, but at Kedleston Hall he aggressively made up for lost time by pushing others aside. He introduced into the staid Palladianism of the existing garden façade a saucer-domed saloon like the Pantheon, hovering behind a neoclassical centerpiece in the form of the Arch of Constantine. The Adam name, of course, is synonymous with interiors like the celebrated saloon. Moving from room type to room type, Stillman roams across the entire architectural gamut, but his strict chronological and typological approach divides up the material disjointedly. The Syon House entrance hall (c. 1761), for instance, exemplifies Adam's robust early decorative manner that encompasses everything from floor to ceiling (more might have been said about Adam floor patterns). But we must wait until three chapters later for his imitation of red-figure vase painting in the Etruscan room at Osterley which exemplifies the delicacy of his mature style. For all its exactitude, the Stillman system of analysis risks missing the cumulative effect of the Adam development because the constituent phases are too spread apart. Moreover, and for the same reason, discussion of the deliberately contrasting room shapes and decorative details of a single Adam house, such as Syon, is too dispersed to evoke adequately the intended sequential experience.

Stillman's painstaking statistical analyses reveal the country house to have been the real bread and butter of an 18th-century architectural practice such as the Adams'. The astonishing variety of country houses produced undergoes an almost clinical dissection with the aid of an architectural terminology that is one of the most precise I have ever encountered, especially concerning decorative elements such as chimneypieces. Though extremely well done, the repetitive nature of the procedure makes tedious reading after a while. Neoclassicism begins to read like a recipe. In the multiplicity of "ingredients" one loses sight of the main thesis: that neoclassicism favored neater, compacter, and more ingeniously designed houses called villas. The procedure repeats itself in the case of the town house, where the two basic typesthe freestanding dwelling and the row house-emerge clearly in the Adams' oeuvre. Their narrow and intricately planned Wynn House on St. James's Square could have formed an interesting contrast to James "Athenian" Stuart's Lichfield House up the block—a sort of Erechtheion on stilts-but the opportunity for comparison was missed.

The elan and breadth of Stillman's treatment of city planning is aptly conveyed by the chapter title: "The Grand Sweep of Urban Design." After a fascinating discussion of the innovations of the Woods (father and son) at Bath, attention shifts to the Adam brothers' exploitation of the three main urban typologies: the circus, which they used for their model village on the Lowther Castle estate; the square like the one they named in honor of Queen Charlotte in Edinburgh; and the terrace, which they immodestly named the Adelphi in honor of themselves! But better use might have been made of their pedimented row houses lining Portland Place in London as a foil for the suppler Picturesque planning of Nash's contiguous Regent Street development. The advent of Nash's Picturesque is the real turning point for Stillman, indicating to him a new age of high seriousness. This distinction strikes me as far too strict.

Most neoclassical architects dreamed of undertaking some great public building, such as Robert Adam's Scottish Register House, Soane's Bank of England (discussed with exemplary thoroughness), or James Gandon's clumsily detailed structures on the quays of the Liffey at Dublin. Religious architecture receives a separate chapter. Here Robert Adam's twin-towered and top-lighted church at Mistly could profitably have figured as an illustrative counterbalance to Joseph Bonomi's parish church at Great Packington with its gouty Doric order, or to George Steuart's St. Chad's at Shrewsbury with its slender castiron shafts disguised as Corinthian columns. As the century progressed, the architects' repertory extended to such building types as prisons, hospitals, asylums, universities, and museums. Again typological considerations can lead to repetitiveness, as in the case of Camelford House on Hereford Street, London. It appeared under several separate discussions: as a town house (on page 187); as exemplifying the bombé façade effect (on page 190); as the site for a Soane-designed library (on page 303); and finally in conjunction with Soane's planned museum for the Dilettanti Society next door (on page 403). The reader has a sense of the building's integrity being sacrificed to suit Stillman's methodological concerns.

To my mind the true climax of Stillman's study occurs when he considers meeting places such as theaters. The success of the chapter is largely due to the theatricality of the Adams themselves, and the obvious enjoyment the author has in evoking the 18th-century sense of fun. Ultimately it is the Adam theaters in London that steal the show. Drury Lane was as sober outside as it must have been dazzling inside. Robert's breathtaking opera-house design for the Haymarket effortlessly masters the complex problems of acoustics and pedestrian movement. Proposed three years before his death in 1792, it would have been, in Stillman's words, "an incredible ornament to the city and a blaze of glory at the end of Adam's career—and yet its style was no longer new." This statement emphasizes both Stillman's complete objectivity and the preeminent attention given to matters of style, though elsewhere in the book I found the language lacking in the essential stylishness of the period.

If I have emphasized the Adams to the exclusion of much else in this review, it is to show how Stillman could alternatively have used their contribution to unify his text. And who better qualified than he to write about them? Instead he favored an almost monolithic reliance on stylistic analysis, which fractures and severs buildings without necessarily comparing them. As matters stand, English Neo-Classical Architecture is sometimes rigid in its approach and sometimes unwieldy in its encyclopedic intent. I am least at ease with the basic premise that style has an irresistible momentum beyond the control of the artist. This point of view not only unduly favors the influence of fashion on the output of an entire epoch, but also tends to overlook or downplay the intellectual milieu out of which neoclassical architects emerged. They may not have been the most brilliant participants in the Enlightenment, but they had a special sensitivity to the spirit of their age and an ability to turn this spirit, more or less successfully, to their own ends. Despite the author's vast knowledge of his subject, it is these special qualities-this creative spark-that somehow eludes him.

#### Richard Becherer

#### **Designing Paris** DAVID VAN ZANTEN

As its subtitle indicates, David Van Zanten's Designing Paris: The Architecture of Duban, Labrouste, Duc, and Vaudoyer focuses primarily on the seminal work of architects Félix Duban, Henri Labrouste, Louis Duc, and Léon Vaudoyer, fellow students at the fledgling Ecole des Beaux-Arts, Prix de Rome winners, and compatriots at the Académie de Rome between the years 1827 and 1828. The book aspires to map out the range of ideas-formal, ideological, and philosophical-that came to meld this group into the so-called Romantic generation of French academic architecture. It also seeks to define a new domain amidst those claimed by other interpretations of the period-utopian, proto-modern (and inherently antiacademic), and political-and in it highlight the importance of this group specifically, and the Beaux-Arts system generally. The author also approaches these problems with an eye to describing what it was in the Beaux-Arts system that could give rise to such differing interpretations.

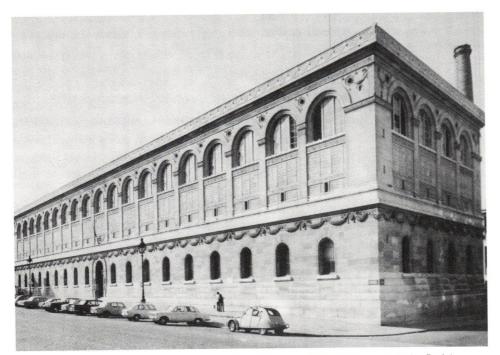
Van Zanten's attack is organized around three questions: "First, what general objectives, what embracing vision of architecture had the Romantic *pensionnaires* fabricated? Second, how was this manifested in specific architectural form? Third, under what circumstances, and in what context did they execute their designs?" Van Zanten responds to these questions in the book's seven chapters.

Chapter one introduces the book's cast of characters and explores their soulsearching fourth- and fifth-year *envois* to the Académie. Van Zanten justifiably expends considerable effort on the first of these—Labrouste's reconstruction of the Temples of Paestum—with an eye to the changing nature and rhetorical role of the temple's typology when seen in light of structural rationalism and a perceptible

ENGLISH NEO-CLASSICAL ARCHITECTURE, Damie Stillman, Zwemmer, 1988, 648 pp., illus., \$295.00.

progress of institutions. The ideological implications of Paestum, however, are foregrounded in his discussion of another envoi: Duban's reconstruction of a Protestant Temple. Van Zanten here addresses the typology of certain non-Catholic religious institutions, and describes the tone of dissent that the architect sounds here in the face of academic preferences of program and Restoration Catholicism. Van Zanten notes the project's lack of precise religious attachment (Lutheran? Huguenot? Cathare?). However, he fails to recognize that in calling the church Protestant, Duban may well be alluding to the act of religious and political protest itself, thereby associating it with that preeminent epoch of protest-the French Revolution. Indeed, the spatial configuration of Duban's projecta square amphitheater-harkens back to trademark semicircular meeting spaces of the Revolution (and here I think of such rooms as Percier's Salle de la Convention in the Tuileries, as well as the many salles décénnaux in Paris). In so interpreting this envoi, Duban's temple could be seen as galvanizing an outspokenly contestatory political discourse, thereby proposing a renewed architectural "call to arms." Indeed, Constant-Dufeux would seem to have realized the revolutionary aspect of this spatial typology when he seemingly quotes directly from Duban's building in his own Chambre des Députés, a fifth-year *envoi* composed shortly after the July Revolution.

Chapter two is, in my opinion, the book's most compelling, as it leaves behind architecture per se, turning instead to the fundamentally philosophical aspects of the movement's ideological formation. The author looks particularly at the writings of those associated with an early Saint-Simonien reference work, the Encyclopédie Nouvelle (1836-37), conceived as a positivistic response to the Panckoucke's Encyclopédie Méthodique. The relevant personalities for the author's purposes include the engineer Jean Reynaud, his architect brother, Léonce, designer of the first Gare du Nord and known today as author of the well-known Traité d'Architecture, and Hippolyte Fortoul, future head of the Ministère de l'Instruction Publique et des Cultes and director of the Commission des Edifices Diocésains. The main Romantic architect in the circle was Léon Vaudoyer, Fortoul's close friend. Van



Main façade, Bibliothèque Sainte-Geneviève; Paris; Henri Labrouste, 1838-50. (From Designing Paris.)

Zanten sees the group as establishing a functionalistic climate of opinion for architecture that would early nurture the efforts of the germinal Romantic movement.

I would like to briefly concentrate here on Van Zanten's interpretation of Léonce Reynaud as a way of outlining what I see as one of the book's shortcomings. As the author notes, Reynaud is justifiably famous for his Encyclopédie entry, "Colonne," which was conceived, so we are told, as a response to Quatremère de Quincy, Secrétaire Perpetuel of the Académie des Beaux-Arts. Van Zanten's reading of Reynaud's article would seem to be a functionalistic one: he sees Reynaud as advocating a system of variable or "elastic" proportions for architecture, based in the technical potentials provided by new materials and constructional modes. As he relativizes the Orders, Reynaud would seem to open up architectural discourse long confined by the strictures of Quatremère's outspoken idealism. However, such is the case only to a degree. For it is important to recall that although Reynaud does commend such "elastic" structure as that displayed in Labrouste's Bibliothèque Sainte-Geneviève, he simultaneously attends particularly to its obvious artifices (Traité d'Architecture, Volume 2). Such artificiality, so Reynaud contends, would indicate that the structure is also designed in accord with the architect's own hieratic sensibilities, specifically, sentiment and good taste, as much as from statical determinations. He finally argues that it is from this ineffable domain of art that the elegance of Labrouste's structure ultimately derives.

Reynaud's troubling high esteem for Labrouste's nonrational and self-conscious design method is not to be regarded simply as an idealistic fallback on the author's part. For positivism, even in its nascent state, had considerable difficulty in accepting wholly the possibilities for discursive openness laid bare by its own empirical methods, much less individual freedom. Consider, for instance, Saint-Simon's own belief in a stratified and pyramidal social structure surmounted and orchestrated by the scientist/priest (a location which only he was equipped to occupy), or Comte's own call for the Religion of Humanity as a way of countering liberalism's potential for cultural fragmentation. Idealism is an immanent subtext for *Saint-Simonisme* from its earliest days, whether its form takes on the aura of religious nostalgia, utopianism, or ideology. Reynaud is no exception to this dualism, nor is the architectural movement of which he and others are major spokesmen.

As far as Hippolyte Fortoul is concerned, I must confess that I was not aware of his significance, even though, in the course of my own research, I have handled many papers bearing his signature. There can be little doubt as to Fortoul's focal role in 19th- century architectural theory-and I think his recommendation of "eclectic" architectural forms noteworthy-as well as in the patronage of the period. Yet I feel that the real credit for Eclecticism is due to Victor Cousin, who founded the Eclectic Spiritualist School of Philosophy in France. This school was based upon a syncretic psychological method drawing upon both English empiricism (Locke) and German idealism (Kant, Herder, Hegel), thereby creating a philosphical confection not wholly unpalatable to Positivist tastes.

From this chapter emerges the conceptual framework from which the author assesses the accomplishments of the first Romantic buildings: Duban's Ecole des Beaux-Arts, Labrouste's Bibliothèque Sainte-Geneviève, and Vaudoyer's Conservatoire des Arts et Métiers. As Van Zanten reads the early theory in a sometimes overly positive way, so does he submit these early works to too great a degree of functionalist scrutiny. This handling is perhaps most apparent in his discussion of the Bibliothèque Sainte-Geneviève, whose façade ornamentation "simply articulates the facts of the building." Although he notes the occasional "perversity" of certain details, he does not consider these features as part of the noninstrumental activity of Labrouste's formal discourse. This is not, however, true throughout the book, and Van Zanten seems to redress this aspect of



West façade of the Palais de Justice; Paris; Louis Duc, 1857-68. (From Designing Paris.)

his early interpretation of the Bibliothèque Sainte-Geneviève in his later chapter on the Bibliothèque Nationale. The author's exposition of the Conservatoire is likely the best in the chapter, both because he neatly draws the connections between Vaudoyer and the Fortoul circle, especially in the building's formal eclecticism, and because of his elegant reading of the building's formal operation. Here, the author's own voice rings clear, be it deprecating comments about the building's entry façade, or subtle analysis of the building's best feature, namely, the north façade of the entry courtyard. Here, Van Zanten not only reveals the building's formal shortcomings from a purely historical point of view, but also displays a keen understanding of the professional know-how required to make such architectural accomplishment seem perfectly natural.

The author's appreciation of Vaudoyer's professionalism provides a ready segue into chapter four, which sketches out the organization of the French architectural profession during the Second Republic and Second Empire. This chapter comprises a remarkable summary of the rising power of the architectural profession, particularly as it succeeds to self-definition through the establishment of its own professional societies and ministerial organizations. Of sin-

gular importance here are the foundation of the Société Centrale des Architectes (in 1840), and such governmental bodies as the Commissions des Monuments Historiques et Edifices Diocésains, as well as the reshaping of the Ministère de l'Instruction Publique by Hippolyte Fortoul. Although Van Zanten does claim the Société Centrale to be the first professional organization in France, there can be no doubt that it was, as were all such organizations, informed by those engineering societies descending from the Napoleonic period. Of particular interest here might be the contention of Jean-Pierre Epron and Maurice Culot in "Fontaine et les Architectes" (Journal de Pierre Fontaine, Paris, 1987) who argue that it was Pierre Fontaine who came to establish the first de facto professional organization for architects in France as a direct response to the hegemony of the engineers during the Empire.

Van Zanten sketches out the rising status of the architect in 19th-century France, and suggests the architect's growing professional autonomy even within what would seem enormous governmental control. This autonomy is due to the fact that the civil architect, although working for the government, is directly overseen by other architects, who select like-minded individuals to design public works. They certainly guarantee the effectiveness of the public work programmatically and functionally; they also ensure that its architectural discourse will be consonant with their own intellectual and formal interests. More precisely, the young Romantics were not, in fact, working for the government per se. Rather, they worked for yet other architects whose countenances strikingly resembled their own.

Chapters five, six, and seven discuss the rhetoric imposed by state ideology on the civil architecture of the Second Empire. Van Zanten argues Vaudoyer's Marseilles Cathedral, the subject of chapter five, to be, primarily, imperial and imperialistic symbol. Even the choice of style, a hybrid Byzantine as dictated by Napoleonic intimate Viollet-le-Duc, is employed here to establish an internationalist face for the city of Marseilles. France's militant expansionism, initiated with the conquest of Algeria, was a hallmark of both Napoleonic and Saint-Simonien world views. With the rise of Marseilles as a major manufacturing and trading center, the emergent French Empire envisioned, so Van Zanten contends, a recentering of its boundaries on the port city. Marseilles Cathedral is henceforth to become the trademark not only of the city's newfound role in the commercial life of the nation, but also of the new, international France yet to come.

Chapter six explores still another symbol of power: Louis Duc's Palais de Justice in Paris. Whereas Van Zanten sees Marseilles Cathedral as striving to articulate the political power of the Second Empire both at home and abroad, he interprets the Palais de Justice's source of symbolism as the power of the law, the only institution in France to counter Louis-Napoléon's. If the emperor were ever to be peaceably undone, the law would be the instrument of his unseating. Thus, the building strikes a contestatory tone regarding the Empire of our "Saint-Simon on horseback," and it does so, in part, by leaving behind the functionalistic strictures of early positivism. Louis Duc, so Van Zanten suggests, quietly concocts this subversion (though the author does not use this term) by a reappraisal of the Orders in the Harlay façade of the Palais de Justice, drawing simultaneously upon Quatremère's theories of "transformation," Cousinian Psychologism, and German theories of *Einfühlung* (empathy) to establish in the building a new rhetorical mode. All this is done, of course, with an eye to visually and viscerally heighten for the beholder the expression of the building's quite distinct political ends and to underscore the viewer's ultimate empowerment.

The book's final chapter-devoted to Labrouste's Bibliothèque Nationale ----con-tinues this line of inquiry. Whereas Van Zanten sees the vocabulary of the Palais de Justice as incipiently critical of imperial ideology, he comes to see in certain of the decorative features in the Biliothèque Nationale (particularly the murals of the Salle des Imprimés) a rupture with prevailing instrumental discourse in architecture, becoming instead personal and poetic. He constructs this line of reasoning by returning to the precedent set by the Bibliothèque Sainte-Geneviève's vestibule-where Labrouste incorporated an image of the "Garden of the Philosophers" as prologue to the building. Van Zanten contends that this imagery in the vestibule, and in the Salle des Imprimés of the Bibliothèque Nationale, ultimately evolves from childhood reminiscences (the author draws upon Novalis in this regard), specifically, Labrouste's wanderings in the Jardin du Luxembourg as lycéen. Thereby, the building could be regarded as an efflorescence of memory. In his appreciation of what is essentially the subconscious operation of the artist's imagination, the author comes to recognize in Labrouste's production a new standard of architectural excellence for the Second Empire, however difficult it may be to emulate. The net result of this estimation is a dignification of intuitive artistic acts and an idealization of creative thought, be it conscious or unconscious. This evaluation of the artist's psychology bears a remarkable resemblance to that decribed by Victor Cousin, in that either psychic path can and does lead one from the beautiful, past the good, and straight to the true. As with Cousin, Van Zanten sees in force within Labrouste's oeuvre, a truth claim. And like Labrouste, Van Zanten himself succumbs to a similar claim. Its operation leads to Van Zanten's high esteem of Labrouste as persona of his generation, and transforms the architect into a species of Romantic genius, singularly enabled to surmount the strictures of place and time. This interpretation would also seem to turn the architect into a kind of 19th-century Formalist (complete with transparency), thus making of the academician a convivial dinner companion for the moderns.

I close the cover on this remarkable book greatly satisfied—pensive too. I quietly wonder to myself whether the *idea*, whether conscious or unconscious, actually leads to the production of the work of art. And I, like Norman Bryson in his recent *Tradition and Desire*, conclude that during the 19th century (as in postmodernism today), despite claims to the contrary, it is not ideas, but other, and older, works of art that engender new works of art. All artistic thought is neccessarily filtered across, and informed by, the "semiotic screen" of tradition.

In contrast to this line of thinking, the idealistic world view suggests that any rational line of inquiry ends with the mind's divestment of specific historical reference—and tradition—upon its entry into a realm of pure ideas. Oddly enough, idealism is curiously ahistorical. Van Zanten's reading of the Salle des Périodiques as ascetic and nonreferential leads the author to conclude that Labrouste's method does not only retrace the idealistic path, but that his architecture comes to actually embody the idea. "It is a thought itself," Van Zanten argues, therefore pure, original, timeless.

This is not, however, the way that I see Labrouste's building. I read the Bibliothèque Nationale as an incantation of so many other like-minded structures—from Robert Smirke's British Museum to Etienne-Louis Boullée's Bibliothèque Royale and beyond—and, therefore, as constituted of so many coexistent masked and unmasked levels of historical reference and formal discourse. Furthermore, following along Bryson's tack, so do I think it impossible to imagine the shape of this building without the others, or, for that matter, the Salle de Harlay façade without the active presence of the Bibliothèque Sainte-Geneviève, or the Bibliothèque Sainte-Geneviève without the Palais des Etudes at the Ecole des Beaux-Arts, and so on.

Given Van Zanten's propensity to read Labrouste's architecture as rationalist and idealist, how, then, are we to view his high esteem for the admirable "perversities" of the Bibliothèque Sainte-Geneviève? How does he "read" its façade and arrive at this conclusion? At the risk of being accused of intentionalism, I suspect that the author reached his conclusions as most of us do: by comparing, either consciously or unconsciously, his perceptions with standing conventions. As he does so, he is likely following the peripatetic path that the architect himself traced out for the beholder long ago, especially considering the rhetorical nature of the building and its façade. He is likely also following a route by which the architect himself determined the facade's final form. Why do I think so?

I think so because I suspect that the architects in the course of their designing spoke little of ideas and even less of truth claims. This is due to the fact, I believe, that the audience these drawings and buildings addressed was a limited one indeed. In fact, as Van Zanten has suggested, the organizations which purposively "read" these buildings-the Conseil des Batiments Civils, for instance-were, in the end, composed of so many reflections of the architects themselves. Given this context, there was little convincing that had to be done. The architectural language of the so-called Romantics sought not so much to plumb ontological depths, but to explore the breadth of language's domain and its conventions. As the communication of ideology ultimately retreated from the formal fray, the problem of discourse formation came to recenter itself not so much on language's potential for communicative work as on formal "play"-play whose

eventual results would be seen as willful, perverse or ironic. The role of play in the design process was important for the architect politically as it allowed him to legitimate his own work in the eyes of the architectural establishment, and to underscore the seriousness of his enterprise, by outspokenly citing an enviable formal provenance. Simultaneously, the play permitted the architect to distance himself to a degree from these precedents, thereby declaring his own very perceptible aesthetic freedom and establishing an autonomous artistic space in "an *other* architecture."

There is, in the end, a curiously apocalyptic quality to all this, for every Romantic building seems somehow to concentrate an entire history into its own moment. It harbors time on instant replay. Despite the repetition, however, time never looks quite the same the way twice. What an appropriate backdrop it was for the events surrounding the 1848 Revolution, when another Napoleon takes center stage, again aggregates political power, and writes charismatically of a Second Empire! It is the ideal setting for the history that Karl Marx contemplates at the beginning of the Eighteenth Brumaire of Louis Bonaparte when he states, "Hegel remarks somewhere that all great, world-historical facts and personages occur, as it were, twice. He has forgotten to add: the first time as tragedy, the second as farce."

#### Michael Saler

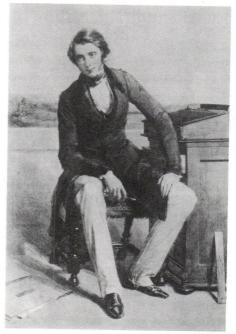
## The Two Paths from John Ruskin

An unemployed but influential member of the English establishment takes on the architectural profession and despite his lack of training shapes the future of building in England: Prince Charles and John Ruskin share in this, if nothing else. But while some architects in Britain today complain that the Prince lacks a coherent view of architecture and is merely expressing his personal dislikes, many Victorian architects were inspired by Ruskin's vision (although few of them could agree on precisely what it was).

Historians also find it difficult to define Ruskin's influence on the architects of the 19th and 20th centuries. In part Ruskin himself was to blame. He was a digressive rather than systematic thinker, and frequently modified or even contradicted views expressed in his earlier works. As Michael W. Brooks notes in *John Ruskin* and Victorian Architecture, "Ruskinism" evolved over the course of the 19th cen-



DESIGNING PARIS: THE ARCHITECTURE OF DUBAN, LABROUSTE, DUC, AND VAUDOY-ER, David Van Zanten, MIT Press, 1987, 338 pp., illus, \$35.00.



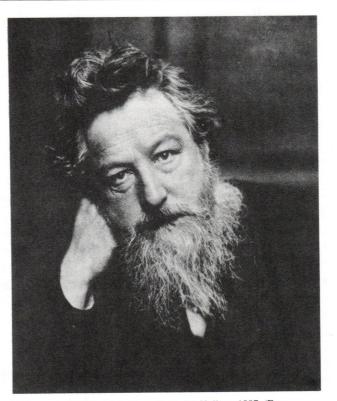
Portrait of John Ruskin by George Richmond, 1843. (From Artisans and Architects.)

tury, in Ruskin's own writings as well as in those of his admirers. This suggests a question courageously raised but inadequately addressed in Mark Swenarton's Artisans and Architects: Where does evolution end and a new species begin? Did Ruskinism evolve into modernism? Brooks does not dwell on the issue but sees modernism as a new creature with some affinities to Ruskinism, whereas Swenarton sets out to argue for stronger connections. While both books have merit, each suffers from a central contradiction: the issue is not pushed far enough.

Michael Brooks has written a graceful and extremely informative work that traces Ruskin's influence on architects and architecture in England during the 19th and early 20th centuries. He also looks briefly at America, to explain why Ruskinism did not take hold there. (Scotland

and Ireland are not discussed.) When he interprets Ruskin's often labyrinthian views on architecture and society, Brooks is a strict constructionist. He clearly defines two phases of Ruskin's influence. The first, between the late 1840s and the early 1870s, was the period of "visual Ruskinism" when young architects were inspired by Ruskin's vision of a universal style in the mode of northern and Italian Gothic. The second phase, "moral Ruskinism," spanned the years from the 1870s into the first decade of the 20th century, and stressed the importance of undivided labor as the basis for a new architectural style.

Brooks's periodization provides an elegant framework for Ruskin's evolving ideas and broader 19th-century concerns that impinged on architectural thought. He shows how religious controversies, the impact of Darwinism, new industrial techniques, and rising imperial sentiment shaped buildings as well as ideas. The illustrations are profuse and well chosen, at times corroborating Ruskin's despair as he watched his dream of a unified architec-



Photograph of William Morris by Frederick Hollyer, 1887. (From Artisans and Architects.)

tural style break apart into the fanciful eclecticism of the Gothic revival.

Ruskin was the only Victorian prophet whose ideas were engraved in stone, brick, and iron, and Brooks's tight focus on Ruskin's architectural writings enables him to single out architects and buildings that embodied the master's teachings. "Visual Ruskinism" largely consisted of polychromy and the use of elements from Italian and French Gothic styles. But Ruskin became increasingly pessimistic about the possibility of creating a unified style in an industrial age-the divergent Gothic styles of his own followers were not a good omen-and by the 1860s he had distanced himself from the Gothic revival. His writings in this period stressed the social and moral consequences of the division of labor. A new generation of followers took up his call to integrate workers and their products. "Moral Ruskinism" became embodied in the arts and crafts and guild movements, but the architects' unwillingness to engage in commerce, embrace the new technology, accept commissions that glorified the grandeur of empire, or create an educational system that would perpetuate their "school" (unlike the Classicists) spelled the end of the movement. By 1910, Brooks states, "Ruskinism was very nearly a thing of the past" and classicism had reclaimed its perennial status.

It is here that Brooks's narrow definition of moral Ruskinism as primarily the veneration of handicrafts causes problems. He is not sure what to do with W. R. Lethaby, for example: he admits that Lethaby was a Ruskinian architect but also that Lethaby modified Ruskin's ideas in several important respects-most notably, Lethaby did not reject the machine, new construction materials, or a functionalist definition of architecture. Brooks sees Lethaby as a bridge between Ruskinism and modernism, and those who followed Ruskin's general ideas concerning town planning (like C. R.

Ashbee, Patrick Geddes, and Raymond Unwin) as heirs of Ruskin's moral influence. But Lethaby, Ashbee, Geddes, and Unwin were no less a part of Ruskinism simply because they became reconciled to the machine age while still admiring craftsmanship. Moral Ruskinism should not be defined in terms of craftsmanship, but in the ideal of an integrated society that provided unalienated labor, subsistence, adequate housing, and access to art and leisure for all. From such an integrated society would spontaneously emerge a "living art," the vital expression of man's joy in life and labor that Ruskin believed had existed in the Middle Ages. Disciples like Lethaby believed the machine, when properly used, could create such an integrated society: the machine was merely a means toward Ruskinian ends. Brooks's definition of the Ruskinian tradition misses the essence of Ruskin's many works; by emphasizing the letter rather than the spirit of Ruskin's ideas Brooks has forgotten one of Ruskin's own injunctions: "no true disciple of mine will ever be a 'Ruskinian'."

Mark Swenarton's stimulating Artisans

and Architects comes closer to defining what is central to Ruskinism. While Brooks looked at the cultural diffusion of Ruskin's ideas, Swenarton has written an intellectual history of Ruskinism as expressed in the writings of Ruskin's followers rather than in their buildings. Lethaby and Unwin, along with William Morris, Philip Webb, and A. J. Penty, form the succession here. This strategy enables him to connect Ruskin's ideas back to the idealism of the early romantics in Germany and England and forward to the Modern Movement in America, France, and Germany.

For many of the romantics, art was connected to nature: just as nature was the external manifestation of the universal spirit, so art was the expression of this spirit flowing through individuals into the products they created. Ruskin followed in this tradition by defining great architecture as the visible expression of the spirit of the unalienated worker. In Ruskin's view, the division of labor in modern society precluded such an integration of heart and hand, leading him to reject the machine, extol handicrafts, and yearn for the organic society of the Middle Ages.

Swenarton rightly emphasizes romantic idealism as the core of the Ruskinian tradition. Ruskin's Gothic was less a matter of style, of polychromy, and French and Italian elements, than it was a quality of exuberant workmanship expressing the individual's love of the divine. Those who were genuinely "Ruskinian" shared this conception of art and architecture as the concrete manifestation of the human spirit within an organic society. The spirit could be expressed through the mind of the designer as well as the hand of the craftsman: for Ruskinians it was the end that mattered. In brief but clear chapters Swenarton shows how Ruskin's ideas were modified by his followers without losing their essence. William Morris was willing to use machines to perform unpleasant forms of work and was open to the rationalist approach to architecture of Pugin, Viollet-le-Duc and Henry Cole; Lethaby continued to conceive of architecture (and society) as an

expression of the eternal spirit, manifested through the thought of the designer as well as through the hand of the worker; Raymond Unwin saw the machine as simply another tool that could be directed toward the building of garden cities that would restore the collective life and civic spirit of the Middle Ages.

Unfortunately Swenarton is unable to choose between the strict construction of Ruskinism as craftsmanship or the broader definition of Ruskinism as a particular inflection of romantic idealism. His inclusion of Lethaby and Unwin supports the latter position, but his argument that Ruskinism effectively ended in the early 1920s with the decline of the building guilds aligns him with Brooks's narrower position-as does his final chapter in which he discusses Ruskin's influence on modernists such as Le Corbusier, Gropius, and Frank Lloyd Wright, but excludes them from the formal canon. Swenarton seems to want to have it both ways. In his chapter on Lethaby he does not follow Lethaby's career beyond World War I, thereby sidestepping Lethaby's pivotal role in bringing art and industry together through the Design and Industries Association. If one includes Lethaby and Unwin within the central Ruskinian tradition, one must also include Gropius and Wright, both of whom expressed their indebtedness to Ruskin and sought an "organic" architecture consonant

with nature and an integrated civilization. The Ruskinian tradition in architecture did not end in 1910 as Brooks claims or in the early 1920s as Swenarton claims, but continued through the interwar period, perhaps most notably in the collaboration between the architect Charles Holden and his "patron" Frank Pick of the London Underground. Both men were medieval modernists, disciples of Ruskin and Morris, who met in 1915 at the Design and Industries Association, itself an enclave of Ruskinian-Morrisians who sought to create a tidy and harmonious civilization through the integration of art and industry. Holden and Pick were spiritual men who sought, in Pick's phrase, to "re-energize religion" for a secular world. They were romantic idealists but also hard-nosed pragmatists, who hoped to reform industry and commerce from within rather than rejecting it in favor of pseudo-medieval guilds.

Holden, following Ruskin, viewed architecture as the integration of the arts, and commissioned young and controversial modern sculptors like Jacob Epstein, Henry Moore, and Eric Gill to carve directly onto several of his buildings. He included music and mechanism in his definition of an integrated art that would be a joy to both maker and user: "I have visions of an Architecture as pure and true to its purpose as a Bach fugue; an Architecture telling of joy in plan, structure and material, joy too in all the human and even the mechanical activities which make up architecture today-and without the use of adventitious aids to emotion." This concept is just as Ruskinian as it is modern.

Pick was inspired by Ruskin's dream of a common architectural style, and in the mid-1920s commissioned Holden to design "a new architectural idiom" for the stations and headquarters that were built as part of the Underground's expansion during the interwar period. Holden designed fixtures for the system as well as buildings, and Pick hired artisans like Edward Johnston to design the corporate lettering and modern artists to design posters for the stations and textiles for the trains. The integrated London Underground system could be seen as the terminus of the English arts and crafts movement, a union of the arts created for the service and the pleasure of the common person. While Brooks and Swenarton chart a more rustic path from Ruskin, they nonetheless serve as well-informed guides who illuminate many fascinating and unexpected landmarks along the route.

JOHN RUSKIN AND VICTORIAN ARCHI-TECTURE, Michael W. Brooks, Rutgers University Press, 1987, 364 pp., illus., \$28.00.

ARTISANS AND ARCHITECTS: THE RUS-KINIAN TRADITION IN ARCHITECTURAL THOUGHT, Mark Swenarton, St. Martin's Press, 1989, 239 pp., illus., \$39.95.

#### Priscilla R. Roosevelt

## The Revolution in 18th-century Russian Architecture

For two and a half centuries Moscow and Leningrad (known as St. Petersburg until 1914) have been open rivals. Shortly after its founding in 1703, Leningrad, Peter the Great's "window on the West," snatched the title of capital away from Moscow, and kept it until the Revolution of 1917. Most visitors to the USSR proclaim this "Venice of the North" the country's most beautiful city. With its splendid baroque palaces, avenues lined with aristocratic mansions, Kazan Cathedral (modeled on St. Peter's in Rome), romantic canals, and ornate bridges spanning the majestic Neva River, Leningrad remains an imposing monument to its creator's obsession with forcing westernization upon an initially reluctant elite. But for Muscovites, and for some visitors as well, Moscow's eclectic charms outshine Leningrad's brilliant sparkle. Where else can one find, hidden amongst the decaying monotony of 1950s office buildings, splendid relics of Russia's medieval period, and of the late 18th-century passion for neoclassicism as well?

The story of these cities, common lore for Russians, is too little known in the West. The creation of one, and the recreation of the other, during the reigns of Peter the Great and Catherine II, were visible monuments to Russia's intention to become a European superpower. Until now, the few extant general works of Russian art and architecture, without which Western audiences would have virtually no idea of Russia's place in world architecture, have devoted little attention to the reasons for these 18th-century cultural innovations. The most recent study, William Craft Brumfield's Gold in Azure: One Thousand Years of Russian Architecture (Godine), contains fine chapters on both Moscow and St. Petersburg, with stunning architectural photographs of the major monuments of both. But given the ambitious temporal framework of the book, it is hardly surprising that the author was unable to include more on the politics of 18th-century architecture.

The appearance of two books emphasizing the dimensions of the 18th-century revolution in Russian architecture is therefore quite welcome. James Cracraft's The Petrine Revolution in Russian Architecture is a fascinating and detailed account of the reasons for, and results of, the architectural revolution during the reign of Peter the Great (1682-1725), with particular emphasis on the building of Peter's new capital, St. Petersburg. Albert J. Schmidt's The Architecture and Planning of Classical Moscow: A Cultural History completes the picture with an account of the neoclassical revolution in the late 18th century under Catherine II (1762-1795) and carries the story forward into the 19th.century.

If St. Petersburg's baroque palaces were intended as the emblem of the imperial government, Moscow was to reflect Russia's aristocratic might through spacious promenades and parks on the Kremlin embankments.

The announced theme of Cracraft's book-"the transfer to Russia not of a particular architectural style but of a whole epoch in European architectural history in its major technical and material as well as aesthetic aspects, an epoch that began in Italy in the 15th century"-forewarns the reader of the significance of this revolution. Peter's primary obsession, of course, was with military modernization: Russia needed a westernized elite capable of studying and reproducing the military advances of the West. But the cultural changes of Peter's reign were an essential part of his design. They reflect his conviction that technology and culture were

linked: in order to think like Europeans, his courtiers would not only have to dress, speak, and behave as did the elite of the more advanced countries he had visited, but also live in a similar environment.

At the end of the 17th century, Russian military architecture was medieval compared with Western Europe's. Russian architecture generally, says Cracraft, was a "craft based on custom" rather than the "art based on science" it had been in the West since the 15th century. Most building was in wood; stone construction was reserved for churches or fortresses. Russian cities, including Moscow, the capital, were "little more than overgrown villages," hodgepodges of hastily erected, perishable structures which had grown up around old princely forts or kremlins. Foreign visitors remarked on the beauty of Moscow's domes and spires viewed from a distance, but were dismayed by the ugly wooden jumble of the city itself. The lack of interest in aesthetics is perhaps best illustrated by Moscow's stocks of prefab wooden house parts. In areas of the town threatened by fires, houses were hastily moved or new ones erected on the ashes of the old.

Peter rightly judged Russian artisans incapable of reproducing the architecture of the baroque stone cities he had admired on his tours of Holland, England, and Prussia. Hence he hired a flood of European artisans and experts who descended on Russia shortly after his return in 1698. Some of Peter's courtiers also took an active interest in Western architecture: as early as 1699 Prince Dolgorukov, a Petrine grandee, produced a book on Italian architecture featuring the ideas of Palladio and "many other famous Architects," with 73 sketches. But the most influential work of the 18th century was Vignola's illustrated Regola Delli Cinque Ordini d'Architettura, published in Russian in 1709, 1712, and 1722. Its stress on regularity and order established the fundamental principles of Russian 18th-century design.

The revolution started in Moscow, where the questionably labeled "Moscow baroque" was the first indication that new ideas were at work. Virtually all the monuments of this style, such as the Dubrovitsy church or the new tower of Novodevichy Monastery, were commissioned by members of the Golitsyn family for use by the elite or the imperial family. In 1701, initiating a sustained effort to enforce stone construction and "regularity" in city planning, Peter decreed that owners of lots in the central part of the city must build masonry houses, with facades directly on the street as was customary in Europe, rather than at the back of a courtyard (the more traditional plan).

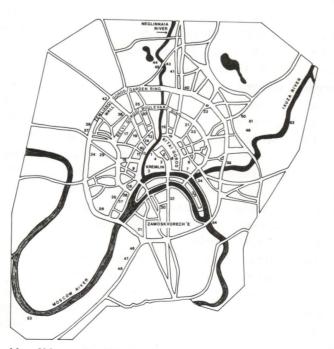
Very soon, however, Peter's focus shifted to his new city, St. Petersburg, the flagship of Russia's Europeanization. Here he had a *tabula rasa*. In 1703, the future city was founded inauspiciously on a marshy swamp, with little stone nearby. In 1714, in an effort to speed construction, masonry building was prohibited elsewhere in Russia, and all who entered St. Petersburg were ordered to bring a specific

amount of building stone with them. The plan by Andreas Schluter and Jean-Baptiste Alex-ander Le Blond was laid out along a series of broad avenues, culminating in monuments, parade grounds, or spacious regular parks. By Peter's death in 1725, St. Petersburg already had twenty-five thousand inhabitants and an impressive central corpus, thanks to draconian legislation and massive state allocations of human and material resources. Because St. Petersburg was planned from the start as a stone city similar to those European renaissance and baroque centers Peter had visited, the city has been saved from both the natural and human-made disasters that have plagued Moscow. The periodic flooding of the Neva wreaked havoc on outlying wooden suburbs but did not unseat Falconnet's Bronze Horseman; nor has the modern tendency toward verticality in city landscapes been allowed to destroy Leningrad's 18th-century skyline.

Moscow's development, by contrast, has been marked by horrendous destruction-by numerous fires, and by a lack of interest (until very recently) in historic preservation. Eighteenth-century planners were initially hampered by an urban lay out of old fortification rings and long-established sectors to the city that could not be ignored. Nonetheless, here too we see the same striving for regularity and magnificence, and the same compulsory methods that marked Petrine urban planning. The size of urban estates was limited in order to regularize streets; owners of lots in the central city were commanded to put up masonry houses or to sell their lots to those who could afford to do so. None of a series of official plans produced by Catherine's architectural commissions was fully carried out (most fortunately, Bazehnov's grandiose neoclassical remodeling of the Kremlin was abandoned). But they left their imprint on Moscow and affected the

# MOSCOW

Late Eighteenth and Early Nineteenth Centuries



Map of Moscow, late 18th and early 19th centuries; map designed by David Zamba. (From *The Architecture and Planning of Classical Moscow.*)

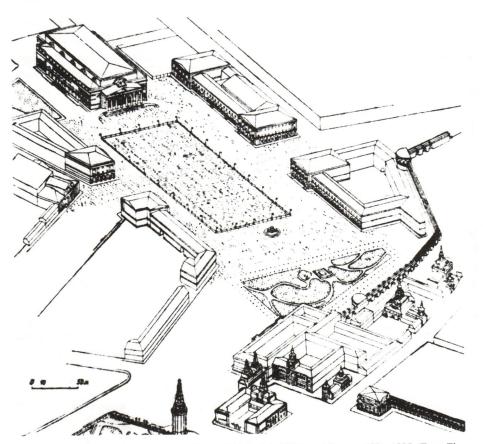
"instant urbanization" of provincial Russia under Catherine. Her new provincial administrative centers were laid out according to plans approved by the commissions; by the late 18th century neoclassical clusters of official buildings, with broad boulevards radiating outward from the official centers of these sparsely populated towns, had sprung up throughout Russia's fifty provinces.

Shortly after Catherine's death, the Napoleonic wars unsettled her architectural legacy when the great fire of 1812 virtually obliterated classical Moscow. Her grandson Alexander I, Napoleon's nemesis, reinforced Russia's European identity when he chose to rebuild in the same imperial style, making Moscow even more of a model neoclassical city. Alexander's planners demanded that house heights equal street widths (as along the Arbat). Model facades, building designs, and financial aid facilitated the reconstruction; strong, dark

> colors were prohibited, and pastel shades prescribed, for urban dwellings throughout Russia.

At Alexander's death in 1825 the Russian autocracy had been sponsoring architecture intended to replace the image of Russia as a barbarian country with one of her as a member of the European community for over a century. Yet in the eyes of foreigners, the goal of this architectural drive had not been reached. In 1828 one Englishman recommended Moscow and St. Petersburg to English architects for their "many structures that deserve to be more generally known than at present." But the response of the Marquis de Custine a decade later was more typical: he heaped scorn on Russians for the dreadful uniformity and imitative quality of their architecture.

It is thus not surprising that in the reign of Nicholas I (1825–55) an attempt was made to discover and implement a "national style" in architecture. This led to the "Russo-Byzantine style," as it is sometimes



Perspective of Theater Square after the building of the Bol'shoi Theater; Moscow; 1821–1825. (From *The Architecture and Planning of Classical Moscow*.)

called (really a pseudo-style, for as has been noted, pre-Petrine Russia lacked architectural traditions for secular building). For the Russian autocracy, which found itself increasingly on the defensive vis-à-vis a politically progressive Western Europe and its supporters in Russia, this supposedly nativist style was now to be symbolic of Russia's uniqueness among nations. In retrospect, however, it signals a retreat from Russia's 18th-century ambition to become part of a universal European culture. Monuments of this style include the upper stories of GUM and the Zaikonospassky trade center, and the Polytechnical Museum in Moscow, all products of the last quarter of the 19th century.

The Russian elite, which always took its cue in matters of taste from the crown, was quick to follow suit. From the 1840s onward, numerous members of the Russian nobility, in league with the crown against the forces of modernization, likewise eschewed neoclassicism for their country houses, constructing instead grandiose versions of the traditional peasant log cabin, complete with elaborate gingerbread trim.

By the end of the 19th century, a new European style (in Russia aptly titled style moderne) was making some headway against this historicist architecture. But a revival of neoclassicism at the turn of the century, both in private dwellings and imperial monuments, overshadowed the new movement and reinforced the 18th-century architectural character of St. Petersburg and Moscow. Then came the Revolution of 1917: neoclassicism gave way to a flush of utopian architecture (or at least architectural plans) intended to symbolize the new world of socialism. In the 1930s and 1940s, under Stalin, Soviet Russia's new autocrat, neoclassicism was again revived. This stylistic seesaw between nationalist and international architecture, though rarely remarked upon, is surely one of the clearest manifestations of this nation's cultural and political ambivalence about Western ways in general.

Cracraft's and Schmidt's books will undoubtedly appeal to different audiences. Cracraft's The Petrine Revolution is well organized, stylishly written, handsomely produced, and should have broad readership. Schmidt's Classical Moscow, packed with information fascinating for specialists, is an urban ramble through imperial Moscow, sometimes confusing (as was the city itself). Both books highlight the drama of the amazing 18th-century transformation, achieved at tremendous cost and through state leadership and compulsion, of the outward appearance of Russia's cities and of the working and living environment of Russia's elite. In its impact both at home and abroad Peter's feat might best be compared to the dramatic urban growth of Saudi Arabia in the last twenty years. It attempted (to some extent successfully) to change the image of Russia in the eyes of the world, and initiated a political use of architecture that has not waned in the Soviet period.

The pros and cons of the transformation were not lost on contemporary Russians. One said gratefully of Peter, "He led us, so to speak, from nothing into life." But no revolution lacks critics: a century later some were questioning their forced Europeanization, manifest in the triumph of baroque towers and Palladian belvederes over the onion dome. As a contemporary of Alexander's put it, "We became citizens of Europe, but to some extent we ceased being citizens of Russia; the fault was Peter's."

THE PETRINE REVOLUTION IN RUSSIAN ARCHITECTURE, James Cracraft, University of Chicago Press, 1988, 372 pp., illus., \$45.00.

THE ARCHITECTURE AND PLANNING OF CLASSICAL MOSCOW: A CULTURAL HIS-TORY, Albert J. Schmidt, American Philosophical Society, 1989, 218 pp., illus., \$38.00

#### Annmarie Adams

## Rooms with a View: Domestic Architecture and Anglo-American Fiction

The canon of modern architectural history includes many utopian projects. Designed by well-known architects and often rendered in provocative drawings, these visionary schemes were never constructed. The historic significance of projects like Mies van der Rohe's glass skyscraper or Frank Lloyd Wright's Broadacre City rests in their influence, following publication, on subsequent buildings and cities. Their place in the story of modernism is, oddly enough, more secure than many buildings that were actually constructed and inhabited.

The environments imagined and described by modern novelists were no less real than these utopian projects drawn by modern architects; cities, buildings, and rooms were "designed" in literature, as in real life, to contain and support particular social structures. Albeit in words, such architecture was often "constructed" of real materials, on actual sites, in easily imaginable forms. Like the utopian projects by architects, the places "rendered" by novelists could be both a penetrating critique of contemporary living conditions as well as a powerful vision of how life could be. Historians have long dismissed the "setting" of literature as a source in architectural and urban history because, as fiction, it bears a seemingly dangerous relationship to reality. Why is a house described by Jane Austen or a city seen through the eyes of Charles Dickens a less valuable perception of contemporary domestic and urban space than one drawn by Mies van der Rohe or Frank Lloyd Wright? Where is the land of make-believe on the map of architectural history and how should it best be explored?

Building Domestic Liberty by Polly Wynn Allen and Living Space in Fact and Fiction by Philippa Tristram are two attempts to address these extremely difficult questions. Both books are critical studies of fictional environments and both authors firmly believe that such architecture has a useful and illuminating relationship to everyday life. Building Domestic Liberty, an introduction to the life and work of Charlotte Perkins Gilman, is a study of this important American feminist's visionary environments in the context of her ideas for the radical reform of domestic labor and economics in the late 19th and early 20th centuries. As Allen remarks, Gilman had an "architectural imagination," and many of her ideas involved the restructuring of urban form to accommodate economic change. Living Space in Fact and Fiction is a broader study of domestic architecture in 18th- and 19th-century British novels. Its author sees the fiction writer as a perceptive observer of changing social values, rather than as a mediator of politics and physical form. The power of domestic space to shape people's lives, even in the imaginary realm of fiction, is a view shared by both authors.

From the title, Building Domestic Liberty, Allen's book appears to be the longawaited study of the "architecture" of Gilman. Best known as a feminist, social critic, author, and theorist, she is rarely remembered as a designer of domestic spaces, overshadowed in this regard by her famous great-aunt, Catharine Beecher. The architecture of both Beecher and Gilman has been largely overlooked by architectural historians because most of their ideas were unrealized during their lifetimes. The exception is Dolores Hayden's The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities (1981). Yet Gilman "designed," in utopian novels like Herland (1915) and manifestos such as Women and Economics (1898), provocative urban and rural environments she believed would lead to a nonsexist society. She is usually noted by architectural and urban historians only for her support of communal dining and child-care facilities.

Unfortunately, the concept of "architectural feminism," alluringly suggested in the book's subtitle, is never fully explored; Building Domestic Liberty offers us no new ways of thinking about the relationship of feminism and architecture during this critical time in American women's history. Allen's perspective on Gilman's life and work approaches biography, and although a discussion of many more of Gilman's books are included here than in previous studies, the level of architectural analysis is disappointing. The critical question of the relationship of women's power to the cultural landscape, for instance, is never really broached. What does the setting of Herland, a nation of women living in an "enormous park," tell us about women's perceptions of the city? In such novels Gilman is clearly suggesting far more profound alterations to society than kitchenless houses and shared child-care facilities, yet Allen misses the opportunity to explore such difficult issues by seeing Herland as just a "lament for a bygone, pre-industrial simplicity."

*Building Domestic Liberty* is a book of praise for a remarkable woman; it is not an analysis of Gilman's architectural contribution to feminism or her feminist contri-



"Mr. Pickwick's window," frontispiece to Dickens's *Pickwick Papers*, Gadshill edition, vol. 1; by Phiz. (From *Living Space in Fact and Fiction.*)

bution to architecture. Its greatest virtue is as an introduction for readers who may never have heard of Charlotte Perkins Gilman and who, it is hoped, will be sufficiently enticed to read the primary sources themselves. Until we cultivate solid ground on which to place figures like Gilman who has been marginalized by history even more than she was in her own time—they will, sadly, continue to fall into the wide gulf we have constructed between the territories of literature and architectural history.

Living Space in Fact and Fiction, a detailed account of the relationship of fictional spaces to real-world architecture in 18th- and 19th-century England, boldly attempts to bridge these interdisciplinary differences. No less than a revolution, Tristram claims, occurred in the novelist's sense of living space during this time; whereas before the publication of Austen's Persuasion (1818), novelists described houses in terms of their structural features, "sensing," rather than "seeing" domestic spaces, after Dickens's Sketches by Boz (1837), writers viewed domestic architecture through the objects they contained, "conceiving of a house in a totally different way, as the foreground, not the background, of a fiction." Tristram's argument for this transformation is skillfully constructed, setting the tone for the subsequent chapters dealing with other major changes in the "conscious aspects" of houses in novels: the eclipse of the great country house, the rise in interest in historic, vernacular, and working-class architecture, and the conceptual relationship of an individual's home to his or her character.

The strength of *Living Space in Fact* and *Fiction* is in the author's penetrating analysis of fictional architecture, rather than in her perspective on the history of real-world buildings, for although she draws connections to well-known works of architectural history, Tristram does not question the traditional model of the change from 18th- to 19th-century architecture as a succession of styles. Less admissible than this is her view of architects as passive and mute players in the construction of houses. The 19th century was the great age of the professional architectural press in England and the use of architects' own words about their designs, rather than presenting them as "unconscious," would have strengthened the book's argument. By ignoring architects' perceptions of their own world, apart from the well-known theorists like Loudon and Pugin, Tristram commits precisely the same error as architectural historians who refuse to read novels.

The final chapter of the book, which explores the relationship of psychology and living space, is much bolder, and much less convincing, than the others. Tristram believes that a house has a "subconscious being," a "wayward personality of its own, produced by the subconscious, both individual and collective, of its makers." What follows is an interpretation of the house after Freud; houses are like bodies, male or female. Windows are eyes. Rooms are wombs. It is unclear whether Tristram believes the users, or the makers, of domestic architecture at the time thought about their houses in this way. The conclusion of the chapter is a thorough, and seemingly unfounded, bashing of modernism.

The novel as a source for architectural historians may seem utopian, but it offers a valuable avenue for understanding contemporary society's perceptions of architectural and social reality. Both *Building Domestic Liberty* and *Living Space in Fact and Fiction* have opened to architectural historians the formerly impassable border to the land of make-believe.

BUILDING DOMESTIC LIBERTY: CHARLOTTE PERKINS GILMAN'S ARCHITECTURAL FEM-INISM, Polly Wynn Allen, University of Massachusetts Press, 1988, 208 pp., illus., \$11.95 paper.

LIVING SPACE IN FACT AND FICTION, Philippa Tristram, Routledge Chapman and Hall, 1990, 304 pp., illus., \$55.00.

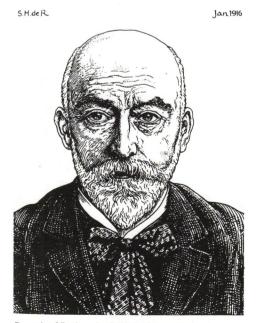
#### Nancy Stieber

## Hendrik Petrus Berlage

SERGIO POLANO, EDITOR

In 1916, on the occasion of his 60th birthday, the Dutch architect H. P. Berlage (1856–1934) was the subject of an inquiry in the leading architectural journal of the Netherlands. Architects, artists, poets, and critics were invited to comment on Berlage's much-vaunted contribution to the development of Dutch architecture. Amidst the generally laudatory, sometimes even maudlin, responses to the oeuvre of the architect who had catalyzed Dutch architecture with such works as the 1903 Stock Exchange Building in Amsterdam, one response stood out for its apostasy. The young and gifted architect Michel de Klerk admitted Berlage had contributed to the Dutch architectural profession, but flatly denied Berlage's aesthetic contribution: "Berlage does not understand the language and play of forms, although these are what have actually created beauty in all styles, however divergent."

De Klerk's carping commentary is best interpreted as the younger generation's call

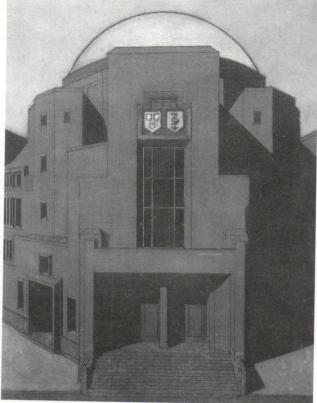


Portrait of Berlage by S. H. De Roos, 1916. (From *Hendrik Petrus Berlage*.)

for a change of guard. His own fluid and fluent expressionist line was a harbinger of an aestheticism far from Berlage's more restrained constructive sobriety. De Klerk, on the other hand, was simply the first in what has become almost de rigueur debunking of the sometimes exaggerated claims for the preeminence of Berlage among other Dutch architects of the 20th century. Because this century has also brought forth Dutch architects such as Oud, Rietveld, van Eyck, and de Klerk himself, such a claim must be carefully assessed.

Sergio Polano's lovingly produced catalogue of Berlage's complete works will make such an assessment easier for the future. Consisting of three historical essays, an essay by Berlage himself, a catalogue raisonné, and a bibliography of texts by and about Berlage, the book richly illustrates the extent of Berlage's architectural achievement. Of particular merit are the many reproductions of his drawings and photographs of works in their original state.

Interest in Berlage's work has increased in recent years as the reassessment of modernism and the resurgence of historicism have led architects and historians to reexamine that fertile era at the turn of the century before the modernist canon was established. Architects like Wagner, Behrens, and Berlage were coining architectonic solutions still steeped in the tradition of Western forms, embracing both innovative structure and expressive monumentality in exploratory ways that can still be plumbed today. As amply illustrated in the stunning drawings collected here, Berlage has much to teach us about the synthesis of ideals, social aims, the nature of construction, the expressive means of architecture, and the uses of tradition. Because his ambitions were so grand, it is not surprising that his aims occasionally surpassed his abilities, so that we come to sympathize with de Klerk's aesthetic reservations while at the



Perspective study, Municipal Museum; The Hague; H. P. Berlage, 1920. (From *Hendrik Petrus Berlage*.)

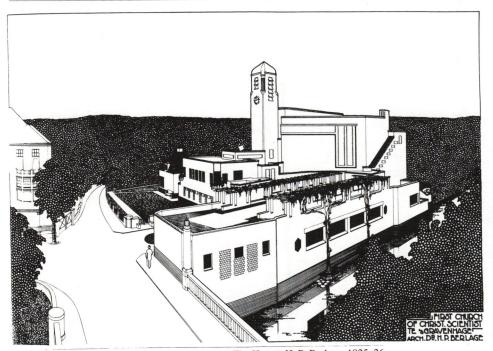
same time feeling awed by the capaciousness of Berlage's imagination. From our distant and uncertain postmodern harbor we may even envy his conviction that the 20th century would produce an art of democratic community, an envy mixed with skepticism for such naiveté in our era of commercialism and mass media. Where is the architect today who would dare claim the moral, intellectual, and political stature that came naturally to Berlage? To study Berlage in his full role as theorist, planner, designer, and architect is to confront the limitations of architecture in this age of the antihero.

Unfortunately, the reader coming fresh to this architect will find little in the text that introduces the larger questions raised by Berlage's work. The editor has purposely elected to compose a reference work, which avoids critical assessment. A reference work leaves readers free to draw their own conclusions, but takes no position against which readers can respond. The reader hoping for an assessment of Berlage's place in the international scene, or for an assessment of his place in modernism will look here in vain, as the text does not suggest critical approaches, nor does it review the historiography of this many-sided figure. On the other hand, it provides a sound collection of raw material and scholarship, and Polano's expressed hope that the "analytical tools" provided here will be useful to further research has every reason to be fulfilled.

The primary contribution of this volume lies in its catalogue. Here, in chronological order, are presented each of Berlage's executed and unexecuted design projects with commentary, illustration, and bibliography. The commentary provides useful information about the design history, place in Berlage's oeuvre, and current condition of each work. Extensive use of the Berlage archives in the Dutch Architectural Institute has

led to a series of compact and often enlightening introductions to the complete works. While occasional minor errors are to be found (for example, three plans and two perspectives, not two plans and three perspectives were submitted for the 1900 Amsterdam plan), both the scholar of modern architecture and the newcomer to Berlage's work will find much useful material. Among the merits of the catalogue is the high quality of the reproductions and their quantity, which demonstrates the profound depth and sincerity of Berlage's endeavors.

The three historical essays are wisely thematic rather than periodic, dealing respectively with architectural form, urban design, and housing. Each essay presents a close reading of Berlage's works. Giovanni Fanelli reviews Berlage's stylistic development in a thoughtful exercise that repays careful reading. Individual buildings are analyzed formalistically to demonstrate the pioneering, experimental nature of his de-



Aerial perspective, First Church of Christ Scientist; The Hague; H. P. Berlage, 1925–26. (From *Hendrik Petrus Berlage*.)

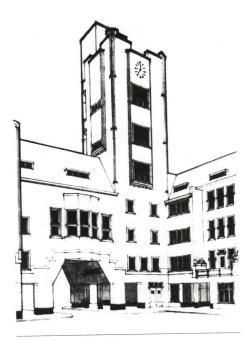
sign. According to Fanelli, "Berlage consistently explored the possibility of an architectural idiom based on a dialectic relationship between mass (as the product of the building process), and function on the one hand, and dematerialization and decoration on the other." The reader is invited to see the way Berlage reconciled structural realism with monumental and decorative symbolism.

Vincent van Rossem presents a useful review of Berlage's seminal writings on urban planning from 1893 to 1917, demonstrating in particular their indebtedness to the contemporary German planning discussions. Finally, Jan de Heer's essay on Berlage's housing emphasizes his conception of housing design as a social and urban art.

While each of these essays contributes to Berlage scholarship, the reader expecting a general introduction to the architect had better look elsewhere. Little or no mention is made of topics such as Berlage's use of proportional systems, his theoretical relationship to Viollet-le-Duc, Morris, and Semper, and his collaboration with artists, not to mention the social and political iconography of his buildings. Given the short shrift Berlage is accorded in most general histories of modern architecture, we might also have hoped to find here a general biographical essay or at least a chronological overview of Berlage's life. The paucity of publications on Berlage in English is more reason to regret, somewhat selfishly, the choice to publish here one of the lectures Berlage delivered in English during his 1911 trip to the United States. Berlage was a prolific author, and while his theory is notorious for its syncretic compilation of primarily Germanic and English sources, many of his more seminal essays written in Dutch deserve translation.

By choosing to avoid the critical and theoretical issues raised by Berlage, the editor has effectively focused our attention on the works themselves, which is in itself a historiographical position, since it suggests one can remove the now-discredited teleological historicism that informed Berlage's work from the forms it was intended to justify. A consequence of such surgery is to give lie to de Klerk's criticism. Berlage emerges here as a master of form, of line and surface, of spatial manipulation. But of course forms do not speak for themselves and it is impossible to view Berlage today without the coloration of the subsequent developments during this century. What then emerges is the suggestion that Berlage's combination of honest construction with rich spatial and decorative symbolism might have been pursued further along a path somewhere between the Scylla and Charybdis of regionalism and internationalism, or between expressionism and functionalism.

Finally, a few reservations are in order. This book has also appeared in Italian and Dutch, and given the stilted English translations of the Italian and Dutch contributors, their original-language versions should be consulted, if possible. Also hampering understanding is the absence in the essays of direct reference to the illustrations and their seemingly arbitrary placement, particularly in Fanelli's essay. It would also have better served Polano's purpose of fostering research if the sources of the illustrations were acknowledged, if the otherwise extremely useful bibliography were more clearly laid out, and if an index were included. None of these reservations, however, detracts from this book's value to anyone who pretends an interest in European modernism.



HENDRIK PETRUS BERLAGE: COMPLETE WORKS, Sergio Polano, editor, Rizzoli, 1989, 266 pp., illus., \$65.00.

#### Peter Scriver

An Imperial Vision THOMAS R. METCALF

## The Tradition of Indian Architecture

G. H. R. TILLOTSON

# The Indian Metropolis

NORMA EVENSON

A century ago European civilization languished in an unprecedented state of wealth and self-assurance. This was manifested luxuriantly, indulgently, in the *fin de siècle* art and architecture of the Continent. But the haughtiness and the riches of political and economic supremacy were nowhere so shamelessly and fantastically expressed as in the buildings of British Imperial India.

In her rhapsodic meditation on the Stones of Empire (1983), the veteran India-watcher Jan Morris was characteristically impish, if honest, in declaring the nature of her fascination with the built artifacts of the British Raj. There was a virtue to the idea of empire, she suggests, "the assumption that one tribe, race, or nation might, by the brutal privilege of force majeure, legitimately lord it over another. The idea is disguised nowadays in economic device or political euphemism, but in its days of climax it was creatively explicit." Raising squawks of indignation from other recent commentators such as Philip Davies (Splendours of the Raj, 1985) who have adopted the cause of salvaging an unjustly maligned architecture from the abyss of its politically discredited historical circumstances. Morris infers that the embodiment of the imperial phenomenon of British India was perhaps the only truly lasting value of the rather dowdy buildings it created: "British architecture in India was anything but avant-garde," she argues. "The genre, like the empire that gave it birth, went out gently, even apologetically in the end ... in an unmemorable blandness of the neo-classical. The sort of architecture ... (which) well suited the needs and preferences of officials and businessmen alike, and could easily be touched up with ornamental elephants, or even corner kiosks, to show willing to the indigenes. It was hardly architecture at all really."

Wittingly or not, Morris may have qualified the architecture of the 1980s even more accurately than the architecture of the century before. Certainly, there are intriguing similarities between the imperial culture of plenty and the contrived depthlessness of so much of the present postmodern cultural production, including that of architecture and the publishing industry. The unprecedented tide of publications and exhibitions on India's ancient and modern architectural culture, produced over the



Details of a *chattri*; New Delhi; Herbert Baker. (From *The Tradition of Indian Architecture*.)

past decade, might be explained in the light of this comparative empathy.

Architectural scholars have previously steered clear of the built legacy of Britain's imperial pomp and folly in India. John Summerson offered an explanation why in his foreword to the Swedish scholar Sten Nilsson's European Architecture in India 1750–1850 (1968), the first study to break that impasse since James Fergusson's less than charitable criticism, a century earlier, of the first inroads of the modern styles on the Indian scene. "Could an English scholar have written this book?" Summerson queried. "The answer is 'yes', but the fact is that no English scholar did; and the reasons for that might be sought in the embarrassing load of apprehensions, prejudices and inhibitions about India and about imperialism which most educated Englishman carry around with them."

Indeed, "imperialism" continues to stigmatize both popular and scholarly estima-

tions of contemporary and colonial Indian culture. The dramatic boom in literature, films, and melodramatic T.V. miniseries about the British Raj since the late 1970s-of which the rise of literature on colonial architecture is one offshootappears to indicate only a shifting epiphenomenal reaction to the cultural artifacts of the colonial experience. The deeper ideological impediment prevails. What in the postwar decades was distorted by a willing amnesia, has in the past two postmodern decades been equally distorted in cultural memory by a commercially and politically expedient new tendency toward the romantic overfamiliarization of selected images and imaginings of the colonial experience. This is so effective in its aesthetic seduction that the ethics of imperialism have again been blissfully submerged. A clear correlation seems to exist between this shift in the mode of representing empire and the broad and disturbing shift in the tastes and surface appearance of the affluent metropolitan societies in the 1970s and 1980s toward racial and nationalist heritage and its nostalgic trappings, and increasingly charismatic politics.

One looks to the newest additions to the rapidly swelling literature on the colonial and contemporary architecture of the Indian subcontinent in anticipation of the critically perceptive scholarship that previous stylistic, biographical, and shamelessly nostalgic chronicles have failed to provide. Each of the authors has returned in the present work to a field they were already familiar with from earlier research, bringing a certain authoritative weight to their arguments that has been absent in other studies. Collectively they have added more factual substance and carefully argued detail to a fragile knowledge base and, to some extent, grappled with the topical queries of current criticism in a bid to confront directly the political and cultural dimensions of imperial architecture. Thomas Metcalf and G. H. R. Tillotson appear to be more convinced, morally and theoretically, with their respective critical agendas than they are confident in applying these toward definitive conclusions. Norma Evenson, the veteran scholar of Chandigarh and Brasilia, is, on the other hand, more cool-headed and disinterested in her treatment of the content, while the scope of her exclusively empirical inquiry is the most ambitious of the three studies, with the inherent shortcomings of such a sweeping overview. Surprising, on the whole, is the nagging sense of autonomy and/or anachronism that each of these selfconsciously architectural "views toward the East" maintains with regard to their broader cultural object and the theories and findings of scholars in other closely related lines of research. One might mention, in this regard, the specifically relevant crossdisciplinary studies of relations between the built environment and society of colonial India by the sociologist Anthony King (Colonial Urban Development, 1976; The Bungalow, 1984). These studies make it into the bibliographies of Evenson and Metcalf, but evidently no further.

The built traces and documentary arti-

facts of the brazen commercial exploits of the British East India Company, from the 17th to the mid-19th centuries, compose the historical datum from which the standard account of colonial architectural developments in India proceeds. In the present works, the physical and ideological complexion of that age of nascent empire are portrayed, through the evocative representations of the East in the reports of company officials, roving artists, and "India-returned" travelers during the extended courtship of the Indian subcontinent before the full-fledged commitment of the British crown to the government of India and the subsequent building of a modern infrastructure and architectural presence during the second half of the 19th century. This latter, definitive phase of imperial consolidation-the so-called British Raj-was inspired as much by Britain's recognition of its own economic dependence on the volatile wealth of South Asia as by its desire to exploit that exclusive market. As the military and civil services of British India reorganized and shifted into high gear in their

The three recent books under review are the first ripples of a second wave of research that appears to be applying a higher degree of rigor and method to this study.

endeavor to modernize and control the subcontinent, the sustaining ideology and formal representation of British colonial culture underwent a similarly dramatic overhaul. However, this gravitated toward a romanticism that was seemingly antithetical to the administrative and economic processes of rationalization—a revealing paradox that is identified and variously interpreted in each of the books in question as the colonial Indian variant of the battle of the styles in protomodern European architecture. The disjuncture between socio-political reality, on the one hand, and the ideology of empire on the other, was already fatally explicit by the time Edwin Lutyens and Herbert Baker had completed their designs for New Delhi in the 1920s.

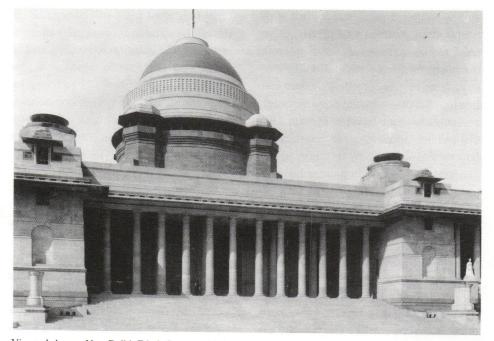
The Vitruvian arcadianism of the architecture identified with the initial "Company" phase of the European presence in India gave way to an increasingly fanciful and eclectic exoticism. This transformation gained impetus from the successive shifts in the way of seeing and morally representing the world that propelled English architecture from the patrician sobriety of the Georgian era, through the capricious scenography of the Picturesque and the evangelical chauvinism of the Gothic revival, to the anglicist medievalism of the Arts and Crafts movement in its ultimate crusade to stave off the erosion of traditional values and social order by modern industrial society. The colonial Indian stage, on which English architects and military engineers were the principle performers until India's independence in 1947, was not merely a provincial theater for the playing out of these fashions, but a particularly distant and exotic forum in which any European representation-no matter how stilted a caricature-assumed a self-important authenticity by virtue of sheer contrast with the alien cultural backdrop. These tendencies were thus informed and even amplified by their colonial manifestations, though generally explained and legitimized ideologically by independent motives.

Thomas Metcalf's objective in *An Imperial Vision* is to discern and describe this ideological agenda in British Indian architecture. As a social historian, however, he walks rather warily in the territory of architectural history and criticism, intrigued to "read" the buildings of the Raj, but only as readily discernible and ostensibly ideological evidence of social change. Such a study was long overdue, in view of the now rather tired tradition of postwar scholarship in the social sciences concerning the critique of imperialism. While Metcalf can be lauded for closing that gap, his arguments are often predictable.

Metcalf's premise is the equation of

power, in the form of political and cultural dominance, with knowledge. In this case he refers to a particular and peculiar cognate phenomenon-the accumulation over several centuries by Europeans of a vast and ostensibly confirmed body of information and theories concerning Indian civilization-its culture, mentality, and behavioral characteristics. The author draws his critical inspiration and cues to his architectural approach from Michel Foucault's attempt to problematize a power/knowledge relation in his studies of 18th-century European social institutions; in particular. Foucault's "archaeological" reading of the architecture of prisons and hospitals as a form of text about the uses of knowledge in society. The provocative application of Foucault's power/knowledge thesis to the critique of what the literary critic Edward Said has called the "discourse of Orientalism" and its complicity in the imperialist process of modern social history is the theme of Metcalf's exposition. The author offers, however, no substantive discussion of that theory besides a cautionary footnote that acknowledges the probity of Said's critique while disclaiming his polemical tone and imputation of political motives to all European scholarship on the East. This unfortunate lack of a theoretical explanation has rendered the book's broader conclusions almost tautological.

The power/knowledge thesis is explored in a seminal chapter titled "The Mastery of the Past: The British and India's Historic Architecture," the interpretive key to the chronicle of stylistic battles, personal and imperial causes, and ideology made stone that compose the essence of Metcalf's study. The monumental benchmark in the study of India's historical architecture established in the mid-19th century by James Fergusson serves as the fulcrum for this discussion. Metcalf considers Fergusson's encyclopedic scholarship, his rationalist methods and ethic, and the polemical agenda underlying his far-flung studies of the exotic architectures of the world as a revealing portrait of the prevailing knowledge of the Orient, of India, and of Indian civilization with which British



Viceroy's house; New Delhi; Edwin Lutyens, 1913-31. (From The Tradition of Indian Architecture.)

notions of their own cultural dominance were bolstered. The author posits his most adventuresome propositions in this discussion, building a web of crucial links between the Orientalist dogma of cultural decline, the Anglo-centric creed of the civilizing influence promulgated by Thomas Macaulay, and the paradigm of Darwinism in late Victorian thought, drawing the exposition toward the conclusion: "What the colonial ruler had explained, he of course controlled."

He proceeds with this premise to argue that the paradigm of Fergusson's inherently racist rationalization of Indian cultural/architectural history, with its emphasis on monolithic religious-cum-ethnic blocks and their respective inbred artistic potencies, prevailed in the Victorian era because alternative interpretations on such fluid and promiscuous bases as "the taste of the times" and "regional styles" "would reduce the opportunity to link architecture directly to politics." Metcalf goes on to apply his knowledge/power propositions in a discussion of British efforts to embody their imperial mandate in India in an archaeologically literate modern Indic architecture of ostensibly seamless continuity with the tradition of India's numerous

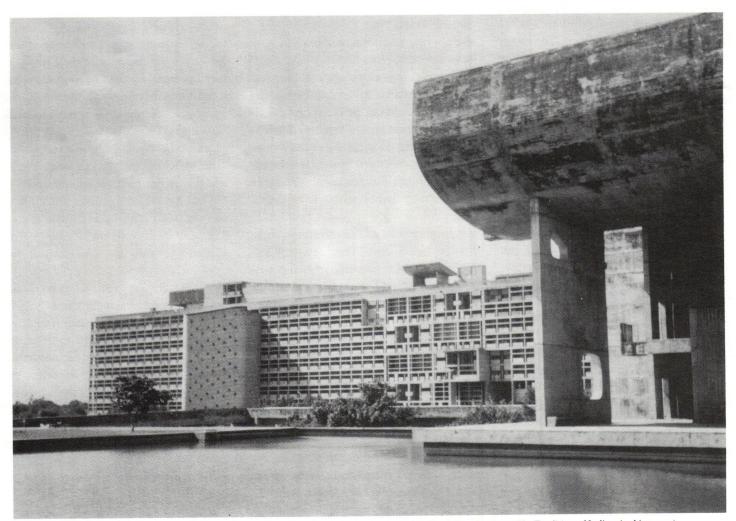
assimilated conquerors of the past. Turning to the mentality of the Indian princes subjugated to the authority of the British, he then observes how the reception and diffusion of this invented tradition among the agents of "traditional authority" in India served to cement the powerful, officially sanctioned illusion of "the real India."

G. H. R. Tillotson takes specific exception to such deterministic interpretations of the relation between politics and culture, on occasion rebutting Metcalf directly. Tillotson's essay on the demise of The Tradition of Indian Architecture in the modern era is, in effect, more of a revisionist critique of recent scholarship on the architecture of colonial India than a comprehensive study in its own right. Authority, and the substance of the arguments, are derived from his slightly earlier and more substantial study of the fort palaces of the Rajput princes (The Rajput Palace, 1987)-those quintessential "far pavilions" of romantic lore, arguably the last homegrown architectural idiom to emerge in the Indian subcontinent.

The present book is a more timely work than Metcalf's, but equally predictable as the object and moral timbre of Tillotson's arguments conform uncritically to the prevailing value-premises of that facet of the postmodern moment that privileges the ideal and the forms of artisanal culture as the blueprint for a sane and humane restructuring of a disembodied modern civilization. Tillotson, however, is so caught up in the moralistic fervor of his exposition that he fails, surprisingly, to recognize just how topical and possibly transitory his enthusiasms are. A case in point is his interpretation of the "Crafts" debate that came to a head about 1913 in the art and architecture circles of British India over the question of how New Delhi, the new imperial capital, should be designed and built.

The issue of the day was image. What would represent the millennial ambitions of the British Indian Empire most appropriately and powerfully? The "Crafts" lobbyists, led by the director of the Government College of Art in Calcutta, E. B. Havell, had a different view. Havell wrote in 1913, "The question to be discussed is, not in what style, but by what *method* the new city should be built." The living Indian artisan, working within time-honored practices and guild constraints, was proposed as the ideal architect-builder for the modern India that New Delhi would symbolize.

Tillotson makes much out of this alternative emphasis on method; the broad significance of "process" in the evolutionary development of a tradition versus the incidental inconsequence of appearances. This generates some interesting discussions elsewhere in his book concerning the individual campaigns of characters such as the engineer, Swinton Jacob, and the art educator, John Lockwood Kipling (the father of Rudyard), to patronize and develop the traditional building crafts of India and their guildlike methods of collective and loosely intuitive design. But whether the Indian building tradition might ever have achieved a genuine renaissance capable of fulfilling the architectural needs of a changing modern India remains an academic question. Tillotson concentrates on criticizing how the efforts of the crafts enthusiasts were consistently ignored or suppressed; victim, ostensibly, to the far more powerful process of rote Westernization. He refrains, however, from applying his critical gaze to the ideology of the crafts lobby itself. He thereby fails to discern historically the manifest relativity of that cause, and how it could be seen to have been far from emancipating with regard to the "spirit" of the Indian craftsperson.



The Secretariat (foreground) and part of the Palace of Assembly; Chandigarh; Le Corbusier, 1951-58, 1951-62. (From The Tradition of Indian Architecture.)

In Metcalf's discussion of the diffusion of the crafts movement in India lies a salient political critique. As it came to dictate the curriculum in Indian art schools and technical colleges, the crafts ethic constituted a veiled form of domination directly beneficial to the imperial cause. It patronized the idealized traditional craftsperson, his archaic tools and his limited and unchanging horizons, in expressed denial of the itinerant laborer, the cosmopolitan artist, the architectural professional; bogeys of a modern, aspiring, reform-minded society that the mature Raj became less and less capable of tolerating.

As a social historian, Metcalf's interdisciplinary self-consciousness and his reticence to turn over polemical ground give way in the end to perceptive critiques such as the above, and to the revealing interpretations he makes of men like James Fergusson and Herbert Baker, Lutyens's typically underestimated collaborator on the designing of New Delhi. This is where the greatest strength and originality of Metcalf's book lie, But, even with the more problematic thesis he has borrowed for the central theme of his book, Metcalf has fruitfully expanded the established methodological scope for the study of India's colonial architectural heritage. In the process he has done an important service to this fledgling field of scholarship. His extensive notes to the text illuminate the study itself and provide an insightful guide to the many avenues for further inquiry.

Tillotson's extremely narrow scope and hyperconcern to revise and refine the interpretations that have been applied to the few well-trodden patches of India's colonial and modern cultural landscape strikes one, therefore, as noble but rather premature. Tillotson fails, on the other hand, to provide an account of the creation of the modern profession of architecture in India, an oversight that strikes this reviewer as puzzling, in view of his comparatively exhaustive scrutiny of the curriculum and philosophical debates surrounding the teaching of arts and building crafts in Victorian and Edwardian British India. This leads to a disappointing dilution of the finely wrought arguments of the first three chapters—in particular, in the author's antagonistic and poorly grounded attempt to explain the fate of the Indian building tradition and the modern architecture that has consumed it in the four decades since India gained its independence from Britain.

In her The Indian Metropolis, a comparative survey of the architectural and urban history of the modern Indian city, Norma Evenson has done the most significant groundwork to date in researching the organization of the formal architectural profession in India and the schooling of its first members. Similarly informative, but only apropos of a thorough critical analysis, is her survey of postindependence architecture and urbanism in India. Evenson is less belligerent than Tillotson while equally cautious in her commentary on recent developments; her tentative foray into criticism maintains an even keel by virtue of her relatively undiscriminating "urban" vantage. Perhaps inevitably for a survey of the breadth she has undertaken, there is hardly room to observe any more than the apparently unresolvable magnitude and complexity of problems and constraints faced by architects and planners at work today in India.

Evenson's richly documented studyboth visually and factually-stands apart from Metcalf's and Tillotson's close-knit stylistic debate, despite their obvious parallels in content. She has determined to provide, for architectural and urban historiography, a book that was perhaps bound to appear eventually: a methodical inquiry into the perplexing, somewhat lugubrious fascination that the impossibly over-saturated, decaying yet thriving "hybrid" cities of metropolitan India have inspired in so many travelers, writers, and filmmakers, from Rudyard Kipling to Günter Grass and Louis Malle. Evenson is concerned in this study-as with her earlier highly acclaimed study of the growth of modern Paris-with the phenomenon of the metropolis as a pole of historical development around which a variety of universals revolve in relation to myriad elements of the specific cultural hinterland from which the city draws its material and human resources. Stressing the generic universality of the metropolis, she eschews the argument advanced by Anthony King, among others, that the colonial city constitutes a unique type with its own very particular constraints on those characteristics of diffusion and interaction commonly assumed in any definition of the city.

From her urban perspective, Evenson's chronicle assumes a less exclusive scope than do Metcalf's and Tillotson's studies with regard to the architecture. We inevitably retrace the familiar pattern of stylistic and programmatic changes in the Indian colonial scene, but Evenson surprises us with what her method cannot ignore, by contrast to the Anglo-centric formalism of her colleagues; the critical mass of "native" commissioned and designed urban architecture that competed for space and civic prestige in the burgeoning colonial metropolises of Calcutta and Bombay. In this important regard her book goes furthest in actually documenting the process of reception and diffusion of modernity, in architectural form and concepts, across the East-West divide, the implicit subject of each of these books.

AN IMPERIAL VISION: INDIAN ARCHITEC-TURE AND BRITAIN'S RAJ, Thomas R. Metcalf, Faber and Faber, 1989, 302 pp., illus., £27.50 (Note: also available from University of California Press, \$35.00).

THE TRADITION OF INDIAN ARCHITECTURE: CONTINUITY, CHANGE, AND THE POLITICS OF STYLE SINCE 1850, G. H. R. Tillotson, Yale University Press, 1989, 166 pp., illus., \$25.00.

THE INDIAN METROPOLIS: A VIEW TOWARD THE WEST, Norma Evenson, Yale University Press, 1989, 294 pp., illus., \$50.00.

#### P.A. Morton

### **French Modern**

PAUL RABINOW

French Modern, by Paul Rabinow, is a Herculean effort to comprehend certain practices of reason as exemplified in the theory and practice of urbanism in the 20th century. As an exploration of the social and physical constitution of the modern city, it is an important and uniquely innovative book. Drawing upon a vast compendium of documentation, Rabinow shows the specific interrelation of space, power, and knowledge in modern urbanism. Although Rabinow concentrates on the example of French urbanisme and its development in the late 19th and early 20th centuries, his conclusions can be extrapolated to other contexts given the influence of French urbanistic theory in other parts of the world.

French urbanism is usually equated with the well-known polemics of Le Corbusier and his colleagues in CIAM. At this intersection of everyday life and high art and science, he explores the ways modernity was "used by its practitioners."

Rabinow describes two steps in the development of modernity. The first was a balance between technology and historical/ natural elements resulting in what he calls "techno-cosmopolitanism." (His neologisms are one of the less appealing aspects of this book.) The second phase is that of "middling modernism." In this second period, society became an object for the work of various technicians, including urbanists, who viewed their operations as universally valid and politically neutral, even beyond democratic politics and its messy and ineffectual egalitarianism.

As Rabinow makes clear, the most dominant impulse of this modernism is the desire to standardize and order both the physical and the social environment in a mutually reinforcing manner. He considers this tendency to be central to modernity in general, and at the core of what might be called the "planning mentality," the results of which are visible in every modern urban center. Rabinow traces the origins of the set of practices we call urbanism to 19thcentury theories of hygiene, evolution, society, geography, demography, and, especially, history. His synthesis of developments in the great range of disciplines that formed French urbanism, from Lamarckian theories of evolution to French colonial military policy, is one of the book's most important contributions.

Following Foucault, to whom the book is dedicated, Rabinow delineates the rupture between the classical order of representations and the modern order of "Man," accompanied by the proliferation of the human sciences. The forging of historical and natural elements into an object, "the planned city as regulator of modern society," *urbanisme* makes the ideal subject for Rabinow's study of the emergence of modern power and knowledge.

Rabinow documents a less wellknown strain of French urbanism—he calls it "middling modernism"—which was incubated in the colonies and nurtured in the Musée Social, the Société Française des Urbanistes, and other official French institutions.

Rabinow believes that French urbanism, as theorized by Tony Garnier and others at the Ecole des Beaux Arts at the turn of the century, provides a "grid of intelligibility" for understanding modern welfare society within what Foucault called the "bio-technico-political" field of power relations in the modern episteme. Urbanism becomes his paradigm because it is "one of the most complete examples of modernity" and represents "the urban parallel to Bentham's Panopticon." What Rabinow means by these statements is not obvious. Urbanism cannot be a literal analogue to the Panopticon because it is a constellation of disciplines and practices, rather than a unified disciplinary concept. This, according to Rabinow, is precisely what makes it so modern: the rise of urbanism exemplifies the change in the role of forms and norms in modernity, and the subsequent concentration on the control of the entire social environment rather than on an individual's behavior as in the Panopticon. Urbanism is also typical of the search for forms appropriate to the norms of modern society which would propagate a "productive, healthy, and peaceful social environment."

Rabinow demonstrates the workings of modernism through a roughly chronological progression of pivotal events and men (there are no women in this book). Among several central figures discussed at length are Hubert Lyautey, Maréchal of Morocco and "pacifier" of parts of Southeast Asia and North Africa, Tony Garnier, Beaux-Arts architect and seminal urbanist, and Maurice Halbwachs, the socialist sociologist. Rabinow calls these men "specific intellectuals" or "technicians of general ideas," the specialists of the modern social environment. By recounting their careers and the development of the institutions they created, Rabinow elucidates the workings of the faceless and seemingly ubiquitous structures, such as urban planning and hygienic regulations, "behind" everyday life, along with their planners' stated objectives. He focuses on specific intellectuals not because they were "geniuses" or archetypical of their period, but because they were the practitioners of the modernity Rabinow seeks to define and understand

One of the stories he tells is the search by these specific intellectuals for the authority and power to effect their plans. Lyautey's case is revealing. Rabinow depicts him as the "enlightened" dictator of Morocco, where he was able to restructure the government to allow for centralized planning and intrusive regulation of the physical, hygienic, and social domains of Moroccan cities. The craving of modern urbanists for an authority capable of realizing their visions of a perfectly planned modern society is demonstrated by the career of Le Corbusier. His search took him from French industrialists to colonial governments to the puppet dictatorship of Pétain's Vichy government, and, finally, to Nehru's India in order to find the right authoritarian patron.

The desire to short-circuit or eliminate participatory politics is a well-known characteristic of the Third Republic's post-Dreyfus malaise. Rabinow shows how this attitude was translated into a central premise of French urbanism in the name of science and the universality of the new social program. It was more expedient to institutionalize urbanism in bureaucracy and normative legislation and to construct new urban aggregations on clear sites than to embroil planning decisions in public debate or attempt to reform existing cities. One of Rabinow's central achievements is his documentation of the primacy of abstraction and decontextualization in urbanism and their development through the confluence of myriad events and concepts current in France at this time.

The extensive analysis of Lyautey's work in Morocco indicates another problem with this book: it lacks a critical edge when describing the efforts of the "heroes" of urbanism to realize their visions of an improved social environment. Rabinow may be scrupulous toward Lyautey, for example, by giving him credit for a relatively enlightened, if Orientalist, attitude toward Arab culture. Janet Abu-Lughod, however, has amply demonstrated that the consequences of Lyautey's policies were not the harmless preservation of traditional urban centers (or "native cities" in colonial parlance), but the much more insidious segregation of populations, which she likens to apartheid. Further, Rabinow's concentration on a few representative "specific intellectuals" is highly reminiscent of histories of "great" events and men. The resistance to these structures of power and knowledge is not given equal treatment.

While Lyautey is an easy target of postcolonial hero-bashing, and Rabinow is to be commended for his evenhanded approach, the concentration on Lyautey's policies and the absence of a full analysis of the forms of the colonial Moroccan cities points to another problem. The norms of modern society are extensively explored, but because of the lack of illustrations, the forms are neglected, a deficiency not compensated for in Rabinow's verbal descriptions. The extreme generality of the resulting discussion prevents Rabinow from making more concrete his generalizations about urbanism's genesis and evolution.

The book's major problem is that it contains an embarrassment of riches: Rabinow includes too many different people, too many sites, and too many ideas for the reader to be able easily to sift through the facts and follow the thread of his argument.

Some of the difficulty may lie in the fact that Rabinow focuses so intensely on his specific intellectuals that, for example, he feels obliged to discuss in depth the reform of the French army when he discusses Lyautey, yet this is only marginally related to urbanistic practice and theory. The information about military reorganization is not irrelevant, but it tends to obscure other, more salient points about colonial urban policy. The disparate parts of the book are not well integrated, leaving the reader to shift through over four hundred pages of material in order to connect them. The inadequate index and the occasional misprinted footnote do not help.

Despite these technical flaws, *French Modern* contains an impressive body of research and interpretations not available elsewhere in English. Rabinow's wealth of insights into the origins of the radical decontextualization of the modern urban context and the institutionalization of its regulators make this an essential book for understanding our social environment.

FRENCH MODERN: NORMS AND FORMS OF THE SOCIAL ENVIRONMENT, Paul Rabinow, MIT Press, 1989, 447 pp., \$37.50.



### Richard Cleary

Modern Classicism

ROBERT A. M. STERN WITH RAYMOND W. GASTIL

### The New Classicism in Architecture and Urbanism

CLIVE ASLET, DEMETRI PORPHYRIOS, CHARLES JENCKS ET AL.

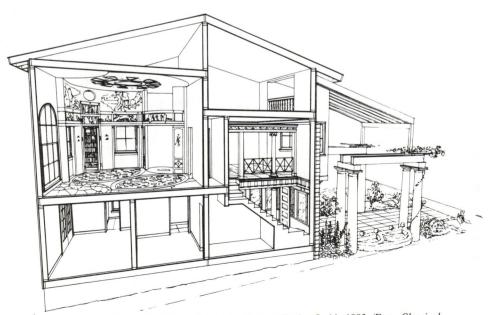
# Classical Architecture

THOMAS GORDON SMITH

The big bad wolf of modernism lies spent before the brick house of the brave little pigs. He longingly casts his greedy eyes one last time upon the portal and sees a pair of Ionic columns supporting a pediment. Be gone, infidel! The path to Architecture is lined by the five orders!

In the 1960s and 1970s, postmodernism encouraged us to take a fresh look at classical architecture. Although some designers have responded by gluing columns, keystones, and pediments to the façades of suburban shopping malls, others have sought to understand the principles and syntax of classical architecture. Invigorated by such investigations, a number of architects have embraced classicism as the antidote to the perceived soullessness of modernism. Speaking and writing in a tone of certainty that recalls the manifestos they repudiate, the new classicists proclaim their rediscovery of the only meaningful architectural language and exhort us to join them.

In Modern Classicism, Robert A. M. Stern, with Raymond Gastil, has taken on the taxonomic mantle of Charles Jencks to sort out contemporary approaches to classicism. Stern states, "Classicism ... is the formal expression of Modern (i.e. Post-Medieval) secular institutions in the West," and sets the reader on a whirlwind survey of architecture from Brunelleschi to Kahn. Confidently, if not always convincingly, Stern argues that the architecture we commonly refer to as International Modernism was an aberration and that the modern is in fact a continuum beginning with the classical revival in 15th-century Florence. This interpretation requires a flexible definition of classicism and Stern obliges by allowing principles of composition to be detached from the architectural orders; thus, Kahn's Salk Institute finds its place alongside



Section, Richmond Hill house; Richmond, California; Thomas Gordon Smith, 1983. (From Classical Architecture.)

Palladio's Villa Barbaro in the classical pantheon.

Stern identifies five approaches to contemporary classicism: Ironic, Latent, Fundamentalist, Canonic, and Modern Traditionalism. He introduces each with a definition and brief commentary and elaborates his points with superbly illustrated examples drawing on the work of 43 firms in North America, Europe, Australia, and Japan. The book's final chapter presents a diverse collection of works addressing urban design, including projects by Rob and Leon Krier, the Mississauga City Hall Complex by Jones & Kirkland, and the proposal organized by Bruce Graham (Skidmore, Owings & Merrill) and William E. Brazley & Associates for the ill-fated 1992 Chicago World's Fair.

Stern classes himself as an adherent of Modern Traditionalism, which he defines as the interaction of the classical ideal with the vernacular. His chosen company includes Thomas Beeby, Kohn Pedersen Fox, Kevin Roche, and the Michael Graves of the Humana Tower in Louisville (the Portland Public Service Building Graves is an Ironic Classicist). Stern praises this approach for its adaptability to varying social and technological requirements and—not surprisingly—recommends it above the others.

Some of the viewpoints Stern describes are presented firsthand in the The New Classicism in Architecture and Urbanism, which contains essays by Clive Aslet, who appears to have never met a column he didn't like; Demetri Porphyrios, who proposes the Aristotelian concept of mimesis (imitation) as the means by which architecture transcends building; and Charles Jencks, who sets forth the precepts of his freestyle classicism. The essays are framed by examples of contrasting attitudes toward classicism, including works by Quinlan Terry, Jose-Ignacio Linazosoro, Aldo Rossi, and James Stirling. The illustrations are adequate, but the project descriptions are often vapid, and despite the all-star cast, the selections don't really engage each other. A strong introductory essay would have helped.

Thomas Gordon Smith's *Classical Architecture* is a much more interesting book. On one level, it revives the structure of 18th- and early 19th-century architectural treatises with its discussion of models, canonical presentation of the orders, and examples. But it is also an account of Smith's personal odyssey from an early admiration of Wright (O impetuous youth!) to his mastery of the classical language. His drawings are lovely, and his buildings, such as his own house in Richmond, California (1983), are rich in their imagery, materials, and spatial organization.

Smith categorically rejects modernism as alienating and believes that classicism offers a means for creating humane architecture. He has developed an approach to design that is certainly meaningful for himself and his clients, but I hope that his personal convictions do not blind him to the possibility that there may be other equally valid—and perhaps less culturally restricted—approaches to the same end.

Most of the modern classicists in these three books appear to have hung their hats on only one branch of Vitruvius's famous triad: venustas (delight). Firmitas (solidity) and utilitas (utility) are rarely invoked, presumably for editorial reasons rather than for lack of attention. Nevertheless, so many high-style buildings, whether modern, postmodern, or Deconstructivist, provide such appalling environments for those who live and work in them that it would be useful for books and articles on contemporary design to place greater emphasis on total building performance. Humane buildings should be kind to the body as well as to the mind.

### MODERN CLASSICISM, Robert A. M. Stern with Raymond W. Gastil, Rizzoli, 1988, 296 pp., illus., \$45.00.

THE NEW CLASSICISM IN ARCHITECTURE AND URBANISM: AN ARCHITECTURAL DESIGN PROFILE, Clive Aslet, Demetri Porphyrios, Charles Jencks et al., St. Martin's Press, 1988, 80 pp., illus., \$19.95.

CLASSICAL ARCHITECTURE: RULE AND INVENTION, Thomas Gordon Smith, Gibbs M. Smith, 1988, 159 pp., illus., \$34.95.

### Peggy Deamer

### **James Stewart Polshek**

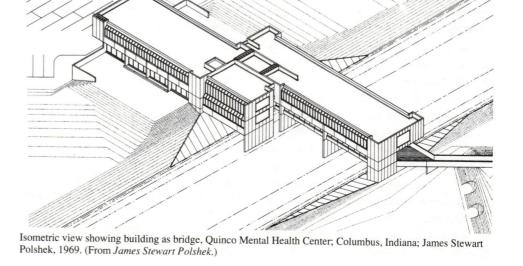
JAMES STEWART POLSHEK WITH ESSAYS BY HELEN SEARING AND GWENDOLYN WRIGHT

Many ambiguities surround the architectural monograph. For example, who is its audience and what reaction is being sought? Those interested in buying a monograph would seem to be either the already-converted who don't need to be informed or those new to the work who are interested only in its superficial aspects. Is the actual subject matter the buildings or the ego behind them? What, in other words, is the monograph's real purpose? Certainly readers don't expect critical appraisal, either from the architect, who is advertising his or her own work, or the author(s) of the introductory essays, whose task is to sound insightful and unbiased, but who would be considered impolite if they were actually disparaging. (Recall, for example, Colin Rowe's introductory essay to the The Five, which, for all of its perceptiveness, seemed fundamentally cantankerous.) The prospect of buying a monograph is likewise fraught with ambivalence. Because they know they are not

buying the book for its analytical insights, readers are haunted by the anxiety that the motivation for possession is either as fans or as cribbers.

The monograph James Stewart Polshek: Context and Responsibility aggravates these ambiguities because it tackles them with such painful sincerity. Besides essays by Helen Searing and Gwendolyn Wright, who do their best to meld analysis with praise, the text itself acknowledges the implicit directive to present both the work and the ego behind it. The text is accordingly divided into two parts, the first focusing on Polshek and his development (a chronological story), the second on the buildings he has produced (a typological survey). And while this seems like astute realism, it does present readers with a new set of textual tensions.

In the first portion, "Notes on My Life and Work"—written in an almost naive confessional style—Polshek describes how he came to love architecture, both as a creative activity and as a service to mankind. In the intimacy of the recitation's details his lack of success as Kahn's student, his appreciation of his wife's devotion, his descriptions of the lucky breaks that established his career, the concessions he extracted from Columbia's president when he was made dean of the architecture





View of public entrance bridge from park, Quinco Mental Health Center; Columbus, Indiana; James Stewart Polshek, 1969. (From *James Stewart Polshek*.)

school—Polshek, not unlike a child, proves to be simultaneously egocentric and appealing. And like voyeurs, we feel both satisfied with, and embarrassed by, what is revealed.

The second part, divided into eight subheadings, categorizes the office's projects according to their intent and temporal/spatial context. The result, again, is tinged with dual effects. The attempt to arrive at categories based on conceptual and socially determined types, as opposed to functional types, deserves admiration. But the buildings tend to fit uneasily in their designated categories and consequently make both the categories and the buildings seem unnecessarily pretentious. An early renovation that puts a gutted, modern interior into a brownstone falls in the category of "Preservation" ("such projects allow us to resist the extraordinary pressures put upon the architect . . . to constantly invent, repeat, or copy new formal vocabularies"), while Polshek's proposal for the New York Coliseum Competition-a project that, given the greed of the municipal guidelines, could never be seen as a "moral" undertaking-is put in the category of "Reparation" ("the use of new architecture to repair poorly designed or incomplete older buildings"). It also doesn't help that the conceptual discussions of projects found in Polshek's biography or the introductory essays to the various sections are not carried out in the actual representation of the buildings, proffered, as they are, as visual seduction. For all the verbal bracketing the work is given, it is primarily image-oriented. One misses, at this point, the unselfconscious, encyclopedic approach of a Gehry monograph.

Having said all this, however, it should not be forgotten that the publication of a monograph is still the principal occasion for evaluating the overall quality of a firm's work, and the refinement and, yes, the "responsibility" of Polshek's oeuvre cannot be denied. Projects such as his 1969

Ouinco Mental Health Center in Columbus, Indiana, his 1980 500 Park Tower, and his 1978-86 Carnegie Hall renovation are examples not only of the high standards achieved by Polshek's office, but the diversity of building types in which they are manifest. Few firms of this size and power could claim the same degree of cultural-and by this I mean aesthetic, economic, and institutional-commitment. Yet here, too, lingering ambivalences, in this case of a more profound and unsettling sort, present themselves. For all of the described and demonstrated "responsibility," one longs for an architecture that takes more risks, that isn't so consistently well mannered and correct. If only Polshek saw architecture not just as "response" but as inquiry, we might have an architecture that proved that quality and speculation are not mutually exclusive in large American architectural firms.

JAMES STEWART POLSHEK: CONTEXT AND RESPONSIBILITY, BUILDINGS AND PRO-JECTS 1957-1987, James Stewart Polshek with essays by Helen Searing and Gwendolyn Wright, Rizzoli, 1988, 258 pp., illus., \$45.00 cloth, \$29.95 paper.

### Susana Torre

**Women in Design** LIZ MCQUISTON, EDITOR

## Architecture: A Place for Women

ELLEN PERRY BERKELEY, EDITOR

Unlike women artists, whose vigorous critique of the art establishment during the late 1970s and early 1980s increased critical and public attention to their work, women architects have acquired only a modest visibility during the past decade. And while the introduction of feminist forms and contents has been a major force for change in mainstream American art, the literature on women architects continues to avoid feminist issues and to emphasize professional advancement. Two recent surveys found high percentages of women among young architects, reflecting the increase of female students of architecture from 8 percent in the early 1970s to 50 percent in the mid-1980s. Yet only a handful of the women who have been practicing for a decade or more have had their work published in the professional press in this period, and a critical discussion of their work is conspicuously lacking. Where women come closest to professional equality in architecture is at the entry level, before any serious testing of abilities and opportunities-although even at this stage, they earn only about 60 cents to the man's dollar.

Two recent books add to the pathetically scant literature on women in architecture and design. Although the editors have unfortunately resisted a critical interpretation of the materials they have collected, and thus missed an opportunity to engage problems of feminist theory and practice, some of the individual essays do take up these issues.

Women in Design is a catalog of designers in graphic, industrial, exhibition and architectural design, design management, education, and research. The designers, most from the United States, Britain, and

Italy, with a single example each from Japan and India and two from Holland, are presented in alphabetical order. Each entry includes a biography, images of a few projects and, in some cases, a personal statement. It is an eclectic sample, the only common denominator being-as the editor readily admits-"women." The selected projects demonstrate women's competence in all design fields, as well as some more innovative approaches. Among the most memorable and original works are Jane Dillon's designs, including a freestanding wardrobe of silk and aluminum that raises questions about permanence and impermanence, and her poetic and well-known Cometa lighting fixture; Mary Little's boudoir furniture set, dealing with the shift from external, applied beauty to intrinsic health and physical fitness, and her animated design for a chair that expresses shifting body positions; Alison Sky's theatrical interior design for an apartment that includes props emblematic of the client's personal history, emerging from or dissolving into the walls; Frances Butler's "shadow gardens," evocative of Mexican women's craft of celebratory banners of colored cut-out paper; Lynne Wilson's elegant furniture inspired by non-Western designs, and Sheila Levrant deBretteville's construction barricade for Grand Central Market in Los Angeles, displaying the personal recollections of members of the surrounding ethnic community, and her "Pink" poster, a grid assembled from fragments contributed by women and girls depicting their associations with this color.

Architecture: A Place for Women is an anthology assembled to accompany "That Exceptional One," an exhibition sponsored by the American Institute of Architects to celebrate the centennial of its acceptance of Louise Bethune as its first female member. Architectural scholarship has not kept up with other disciplines regarding the status of women, so a book like this still needs to reiterate themes and fill gaps in a structure established over a decade ago.

The book's all-inclusive approach leaves room for a wide range of interesting essays, such as Mimi Lobell's archaeology of prehistoric Great Goddess monuments, Diane Favro's analysis of the image of women architects in mass-media advertising, David Van Zanten's speculation on the influence of traditional female values in Frank Lloyd Wright's Oak Park phase, and Lamia Doumato's recovery of Louisa Tuthill, author of the first history of architecture written in this country (1848), dedicated to "Ladies of the U.S., the acknowledged arbiters of taste." Cloethiel Smith strikes a dissonant note with her embarrassingly naive perception of women's opportunities, in a La-la land where no woman supposedly has ever experienced discrimination, and where, to succeed as an independent architect, she only needs to be professionally competent, hang out her shingle, and let the commissions pour in.

The more ambitious and theoretical essays attempt to deconstruct rather than accommodate. Elizabeth G. Grossman and Lisa B. Reitzes show how female students, trained in the Beaux-Arts a century ago, were "Caught in the Crossfire" between two professional ideals. If they secured employment with a major designer, the *gentlemanly* image of the architect assured their exclusion from any public role in the project; if they lowered the status conferred by their degree by working for offices based on the apprenticeship system, their education and "excessive" professional ambition would be found inappropriate.

Denise Scott Brown's "Room at the Top? Sexism and the Star System in Architecture" and Anne Griswold Tyng's "From Muse to Heroine: Toward a Visible Creative Identity" are complementary analyses of the architect's image in our time. Scott Brown notes that the evolution of the architect's public persona-from gentleman of cultivation to form-giver hero to theoretical guru to dernier cri of the art world has not affected its established masculinity. She wonders what will happen when the current simultaneous trends of more conservatism and exclusion of women at the top and the increase in the number of women entering the profession finally clash. Tyng encourages women to refuse to perform as inspirational muses (a way of experiencing greatness without having to test themselves), and calls on them to assume their own creative identity.

Karen Franck's "A Feminist Approach to Architecture: Acknowledging Women's Ways of Knowing" and Anne Vytlacil's "The Studio Experience: Differences for Women" draw from feminist theory in several disciplines, including Carol Gilligan's



Grand Central Market construction barricade; Los Angeles; Sheila deBretteville, 1987. (From Women in Design.)

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Furniture set; Mary Little, 1985. (From Women in Design.)

research on the formation of the male and female identities, which suggests that male identity is based on empowerment of the self through separation, female on connectedness and attachment to others. In the design studio, according to Vytlacil, female students' interest in reconciling diverse viewpoints in their designs is often discouraged "as a lack of esthetic conviction and creative strength." She argues that such flexibility, although a liability in training, may turn into a valuable asset once in practice. However, she leaves unanswered the question of whether such a conciliatory approach can have a recognizable esthetic and formal expression. Adele Chatfield Taylor, in "The Essence of Design," suggests another way of looking at the question of "flexibility": she contrasts the temperaments of her two grandmothers, both of whom designed living spaces—one more spontaneous, the other more organized and disciplined, but both having the sense to know when to observe and when to break established aesthetic rules.

Karen Franck's analysis of planning proposals and architectural projects by women, including the city in Marge Piercy's novel Woman on the Edge of Time, challenges the assumption that formal structure and esthetics are defined by style alone. The projects she analyzes share several traits: a connectedness to others (meaning that the subject is someone other than the designer herself) and connectedness between categories of use and space; the acceptance of tension between opposites within an inclusive formal structure; social responsibility of the designers and an "ethic of care"; and the celebration of everyday rituals, complexity and change. The design sensibility she describes connects the two typical responses to the contemporary sense of dislocation: the reproduction of premodern building environments, in an attempt to restore an illusion of place and meaning, versus a celebration of dislocation that rejects the possibility of historical continuity, whether personal or social. The examples she gives demonstrate both the formal potential of a sensibility evolved from such connections and the possibility of freeing architecture from stylistic stagnation by opening it to ethical questions.

The principal value of many essays in this book is to show how language and the narratives constructed by dominant groups create and sustain a system of exclusion within architecture, not only for women as practitioners and users, but for many other groups or classes of people as well. A challenge to these narratives is long overdue, but the question remains whether women in architecture will play the major role in the challenge.

WOMEN IN DESIGN: A CONTEMPORARY VIEW, Liz McQuiston, editor, Rizzoli, 1988, 144 pp., illus., \$ 25.00.

ARCHITECTURE: A PLACE FOR WOMEN, Ellen Perry Berkeley, editor, Matilda McQuaid, associate editor, Smithsonian Institution Press, 1989, 278 pp., illus:, \$19.95.

### Sidney K. Robinson

## Can Bruce Goff Be Found Inside a Book?

David DeLong, professor of architecture at the University of Pennsylvania, has written a major new book on Bruce Goff's architecture, which he identifies as a "logical challenge" on many levels. The scholarly conventions enshrined at Columbia and Pennsylvania are scrupulously observed. Objectivity is never put under serious pressure as Professor DeLong contributes greatly to our efforts to understand this amazing 20th-century American architect.

The idea of a sober book on Bruce Goff is almost beyond imagining, yet that is what we have here. Goff's career is laid out chronologically with major projects and buildings discussed primarily in terms of how they fit into an idea of architectural development. From Goff's archives, DeLong has carefully assembled the architect's story. His architectural training began in 1916 in an office in Tulsa, Oklahoma, before he entered high school. Free from any subsequent exposure to academic strictures on propriety, Goff went on to practice architecture as an exploration of the intersection between the personal and the primordial. Simple, almost primitive geometries were embodied in materials that sometimes seem to have been chosen particularly because they diverged from conventional building practice.

Although Goff might take justifiable pride in having an important and serious book devoted to his work, it is also possible to imagine him slipping out from between the pages with his elusive originality completely intact. Having previously always considered Goff's work somewhat beyond the pale, which I concluded only through contact with words, drawings, or

photographs, my daily experience with one of his houses leads me to propose that his architecture is particularly resistant to representation. The plan of the 1947 Ford house is the sort that an instructor would reject out of hand if it were done by a firstyear student of architecture. The simplicity of the abstraction seems to lack any architectural complexity. In reality, beyond the intense impact of the materials and colors, the geometry itself is enlivened by reflections, transparencies, and intersections that are difficult to imagine by means of intellectual reconstruction or appeals to experience with conventional architecture. It is not so much that the total architectural presence is missing in an abstraction (most architecture suffers such abbreviation), but that abstractions of Goff's architecture lead to erroneous conclusions, usually dismissive ones.

If the author believed he could overcome the impossibility of representing



Glen Harder house; near Mountain Lake, Minnesota; Bruce Goff, 1970. (From Bruce Goff.)



Perspective, Karl Youngstrom house; Kansas City; Bruce Goff, 1966. (From Bruce Goff.)

Goff with this book, then he missed the point. If, more likely, he intended to draw people to the work itself by telling what he could about the architecture, then the book could have been improved by warning readers about this particular problem of representation. Any attempt to enliven language to mimic Goff's architecture would undermine the scholarly credibility of the author. Similarly, the color plates of the drawings also clearly reveal how unsatisfying they are as representations. Goff must surely have known that spending time on presentation drawings, unless he had little else to do, could never be worth any help he could give to get the buildings built. Exactly how they got built is part of the story that remains to be told.

Without meaning to be coy, it is true that Professor DeLong has left something for others to do with Goff's work: his impact, his lineage, his significance—issues that are to be engaged only with the greatOne hesitates to imagine the literary correlatives of goose feather or rope ceilings, coal walls, or hanging bedroom pods. The idea of a construction of words to parallel his architecture must be rejected straightaway.

est care and awareness of the risks involved. The author has avoided interpretive speculation in this book. The linkage or slippage between Goff and Frank Lloyd Wright is surely worth further attention. Goff was wise enough to admire Wright from afar; a more powerful continuity with Sullivan and Walter Burley Griffin emphasizes his important differences with Wright.

The projects the adolescent Goff drew in response to the published material on Wright available by 1920 were mostly the crystalline, compact geometric forms that stand out so clearly in Wright's work in the first decade of the century. Along that line it is more than Goff's use of ornament that links him with Griffin, who was a significant factor in the Oak Park Studio. Griffin's continued exploration of architectural forms that are discrete, geometric figures suggests a line of development out of Sullivan's banks and mausoleums that links up more directly with Goff than with Wright's predominant exploration of freer, sliding compositions.

Goff's work has always had an elemental quality embodied in centralized houses that focus on hearth and skylight. Geometry, or maybe even more aptly the systematized mandorla posited by the Viennese art historian Otto Graf, is the armature that Goff uses to organize his material, textural and chromatic poetics. The abstract patterns are always evident, but they are not the architecture. The sensory reality is what delights some and offends others. To distance oneself from Goff's architecture, whether to preserve analytical balance or from timidity, is to miss the point. That is why a book on Goff is such a problematical undertaking. If one uses De Long's book as a stimulus and a guidebook leading to direct contact with this challenging work, then it is a significant success.

At a moment when the direction of architecture seems unclear, it is refreshing to consider the alternative of Bruce Goff. DeLong makes that possible for those who need some conventional props to approach the work. Once they are there, one hopes that they can fashion their own response to America's most native architect.

BRUCE GOFF: TOWARD ABSOLUTE ARCHI-TECTURE, David G. DeLong, MIT Press, 1988, 388 pp., illus., \$50.00.

### Derek Moore

## The Ticino Guide

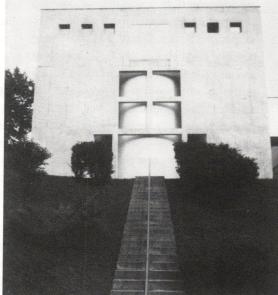
GERARDO BROWN-MANRIQUE

The architectural guides issuing from the ever-inventive Princeton Architectural Press constitute one of the most promising and worthwhile series in recent architectural publishing. PAP has crafted a lean, effective, and economical format that delivers the reader to the buildings themselves. The Ticino Guide, by Gerardo Brown-Manrique, follows simpler monographic precedents on Palladio and Le Corbusier and presents the remarkable body of work by contemporary architects of the Swiss canton of Ticino. We find here not only the iconic works of Mario Botta, but the full span of the Campi-Pessina partnership's rich production, the spare and highly disciplined works of Luigi Snozzi and Livio Vacchini, the almost exuberant (by Swiss standards) recent buildings of Aurelio Galfetti, as well as scores of works by younger or less wellknown architects. Like others in the series, The Ticino Guide aims to be not only a practical guidebook but also a handy reference and critical introduction to the subject, and so must be judged from both points of view.

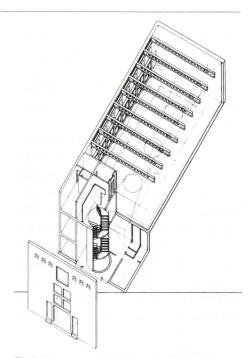
As a guide it is quite successful. Buildings are grouped by locality into forty short chapters or sections. These proceed in a loosely geographic fashion from the upper part of the canton (Locarno, the Val Verzasca, Bellinzona, etc.) south through the towns and valleys bordering Lake Lugano, to the foothills of the Mendrisiotto. After using the guide for several weeks I can say that this organization works well and reflects the natural and cultural topography of the canton. However, as if following the flow of the Ticino River rather too literally, into the Po and beyond Lombardy, the chapters continue to present buildings by a handful of Italian architects, in particular Aldo Rossi.

My only complaint about the guide's organization is that material pertaining to a given building-essential data, occasional instructions for locating it, description, area map, and bibliography-are found in different sections of the chapter, or indeed of the book. For example, all area maps are grouped together in the final pages when they should have been integrated into the chapters. A strict single-entry format, where all the information is together, would have been more useful. A well-organized bibliography, a brief glossary, and a very good index are found at the end of the book. The photos and drawings are especially valuable.

Unfortunately, the text of *The Ticino Guide* needed much closer editorial scrutiny. The interpretive content is conveyed both in the descriptions of single buildings and the introductory essay, which moves from a dictionary definition of the word Ticino to some rather opaque remarks on "autochthonous architecture," meaning the stony, cubic indigenous structures known as *rustici*. In surveying the major characteristics of recent architecture in the Ticino, Brown-Manrique weaves a rough but vivid patchwork of his own observations, selections from the major commentators, and quotations of the Ticinese archi-



View of façade, Palestra (gymnasium); Neggio; Mario Campi, Franco Pessina, and Niki Piazzoli, 1979–80. (From *The Ticino Guide*.)



Exploded axonometric, Palestra (gymnasium); Neggio; Mario Campi, Franco Pessina, and Niki Piazzoli, 1979–80. (From *The Ticino Guide*.)

tects themselves. The essay is most informative when outlining the occasional professional and academic relationships of the Ticinese architects, and it is generous and useful regarding the careers of those less well-known in America, such as Bassi, Gherra, Galimberti, Bernegger, Keller, Quaglia, the Moro, and Leuzinger. Given this breadth it is surprising to discover that

a number of works have been left out of the guide.

While a guidebook need not break new critical ground, the present volume of the PAP series raises such expectations. Brown-Manrique's introduction is on the whole quite serviceable, but a longer study and a more rigorous approach are needed to elaborate the simple elements of our present view of Ticinese work and to get beyond some of the quasi-Romantic notions that have veiled it in recent years.

For example, we need to know a great deal more about the general conditions of building in Ticino, as well as the regional provision of materials and the significance of many masonry constructions. How should we understand Mario Campi's ascription to Ticinese architects of a "morality of construction"? His appeal to the heritage of the region's mason-architects—Fontana, Maderno, Borromini—is ironic (inadvertently, I suppose) since all three worked in Rome.

Other than the *rustici* and traditional settlements, the architectural record of the region as a Swiss canton is remarkably thin—most of the notable historical structures date from periods of Italian dominion. In fact it is this complex relationship of Ticinese architects with Italy, and the author's consequent decision to include works by Aldo Rossi and other Italians, that, to my mind, both weakens the critical presentation of Ticinese architecture in the introduction and impairs the cohesion of the guidebook.

While it might seem self-evident that Rossi, Massimo Fortis, Giorgio Grassi and others are not "Ticinese architects" a selection of their works is included here. Neither is it so widely accepted that the Italian Neo-Rationalist Tendenza and the writings of Rossi (even La costruzione del territorio. Uno studio sul Canton Ticino (1979) with Eraldo Consolascio and Max Bosshard) provide the complete theoretical foundation for interpreting the work of such diverse Ticinese talents as Carloni, Campi and Snozzi. Indeed, the conception of a compact "school of Ticino" seems difficult to sustain. Rather than include contemporary Italian architects, another approach might have been to present in the guide itself a selection of rustici (the notable historical structures of the region cited by Ticinese architects as formative or emblematic), and, if the border need be breached, the works of Terragni and other Rationalists. Nonetheless, it is only with the appearance of this important compendium and guide that we may now be able to see Ticinese architecture whole and to frame the questions for a more comprehensive understanding.

### Patricia Phillips

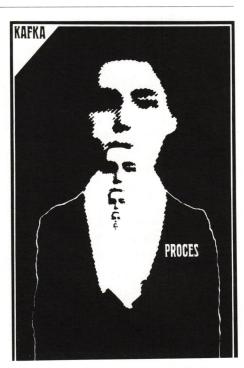
# The Modern Poster

STUART WREDE

The Modern Poster, published in association with an exhibition held at New York's Museum of Modern of Art, documents this exhibition of selected examples from its substantial poster collection. MOMA acquired its first poster in 1935 and has organized two major exhibitions from its holdings. The first was organized in 1968. Word and Image, curated by Mildred Constantine with a catalogue essay by Alan M. Fein, introduced the aesthetic vitality of this restless, unmistakably modern art form. Twenty years later, with obvious respect for the first distinguished effort, Stuart Wrede, Director of the Department of Architecture and Design, felt it was time for another look at the poster using, once again, the museum's own growing collection.

The catalogue is a competent, visually stunning, but dry and somehow slight look at the poster. Wrede's text attempts an ambitious history, but accomplishes only a thin overview of the emergence of the poster in the mid-19th century and its development into the 20th century. It looks lightly at the many aesthetic and ideological movements, technical innovations, and changing intentions and missions that have shaped the poster. Wrede's purpose is to describe highlights of this rich, short story and to illuminate the relationship of the poster to other modern art forms. He has satisfied these specific goals, but were they challenging, fresh, or particularly timely pursuits?

It is always a great pleasure to encounter a selection of work from MOMA's daunting collection. But perhaps this 1988 exhibition could have been an occasion to not only review and recognize the institution's acquisitions, but to take a more inventive critical—and perhaps curatorial—stand. There is an enormous preoccupation with formal developments, but scant interest in content or context, that is, in the nature and kind of information that



*Kafka*, *Trial*, offset lithograph; Roman Cieslewicz, 1964. (From *The Modern Poster*.)

the ubiquitous poster has helped to propel to diverse populations. The poster has been used to both evil and exemplary purposes; form and text shape these political and moral issues, as well.

Wrede is keen to understand the poster as a compression of many aesthetic ideas, images, and techniques. But the form is also an embodiment of contradiction and controversy. In many cases, the original concept is sought with ideological initiative and formal invention, but the primary purpose of the poster is expeditious reproduction and wide dispersion. It entangles the cherished idea of original art inspiration with the commercial properties of printing and distribution. The conundrum Walter Benjamin so precisely described in his essay "The Work of Art in the Age of Mechanical Reproduction," the poster presaged nearly a century before. Significance is not situated in the specific rituals and objects of art but in the time and ideas they represent-in political vitality. This book treats the poster as a pillar of the modern movement, but its verve, its experimentation, its availability to other media (including film, photography, and typography) were determined by its expendability-its designed ephemerality. Poster production

THE TICINO GUIDE, Gerardo Brown-Manrique, Princeton Architectural Press, 1989, 188 pp., illus., \$17.95

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and innovation thrived on discard and cover-up, on the relentless generation of new information and ideologies to tell, new products and images to sell. The classic poster is about impermanence, the transience of ideas, the prevailing obsolescence that drives cultural and political passions.

In the final passage of his essay, Wrede expounds briefly on the public dimensions of the poster. He suggests that in the face of constant changes in production and use the poster has always been intended for many people in public sites and points of congregation. Before the advent of radio, television, and facsimile imaging, urban public space was the best venue to reach people. Of course, this is only partially true in contemporary life. The public space of the poster is dramatically reconfigured as the velocity and texture of public information penetrates the private domain. If the poster is perceived as being in a state of decline-this book ends on a slightly nostalgic note-there may be an overdependence on categorical expectations and too little analysis of climatic adjustments. The contemporary poster is different than its predecessors but the notion of decline may be too facile.

With considerable equanimity, Wrede concludes his text with a celebration of the poster's availability to a wide range of producers from ad hoc political activists to powerful, multinational organizations. And yet, the posters in this book-as stunning and superbly reproduced as they are-do not substantiate this great ecumenism. MOMA's design collection is assembled with its particular, influential bias about the significant streams and forces of modern art. The Modern Poster culls from this rarified view of the world. MOMA may have doubled its poster holdings in the past twenty years with the objective to fill in some critical gaps, but this book is a reminder that the institutional vision also serves to edit out a lot of specific tales and trajectories of art production.

THE MODERN POSTER, Stuart Wrede, The Museum of Modern Art, 1988, 264 pp., illus., \$50.00.

### Alexander Koutamanis

## Emerging Approaches to the Computerization of Architecture: Two Transitional Books

It appears that we have reached the end of an investigation into the use of computers and computational methods in architecture. This investigation began with great aspirations but, despite its successes, has concluded with the lethargic pace of a disillusioned long-distance runner. While in the 1960s and 1970s research into the computerization of architecture was inspiring and quite promising, the 1980s were generally characterized by an endless repetition of the same ideas with no significant further advancement and no new breakthroughs. Especially in the late 1980s, research appeared to lag behind what software developers had to offer: the exploration of commercially available packages was sometimes more interesting than the products of academic research. The proliferation of books on computer-aided architectural design that concentrated almost exclusively on computerized drafting is only one indication of the stagnation in the development of computer-aided architectural systems.

The latest developments in computerrelated architectural research recognize the necessity for a transition from infancy to adolescence, from initial explorations of a terra incognita to exploitation of existing resources derived from architecture and related sciences and disciplines. In doing so two approaches emerge. The first is to improve the tools used for computerizing architecture through the import of recent advanced techniques from computer science. This is not a new approach. The majority of computer-aided architectural research consists of (mostly justifiable) applications of general techniques and methods or transfers from other disciplines. What distinguishes this approach from its predecessors is the nature of the imported techniques and in particular their emphasis on

explicit analyses and formalizations of domain (in our case architectural) knowledge.

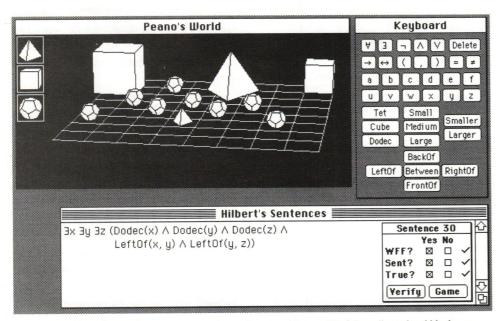
The issue of domain knowledge is also central to the other emerging approach to the computerization of architecture, though from a different viewpoint, more related to traditional architectural theory with occasional assistance from cognitive studies. This approach essentially attempts to detect and analyze all aspects of architecture in a quest for a coherent and comprehensive framework for the explicit representation of architectural design and architectural works.

Architectural knowledge has traditionally been the weak point of computer-aided architectural design. In the 1960s advocates of the so-called design methods proposed rigorous, seemingly impeccable mathematical models as substitutes for the arguably fuzzier but, as we now know, quite effective procedures and representations an architect uses in designing. Such distrust of architectural knowledge and its expressions was inherited by computeraided architectural design, where little attention was paid to how designers think and which bodies of common sense and professional knowledge they use. The result was architectural computer systems which are either elementary tools, such as the vast majority of current computerized drafting packages, or arbitrary design generators which have never been on a par with the average architect and have failed to significantly influence the way architects design.

There is ample evidence of the transition to the knowledge-based paradigm and the two emerging approaches that lead to it, mainly in the form of summarization of past achievements (our second approach) and of plausible projections of near-future developments (our first approach). Perhaps the best account of computerization in architecture to date, albeit in a highly personal tone, is William J. Mitchell's *The Logic of Architecture*, subtitled *Design*, *Computation, and Cognition*. This longawaited book (I first saw references to it as a forthcoming Prentice-Hall title back in 1985) is the last in a trilogy of highly successful and influential general overviews of different aspects of computerization in architecture by the same author. The first, a classic account of early tendencies in computer-aided architectural design (Computer-Aided Architectural Design, 1977), is still relevant despite its age and the constant changes in computer technology. The second (W. J. Mitchell, R. S. Liggett, and T. Kvan, The Art of Computer Graphics Programming, 1987) is an enlightening and inspiring tutorial that offers extensive correlation between computer graphics and the apparent processes of architectural design. With The Logic of Architecture Mitchell attempts to make explicit an underlying theme in the two previous books, the necessity for some form of syntax or structure in the computerization of architecture.

Indeed, *The Logic of Architecture* is from all perspectives a conclusion to the work on the computerization of architecture that has been carried out in the 1960s and 1970s and was rounded off with a transition from research to education in the 1980s. This work has concentrated on the development of structured descriptions of the process and the products of architectural design, including formalisms such as rectangular arrangements and shape grammars. *The Logic of Architecture* represents a conclusion to this work in terms of the maturity of its treatment of descriptive mechanisms, as well as the clarity of the distinction between the structure of such mechanisms and the structure of architectural design and its products.

At this point let me digress for the benefit of the majority of architects who, although generally familiar with the workings of computers, often ignore the history and significance of computational descriptive techniques for architecture. Professional architects usually quite wisely employ computers for a number of low-level tasks: production of presentation and construction drawings, production of documents related to the description of a building (such as specifications), and general ancillary tasks (such as writing correspondence and book-keeping). In an architectural office the computer, therefore, mainly facilitates or partially substitutes for drafting and secretarial functions and is practically never the main vehicle for the whole design process. In contrast to the low profile of computer use in the architectural profession, research into the computerization of architecture has concentrated on the automated production of designs, with as little as possible intervention by the human designer. Most methods and techniques developed in the framework of automated de-



Computer-generated image, first-order logic sentences interpreted in a world of three-dimensional blocks on a grid. (From *The Logic of Architecture*.)

sign production are experimentations or rather naive and superficial in their approach and deserve to be forgotten quite soon. Of the few that remain, the ones that should be remembered are techniques for describing certain aspects and/or stages of the design process and, more significantly, the products of architectural design. Unlike the detailed drawings and measurements produced by computer systems for professional use, these descriptive techniques address mostly the more abstract levels of architectural composition and offer valuable insights to it through precise descriptions of the formal parts of a design and of the relationships between these parts. If such abstraction were part of current architectural computerized drawing, it would have allowed the representation of the designed forms at all stages of the design process and from practically all aspects, including the functional and performance considerations that preoccupy the practicing architect. In other words, computational descriptive techniques offer-in an embryonic stage-much of what is missing in computer tools for designing.

In the preface of The Logic of Architecture Mitchell suggests that the central problem of the book is the definition of (1)form and function in architectural design and (2) how the two relate in what he calls (after Summerson) "architectural languages." Although the book is not explicitly subdivided into parts, its structure follows the tripartition of this problem. The first eight chapters discuss formal aspects of architecture, the ninth, functional aspects and the tenth, the relations between the two. This obvious imbalance reveals the approach that underlies The Logic of Architecture. Mitchell assigns priority to form and suggests that once a formal grammar has specified a design world it is possible to consider function through the knowledge encoded in the rules of the grammar.

Chapter 1, "Building Descriptions," opens with an incomplete enumeration of issues from areas such as psychology of perception and computer vision in a rather unconvincing attempt to provide a cogni-

tive justification to what could have been the starting point of the book-the transformation of the analogue stimuli we receive into symbolic descriptions. Segmentation of stimuli and recognition of objects in a segmented image has been one of the toughest problems in computer vision and cognitive science and has yet to be conclusively resolved. Still, the abundance of theories on this subject and our own intuitions certainly validate the transformation of analogue stimuli to symbolic descriptions at least as a working hypothesis. In particular the dominance of elementaristic theories in architecture should have allowed Mitchell to proceed directly to the second issue of the chapter, application of first-order logic (a welcome change from the usual presentation of algorithms and formalizations in programming languages, common to most books on the computerization of architecture and design) to the description of built form in terms of discrete elements and their properties and relations. The resulting descriptive system (Mitchell prefers the term conceptualization) is used in the second chapter, "Architectural Form," for a definition of form as a correlated network of relationships between its parts and for a general consideration of formal value with respect to qualities of parts, and rhythm, proportion, and symmetry in their arrangement.

Chapter 3, "Design Worlds," concentrates on the media for the representation of designs. Mitchell, however, restricts his discussion mainly to primitives (points, lines, surfaces, volumes), and axioms that define design worlds, and he largely ignores the cognitive significance of each particular choice and its correlation with domain (that is, architectural) knowledge. A glimpse of such issues is provided by the comprehensive discussion of interpretation within design worlds in chapter 4, "Critical Languages," and in the elliptical chapter 5, "Reasoning About Designs."

The Logic of Architecture returns to more extensive treatment of architectural knowledge in chapter 6, "Types and Vocabularies," a broad discussion on notions of typology and their relations with perception. This discussion is complemented by chapter 7, "Design Operations," which explores the manipulation and geometric transformation of type instances in a design world. Design vocabularies and operators are combined in chapter 8, "Languages of Architectural Form." This chapter investigates the idea of grammatical combination of parts so as to constrain the production of form in a design world and provides probably the broadest and deepest correlation of formal grammars with architectural rule systems to date.

Chapter 9, "Function," deals with the second aspect of the form/function diptych by considering how the formal vocabularies discussed in the previous chapters also encode functional characterizations. This chapter builds upon the contents of previous chapters in a way that offers many insights into the correlation of form and function but also reduces the discussion to a minimum: what was covered with respect to form in a whole chapter is covered with respect to function in a section or less. Similarly reduced is the final chapter, "Functionally Motivated Design," which considers the integration of functional considerations into the production of architectural forms. Consistent with the overall approach of the book to form/function priority, chapter 10 primarily concerns the functional interpretation of formal patterns.

Despite its thorough coverage of formal models and approaches, *The Logic of Architecture* is not a textbook, in structure or intention. Its success is hampered by an inattention to functional criteria and to the proposed relationships between the three major components of any approach to the computerization of architecture: architectural knowledge, cognition, and computation. These fundamental omissions aside, it is only fair to say that *The Logic of Architecture* probably offers the most transparent formulation of past achievements in computer-aided architectural design and their scarce future extensions.

Knowledge-Based Design Systems by Coyne, Rosenman, Radford, Balachandran, and Gero complements *The Logic of Architecture* as an illustration of emerging approaches in computer-related architectural research. While Mitchell is more concerned with the investigation of cognitive and architectural foundations for the development of computational architectural systems, the authors of *Knowledge-Based Design Systems* offer a comprehensive introduction to new techniques derived from current tendencies in computer science.

The authors are all affiliated with the Design Computing Unit of the University of Sydney, a center of design research that has a long history in the computerization of architecture, ranging from design optimization to CAD and expert systems, which has been presented in many publications. Their book is the most mature product of the Design Computing Unit, as it profits from the authors' prior experimentations with a wide spectrum of computational tools and approaches.

Knowledge-Based Design Systems is structured as a textbook, as a group of modules (sections or chapters) each on a specific issue, complete with suggestions for further reading and exercises at the end of each chapter. Although most examples are derived from architecture, the authors are concerned with design in general, and they also cover other similar disciplines, such as industrial and urban design. The book is subdivided into three parts. Part I, "Design," introduces the approach to design advocated by the authors in the context of knowledge-based systems. Part II, "Representation and Reasoning," considers knowledge-based techniques for the representation and control of different types and aspects of design knowledge. Part III, "Knowledge-Based Design," represents an attempt to sketch the application of knowledge-based systems for design purposes and in particular for the interpretation and production of designs.

Part I contains two chapters. The first, "Introduction to Knowledge-Based Design," contains the customary (though often redundant) overview of definitions and theories of design that is used as a background for a general discussion about knowledge in design. Chapter 2, "A Knowledge-Based Model of Design," introduces the three fundamental concepts in a knowledge-based model according to the authors—representation, reasoning, and syntax. Unfortunately the chapter concentrates more on techniques for implementing these concepts than on corresponding design knowledge structures.

Part II offers a closer view of knowledge and procedural structures in knowledge-based systems in two chapters. Chapter 3, "Representing Designs and Design Knowledge," offers a basic overview of computational mechanisms for representing objects and object classes, relations, and properties, as well as design intentions and goals. Chapter 4, "Reasoning in Design," concerns the manipulation of representations by control strategies and structures. It also includes an overview of expert systems (presumably as a clear case of distinction between knowledge bases and control mechanisms) and a brief account of non-monotonic reasoning.

Part III comprises of four chapters. Chapter 5, "The Interpretation of Designs," offers few insights into how the wealth of techniques it covers relate to the formation and use of knowledge bases for the interpretation of particular classes of designs, with the exception of an extensive consideration of design codes and standards as interpretative knowledge. Chapter 6, "Producing Designs," covers two basic approaches to the production of a design from its specifications, respectively termed by the authors "goal directed" or "semantic" and "generative" or "syntactic," as well as the combination of the two. Distinction between these two approaches suggests an interesting corresponding classification of existing automated design techniques such as shape grammars, rectangular dissections, and space allocation methods. Even though the chapter refers to such techniques, no such classification and no evaluation from a knowledge-based perspective is explicitly offered. Moreover, no attempt is made to build upon these techniques. Chapter 7, "Design Processes," concerns what could be called the "temporal" aspect of design knowledge-controlling, selecting, and ordering operations. This chapter also incorporates a discussion on design description abstraction, an issue which belongs perhaps more to the representation of designs than to the hierarchical control structures that can be employed in designing. Chapter 8, "Learning and Creativity in Design Systems," concludes the book with an open end, in the form of a discussion on how learning can be modeled in knowledge-based design systems and on creativity in a knowledge-based context.

Knowledge-Based Design Systems is open-ended in other senses too. Despite its comprehensive coverage of the state of the art in knowledge-based systems, it does not offer specific solutions to design problems. The reason is certainly not inability to do so on the part of the techniques, nor lack of an underlying general problemsolving framework for knowledge-based systems. Rather, it is a (presumably conscious) incomplete formulation of the design problems used to illustrate the application of knowledge-based techniques. The examples used in Knowledge-Based Design Systems are either sketchy reformulations of existing techniques in the context of knowledge-based systems, or mere suggestions on how knowledge-based techniques should be transferred to the computerization of design. As a result, the book does not offer a coherent theory of the application of knowledge-based tools and techniques in design. Fragments of such a theory occasionally appear in the presentation and evaluation of techniques but are too scattered and too partial to support a unified picture.

This indifference to domain knowledge structures that correspond to the techniques considered in the book actually conforms to the approach adopted by the authors to knowledge-based methods. They consider "knowledge-based" simply as a transitional term, emphasizing obvious differences between this view of problem-solving and its precedents. This approach agrees with a current tendency in computer science that considers labels such as "knowledgebased" and "artificial intelligence" as mere guises of improved powerful styles of computer programming. Even though this is true in many cases where, for instance, "intelligence" is used as a more glossy synonym for "efficiency" or "effectiveness," the significance of knowledge-based systems lies in the explicitness of the domain knowledge they integrate. In view of the rather low level of computer tools for the practicing architect and of computational theories of architecture, knowledge-based systems offer a unique opportunity to reconsider the nature and structure of architectural knowledge. Adopting the approach of *Knowledge-Based Design Systems* is a way of missing this opportunity.

We need a new approach that should be characterized by two major components: concern for the practice of architecture, and emphasis on cognitive components of architecture and architectural design.

A comparison of the two books clearly shows their complementary nature and content: the underlying approach and aspirations of one book are exactly what is required as a future development of the other. As a first introduction to knowledgebased systems for architectural students, Knowledge-Based Design Systems is a valuable source of information, even though anyone attempting to get seriously involved should soon graduate to other textbooks. Still, one misses exactly what The Logic of Architecture attempts to offer: a domain (that is, architectural) theory that would allow a more comprehensive exploration of the knowledge-based approach. The examples used in Knowledge-Based Design Systems are sketchy demonstrations of the potential of a set of computational techniques and not first approximations of full-fledged architectural applications. On the other hand, in The Logic of Architecture a constant source of

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discomfort for the reader is a general fuzziness about the computational resources required by the proposed approach and subsequently about the corresponding applications of the approach. In other words, the content and approach of the one book are mostly beyond the scope of the other. This once again indicates a transitional period and should not be considered a demerit of either book, but rather a necessary evil of the state of the art in the computerization of architecture. Further development and application of the two approaches indicated by the books, that is, the definition of a computational theory of architecture and the production of sophisticated mechanisms for its implementation is the only satisfactory way to resolve such problems. Unfortunately, neither book tells more than half of the story of why and how we should proceed further. The Logic of Architecture is correct in pointing out the direction of cognitive analyses of architecture, while Knowledge-Based Design Systems clearly shows that we should move fast to new techniques. Neither book alone is sufficient for a researcher because each lacks a complete identification of the problem and a comprehensive formulation of its possible solutions.

What is the significance of the two books for the practicing architect? The student and the educator are provided with two comprehensive overviews of things accomplished and indications of things to come, but for architects dealing with the immense responsibilities and mundane details of the profession such issues are beyond their immediate interests. It is highly unlikely that a practicing architect will have the inclination, resources, or opportunities to indulge in the elaboration of the proposals of either book in the immediate future. Furthermore, one should not expect to use these two books as computer primers. Neither book addresses the practical contributions of current computer technology in running a professional office, from the production of drawings and specifications to bookkeeping. These are covered in other books by the same authors and a vast number of down-to-earth manuals. What the two books consider from two perspectives is the potential contribution of computers to design, and as such they can be useful as more sober views of the state of the art. Still, what is missing is direct reference to the primary source of knowledge-based and intelligent computer systems for architectural purposes, that is, domain (architectural) knowledge, and in particular to the concrete demands and requirements of the architectural profession. Such lack of correspondence between researchers' aspirations and practicing architects' problems reveals more clearly than anything else that we are in a period of transition.

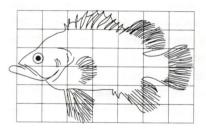
The conclusion we might reach by reading the two books as examples of new tendencies in the computerization of architecture is that we need a new approach that should be characterized by two major components: concern for the practice of architecture, and emphasis on cognitive components of architecture and architectural design.

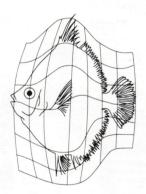
It is disappointing that architecture lags behind, for example, medicine or electrical engineering, where the use of computers has opened new possibilities with exciting prospects for practicing professionals. A primary target of a new approach to the computerization of architecture should be to assist the architect in designing by supporting and evolving existing practices and not by proposing arbitrary new substitutes. Also, in an age when the computer is used by cognitive scientists for the investigation and verification of models of cognition, it is unwise to ignore the cognitive implications of architecture and of its computerization, with respect to both the treatment of bodies of domain (architectural) knowledge and the integration of computer systems into architecture.

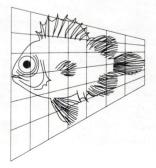
From the viewpoint of such an approach, both books indirectly indicate and substantiate the necessity of its emergence. They fail, however, to contribute to its foundation by choosing to remain within the realm of traditional research into the computerization of architecture, where the requirements of practicing architects are only briefly considered as poor substitutes of some ideal model of design and where the cognitive aspects of their problemsolving activities are subsequently ignored.

### THE LOGIC OF ARCHITECTURE: DESIGN, COMPUTATION, AND COGNITION, William J. Mitchell, MIT Press, 1990, 292 pp., illus., \$19.95 paper.

KNOWLEDGE-BASED DESIGN SYSTEMS, R. D. Coyne, M. A. Rosenman, A. D. Radford, M. Balachandran, and J. S. Gero, Addison-Wesley, 1990, 567 pp., illus, \$39.75.







### Diane Ghirardo

### The Geography of Postmodern Los Angeles

American movies and television series set in Los Angeles leave an afterimage of visually powerful but strangely disconnected fragments randomly dispersed along a vast freeway network. The very process of film production dismembers the city, slicing it into visually effective pieces but sacrificing its unifying, if elusive, complexities: how appropriate that this method finds its home in the city universally characterized as irredeemably fragmented. Indeed, Los Angeles's multiple images seduce critics, who glibly seize on freeways, billboards, and palm trees as the city's informing motifs, which then remain disembodied, placeless, and meaningless artifacts.

The 465 square miles of the city, though only 11 percent of the larger metropolitan area, constitute an extremely diverse urban fabric: the black ghettos of Lynwood and Watts; the Latino barrios in East and Southeast Los Angeles; the affluent, well-policed, and guarded precincts west of downtown near the ocean; teeming Koreatown, Japantown, and Chinatown erupting from the city's grid; and the endless white, middle-class suburbs of the San Fernando Valley. Diverse as these areas are, they are bound in ways not always immediately apparent, but no less compelling for being elusive. Instead of the stereotypes attached to the city in the past-its Hollywood glitz, its lack of "center," its endless suburban sprawl-the city's dominant characteristics now are a population with a high percentage of undocumented immigrants, a growing number of Third World sweatshops, unhealthy air, gang and drug wars, and glittering, now only partially occupied, skyscrapers in the downtown, Century City, and Westwood corridor, largely financed by offshore Asian and Canadian capital.

To the architect, these disparate threads



Photograph of downtown Los Angeles by Robert Morrow. (Courtesy of Diane Ghirardo.)

came together during the Reagan 1980s in a seamless web of unbridled speculation, spoilation of the natural and urban environment, and the waste and destruction of human resources. Los Angeles of 1991 represents and is occupied by the forces of late capitalism, of which the most powerful visual testimonies are the skyscraper towers on the one hand and the hordes of homeless and ill-housed on the other. Telltale satellites of the corporate towers are the bourgeois cultural institutions unleashed in the heady whirl of 1980s corporate mergers, leveraged buyouts, and junkbond explosions: the Getty Center (Richard Meier), the Museum of Contemporary Art (Arata Isozaki), the Disney Concert Hall (Frank Gehry), and the Santa Monica Museum (also Gehry). Complementing these are tracts of modest, single-family homes periodically punctured by explosions of quasi-palatial million-dollar villas shoehorned awkwardly onto small urban lots: modest and varied retail and commercial strips transformed within three to five years into architecturally unified upscale havens for boutiques selling cappuccino, frozen yogurt, smart clothing, and household trinkets. Ensconced in bastions of privilege in West Los Angeles, moneyed Angelenos inhabit a fantasy world of well-being, insulated from the woes that beset the rest of the city. Cultivated in sleek Century City skyscrapers and luxurious Westwood condominiums, this image of Los Angeles deliberately ignores the fundamental connection between this upscale lifestyle and the sweatshops and overcrowded garages of the rest of the city. The First World economy of downtown Los Angeles is fueled by a Third World sweatshop economy, particularly in the garment industry and in foundries and light manufacturing plants that ring downtown. The main source of labor in these notoriously underpaid jobs are Mexican and Central American immigrants, many of whom entered the United States illegally in flight from the consequences of Reagan-era policies in Central America, and who are therefore willing to accept the poor wages offered them.

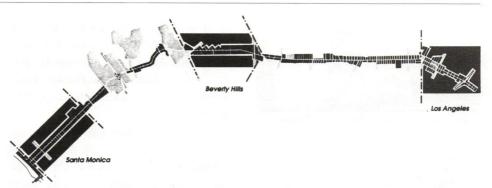
Urbanism, Landscape, and Housing

These groups also dominate the low-wage workforce of domestics, nannies, gardeners, and day laborers serving upscale westsiders who buy specially prepared language primers that give them enough Spanish to give orders to non-English speaking domestics.

Metal and foundry workers toil in shockingly unsafe conditions in non-unionized warehouses on the fringes of downtown, while even young children work in the garment industry to help their mothers produce piecework. Undocumented laborers also empty garbage, clean dishes, and mop floors in downtown facilities, and sell fruit and flowers on freeway offramps. Such wage disparities and restructuring of the economy are not limited to Los Angeles. Between 1980 and 1988, some 44 percent of all jobs created in the United States paid poverty-level wages. But clearly these problems exist on a mammoth scale in Los Angeles, and are more intractably linked to the new immigrants.

The agency that most clearly exemplifies the connection between this poverty, the permanent homelessness (between 40,000 and 100,000 at any time), and the city's building enterprises is the Community Redevelopment Agency (CRA), the body most responsible for building some 20 million square feet of skyscraper space in the 1980s, at a cost to the public of a staggering billion dollars in direct subsidies and strategically diverted tax revenues.

The CRA began with a mandate shortly after World War II to build low-income housing. The anti-communist hysteria of the 1950s (when public housing was identified with communism) rapidly eliminated such hopes, yet the CRA proceeded to become the major force behind massive socalled slum clearance schemes of the 1950s and 1960s. Much of downtown Los Angeles, including vintage early 20th-century housing, was razed under CRA direction, and only now is the agency beginning to contemplate replacing the moderate and low-income housing lost to the bulldozer. Removing the poor so far has not worked; as their numbers increase, more and more



Wilshire Boulevard as a vertebral connector of three independent municipalities; Douglas Suisman, 1989. (From Los Angeles Boulevard.)

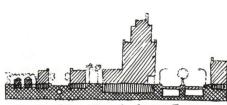
congregate in the downtown areas. The CRA's policy has simply been to move them elsewhere. For nearly forty years the CRA has directed the vast, publicly subsidized "revitalization" of Los Angeles's downtown into what Mike Davis calls "Fortress LA," with the cordon sanitaire of Hill Street setting off the bastion of white power from the largely Hispanic Broadway shopping district and the steadily dwindling supply of single-room occupancy hotels (SROs) and missions to care for the poor. While the CRA destroyed one quarter of the city's low-income housing stock, huge tracts of prime urban land were virtually given away to developers and corporations. Behind this scheme lay a commitment to racial and economic segregation as well as to the cherished aspiration-loudly voiced by the architectural communitythat Los Angeles needed a "center."

The megadevelopment of Los Angeles and Orange counties has barreled along for the past fifteen years, sharing front-page status with such stories as the effects of air pollution on children's lungs, the healthcare gridlock, and escalating traffic, crime, and poverty; development continues despite insufficient water in the Southland or solid-waste management strategies any more creative than dumping toxic wastes in the Third World or in the sparsely settled areas of the American Midwest. Government officials and public-agency bureaucrats have demonstrated neither imagination nor courage in confronting these problems, nor have the architecture and planning communities balked at overbuilding and straining natural resources to the breaking point.

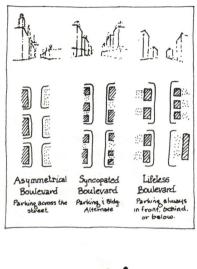
In one way or another, the history and present condition of Los Angeles are the subjects of the otherwise unrelated publications under review. They range from the fashion magazine to the considered political and historical analysis, and chart with unusual clarity the different forces that compose LA today.

Los Angeles Boulevard, by Doug Suisman, is that rare specimen-a literate, beautifully crafted publication by an architect. He argues that the boulevards are the armature of the city's public space, and as such must be understood both as they have developed historically and as they are today. Aesthetic considerations alone did not fuel boulevard development, and Suisman's nuanced account outlines the social. technical, economic, and political forces that shaped them and those that have underlain their dwindling role as public realm. No finer introduction to, and critical analysis of, LA's legendary boulevards exists. With the goal of helping the boulevards regain their function of public arena rather than traffic thoroughfares, Suisman even proposes a series of urban-design strategies for future changes.

Sam Hall Kaplan undertook the ambitious job of chronicling the city's growth politics and architecture in *LA Follies*, a compilation of columns published in the *Los Angeles Times* between 1984 and 1988. Kaplan laments the consequences of reckless growth in Los Angeles, and make no mistake, growth is the culprit here, not the city council, county supervisors, or other elected officials fattened by developers' dollars—let alone the private developers, banks, and insurance companies who



New Types Which Weave the Section Together.





Proposals for Los Angeles boulevards; Douglas Suisman, 1989. (From Los Angeles Boulevard.)

actually manufactured the growth and the political consent that made it all possible. Kaplan no doubt was familiar with the players in these sordid tales, but let's not forget that he wrote for the Los Angeles Times. Even his "actorless" critique proved too indiscreet for his employer, which itself enjoys a long history of alliances with dirty politicians and even dirtier speculators. The pernicious practice of manipulating public opinion starts right at the beginning, before the Chandlers and Otises had made their brilliant marriage. Despite his tactful withholding of names, Kaplan was eased out of the Times in a major restructuring of the real-estate section in 1990, which no longer records the infusions of Asian and Canadian capital into new and old towers or suburban corporate business parks. Its pages now bulge with do-it-yourself advice on matters from mortgages to mullions, with no place for Kaplan's occasionally pointed critiques. Architecture is now represented with "personality profiles" of architects on the fashion pages, which, it seems, is exactly where LA architects want to be.

It is against a backdrop of a development-crazed city filled with poisoned air, befouled beaches, children armed with assault rifles, and undocumented aliens crowded into shabby garages, that Aaron Betsky's celebratory "collage" for the August 1989 issue of Metropolitan Home must be assessed. Fulfilling the old dream of merging text and image, the unreadable map and the accompanying text bring new meaning to the word vacuous. Betsky blathers, "The capital of the 21st century is a collage of cast concrete and rich terra cotta, gang graffiti and luxuriant palms." Even the murderous violence in LA and the conditions that spawn it are rendered as picturesque backdrops for the trendy designs celebrated in these glossy pages. Fashion-magazine supplements need not be so mindless: witness Abitare's guide to LA in 1984, which, though conceived as encomium, managed to record unflinchingly homelessness, the Watts riots, and other contradictions underlying the fashionable architecture.

Light-years separate Betsky's promotional drivel from the modest little Architectural Association catalog for a 1983 exhibition of LA architects, or, in several cases, pseudo-architects, many of whose names have become *de rigueur* guideposts to the city. Barbara Goldstein's brisk essay lauded the group for their accomplishments but put them coolly in their places: largely esoteric, she observed, and aesthetic exercises rather than practical or social ones, practiced by architects who recognize the power of the media and pursue publication.

Given the constraints they impose on themselves, it is hardly surprising that so few of these architects do much building. Some do, however, including the F Group: Frank Gehry, Frank Israel, Fred Fisher, and also Morphosis. The catalog for an exhibition on Morphosis at the Cheney Cowles Museum in Spokane documents six unbuilt projects from 1978 to 1988. work rarely comfortable but always intriguing, seductive in its self-absorption, and deliberately not ingratiating. But how could it be otherwise in this city, or more precisely, in designs that have been concocted beneath the Lebowitz painting of a man pinning a silently screaming woman to the ground and choking her? (The painting looms over the drawing boards in the Morphosis office.) Arguably, the harsh, almost bleak character of their designs responds to the harsh conditions of living in LA, but they certainly give no quarter, making the house not a secure retreat but something as problematical as any other cultural artifact.

Many of LA's problems can be attributed to its most prominent artifact: the automobile. In his book, Los Angeles and the Automobile, Scott Bottles argues that corporations such as GM, Chrysler, and Ford did not destroy the city's flourishing Red Car streetcar system, but rather Angelenos themselves, who had already rejected public transportation in favor of the automobile. The corporations, in his view, moved in for the kill only after the streetcars were already moribund. During the 1940s, GM, Firestone Tire and Rubber, and Standard Oil, along with other corporate giants, purchased stock in the corporations owning majority stock in the Los Angeles Railway Co. (LARY) and Pacific Electric Railway (PE), and then negotiated monopolistic contracts with the rail companies to transform the streetcars to diesel-run buses, with fuel, coaches, and tires supplied by those same corporations. The federal government later filed antitrust suits to stop these monopolistic practices, but the damage had already been done, and by the late 1950s, LA's streetcar system was but a distant memory.

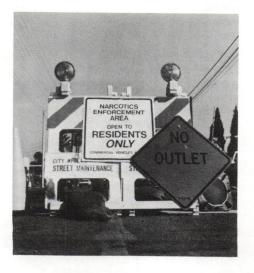
Bottles's argument hinges on how you stack the evidence. For example, the fundamental problem the streetcars faced was the congestion and delays caused by grade crossings; neither the streetcars nor automobiles arrived at their destinations speedily. In 1925, several railroads and the

streetcar companies proposed joining all rail traffic in a new Union Station at Fourth and Central, and building an elevated streetcar system that would bypass grade crossings and unblock automobile and streetcar traffic. Despite the overwhelming support of most newspapers, the Chamber of Commerce, and other moneyed interests, Harry Chandler of the Los Angeles Times opposed the proposal because he wanted Union Station built near the Plaza, thereby destroying Old Chinatown, where many believed he owned land that would appreciate with the presence of the station. As the railroads did not own the rights-ofway in this area, the choice of this spot would eliminate the possibility of elevated streetcars. After months of sensational articles in the Times, when the matter came to the public for a vote, the elevated system was rejected and Chandler's site was selected.

Chandler's ruling clique in Los Angeles enjoyed a power base that included oil as well as land, while the rival clique, Hellman and Huntington, had achieved its wealth in part through the development of the railroads. Despite their differences, the rival oligarchs were capable of joining forces when necessary. These groups, particularly the Otis-Chandler dynasty, were the de facto rulers of Los Angeles for many decades. For Bottles, however, the only evidence that counts is what appears in documents, in writing. It can be argued, however, that most of the important decisions about Los Angeles were forged informally, in the proverbial smoke-filled rooms, far from public scrutiny and documentary records. It is simply naive to believe that the public's fascination with the automobile could be translated into public policy on the local, state, and national levels without the vigorous self-interested participation of these elites and their corporate connections. To imagine that these same corporations did not manipulate market responses and the media on behalf of the automobile in the 1930s, 1940s, and 1950s strains credulity.

The history Bottles proposes is actorless, determined by generic forces

such as "the public" and "market responses." Kevin Starr's Material Dreams, on the other hand, features only actorswhite male actors, to be precise. According to Starr, Los Angeles was shaped by a group of men of diverse backgroundsgreat, venal, powerful, and always wealthy-an edematous dreamworld supposedly sprang from the barren soil along the shores of the Pacific according to their wishes. However we judge them, he implies, they were titans who wielded vast power and battled the outside-Northern California, Washington, D.C., Mexico-on behalf of the Southern California dream. Starr's engagingly written account bursts with information and little-known tales presented as if they were individual episodes in a television maxiseries on the LA oligarchs. Only one female merits mention in this narrative: evangelist Aimee Semple McPherson. The rest of Southern California's population were Babbitts or "folks," as Starr terms the hordes of midwestern Americans who migrated to California in the early part of the century. They form a fairly dull backdrop to the action-packed (some would say corruptionpacked) lives of the oligarchs. Blacks, Latinos, and Asians make brief, knee-jerk appearances as a more colorful but still largely inconsequential background.



No Outlet, photograph by Robert Morrow. (From City of Quartz.)

Starr's history is a classic mandarin narrative of 19th-century stamp in which all interpretation is held at a stoic distance.

In this kind of narrative, vigorous writing and careful selection of prurient tales are everything; the reader must be entertained at all costs. Sometimes these costs are high, for Starr repeatedly gets carried away by the power of his narrative. What, for example, is a "cerebral chateau?" Or we learn that McPherson "never lost the instinctive civility of the Canadian temperament"; New Mexico is "aboriginal and European." Starr occasionally sinks completely into rhetorical liquefaction with observations about Simon Rodia's "shrewd Trasteverine face," and Neff's Southern California as the "internalized landscape of his earliest and most fundamental self." Phrases such as these and a sprinkling of untranslated foreign terms (such as fabbrica della citta) give a frisson of intellectualism to his account, but add nothing to our knowledge, let alone to a possible interpretive armature. For that matter, there simply isn't one. Class and racial violence are subsumed under the story of the bombing of the offices of the Times, which Starr disapprovingly recounts from the perspective of the ruling oligarchy.

Starr's book assimilates vast amounts of published and archival material, and with the exception of his attention to a select group of monuments, is essentially a text produced in a library. How different would the book be, I wonder, had he crisscrossed Southern California on foot and wheels as has Mike Davis? Davis's City of Quartz has no shortage of scholarly research, but what gives this book its exceptional power is an intimate knowledge of Los Angeles from the ground up, not just the thin upper stratum familiar to Starr. Where Starr offers an elegy for a lost, genteel, white Southern California, Davis probes the history of intellectual currents, power relations, and social tensions of today. He knows Southern California history demographically and topographically, from blue-collar suburbs to barrios to enclaves of Anglo power. One brief chapter, "Power Lines," offers a richer interpretive framework for the city's power relationships over the last twelve decades than Starr's entire book does for the first six decades.

The chapters on power relations, the Catholic Church, and slow-growth politics are astute, but Davis excels in his analyses of the blue-collar suburb Fontana and of Fortress LA. Despite being a native Angeleno. Davis brings the freshest gaze of all to his discussion of the transformation of public space in Los Angeles. Luxury lifestyles spawned by the entertainment and aerospace industries as well as junkbond fortunes in the 1980s confronted the poverty of a new generation of immigrants. The response was to shrink back into increasingly protected colonies. As Philomen and Baucis did not fit into Faust's megadevelopment scheme, so too the homeless and nonwhite do not fit the increasingly upscale image of Santa Monica, Marina del Rey, downtown, and even Hollywood (next beneficiary of the CRA). Davis convincingly establishes that public space has been systematically repressed in multiple ways that add up to a new fortress in LA. Frank Gehry's much-lauded Hollywood Library is described as "the most menacing library ever built." Gehry rejected a lowprofile, high-tech security system in favor of a high-profile, low-tech one that "maximally foregrounds the security functions as motifs of the design." The security apparatus and private spaces of Alexander Haagen's inner-city shopping malls, girded with public subsidies and tax waivers and twice as profitable as suburban malls, mix high-tech unobtrusive panopticon observatories with highly visible security devices such as eight-foot-high iron fences.

Davis's analyses are of breathtaking scope and originality, but nowhere more than in "Junkyard of Dreams," a journey through the history and landscape of a San Bernardino suburb, Fontana, that went from idyllic utopia to junkyard in 75 short years. The Jeffersonian community of small farms yielded without resistance to Henry Kaiser's plan to build a steel plant in Fontana, a town that also nourished an active Ku Klux Klan chapter and the fledgling Hell's Angels. The postwar boom eventually succumbed to the rising tide of Japanese competition, and Kaiser finally shut down in the early 1980s, leaving behind a swath of industrial devastation, massive soil and groundwater contamination, unemployment, and a slow influx of mortgage-poor Angelenos seeking cheap housing. Davis's descriptions of post-Kaiser Fontana are riveting, but he exceeds mere description; here, as in earlier chapters, he details not only class and race wars, but also the links between the local political economy and developments in national and global finance and politics.

Historical writing just doesn't get any better.

LA FOLLIES: A CRITICAL LOOK AT GROWTH POLITICS AND ARCHITECTURE, Sam Hall Kaplan, Cityscape Press, 1989, 238 pp., illus., \$9.95.

"LOS ANGELES: WHERE TRENDS COME FROM," METROPOLITAN HOME, Aaron Betsky, guest editor, August 1989.

LOS ANGELES NOW, selected and organized by Barbara Goldstein and Peter Cook, Architectural Association, London, 1983, 48 pp., illus.

MORPHOSIS: A DECADE OF ARCHITEC-TURAL CONFRONTATION, RESIDENTIAL PROJECTS 1978-88, Glenn Davis, editor, Cheney Cowles Museum, 1989, 40 pp., illus.

LOS ANGELES AND THE AUTOMOBILE: THE MAKING OF THE MODERN CITY, Scott Bottles, University of California Press Berkeley and Los Angeles, 1987, 302 pp., illus., \$27.50.

MATERIAL DREAMS: SOUTHERN CALIFOR-NIA THROUGH THE 1920s, Kevin Starr, Oxford University Press, 1990, 464 pp., illus., \$24.95.

CITY OF QUARTZ: EXCAVATING THE FUTURE IN LOS ANGELES, Mike Davis, Verso, 1990, 462 pp., illus., \$24.95.

### Marta Gutman

### Demographics and Design

During the past decade, commentators in the scholarly and popular press have often described the changing structure of the American family and analyzed the impact of this transformation on the country's social, economic, and cultural fabric. Without denying that many, varied, and complex forms of family life have existed historically in this country, contemporary critics tie the recent, dramatic decline of what is often called the "traditional" family to the women's movement, to changing social mores, and, most significantly, to the economic difficulties middle- and working-class families now face. Simply put, by 1985 "traditional" nuclear families, in which a father works outside the home and a mother stays at home to raise two children, made up only 21 percent of households in the United States. Correspondingly, 61 percent of mothers of school-age and younger children sought employment, either full- or part-time, outside the home. In other words, even as the economic boom of the Reagan years reached its zenith, scarcely more than one-fifth of the households in the United States could afford to live in a so-called traditional family. 1

The flood of literature analyzing the changing American family has just started to touch on its relationship to architectural design, as in Dolores Hayden's Redesigning the American Dream and Eugenie Ladner Birch's The Unsheltered Woman. Other recent texts have analyzed current housing issues from the perspectives of planners, policymakers, and historians, for example, in the excellent collection, Critical Perspectives on Housing, edited by Rachel Bratt, Chester Hartman, and Ann Meyerson. Design issues are discussed more readily in books on homelessness because so many homeless people are housed in congregate dwellings, most often for reasons of economic necessity (see Gutman, "Housing and Homelessness,"

LOS ANGELES BOULEVARD: EIGHT X-RAYS OF THE BODY POLITIC, Douglas R. Suisman, Princeton Architectural Press, 1989, 72 pp., illus., \$9.95.

DBR 17). New Households, New Housing, the first book under review here, begins to expand on the work of Hayden and Birch. Edited by Karen A. Franck and Sherry Ahrentzen, two scholars prominent in the field of environmental-design research, its fifteen essays address some of the design questions the formation of new households pose, though they by no means exhaust this vast subject.

Franck's and Ahrentzen's book is aimed at architects, planners, developers, and other readers who are concerned with housing nontraditional households. Mixing advocacy with scholarship, its essays analyze three forms of congregate housingcollective housing, housing for singleparent households, and single-room occupancy housing-developed "to address the needs of those households whose daily lives are not sufficiently accommodated by conventional housing." Franck and Ahrentzen divide the collection accordingly and introduce each section with succinct, all-too-brief essays. These recap the histories of each type in the United States, compare them to other forms of housing, and show how methods of social organization are related to each. For the most part, the balance of the essays, written by social scientists, historians, architects, and planners, describe "physical design, development process, social characteristics, and management approaches" of various congregate housing case studies which have been built in the United States. A few authors discuss the issue from other perspectives, for example, as it exists in a historical or European context, or as it pertains to specific design questions.

Ahrentzen argues in the introduction that successful congregate housing relies on the presence of on-site social services, the participation of its intended users in the design process, the integration of units for different kinds of families, and the provision of privacy. Other essays reiterate her points, especially the last. They argue convincingly that congregate living eases the social and economic lives of middle- and low-income people when a group's underlying social premise and its resultant archi-



Bachelors lounging in their hotel home; *Harper's Weekly*, December 1857. (From *New Households, New Housing.*)

tectural expression balance individual needs for privacy and independence with collective, group support. In "Apartments and Collective Life in Nineteenth Century New York," Elizabeth Cromley describes the different ways the designs of 19th-century apartment buildings in New York City assured individual privacy and permitted, to varying degrees, collective interaction, especially with respect to housekeeping and cooking chores. Similar points are made by Norbert Schoenauer in his brief, if simplistic, review of European historical examples, and other authors who describe design strategies for contemporary collective housing in Europe and the United States. As Jacqueline Leavitt puts it in one of the best essays in the book, "There is one very important caveat about congregate housing: that is, to provide different levels of privacy. When people share housing they have to feel there are places where they can be alone."

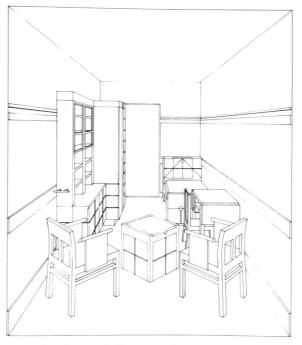
The price for this kind of space is high. Repeatedly, the authors show that economic constraints structure the forms of congregate dwellings as much as social and cultural values. Alison Woodward's and Kathryn M. McCamant's and Charles R. Durrett's respective analyses of cohousing in Sweden and Denmark detail how the sizes of "private" spaces are reduced in order to gain space for shared semipublic rooms. Essays by Joan Forrester Sprague, Christine C. Cook, and Gerda R. Werkerle and Sylvia Novac on housing for single-parents and those by Mary Burki and Karen A. Franck on single-room occupancy hotels show that congregate housing is often the only way to build affordable housing in the United States. Even then, low subsidies and the resistance of local planning boards and communities to housing nontraditional families plague the design, development, and construction process. Sprague's description of the construction of two transitional shelters for homeless mothers and children in Boston stands as a clear and sobering example.

Sprague, Leavitt, and others insist that the design of congregate dwellings must provide what Sprague calls "residential architectural character" to appeal to prospective inhabitants and neighbors. Indeed, Leavitt goes so far as to say that "a newly constructed [congregate] house should be an integral part of the neighborhood to avoid calling attention to the different types of households living there...Most single parents do not like attention drawn to them because of their marital status." The design of most of the recent American buildings discussed in New Households, New Housing follow these dicta, making considered, evenhanded, if at times too predictable, contextual responses. Unlike well-known communal buildings designed earlier in this century, such as Moses Ginzburg's Dom Kommuna or Le Corbusier's Swiss Pavilion, these newer American buildings are rarely designed by

an architectural avant-garde and are not formally experimental. Many designs make small-scale, modest adjustments to the forms of traditional housing types, among them, boarding houses, apartment houses, and row houses, as they seek to resolve the pressures of limited budgets, client needs, and community resistance.

Still, some architects seek to charge the formal components of their compositions with aesthetic rigor in addition to social meaning. Jill Stoner analyzes how transformations of traditional methods of party-wall construction can encourage the formation of hybrid housing types that she feels are more suited to housing nontraditional families than the simple row or apartment house. Michael Mostoller's essay on furniture design for rooms in singleroom-occupancy hotels shows how attention to detail can ease life in a single room, though he does not discuss any of the financial implications of his work.

Unfortunately, a majority of authors in New Households, New Housing focus on the same question: how contemporary buildings and communities are designed and built to house people collectively. This, coupled with Franck and Ahrentzen's inclusion of several case studies of each of the three congregate dwelling types, makes for repetition in a book that could easily encompass a much broader range of inquiry. Additionally, many writers, using empirically based methods to describe each case study, introduce minimal analytical or comparative material. There is little (or no) discussion of the impact of housing standards and zoning on the design of congregate dwellings; of how families manage to adapt vernacular forms for congregate living without the assistance of architects and planners; of the history of alternative family forms; of varying aesthetic propositions or visionary proposals; of congregate housing's relationship to larger-scale urban questions, especially patterns of land-use. Even in view of these limitations, New Households, New Housing furthers discussion on a critical subject; the case studies



Prototypical room for single-room occupancy hotel; Michael Mostoller (From New Households, New Housing.)

also provide information and facts valuable to housing activists and reformers.

This is not the case with *Housing by Lifestyle: The Component Method of Residential Design* by James W. Wentling. Its jacket announces that the book is "full of market-specific information," which instructs its readers in "lifestyle design for the new American household." Wentling assumes this household is an upper- or middle-income family capable of affording a large detached or semidetached suburban house.

Wentling aims his book at the architectural profession, claiming that he has developed a new method of translating the needs of these households into marketable housing. His method may indeed do so, but it is as conventional and unimaginative as the houses depicted in the book. He spends 150 pages showing his readers how to divide the spaces of a house into obvious functional categories-or what he designates as the community component, the privacy component, the ceremonial component, and so forth-and then how to analyze spatial arrangements through bubble-diagrams and plan, section, and elevation sketches of different arrangements. These are elementary design skills usually

learned during the first year of architecture school. Wentworth illustrates his points with conventionally conceived, freestanding suburban buildings whose authorship is not identified, though they appear to come from the work of his practice. He does not introduce any comparative material, and only briefly discusses multifamily housing, again in a suburban context.

Housing by Lifestyle may oversimplify the process of housing design, but its publication reiterates one of the major points made by the authors of *New Households, New Housing*: in the United States, nontraditional families now exist across class, race, and ethnic lines, live in cities and suburbs, and need thoughtfully designed, economical housing that speaks to their needs. Thankfully, increasing numbers of architects, planners, and developers are

addressing multiple, differing patterns of family life among differing classes. But the quantities of affordable, experimental housing are small, and often their mundane forms only provide minimal shelter. The challenge remains for all involved professions to develop strategies for building diverse, economical housing that speaks to aesthetic aspiration as it solves functional needs.

### NOTES

1. Oxford Analytica, America in Perspective: Major Trends in the United States Through the 1990s (Boston, 1986), pp. 88, 91.

NEW HOUSEHOLDS, NEW HOUSING, Karen A. Franck and Sherry Ahrentzen, editors, Van Nostrand Reinhold, 1985, 343 pp., illus., \$42.95.

HOUSING BY LIFESTYLE: THE COMPONENT METHOD OF RESIDENTIAL DESIGN, James W. Wentling, A.I.A., McGraw-Hill Publishing Company, 1985, 160 pp., illus., \$36.95.

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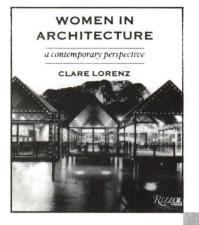
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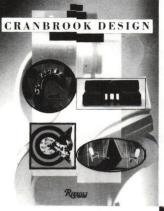


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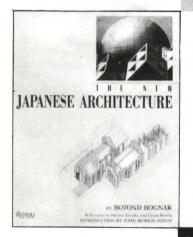
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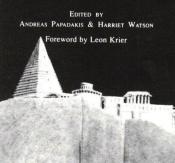
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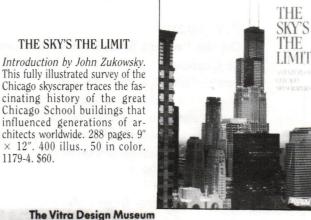
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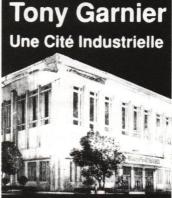
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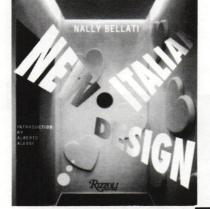


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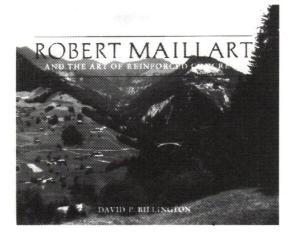
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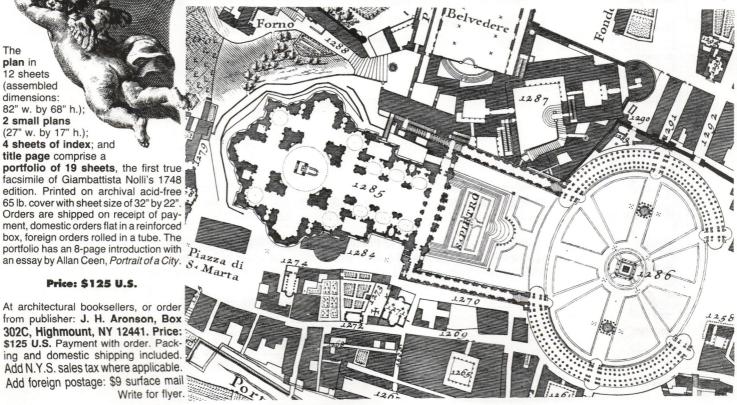
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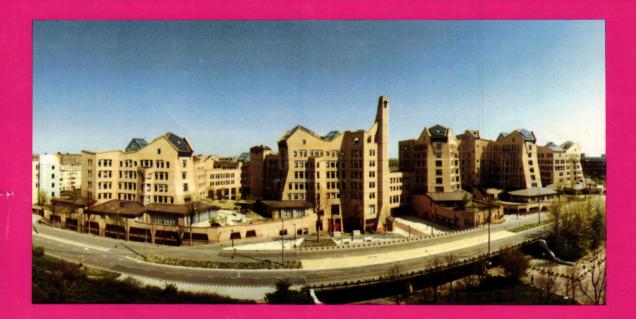
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